As filed with the Securities and Exchange Commission on December 2, 2013

Registration No. 333-191689

# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## **AMENDMENT NO. 4**

to

# FORM S-1

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

# Xencor, 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)

20-1622502 (I.R.S. Employer Identification Number)

111 West Lemon Avenue Monrovia, California 91016 (626) 305-5900

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

Bassil I. Dahiyat, Ph.D. President and Chief Executive Officer Xencor, Inc. 111 West Lemon Avenue Monrovia, California 91016 (626) 305-5900

 $(Name,\,Address,\,Including\,\,Zip\,\,Code,\,and\,\,Telephone\,\,Number,\,Including\,\,Area\,\,Code,\,of\,\,Agent\,\,for\,\,Service)$ 

Copies to:

Thomas A. Coll, Esq. Kenneth J. Rollins, Esq. Cooley LLP 1333 2<sup>nd</sup> Street, Suite 400 Santa Monica, California 90401 (310) 883-6400

Bruce K. Dallas, Esq. Davis Polk & Wardwell LLP 1600 El Camino Real Menlo Park, California 94025 (650) 752-2000

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, as amended (the "Securities Act"), check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, 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. o

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. o

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

Large accelerated filer o

Accelerated filer o

Non-accelerated filer ⊠

(Do not check if a smaller reporting company)

Smaller reporting company o

Title of each class of securities to be registered	Amount to be registered(1)	Proposed maximum offering price per share(2)	Proposed maximum aggregate offering price(2)	Amount of registration fee
Common Stock, \$0.01 par value per share	14,639,500	\$5.50	\$80,517,250	\$10,371(3)

(1) (2)

Includes 1,909,500 shares which the underwriters have the option to purchase from the registrant. Estimated solely for the purpose of calculating the amount of the registration fee in accordance with Rule 457(a) under the Securities Act. Includes the offering price of shares that the underwriters have the option to purchase to cover over-allotments, if any. Previously paid.

(3)

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

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

## SUBJECT TO COMPLETION DATED DECEMBER 2, 2013

#### PRELIMINARY PROSPECTUS

12,730,000 Shares



# Common Stock

This is the initial public offering of our common stock. Prior to this offering, there has been no public market for our common stock. The initial public offering price of our common stock is expected to be \$5.50 per share.

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

The underwriters have an option to purchase a maximum of 1,909,500 additional shares of common stock from us.

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

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 12.

	Price to Public	Underwriting Discounts and Commissions(1)	Proceeds to Xencor
Per Share	\$	\$	\$
Total	\$	\$	\$
(1) See "Underwriting" beginning on	page 165 for additional information regardin	g underwriting comper	nsation.

Certain affiliates of our directors and other principal stockholders have indicated an interest in purchasing an aggregate of approximately \$20.5 million in shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders, or any of these stockholders may determine to purchase more, less or no shares in this offering.

Delivery of the shares of common stock will be made on or about , 2013.

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

Credit Suisse Leerink Swann

**Wedbush PacGrow Life Sciences** 

, 2013

The date of this prospectus is

## TABLE OF CONTENTS

	Page
PROSPECTUS SUMMARY	1
RISK FACTORS	<u>12</u>
SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS	<u>41</u>
<u>USE OF PROCEEDS</u>	<u>43</u>
DIVIDEND POLICY	44
<u>CAPITALIZATION</u>	<u>45</u>
DILUTION	<u>47</u>
SELECTED FINANCIAL DATA	<u>49</u>
MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF	
<u>OPERATIONS</u>	<u>52</u>
<u>BUSINESS</u>	<u>79</u>
<u>MANAGEMENT</u>	<u>120</u>
EXECUTIVE AND DIRECTOR COMPENSATION	<u>129</u>
CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS	<u>149</u>
PRINCIPAL STOCKHOLDERS	<u>152</u>
DESCRIPTION OF CAPITAL STOCK	<u>155</u>
SHARES ELIGIBLE FOR FUTURE SALE	<u>159</u>
MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS OF OUR COMMON	
<u>STOCK</u>	<u>161</u>
<u>UNDERWRITING</u>	<u>165</u>
LEGAL MATTERS	<u>169</u>
EXPERTS	<u>169</u>
WHERE YOU CAN FIND ADDITIONAL INFORMATION	<u>169</u>
INDEX TO THE CONSOLIDATED FINANCIAL STATEMENTS	<u>F-1</u>

We have not, and the underwriters have not, 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 or in any applicable free writing prospectus is current only as of its date, regardless of its time of delivery or any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

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

For investors outside the United States: We have not, and the underwriters have not, 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 outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside the United States.

#### PROSPECTUS SUMMARY

This summary highlights information contained in other parts of this prospectus. Because it is only a summary, it does not contain all of the information that you should consider before investing in shares of our common stock and it is qualified in its entirety by, and should be read in conjunction with, the more detailed information appearing elsewhere in this prospectus. You should read the entire prospectus carefully, especially "Risk Factors" and our financial statements and the related notes, before deciding to buy shares of our common stock.

Unless the context requires otherwise, references in this prospectus to "Xencor," "we," "us" and "our" refer to Xencor, Inc.

#### Overview

We are a clinical-stage biopharmaceutical company focused on discovering and developing engineered monoclonal antibodies to treat severe and life-threatening diseases with unmet medical needs. We use our proprietary XmAb technology platform to create next-generation antibody product candidates designed to treat autoimmune and allergic diseases, cancer and other conditions. In contrast to conventional approaches to antibody design, which focus on the portion of antibodies th interact with target antigens, we focus on the portion of the antibody that interacts with multiple segments of the immune system. This portion, referred to as the Fc domain, is constant and interchangeable among antibodies. Our engineered Fc domains, the XmAb technology, can be readily substituted for natural Fc domains. We believe our Fc domains enhance antibody performance by, for example, increasing immune inhibitory activity, improving cytotoxicity or extending circulating half-life, while typically maintaining over 99.5% identity in structure and sequence to natural antibodies. By improving over natural antibody function, we believe that our XmAb-engineered antibodies offer innovative approaches to treating disease and potential clinical advantages over other treatments.

Our business strategy is based on the plug-and-play nature of the XmAb technology platform to modify features of natural antibodies and create numerous differentiated antibody product candidates. We have internally generated a pipeline that has allowed us to selectively partner certain development programs while maintaining full ownership of other programs. We also have a number of technology licenses under which we have licensed the XmAb technology platform to pharmaceutical and biotechnology companies for use in a limited number of programs, providing multiple revenue streams that require no further resources from Xencor. There are currently five antibody product candidates in clinical trials that have been engineered with XmAb technology, including four candidates being advanced by licensees and development partners. As of September 30, 2013, our XmAb technology platform is protected by 21 issued U.S. patents and 44 U.S. paten applications, in addition to foreign counterparts.

Our internally-generated pipeline includes the following three lead XmAb-engineered antibodies that are currently in development:

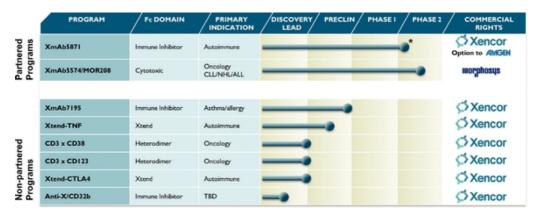
• *XmAb5871* is being developed for the treatment of autoimmune diseases, including rheumatoid arthritis and lupus. It uses our Immune Inhibitor Fc Domain and targets B cells, an important component of the immune system. We believe XmAb5871 has the potential to address a key unmet need in autoimmune therapies due to its combination of potent B-cell inhibition without B-cell depletion. We are currently conducting a Phase 1b/2a clinical trial for XmAb5871 in rheumatoid arthritis patients with active disease on stable non-biologic disease modifying anti-rheumatic drug (DMARD) therapy. We expect to report preliminary data from this trial in the second half of 2014. Our partner, Amgen Inc. (Amgen), has an option to acquire an exclusive worldwide license for XmAb5871, exercisable at any time before completion of a data review period following our planned subsequent Phase 2b proof-of-concept clinical trial. Until the option exercise, we lead research, development and manufacturing activities for XmAb5871 with collaborative input and development support from Amgen. According to the American College

of Rheumatology, rheumatoid arthritis and lupus affect approximately 1.3 million and 160,000 adults in the United States, respectively. Humira, the leading antibody therapy for autoimmune diseases, generated sales of approximately \$9.3 billion worldwide in 2012.

- \* *XmAb7195* is being developed for the treatment of severe asthma and allergic diseases. It uses our Immune Inhibitor Fc Domain and is designed to reduce blood plasma levels of IgE, which mediates allergic responses and allergic disease. Its three specific mechanisms of action give it potential advantages over current therapies: (i) increased IgE binding, (ii) inhibition of IgE production and (iii) rapid clearance of IgE from circulation. We anticipate filing an investigational new drug application (IND) with the United States Food and Drug Administration (FDA) and initiating a Phase 1a clinical trial in the first half of 2014. We plan to report preliminary data from this trial at the end of 2014. According to the U.S. Centers for Disease Control and Prevention (CDC), one in 12 Americans has asthma, and there were 1.8 million emergency room visits caused by asthma in 2010. Xolair, the leading antibody therapy for the treatment of severe refractory asthma, generated approximately \$1.3 billion in worldwide sales in 2012.
- *XmAb5574/MOR208* is being developed for the treatment of blood-based cancers and uses our Cytotoxic Fc Domain. Our partner, MorphoSys AG (MorphoSys), is currently conducting two Phase 2 clinical trials of XmAb5574/MOR208 in patients with B-cell acute lymphoblastic leukemia (B-ALL) and non-Hodgkin lymphomas (NHL). According to the Leukemia and Lymphoma Society, over 60,000 Americans are diagnosed with these cancers each year. Rituxan, the leading antibody therapy for NHL, generated approximately \$6.1 billion in worldwide oncology sales in 2012.

# **Product Pipeline and Platform**

A summary of the partnered and non-partnered product development programs that we have generated internally is shown below.



\* Currently enrolling Phase 2a portion of Phase 1b/2a clinical trial.

In addition, we have licensed our XmAb technology to pharmaceutical and biotechnology companies for use in a limited number of their programs. These licensees include Boehringer Ingelheim, CSL, Janssen, Merck and Alexion, and collectively these licensees have three Phase 1 clinical development-stage programs and four pre-clinical development-stage programs.

#### Antibody Structure and Fc Domain Function

Antibodies are Y-shaped proteins that are produced by B cells and used by the immune system to target and neutralize foreign objects known as antigens. These objects may include tumor cells, bacteria and viruses. Antibodies are composed of two structurally independent parts, the variable domain (the Fv domain) and the constant domain (the Fc domain and the CH1 domain). The Fv domain is responsible for targeting a specific antibody to a specific antigen, and is different for every type of antibody. The Fc domain interacts with various receptors on immune cells and other cells and, rather than binding antibodies to target antigens, it endows antibodies with properties beyond simple binding, such as immune response regulation and cytotoxicity. Importantly, Fc domains are the same and interchangeable from antibody to antibody.

## Our Fc Domain Focused Approach

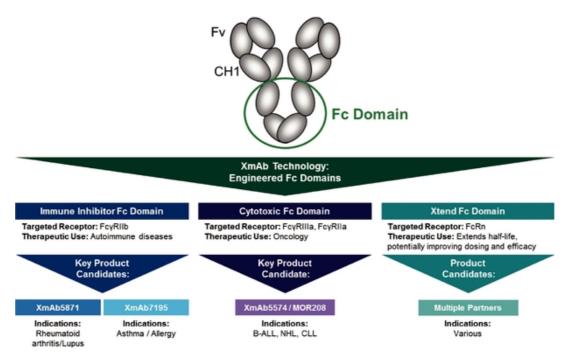
The global market for antibody therapeutics was estimated to be approximately \$45.0 billion in 2011, of which the U.S. market was estimated to be \$20.0 billion Intense competition drives companies to develop differentiated antibody drugs, often because of the common pursuit of the same antigen Fv targets across the industr Industry efforts have focused on engineering Fv domains since the mid-1980s to enhance performance. More recently, many efforts at differentiation have attempted improve upon antibody performance by drastically changing the antibody structure or substituting new molecules altogether, for example, new antibody-like scaffolds bi-specific antibodies and antibody-drug conjugates. A challenge to these efforts has been making these new drug molecules replicate the beneficial features of natura antibodies, including ease of production, safety, efficacy and simplicity. These efforts, however, have largely ignored the Fc domain.

In contrast, in the last decade Xencor has focused on Fc engineering. Fc engineering involves additional complexities, particularly consideration of simultaneous interactions with multiple Fc receptors and immune cell types and requires significant expertise in structural biology and immunology. Our XmAb Fc domain technology is a platform of patented antibody components that enable the creation of therapeutic antibody candidates that have novel interactions with the human immune and antibody regulation systems. Each XmAb Fc domain consists of a naturally occurring Fc domain with a small number of amino acid changes found to be critical for modulating interactions with the desired Fc receptors. We have identified a set of Fc domains, each of which is engineered with particular amino acid changes to augment a specific naturally-occurring antibody function based on its Fc receptor binding profile, including:

- Immune Inhibitor Fc Domain—selective immune inhibition and rapid target clearance, targeting the receptor FcgRIIb;
- Cytotoxic Fc Domain—increased cytotoxicity, targeting the receptors FcgRIIIa on natural killer (NK) cells and FcgRIIa on other immune system cells and
- Xtend Fc Domain—extended antibody half-life, targeting the receptor FcRn on endothelial cells.

With such limited modifications of the natural Fc domain, XmAb-engineered antibodies are typically over 99.5% identical in structure and sequence to natural antibodies, simplifying product

development yet enhancing function. A summary of the Fc domain properties improved by our XmAb technology and the associated product candidates and targeted indications are summarized below:



## **Our Strategy**

Our goal is to become a leading biopharmaceutical company focused on developing and commercializing engineered monoclonal antibodies to treat severe and life-threatening diseases with unmet medical needs. Key elements of our strategy are to:

- Advance the clinical development of our lead Immune Inhibitor Fc Domain product candidates. We are developing XmAb5871, in partnership witl Amgen, for the treatment of autoimmune diseases and are developing XmAb7195 independently for the treatment of asthma and allergic diseases.
- Continue to monetize and expand the use of our XmAb technology platform. We are seeking additional licensing and partnering opportunities, similar to our partnerships with Amgen and with MorphoSys for XmAb5574/MOR208, with leading pharmaceutical and biotechnology companies.
- Build a large and diversified portfolio of product candidates. We aim to create new XmAb-engineered antibody product candidates that exploit the
  novel properties of our XmAb technology platform.
- Broaden the functionality of our XmAb technology platform. We are conducting further research into the function and application of antibody Fc domains in order to expand the scope of our XmAb technology platform.
- **Continue to expand our patent portfolio protecting our XmAb technology platform.** We seek to expand and protect our development programs and product candidates by filing and prosecuting patent applications in the United States and other countries.

#### **Risks Associated with Our Business**

Our business is subject to numerous risks and uncertainties, including those highlighted in the section entitled "Risk Factors" immediately following this prospectus summary. These risks include, but are not limited to, the following:

- We have incurred significant losses since our inception and anticipate that we will continue to incur significant losses for the foreseeable future. Our accumulated deficit was \$223.9 million as of September 30, 2013, representing our cumulative losses since our inception in 1997.
- Biopharmaceutical product development is a highly speculative undertaking and involves a substantial degree of uncertainty. We have never generated any revenue from product sales and may never be profitable.
- We will require additional financing and may be unable to raise sufficient capital, which could lead us to delay, reduce or abandon research and development programs or commercialization.
- If we are unable to obtain, maintain and enforce intellectual property protection covering our products, others may be able to make, use or sell product substantially the same as ours, which could adversely affect our ability to compete in the market.
- The development and commercialization of biologic products is subject to extensive regulation, and we may not obtain regulatory approvals for any of our product candidates.
- Even if we receive regulatory approval for any of our product candidates, we will be subject to ongoing regulatory obligations and continued regulator review, which may result in significant additional expense. Additionally, our product candidates, if approved, could be subject to labeling and other restrictions and market withdrawal and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our products.
- We may not be successful in our efforts to use and expand our XmAb technology platform to build a pipeline of product candidates and develop marketable products.
- Our existing partnerships are important to our business, and future partnerships may also be important to us. If we are unable to maintain any of these partnerships, or if these partnerships are not successful, our business could be adversely affected.
- We face significant competition from other biotechnology and pharmaceutical companies and our operating results will suffer if we fail to compete
  effectively.

# **Corporate and Other Information**

We were incorporated in California in August 1997 under the name Xencor, Inc. In September 2004, we reincorporated in the state of Delaware under the name Xencor, Inc. Our principal executive offices are located at 111 West Lemon Avenue, Monrovia, California, 91016, and our telephone number is (626) 305-5900. Our corporate website address is www.xencor.com. Information contained on or accessible through our website is not a part of this prospectus, and the inclusion of our website address in this prospectus is an inactive textual reference only.

This prospectus contains references to our trademarks and to trademarks belonging to other entities. Solely for convenience, trademarks and trade names referred to in this prospectus, including logos, artwork and other visual displays, may appear without the ® or TM symbols, but such references are not intended to indicate, in any way, that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto. We do not intend our use or display of other companies' trade names or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

## **Implications of Being an Emerging Growth Company**

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

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

We may use these provisions until the last day of our fiscal year following the fifth anniversary of the completion of this offering. However, if certain events occur prior to the end of such five-year period, including if we become a "large accelerated filer," our annual gross revenues exceed \$1.0 billion or we issue more than \$1.0 billion of non-convertible debt in any three-year period, we will cease to be an emerging growth company prior to the end of such five-year period.

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

The JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. We have irrevocably elected not to avail ourselves of this exemption and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

## The Offering

Common stock offered by us 12,730,000 shares

Common stock to be outstanding after this offering 29,422,576 shares

Option to purchase additional shares

The underwriters have a 30-day option to purchase a maximum of 1,909,500 additional shares of

common stock from us.

Use of proceeds We intend to use the net proceeds from this offering to fund the clinical development of XmAb587

and XmAb7195, product candidate discovery, technology development, patent prosecution

activities, working capital and other general corporate purposes, including the costs associated witl

being a public company. See "Use of Proceeds."

Risk factors See "Risk Factors" beginning on page 12 and the other information included in this prospectus for

discussion of factors to consider carefully before deciding to purchase any shares of our common

stock.

NASDAQ Global Market symbol "XNCR"

The number of shares of our common stock to be outstanding after this offering is based on 16,692,576 shares of common stock outstanding as of September 30, 2013, after giving effect to the conversion of our outstanding convertible preferred stock into 16,620,274 shares of common stock and excludes:

- 1,803,685 shares of common stock issuable upon the exercise of outstanding stock options as of September 30, 2013, at a weighted-average exercise price of \$1.61 per share;
- 2,390,448 shares of common stock reserved for future issuance under our 2013 equity incentive plan (the 2013 plan), which will become effective as c
  the date of the effectiveness of the registration statement of which this prospectus forms a part (including 880,771 shares of common stock reserved fo
  issuance under our 2010 equity incentive plan (the 2010 pre-IPO plan), which shares will be added to the shares reserved under the 2013 plan upon its
  effectiveness); and
- 267,741 shares of common stock reserved for future issuance under our 2013 employee stock purchase plan (the 2013 purchase plan), which will become effective as of the date of the effectiveness of the registration statement of which this prospectus forms a part.

Unless otherwise indicated, all information contained in this prospectus and the number of shares of common stock outstanding as of September 30, 2013 assumes:

- the conversion of all our outstanding convertible preferred stock outstanding as of September 30, 2013 into an aggregate of 16,620,274 shares of
  common stock upon the effectiveness of the registration statement of which this prospectus is a part;
- no exercise by the underwriters of their over-allotment option to purchase up to an additional 1,909,500 shares of our common stock;

- the filing of our amended and restated certificate of incorporation and the adoption of our amended and restated bylaws immediately prior to the closir of this offering; and
- a 3.1-for-one reverse stock split of our common stock effected on November 1, 2013.

John S. Stafford III, a member of our board of directors and our largest stockholder, HealthCare Ventures VIII, L.P., one of our principal stockholders and an affiliate of a member of our board of directors, Oxford Biosciences Partners V L.P., an affiliate of a member of our board of directors, and John Stafford, Jr. and Jame Stafford, two of our principal stockholders, have indicated an interest in purchasing an aggregate of approximately \$20.5 million in shares of our common stock in thi offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders, or any of these stockholders may determine to purchase more, less or no shares i this offering.

## **Summary Financial Data**

The following table summarizes certain of our financial data. We derived the summary statement of operations data for the years ended December 31, 2012 and 2011 from our audited financial statements and related notes appearing elsewhere in this prospectus. The summary statement of operations data for the nine months ended September 30, 2013 and 2012 and the summary balance sheet data as of September 30, 2013 were derived from our unaudited financial statements appearing elsewhere in this prospectus. The unaudited financial data, in management's opinion, have been prepared on the same basis as the audited financial statements and related notes included elsewhere in this prospectus, and include all adjustments, consisting only of normal recurring adjustments, that management considers necessar for a fair presentation of the information for the periods presented. Our historical results are not necessarily indicative of the results that may be expected in the future and results of interim periods are not necessarily indicative of the results for the entire year. The summary financial data should be read together with our financial statements and related notes, "Selected Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" appearing elsewhere in this prospectus.

	Year Ended December 31,			Nine Months Ended September 30,					
		2011		2012		2012		2013	
	(in thousands, except sh			are and per share data)					
	(Restated)				(unaudited)				
Statement of Operations Data:									
Revenues	\$	6,849	\$	9,524	\$	7,099	\$	8,428	
Operating expenses:									
Research and development General and administrative		12,663		12,668		8,725		12,857	
		3,638		3,086	_	2,081		2,381	
Total operating expenses		16,301		15,754		10,806		15,238	
Loss from operations		(9,452)		(6,230)		(3,707)		(6,810)	
Other income (expenses)									
Interest income		34		11		11		7	
Interest expense		(1,850)		(2,461)		(1,811)		(1,212)	
Other income (expense)		65		86		24		15	
Loss on settlement of notes(1)								(48,556)	
Total other income (expenses), net		(1,751)		(2,364)		(1,776)		(49,746)	
Net loss		(11,203)		(8,594)		(5,483)		(56,556)	
Net deemed contribution on exchange and sale of preferred stock(2)		_						144,765	
Net income (loss) attributable to common stockholders	\$	(11,203)	\$	(8,594)	\$	(5,483)	\$	88,209	
Net income (loss) per share attributable to common stockholders(3):									
Basic	\$	(154.95)	\$	(118.86)	\$	(75.83)	\$	1,220.01	
Diluted	\$	(154.95)	\$	(118.86)	\$	(75.83)	\$	(4.10)	
Weighted average shares of common stock used in computing net income (loss) per share attributable to common stockholders:							_		
Basic		72,302		72,302		72,302		72,302	
Diluted		72,302		72,302		72,302		13,794,138	
Pro forma net loss per share of common stock, basic and diluted (unaudited)(4)			\$	(0.51)			\$	(0.48)	
Weighted average shares used in computing pro forma net loss per share of common stock, basic and diluted (unaudited)(4)			1	6,692,576			_	16,692,576	

See note 3 to our interim financial statements appearing elsewhere in this prospectus for a description of the adjustment to net loss resulting from exchange of convertible notes for preferred stock. (1)

See notes 8 and 3 to our annual and interim financial statements, respectively, appearing elsewhere in this prospectus for a description of the deemed contribution on exchange and sale of preferred stock. (2)

See notes 1 and 5 to our annual and interim financial statements, respectively, appearing elsewhere in this prospectus for a description of the method used to calculate basic and diluted loss per common. (3)

Pro forma net loss per share attributable to common stockholders excludes the impact of non-recurring items recognized in income attributable to common stockholders for the periods presented. We calculated pro forma weighted average shares outstanding for the nine months ended September 30, 2013 to give effect to the automatic conversion into shares of common stock, on a 3.1:1 basis, of all share of convertible preferred stock outstanding at September 30, 2013. We calculated pro forma weighted average shares outstanding for the year ended December 31, 2012 to give effect to the automatic conversion into shares of common stock, on a 3.1:1 basis, of all shares of convertible preferred stock outstanding at September 30, 2013, which includes 13,666,071 shares of common stock issuable upon conversion of the shares of preferred stock received in connection with the exchange of our outstanding promissory notes on June 13, 2013. We believe the calculation of pro forma shares described above it the most meaningful to investors, as such calculation represents the actual number of shares of common stock our notes became convertible into, and prior to the exchange of our convertible notes in June 2013, such notes were not convertible at the option of the holders, and the number of shares of common stock such notes were automatically convertible into upon an initial public offering was contingent of the public offering price, which was not known at the time of the conversion of the notes or applicable to the actual number of shares of common stock issued upon conversion of the notes.

Pro forma net loss attributable to common stockholders (in thousands):

	Year	· Ended	Nine M	onths Ended	
	Decemb	er 31, 2012	September 30, 2013		
Net income (loss) attributable to common stockholders	\$	(8,594)	\$	88,209	
Loss on settlement of notes		_		48,556	
Net deemed contribution on exchange and sale of preferred stock		_		(144,765)	
Pro forma net loss attributable to common stockholders	\$	(8,594)	\$	(8,000)	

 $Pro\ forma\ weighted\ average\ shares\ outstanding,\ basic\ and\ diluted:$ 

	Year Ended	Nine Months Ended
	December 31, 2012	September 30, 2013
Common stock	72,302	72,302
Preferred Stock	16,620,274	16,620,274
Pro forma weighted average shares outstanding, basic and diluted	16,692,576	16,692,576
Pro forma net loss per share of common stock, basic and diluted (unaudited)	\$ (0.51)	\$ (0.48)

	As of September 30, 2013				
	 Actual		Pro Forma(1) (in thousands) (unaudited)		ro Forma as ljusted(2)(3)
Balance Sheet Data:					
Cash and cash equivalents	\$ 9,621	\$	9,621	\$	72,235
Working capital	2,127		2,127		64,741
Patents, licenses, and other intangible assets, net	9,013		9,013		9,013
Total assets	20,206		20,206		82,820
Deferred revenue, less current portion	7,000		7,000		7,000
Convertible preferred stock	79,601		_		_
Total stockholders' equity (deficit)	(75,029)		4,572		67,186

- (1) Pro forma amounts reflect the conversion of all our outstanding shares of convertible preferred stock outstanding as of September 30, 2013 into an aggregate of 16,620,274 shares of our common stock.
- (2) Pro forma as adjusted amounts reflect the pro forma conversion adjustments described in footnote (1) above, as well as the sale of 12,730,000 shares of our common stock in this offering at an assumed initial public offering price of \$5.50 per share, and after deducting the 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 would increase (decrease) each of cash, cash equivalents, working capital, total assets and total stockholders' equity by approximately \$11.8 million, assuming the number of shares offered by us as stated on the cover page of this prospectus remains unchanged and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, a one million share increase (decrease) in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) each of cash and cash equivalents, working capital, total assets and total stockholder equity by approximately \$5.1 million, assuming the assumed initial public offering price of \$5.50 per share remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

## RISK FACTORS

An investment in shares of our common stock involves a high degree of risk. You should carefully consider the following information about these risks, together with the other information appearing elsewhere in this prospectus, before deciding to invest in our common stock. The occurrence of any of the following risks could have a material adverse effect on our business, financial condition, results of operations and future growth prospects. In these circumstances, the market price of our common stock could decline, and you may lose all or part of your investment.

# Risks Relating to Our Business and to the Discovery, Development and Regulatory Approval of Our Product Candidates

We have incurred significant losses since our inception and anticipate that we will continue to incur significant losses for the foreseeable future.

We are a clinical-stage biopharmaceutical company. To date, we have financed our operations primarily through private placements of convertible debt and preferred stock and our research and licensing agreements and have incurred significant operating losses since our inception in 1997. Our net loss for the nine months ended September 30, 2013 was \$56.6 million (including a \$48.6 million loss on settlement of convertible notes) and for the years ended December 31, 2011 and 2012 it was \$11.2 million and \$8.6 million, respectively. As of September 30, 2013, we had an accumulated deficit of \$223.9 million. Such losses are expected to increase in the future as we execute our plan to continue our discovery, research and development activities, including the ongoing and planned clinical development of our antibody product candidates, and incur the additional costs of operating as a public company. We are unable to predict the extent of any future losses or when we will become profitable, if ever. Even if we do achieve profitability, we may not be able to sustain or increase profitability on an ongoing basis which would adversely affect our business, prospects, financial condition and results of operations.

For the reasons cited above, without giving effect to the proceeds of this offering, the report of our independent registered public accountant on our financial statements as of and for the year ended December 31, 2012 includes explanatory language describing the existence of substantial doubt about our ability to continue as a going concern. There have been no adjustments in the accompanying financial statements to reflect this uncertainty.

Biopharmaceutical product development is a highly speculative undertaking and involves a substantial degree of uncertainty. We have never generated any revenue from product sales and may never be profitable.

We have devoted substantially all of our financial resources and efforts to developing our proprietary XmAb technology platform, identifying potential product candidates and conducting preclinical studies and clinical trials. We and our partners are still in the early stages of developing our product candidates, and we have not completed development of any products. Our revenue to date has been primarily revenue from the license of our proprietary XmAb technology platform for the development of product candidates by others or revenue from our partners. Our ability to generate revenue and achieve profitability depends in large part on our ability, alone or with partners, to achieve milestones and to successfully complete the development of, obtain the necessary regulatory approvals for, and commercialize, product candidates. We do not anticipate generating revenues from sales of products for the foreseeable future. Our ability to generate future revenues from product sales depends heavily on our and our partners' success in:

• completing clinical trials through all phases of clinical development of our current product candidates, XmAb5871 and XmAb7195, as well as the product candidates that are being developed by our partners and licensees;

- seeking and obtaining marketing approvals for product candidates that successfully complete clinical trials;
- launching and commercializing product candidates for which we obtain marketing approval, with a partner or, if launched independently, successfully
  establishing a sales force, marketing and distribution infrastructure;
- identifying and developing new XmAb-engineered therapeutic antibody candidates;
- establishing and maintaining supply and manufacturing relationships with third parties;
- obtaining additional licensing and partnering opportunities, similar to our partnership with MorphoSys for XmAb5574/MOR208, with leading pharmaceutical and biotechnology companies;
- achieving the milestones set forth in our agreements with our partners;
- conducting further research into the function and application of antibody Fc domains in order to expand the scope of our proprietary XmAb technology platform;
- maintaining, protecting, expanding and enforcing our intellectual property; and
- attracting, hiring and retaining qualified personnel.

Because of the numerous risks and uncertainties associated with biologic product development, we are unable to predict the timing or amount of increased expenses and when we will be able to achieve or maintain profitability, if ever. In addition, our expenses could increase beyond expectations if we are required by the U.S. Food and Drug Administration (FDA), or foreign regulatory agencies, to perform studies and trials in addition to those that we currently anticipate, or if there are any delays in our or our partners completing clinical trials or the development of any of our product candidates. If one or more of the product candidates that we independently develop is approved for commercial sale, we anticipate incurring significant costs associated with commercializing such product candidates. Even if we or our partners are able to generate revenues from the sale of any approved products, we may not become profitable and may need to obtain additional funding to continue operations, which may not be available to us on favorable terms, if at all. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable would depress the value of our company and could impair our ability to raise capital, expand our business, maintain our research and development efforts, diversify our product offerings or even continue our operations. A decline in the value of our company could also cause you to lose all or part of your investment.

We will require additional financing and may be unable to raise sufficient capital, which could lead us to delay, reduce or abandon research and development programs or commercialization.

Our operations have used substantial amounts of cash since inception. Our research and development expenses were \$12.9 million for the nine months ended September 30, 2013, and \$12.7 million for each of the years ended December 31, 2011 and 2012, respectively. We expect our expenses to increase in connection with our ongoing development activities, including the continuation of our ongoing Phase 1b/2a clinical trial of XmAb5871 in patients with rheumatoid arthritis, the initiation of additional clinical trials of XmAb5871 and the submission of an investigational new drug application (IND) to the FDA for XmAb7195 to be followed by our first clinical trial of XmAb7195. Identifying potential product candidates and conducting preclinical testing and clinical trials are time-consuming, expensive and uncertain processes that takes years to complete, and we or our partners may never generate the necessary data or results required to obtain regulatory approval and achieve product sales. In addition, our product candidates, if approved, may not achieve commercial success.

Our commercial revenues, if any, will be derived from sales of products that we do not expect to be commercially available for many years, if at all. If we obtain regulatory approval for any of our product candidates, we expect to incur significant commercialization expenses related to product manufacturing, marketing, sales and distribution. Furthermore, after the closing of this offering, we expect to incur additional costs associated with operating as a public company. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we could be forced to delay, reduce or eliminate our research and development programs or any future commercialization efforts.

We believe that the net proceeds from this offering and our existing cash, together with interest thereon, will be sufficient to fund our operations through 2016. However, changing circumstances or inaccurate estimates by us may cause us to use capital significantly faster than we currently anticipate, and we may need to spend more money than currently expected because of circumstances beyond our control. For example, our planned clinical trials for XmAb5871 may encounter technical, enrollment or other issues that could cause our development costs to increase more than we expect. Even with the expected net proceeds from this offering, we do not have sufficient cash to complete the clinical development of any of our product candidates and will require additional funding in order to complete the development activities required for regulatory approval of either XmAb5871 or XmAb7195 or any future product candidates that we develop independently. Because successful development of our product candidates is uncertain, we are unable to estimate the actual funds we will require to complete research and development and commercialize our product candidates. Adequate additional financing may not be available to us on acceptable terms, or at all. In addition, we may seek additional capital due to favorable market conditions or strategic considerations; even if we believe we have sufficient funds for our current or future operating plans. If we are unable to raise capital when needed or on attractive terms, we could be forced to delay, reduce or eliminate our research and development programs or any future commercialization efforts.

The development and commercialization of biologic products is subject to extensive regulation, and we may not obtain regulatory approvals for any of our product candidates.

The clinical development, manufacturing, labeling, packaging, storage, recordkeeping, advertising, promotion, export, import, marketing and distribution and other possible activities relating to XmAb5871, XmAb7195 and XmAb5574/MOR208, our current lead antibody product candidates, as well as any other antibody product candidate that we may develop in the future, are subject to extensive regulation in the United States as biologics. Biologics require the submission of a Biologics License Application (BLA) to the FDA and we are not permitted to market any product candidate in the United States until we obtain approval from the FDA of a BLA for that product. A BLA must be supported by extensive clinical and preclinical data, as well as extensive information regarding chemistry, manufacturing and controls (CMC) sufficient to demonstrate the safety, purity, potency and effectiveness of the applicable product candidate to the satisfaction of the FDA.

Regulatory approval of a BLA is not guaranteed, and the approval process is an expensive and uncertain process that may take several years. The FDA and foreign regulatory entities also have substantial discretion in the approval process. The number and types of preclinical studies and clinical trials that will be required for BLA approval varies depending on the product candidate, the disease or the condition that the product candidate is designed to target and the regulations applicable to any particular product candidate. Despite the time and expense associated with preclinical studies and clinical trials, failure can occur at any stage, and we could encounter problems that require us to repeat or perform additional preclinical studies or clinical trials or generate additional CMC data. The FDA and similar foreign authorities could delay, limit or deny approval of a product candidate for many reasons, including because they:

may not deem our product candidate to be adequately safe and effective;

- may not find the data from our preclinical studies and clinical trials or CMC data to be sufficient to support a claim of safety and efficacy;
- may not approve the manufacturing processes or facilities associated with our product candidate;
- may conclude that we have not sufficiently demonstrated long-term stability of the formulation of the drug product for which we are seeking marketing approval;
- may change approval policies or adopt new regulations; or
- may not accept a submission due to, among other reasons, the content or formatting of the submission.

Generally, public concern regarding the safety of drug and biologic products could delay or limit our ability to obtain regulatory approval, result in the inclusion of unfavorable information in our labeling, or require us to undertake other activities that may entail additional costs.

We have not submitted an application for approval or obtained FDA approval for any product. This lack of experience may impede our ability to obtain FDA approval in a timely manner, if at all, for our product candidates.

To market any biologics outside of the United States, we and current or future collaborators must comply with numerous and varying regulatory and compliance related requirements of other countries. Approval procedures vary among countries and can involve additional product testing and additional administrative review periods, including obtaining reimbursement and pricing approval in select markets. The time required to obtain approval in other countries might differ from that required to obtain FDA approval. The regulatory approval process in other countries may include all of the risks associated with FDA approval as well as additional, presently unanticipated, risks. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may negatively impact the regulatory process in others, including the risk that our product candidates may not be approved for all indications requested and that such approval may be subject to limitations on the indicated uses for which the drug may be marketed. Certain countries have a very difficult reimbursement environment and we may not obtain reimbursement or pricing approval, if required, in all countries where we expect to market a product, or we may obtain reimbursement approval at a level that would make marketing a product in certain countries not viable.

If we experience delays in obtaining approval or if we fail to obtain approval of our product candidates, the commercial prospects for our product candidates may be harmed and our ability to generate revenues will be materially impaired which would adversely affect our business, prospects, financial condition and results of operations.

Even if we receive regulatory approval for any of our product candidates, we will be subject to ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense. Additionally, our product candidates, if approved, could be subject to labeling and other restrictions and market withdrawal and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our products.

Any regulatory approvals that we or our partners receive for our product candidates may also be subject to limitations on the approved indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 clinical trials, and surveillance to monitor the safety and efficacy of the product candidate. In addition, if the FDA or a comparable foreign regulatory authority approves any of our product candidates, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion, import, export and recordkeeping for the product will be subject to

extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with current good manufacturing practices (cGMPs), and current good clinical practices (cGCPs), for any clinical trials that we conduct post-approval. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, undesirable side effects caused by the product, problems encountered by our third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, either before or after product approval, may result in, among other things:

- restrictions on the marketing or manufacturing of the product;
- requirements to include additional warnings on the label;
- requirements to create a medication guide outlining the risks to patients;
- withdrawal of the product from the market;
- voluntary or mandatory product recalls;
- requirements to change the way the product is administered or for us to conduct additional clinical trials;
- fines, warning letters or holds on clinical trials;
- refusal by the FDA to approve pending applications or supplements to approved applications filed by us or our strategic partners, or suspension or revocation of product license approvals;
- product seizure or detention, or refusal to permit the import or export of products;
- injunctions or the imposition of civil or criminal penalties; and
- harm to our reputation.

Additionally if any of our product candidates receives marketing approval, the FDA could require us to adopt a Risk Evaluation and Mitigation Strategy (REMS) to ensure that the benefits of the therapy outweigh its risks, which may include, among other things, a medication guide outlining the risks for distribution to patients and a communication plan to health care practitioners.

Any of these events could prevent us from achieving or maintaining market acceptance of the product or the particular product candidate at issue and could significantly harm our business, prospects, financial condition and results of operations.

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

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

We may not be able to initiate or continue clinical trials for our product candidates if we are unable to locate and enroll a sufficient number of eligible patients to participate in these trials as required by the FDA or similar regulatory authorities outside the United States. In addition, some of our competitors have ongoing clinical trials for product candidates that treat the same indications as

our product candidates, and patients who would otherwise be eligible for our clinical trials may instead enroll in clinical trials of our competitors' product candidates.

Patient enrollment is affected by other factors including:

- the severity of the disease under investigation;
- the patient eligibility criteria for the study in question;
- the perceived risks and benefits of the product candidate under study;
- our payments for conducting clinical trials;
- the patient referral practices of physicians;
- the ability to monitor patients adequately during and after treatment; and
- the proximity and availability of clinical trial sites for prospective patients.

For example, in our Phase 1a clinical trial of XmAb5871, which we completed in December 2012, delays in patient enrollment that were outside our control caused several weeks of delay that we did not predict at the outset of that clinical trial. Our inability to enroll a sufficient number of patients for any of our clinical trials could result in significant delays and could require us to abandon one or more clinical trials altogether. Enrollment delays in our clinical trials may result in increased development costs for our product candidates and in delays to commercially launching our product candidates, if approved, which would cause the value of our company to decline and limit our ability to obtain additional financing.

The manufacture of biopharmaceutical products, including XmAb-engineered antibodies, is complex and manufacturers often encounter difficulties in production. If we or any of our third-party manufacturers encounter any loss of our master cell banks or if any of our third-party manufacturers encounter other difficulties, or otherwise fail to comply with their contractual obligations, our ability to provide product candidates for clinical trials or our products to patients, once approved, the development or commercialization of our product candidates could be delayed or stopped.

The manufacture of biopharmaceutical products is complex and requires significant expertise and capital investment, including the development of advanced manufacturing techniques and process controls. We and our contract manufacturers must comply with cGMP regulations and guidelines. Manufacturers of biopharmaceutical products often encounter difficulties in production, particularly in scaling up and validating initial production and contamination. These problems include difficulties with production costs and yields, quality control, including stability of the product, quality assurance testing, operator error, shortages of qualified personnel, as well as compliance with strictly enforced federal, state and foreign regulations. Furthermore, if microbial, viral or other contaminations are discovered in our products or in the manufacturing facilities in which our products are made, such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination.

All of our XmAb engineered antibodies are manufactured by starting with cells which are stored in a cell bank. We have one master cell bank for each antibody manufactured in accordance with cGMP and multiple working cell banks and believe we would have adequate backup should any cell bank be lost in a catastrophic event. However, it is possible that we could lose multiple cell banks and have our manufacturing severely impacted by the need to replace the cell banks.

We cannot assure you that any stability or other issues relating to the manufacture of any of our product candidates or products will not occur in the future. Additionally, our manufacturer may experience manufacturing difficulties due to resource constraints or as a result of labor disputes or unstable political environments. If our manufacturers were to encounter any of these difficulties, or

otherwise fail to comply with their contractual obligations, our ability to provide any product candidates to patients in clinical trials and products to patients, once approved, would be jeopardized. Any delay or interruption in the supply of clinical trial supplies could delay the completion of clinical trials, increase the costs associated with maintaining clinical trial programs and, depending upon the period of delay, require us to commence new clinical trials at additional expense or terminate clinical trials completely. Any adverse developments affecting clinical or commercial manufacturing of our product candidates or products may result in shipment delays, inventory shortages, lot failures, product withdrawals or recalls, or other interruptions in the supply of our product candidates or products. We may also have to take inventory write-offs and incur other charges and expenses for product candidates or products that fail to meet specifications, undertake costly remediation efforts or seek more costly manufacturing alternatives. Accordingly, failures or difficulties faced at any level of our supply chain could materially adversely affect our business and delay or impede the development and commercialization of any of our product candidates or products and could have a material adverse effect on our business, prospects, financial condition and results of operations.

Adverse side effects or other safety risks associated with our product candidates could delay or preclude approval, cause us to suspend or discontinue clinical trials, abandon product candidates, limit the commercial profile of an approved label, or result in significant negative consequences following marketing approval, if any.

Undesirable side effects caused by our product candidates could result in the delay, suspension or termination of clinical trials by us, our collaborators, the FDA or other regulatory authorities for a number of reasons. If we elect or are required to delay, suspend or terminate any clinical trial of any product candidates that we develop, the commercial prospects of such product candidates will be harmed and our ability to generate product revenues from any of these product candidates will be delayed or eliminated. Serious adverse events observed in clinical trials could hinder or prevent market acceptance of the product candidate at issue. Any of these occurrences may harm our business, prospects, financial condition and results of operations significantly.

In our Phase 1a clinical trial of XmAb5871, for example, some subjects reported mild to severe gastrointestinal symptoms including nausea, vomiting, abdominal pain, abdominal discomfort, epigastric discomfort (upper stomach pain) and diarrhea. As of September 30, 2013, one patient in our on-going Phase 1b clinical trial of XmAb5871 experienced an infusion related reaction with hypotension and other adverse events that have been reported by investigators include nausea, vomiting, fever-increased temperature, headache and bronchitis. If these or other side effects cause excessive discomfort, safety risks or reduction in acceptable dosage, then the development and commercialization of XmAb5871 could suffer significant negative consequences. We cannot predict if additional types of adverse events or more serious adverse events will be observed in future clinical trials of XmAb5871, XmAb7195 or any future product candidate.

In addition, we observed detectable levels of immunogenicity, or the creation by the immune system of anti-XmAb5871 antibodies, in 44% of subjects receiving XmAb5871 in the Phase 1a clinical trial. While a common occurrence for antibody therapies, immunogenicity to XmAb5871 or any of our other product candidates could neutralize the therapeutic effects of XmAb5871 or such other candidates and/or alter their pharmacokinetics, which could have a material adverse effect on the effectiveness of our product candidates and on our ability to commercialize them.

We may not be successful in our efforts to use and expand our XmAb technology platform to build a pipeline of product candidates and develop marketable products.

We are using our proprietary XmAb technology platform to develop engineered antibodies, with an initial focus on three properties: immune inhibition, cytotoxicity and extended half-life. This platform has led to our three lead product candidates, XmAb5871, XmAb7195 and

XmAb5574/MOR208 as well as the other programs that utilize our technology and that are being developed by our partners and licensees. While we believe our preclinical and clinical data to date, together with our established partnerships, has validated our platform to a degree, we are at a very early stage of development and our platform has not yet, and may never lead to, approved or marketable therapeutic antibody products. Even if we are successful in continuing to build our pipeline, the potential product candidates that we identify may not be suitable for clinical development, including as a result of their harmful side effects, limited efficacy or other characteristics that indicate that they are unlikely to be products that will receive marketing approval and achieve market acceptance. If we do not successfully develop and commercialize product candidates based upon our technological approach, we may not be able to obtain product or partnership revenues in future periods, which would adversely affect our business, prospects, financial condition and results of operations.

# We face significant competition from other biotechnology and pharmaceutical companies and our operating results will suffer if we fail to compete effectively.

The biotechnology and pharmaceutical industries are intensely competitive. We have competitors both in the United States and internationally, including major multinational pharmaceutical companies, biotechnology companies, universities and other research institutions. Many of our competitors have substantially greater financial, technical and other resources, such as larger research and development staff and experienced marketing and manufacturing organizations and well-established sales forces. Competition may increase further as a result of advances in the commercial applicability of technologies and greater availability of capital for investment in these industries. Our competitors may succeed in developing, acquiring or licensing on an exclusive basis drug products that are more effective or less costly than any product candidate that we are currently developing or that we may develop.

We face intense competition in autoimmune disease drug development from multiple monoclonal antibodies, other biologics and small molecules approved for the treatment of rheumatoid arthritis and autoimmune diseases many of which are being developed or marketed by large multinational pharmaceutical companies such as GlaxoSmithKline plc, AbbVie Inc., Janssen Pharmaceuticals, Inc., Roche/Genentech Inc. and Amgen Inc. GlaxoSmithKline's Benlysta (belimumab) is currently the only monoclonal antibody that we are aware of that is approved for the treatment of lupus although we believe that Biogen Idec/Genentech's Rituxan (rituximab) is prescribed, off label, for this indication. Pfizer's Xeljanz (tofacitinib), AbbVie's Humira (adalimumab), Amgen's Enbrel (etanercept), Janssen Pharmaceuticals, Inc.'s Remicade (infliximab) and Simponi (golimumab), Bristol-Myers Squibb's Orencia (abatacept) and Rituxan, among others, are approved for the treatment of rheumatoid arthritis. In addition, these and other pharmaceutical companies have monoclonal antibodies or other biologics in clinical development for the treatment of autoimmune diseases.

Many companies have approved therapies or are developing drugs for the treatment of asthma including multinational pharmaceutical companies such as GlaxoSmithKline, Roche/Genentech, Novartis AG and AstraZeneca plc. Monoclonal antibody drug development has primarily focused on allergic asthma. Xolair is currently the only monoclonal antibody that we are aware of that is approved for the treatment of severe asthma. In addition, Novartis, AstraZeneca/MedImmune and Genentech each have an antibody targeting IgE in Phase 1 or 2 clinical development for asthma.

Competition in blood cancer drug development is intense, with more than 250 compounds in clinical trials by large multinational pharmaceutical companies and Rituxan is just one of many monoclonal antibodies approved for the treatment of non-Hodgkin lymphomas or other blood cancers.

Our ability to compete successfully will depend largely on our ability to leverage our experience in drug discovery and development to:

discover and develop products that are superior to other products in the market;

- attract qualified scientific, product development and commercial personnel;
- obtain and maintain patent and/or other proprietary protection for our products and technologies;
- obtain required regulatory approvals; and
- successfully collaborate with pharmaceutical companies in the discovery, development and commercialization of new products.

The availability and price of our competitors' products could limit the demand, and the price we are able to charge, for any of our product candidates, if approved. We will not achieve our business plan if acceptance is inhibited by price competition or the reluctance of physicians to switch from existing drug products to our products, or if physicians switch to other new drug products or choose to reserve our products for use in limited circumstances.

Established biopharmaceutical companies may invest heavily to accelerate discovery and development of products that could make our product candidates less competitive. In addition, any new product that competes with an approved product must demonstrate compelling advantages in efficacy, convenience, tolerability and safety in order to overcome price competition and to be commercially successful. Accordingly, our competitors may succeed in obtaining patent protection, receiving FDA approval or discovering, developing and commercializing medicines before we do, which would have a material adverse impact on our business. We will not be able to successfully commercialize our product candidates without establishing sales and marketing capabilities internally or through collaborators.

## **Risks Relating to Our Dependence on Third Parties**

Our existing partnerships are important to our business, and future partnerships may also be important to us. If we are unable to maintain any of these partnerships, or if these partnerships are not successful, our business could be adversely affected.

Because developing biologics products, conducting clinical trials, obtaining regulatory approval, establishing manufacturing capabilities and marketing approved products are expensive, we have entered into partnerships, and may seek to enter into additional partnerships, with companies that have more resources and experience than us, and we may become dependent upon the establishment and successful implementation of partnership agreements.

Our partnership and license agreements include those we have announced with Amgen, MorphoSys, Boehringer Ingelheim and others. These partnerships and license agreements also have provided us with important funding for our development programs, and we expect to receive additional funding under these partnerships in the future. Our existing partnerships, and any future partnerships we enter into, may pose a number of risks, including the following:

- collaborators have significant discretion in determining the efforts and resources that they will apply to these partnerships;
- collaborators may not perform their obligations as expected;
- collaborators may not pursue development and commercialization of any product candidates that achieve regulatory approval or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in the collaborators' strategic focus or available funding, or external factors, such as an acquisition, that divert resources or create competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials 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 if the collaborators believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours, which may cause collaborators to cease to devote resources to the commercialization of our product candidates;
- a collaborator with marketing and distribution rights to one or more of our product candidates that achieve regulatory approval may not commit sufficient resources to the marketing and distribution of such product or products;
- disagreements with collaborators, including disagreements over proprietary rights, contract interpretation or the preferred course of development, might
  cause delays or termination of the research, development or commercialization of product candidates, might lead to additional responsibilities for us
  with respect to product candidates, or might result in litigation or arbitration, any of which would be time-consuming and expensive;
- while we have generally retained the right to maintain and defend our intellectual property under our agreements with collaborators, certain
  collaborators may not properly maintain or defend certain of our intellectual property rights or may use our proprietary information in such a way as to
  invite litigation that could jeopardize or invalidate our intellectual property or proprietary information;
- collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability;
- collaborators may learn about our technology and use this knowledge to compete with us in the future;
- results of collaborators' preclinical or clinical studies could produce results that harm or impair other products using our XmAb technology platform;
- there may be conflicts between different collaborators that could negatively affect those partnerships and potentially others; and
- the number and type of our partnerships could adversely affect our attractiveness to future collaborators or acquirers.

If our partnerships and license agreements do not result in the successful development and commercialization of products or if one of our collaborators terminates its agreement with us, or in the case of Amgen, elects not to exercise its option under our agreement, we may not receive any future research and development funding or milestone or royalty payments under the arrangement. If we do not receive the funding we expect under these arrangements, our continued development of our product candidates could be delayed and we may need additional resources to develop additional product candidates. All of the risks relating to product development, regulatory approval and commercialization described in this prospectus also apply to the activities of our collaborators and there can be no assurance that our partnerships and license agreements will produce positive results or successful products on a timely basis or at all.

Our partnership agreements generally grant our collaborators exclusive rights under certain of our intellectual property, and may therefore preclude us from entering into partnerships with others relating to the same or similar compounds, indications or diseases. In addition, partnership agreements may place restrictions or additional obligations on our ability to license additional compounds in different indications, diseases or geographical locations. If we fail to comply with or breach any provision of a partnership agreement, a collaborator may have the right to terminate, in whole or in part, such agreement or to seek damages. Many of our collaborators also have the right to terminate the partnership agreement for convenience. If a partnership agreement is terminated, in whole or in

part, we may be unable to continue the development and commercialization of the applicable product candidates, and even if we are able to do so, such efforts may be delayed and result in additional costs.

There is no assurance that a collaborator who is acquired by a third party would not attempt to change certain contract provisions that could negatively affect our partnership. The acquiring company may also not accept the terms or assignment of our contracts and may seek to terminate the agreements. Any one of our partners could breach covenants, restrictions and/or sub-license agreement provisions leading us into disputes and potential breaches of our agreements with other partners.

We may in the future determine to partner with additional pharmaceutical and biotechnology companies for development and potential commercialization of therapeutic products. We face significant competition in seeking appropriate collaborators. Our ability to reach a definitive agreement for a partnership will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed partnership and the proposed collaborator's evaluation of a number of factors. If we elect to fund and undertake development or commercialization activities on our own, we may need to obtain additional expertise and additional capital, which may not be available to us on acceptable terms or at all. If we fail to enter into partnerships and do not have sufficient funds or expertise to undertake the necessary development and commercialization activities, we may not be able to further develop our product candidates or bring them to market or continue to develop our product platform and our business, prospects, financial condition and results of operations may be materially and adversely affected.

We rely upon third-party contractors and service providers for the execution of most aspects of our development programs. Failure of these collaborators to provide services of a suitable quality and within acceptable timeframes may cause the delay or failure of our development programs.

We outsource certain functions, tests and services to contract research organizations (CROs), medical institutions and collaborators as well as outsourcing manufacturing to collaborators and/or contract manufacturers, and we rely on third parties for quality assurance, clinical monitoring, clinical data management and regulatory expertise. We also have engaged, and may in the future engage, a CRO to run all aspects of a clinical trial on our behalf. There is no assurance that such individuals or organizations will be able to provide the functions, tests, biologic supply or services as agreed upon or in a quality fashion and we could suffer significant delays in the development of our products or processes.

In some cases there may be only one or few providers of such services, including clinical data management or manufacturing services. In addition, the cost of such services could be significantly increased over time. We rely on third parties and collaborators as mentioned above to enroll qualified patients and conduct, supervise and monitor our clinical trials. Our reliance on these third parties and collaborators for clinical development activities reduces our control over these activities. Our reliance on these parties, however, does not relieve us of our regulatory responsibilities, including ensuring that our clinical trials are conducted in accordance with GCP regulations and the investigational plan and protocols contained in the regulatory agency applications. In addition, these third parties may not complete activities on schedule or may not manufacture under GMP conditions. Preclinical or clinical studies may not be performed or completed in accordance with Good Laboratory Practices (GLP) regulatory requirements or our trial design. If these third parties or collaborators do not successfully carry out their contractual duties or meet expected deadlines, obtaining regulatory approval for manufacturing and commercialization of our product candidates may be delayed or prevented. We rely substantially on third-party data managers for our clinical trial data. There is no assurance that these third parties will not make errors in the design, management or retention of our data or data systems. There is no assurance these third parties will pass FDA or regulatory audits, which could delay or prohibit regulatory approval.

We rely on third parties to manufacture supplies of our preclinical and clinical product candidates. The development of such candidates could be stopped or delayed if any such third party fails to provide us with sufficient quantities of product or fails to do so at acceptable quality levels or prices or fails to maintain or achieve satisfactory regulatory compliance.

We do not currently have nor do we plan to acquire the infrastructure or capability internally to manufacture our clinical drug supplies for use in the conduct of our clinical trials, and we lack the resources and the capability to manufacture any clinical candidates on a clinical scale. Instead, we rely on our third-party manufacturing partners, Catalent Pharma Solutions LLC (Catalent) and Cook Pharmica, LLC (Cook) for the production of XmAb5871 and XmAb7195, respectively, and Cook and third parties for fill and testing services, pursuant to agreements with each. Either Catalent or Cook may not perform as agreed, may be unable to comply with cGMP requirements and with FDA, state and foreign regulatory requirements or may terminate its agreement with us.

In addition, manufacturers are subject to ongoing periodic unannounced inspection by the FDA and other governmental authorities to ensure strict compliance with government regulations. We do not control the manufacturing processes of either Catalent or Cook and are currently completely dependent on each of Catalent and Cook for the production of XmAb5871 and XmAb7195 in accordance with cGMP, which include, among other things, quality control, quality assurance and the maintenance of records and documentation. If we were to experience an unexpected loss of supply, we could experience delays in our planned clinical trials, as Catalent or Cook would need to manufacture additional clinical drug supply and would need sufficient lead time to schedule a manufacturing slot. While there are other potential suppliers of clinical supplies of our biologics, the long transition periods necessary to switch manufacturers for either XmAb5871 and XmAb7195 would significantly delay our clinical trials and the commercialization of such products, if approved.

We intend to rely on third parties to manufacture commercial supplies of our product candidates, if and when approved. If we are unable to obtain a license agreement from Catalent for the manufacture of XmAb5871, if we are unable to enter into commercial supply agreements with third-party suppliers or if any such third-party supplier fails to provide us with sufficient quantities or fails to comply with regulatory requirements, commercialization of such products could be delayed or stopped.

We do not currently have nor do we plan to acquire the infrastructure or capability internally to manufacture our products on a commercial scale. Although we have entered into agreements for the manufacture of clinical supplies of XmAb5871 and XmAb7195, we have not entered into a commercial supply agreement with either Catalent or Cook and neither has demonstrated that it will be capable of manufacturing XmAb5871 and XmAb7195 on a large commercial scale. We might be unable to identify manufacturers for commercial supply on acceptable terms or at all. Moreover, our existing license with Catalent to use certain technology and know-how in the production of our XmAb5871 product candidate only applies for so long as manufacturing services are provided by Catalent. We expect to move manufacturing services to another contract manufacturing organization, or to Amgen if they exercise their option for XmAb5871, to support late-stage clinical trials for XmAb5871 as well as commercial supplies which would require negotiation of a license from Catalent. We expect to be able to finalize such a license agreement with Catalent for XmAb5871 in due course. However, we can provide no assurances as to when such a license agreement will be executed or if it will be executed at all. If we, or our collaborator Amgen, are not able to secure a commercial license from Catalent, or not able to obtain a commercial license on acceptable terms, we may be required to change the manufacturing process for XmAb5871. A change to the manufacturing process for XmAb5871 would cause us to incur significant costs and to devote significant efforts to implement such a change. Additionally, the late-stage clinical development and commercialization of XmAb5871 by us or our collaborators may be delayed as a result, which would materially and adversely affect our business.

If our third-party manufacturers cannot successfully manufacture material that conforms to our specifications and the applicable regulatory authorities' strict regulatory requirements, or pass regulatory inspection, they will not be able to secure or maintain regulatory approval for the manufacturing facilities. In addition, we have no control over the ability of any third-party manufacturer to maintain adequate quality control, quality assurance and qualified personnel. The facilities used by our third-party manufacturers to manufacture XmAb5871 and XmAb7195 and any other potential product candidates that we may develop in the future must be approved by the applicable regulatory authorities, including the FDA, pursuant to inspections that will be conducted after we submit our BLA to the FDA. In addition, manufacturers are subject to ongoing periodic unannounced inspection by the FDA and other governmental authorities to ensure strict compliance with government regulations. If the FDA or any other applicable regulatory authorities do not approve these facilities for the manufacture of our products or if they withdraw any such approval in the future, or if our suppliers or third-party manufacturer decide they no longer want to supply our biologics or manufacture our products, we may need to find alternative manufacturing facilities, which would significantly impact our ability to market our products and our business, prospects, financial condition and results of operations may be materially and adversely affected.

## **Risks Relating to Our Intellectual Property**

If we are unable to obtain, maintain and enforce intellectual property protection covering our products, others may be able to make, use or sell products substantially the same as ours, which could adversely affect our ability to compete in the market.

Our commercial success depends, in part, on our ability to obtain, maintain and enforce patents, trade secrets, trademarks and other intellectual property rights and to operate without having third parties infringe, misappropriate or circumvent the rights that we own or license. If we are unable to obtain, maintain and enforce intellectual property protection covering our products, others may be able to make, use or sell products that are substantially the same as ours without incurring the sizeable development and licensing costs that we have incurred, which would adversely affect our ability to compete in the market. As of September 30, 2013, we held 21 issued U.S. patents and 44 pending U.S. patent applications related to our XmAb technology platform. We have also filed and are actively pursuing additional patent applications in the United States, Canada, Japan, Europe and other major markets either directly or via the Patent Cooperation Treaty. Our ability to stop third parties from making, using, selling, offering to sell or importing our product candidates is dependent upon the extent to which we have rights under valid and enforceable patents or trade secrets that cover these activities. However, the patent positions of biopharmaceutical companies, including ours, can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in patents in these fields has emerged to date in the United States. The U.S. patent laws have recently changed, there have been changes regarding how patent laws are interpreted, and the U.S. Patent and Trademark Office (the PTO) has also implemented changes to the patent system. Some of these changes are currently being litigated, and we can not accurately determine the outcome of any such proceedings or predict future changes in the interpretation of patent laws or changes to patent laws which might be enacted into law. Those changes may materially affect our patents, our ability to obtain patents or the patents and applications of our collaborators and licensors. The patent situation in the biopharmaceutical industry outside the United States is even more uncertain. Therefore, there is no assurance that our pending patent applications will result in the issuance of patents or that we will develop additional proprietary products which are patentable. Moreover, patents issued or to be issued to us may not provide us with any competitive advantage. Our patent position is subject to numerous additional risks, including the following:

- we may fail to seek patent protection for inventions that are important to our success;
- our pending patent applications may not result in issued patents;

- we cannot be certain that we are the first to invent the inventions covered by pending patent applications or that we were the first to file such applications and, if we are not, we may be subject to priority disputes;
- we may be required to disclaim part or all of the term of certain patents or all of the term of certain patent applications;
- we may file patent applications but have claims restricted or we may not be able to supply sufficient data to support our claims and, as a result, may not obtain the original claims desired or we may receive restricted claims. Alternatively, it is possible that we may not receive any patent protection from an application;
- we could inadvertently abandon a patent or patent application, resulting in the loss of protection of certain intellectual property rights in a certain country. We, our collaborators or our patent counsel may take action resulting in a patent or patent application becoming abandoned which may not be able to be reinstated or if reinstated, may suffer patent term adjustments;
- the claims of our issued patents or patent applications when issued may not cover our product candidates;
- no assurance can be given that our patents would be declared by a court to be valid or enforceable or that a competitor's technology or product would be found by a court to infringe our patents. Our patents or patent applications may be challenged by third parties in patent litigation or in proceedings before the PTO or its foreign counterparts, and may ultimately be declared invalid or unenforceable, or narrowed in scope;
- there may be prior art of which we are not aware that may affect the validity or enforceability of a patent claim. There also may be prior art of which we are aware, but which we do not believe affects the validity or enforceability of a claim, which may, nonetheless, ultimately be found to affect the validity or enforceability of a claim;
- third parties may develop products which have the same or similar effect as our products without infringing our patents. Such third parties may also
  intentionally circumvent our patents by means of alternate designs or processes or file applications or be granted patents that would block or hurt our
  efforts:
- there may be dominating patents relevant to our product candidates of which we are not aware;
- our patent counsel, lawyers or advisors may have given us, or may in the future give us incorrect advice or counsel. Opinions from such patent counsel or lawyers may not be correct or may be based on incomplete facts;
- obtaining regulatory approval for biopharmaceutical products is a lengthy and complex process, and as a result, any patents covering our product candidates may expire before, or shortly after such product candidates are approved and commercialized;
- the patent and patent enforcement laws of some foreign jurisdictions do not protect intellectual property rights to the same extent as laws in the United States, and many companies have encountered significant difficulties in protecting and defending such rights in foreign jurisdictions. If we encounter such difficulties or we are otherwise precluded from effectively protecting our intellectual property rights in foreign jurisdictions, our business prospects could be substantially harmed; and
- we may not develop additional proprietary technologies that are patentable.

Any of these factors could hurt our ability to gain full patent protection for our products. Registered trademarks and trademark applications in the United States and other countries are subject

to similar risks as described above for patents and patent applications, in addition to the risks described below.

Many of our product development partnership agreements are complex and may call for licensing or cross-licensing of potentially blocking patents, know-how or intellectual property. Due to the potential overlap of data, know-how and intellectual property rights there can be no assurance that one of our collaborators will not dispute our right to use, license or distribute data, know-how or other intellectual property rights, and this may potentially lead to disputes, liability or termination of a program. There are no assurances that our actions or the actions of our collaborators would not lead to disputes or cause us to default with other collaborators. For example, we may become involved in disputes with our collaborators relating to the ownership of intellectual property developed in the course of the partnership. We also cannot be certain that a collaborator will not challenge the validity or enforceability of the patents we license.

We cannot be certain that any country's patent and/or trademark office will not implement new rules which could seriously affect how we draft, file, prosecute and/or maintain patents, trademarks and patent and trademark applications. We cannot be certain that increasing costs for drafting, filing, prosecuting and maintaining patents, trademarks and patent and trademark applications will not restrict our ability to file for patent protection. For example, we may elect not to seek patent protection in certain jurisdictions or for certain inventions in order to save costs. We may be forced to abandon or return the rights to specific patents due to a lack of financial resources.

We currently rely, and may in the future rely, on certain intellectual property rights licensed from third parties to protect our technology. In particular, we have licensed and sublicensed certain intellectual property relating to our Xtend technology from a third party. Under our license, we have no right to control patent prosecution of this intellectual property or to enforce the patents, and as such the licensed rights may not be adequately maintained by the licensors. The termination of this or other licenses could also prevent us from commercializing product candidates covered by the licensed intellectual property.

Furthermore, the research resulting in the in-licensed patents was developed in the course of research funded by the U.S. government. As a result, the U.S. government may have certain rights ("march-in rights") to intellectual property embodied in our Xtend products. Government rights in certain inventions developed under a government-funded program include a non-exclusive, non-transferable, irrevocable worldwide license to use inventions for any governmental purpose. Circumstances that trigger march-in rights include, for example, failure to take, within a reasonable time, effective steps to achieve practical application of the invention in a field of use, failure to satisfy the health and safety needs of the public and failure to meet requirements of public use specified by federal regulations. Federal law requires any licensor of an invention that was partially funded by the federal government to obtain a covenant from any exclusive licensee to manufacture products using the invention substantially in the United States. The U.S. government also has the right to use and disclose, without limitation, scientific data relating to licensed technology that was developed in whole or in part at government expense. The government funding agency can elect to exercise these march-in rights on their own initiative or at the request of a third party.

We intend to file applications for trademark registrations in connection with our product candidates in various jurisdictions, including the United States. No assurance can be given that any of our trademark applications will be registered in the United States or elsewhere, or that the use of any registered or unregistered trademarks will confer a competitive advantage in the marketplace. Furthermore, even if we are successful in our trademark registrations, the FDA and regulatory authorities in other countries have their own process for drug nomenclature and their own views concerning appropriate proprietary names. No assurance can be given that the FDA or any other regulatory authority will approve of any of our trademarks or will not request reconsideration of one of

our trademarks at some time in the future. The loss, abandonment, or cancellation of any of our trademarks or trademark applications could negatively affect the success of the product candidates to which they relate.

If we are not able to prevent disclosure of our trade secrets and other proprietary information, the value of our technology and products could be significantly diminished.

We rely on trade secret protection to protect our interests in proprietary know-how and in processes for which patents are difficult to obtain or enforce. We may not be able to protect our trade secrets adequately. We have a policy of requiring our consultants, advisors and collaborators to enter into confidentiality agreements and our employees to enter into invention, non-disclosure and non-compete agreements. However, no assurance can be given that we have entered into appropriate agreements with all parties that have had access to our trade secrets, know-how or other proprietary information. There is also no assurance that such agreements will provide for a meaningful protection of our trade secrets, know-how or other proprietary information in the event of any unauthorized use or disclosure of information. Furthermore, we cannot provide assurance that any of our employees, consultants, contract personnel, or collaborators, either accidentally or through willful misconduct, will not cause serious damage to our programs and/or our strategy, for example by disclosing important trade secrets, know-how or proprietary information to our competitors. It is also possible that our trade secrets, know-how or other proprietary information could be obtained by third parties as a result of breaches of our physical or electronic security systems. Any disclosure of confidential data into the public domain or to third parties could allow our competitors to learn our trade secrets and use the information in competition against us. In addition, others may independently discover our trade secrets and proprietary information. Any action to enforce our rights is likely to be time consuming and expensive, and may ultimately be unsuccessful, or may result in a remedy that is not commercially valuable. These risks are accentuated in foreign countries where laws or law enforcement practices may not protect proprietary rights as fully as in the United States or Europe. Any unauthorized disclosure of our trade secrets or proprietary

## We may be required to reduce the scope of our intellectual property due to third-party intellectual property claims.

Our competitors may have filed, and may in the future file, patent applications covering technology similar to ours. Any such patent application may have priority over our patent applications, which could further require us to obtain rights to issued patents covering such technologies. If another party has filed a U.S. patent application on inventions similar to ours that claims priority to an application filed prior to March 16, 2013, we may have to participate in an interference proceeding declared by the PTO to determine priority of invention in the United States. The costs of these proceedings could be substantial, and it is possible that such efforts would be unsuccessful if, unbeknownst to us, the other party had independently arrived at the same or similar invention prior to our own invention, resulting in a loss of our U.S. patent position with respect to such inventions. In addition, changes enacted on March 15, 2013 to the U.S. patent laws under the America Invents Act resulted in the United States changing from a "first to invent" country to a "first to file" country. As a result, we may lose the ability to obtain a patent if a third party files with the PTO first and could become involved in proceedings before the PTO to resolve disputes related to inventorship. We may also become involved in similar proceedings in other jurisdictions.

Furthermore, recent changes in U.S. patent law under the America Invents Act allows for post-issuance challenges to U.S. patents, including ex parte reexaminations, inter partes reviews and post-grant oppositions. There is significant uncertainty as to how the new laws will be applied and if our U.S. patents are challenged using such procedures, we may not prevail, possibly resulting in altered or diminished claim scope or loss of patent rights altogether. Similarly, some countries, notably

members of the European Union, also have post grant opposition proceedings that can result in changes in scope and/or cancellation of patent claims.

Our products could infringe patents and other property rights of others, which may result in costly litigation and, if we are not successful, could cause us to pay substantial damages or limit our ability to commercialize our products, which could have a material adverse effect on 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 the patents and other proprietary rights of third parties. There is considerable intellectual property litigation in the biotechnology and pharmaceutical industries. For example, we are aware of issued U.S. patents and patent applications owned by Genentech that may relate to and claim components of certain of our product candidates, including XmAb5871, XmAb7195 and XmAb5574/MOR208 or their manufacture. We believe that these patents and patent applications will expire in the United States in 2020 and 2021, respectively, but it is possible that the terms could be extended, for example, as a result of patent term restoration to compensate for regulatory delays. While we believe that our current development of these candidates currently falls into the "safe harbor" of non-infringement under 35 U.S.C. §271(e)(1), this protection terminates upon commercialization. In addition, there can be no assurance that our interpretation of this statutory exemption would be upheld. Furthermore, while we believe that claims in these patents are either invalid or not infringed, we cannot assure you that if we were sued for infringement of these patents that we would prevail. In order to successfully challenge the validity of any issued U.S. patent, we would need to overcome a presumption of validity. This burden is a high one requiring us to present clear and convincing evidence as to the invalidity of such claims. There is no assurance that a court would find these claims to be invalid or not infringed.

In addition, as the biopharmaceutical industry expands and more patents are issued, the risk increases that there may be patents issued to third parties that relate to our products and technology of which we are not aware or that we must challenge to continue our operations as currently contemplated. Our products may infringe or may be alleged to infringe these patents. Because some patent applications in the United States may be maintained in secrecy until the patents are issued, because patent applications in the United States and many foreign jurisdictions are typically not published until eighteen months after filing and because publications in the scientific literature often lag behind actual discoveries, we cannot be certain that others have not filed patents that may cover our technologies, our product candidates or their use. Additionally, pending patent applications which have been published can, subject to certain limitations, be later amended in a manner that could cover our technologies, our products or the use of our products. We may become party to, or 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 patents or patents that may be granted in the future.

If we are sued for patent infringement, we would need to demonstrate that our products or methods either do not infringe the patent claims of the relevant patent or that the patent claims are invalid, and we may not be able to do this. Proving invalidity is difficult. For example, in the United States, proving invalidity requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents. Even if we are successful in these proceedings, we may incur substantial costs and divert management's time and attention in pursuing these proceedings, which could have a material adverse effect on us.

Any such claims are likely to be expensive to defend, and some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources.

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 litigation or in order to resolve disputes prior to 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 make substantial royalty payments. We could also be forced, including by court order, to cease commercializing the infringing technology or product. In addition, we could be found liable for monetary damages, including treble damages and attorneys' fees if we are found to have willfully infringed a patent. A finding of infringement could prevent us from commercializing our product candidates or force us to cease some of our business operations, which could materially harm our business. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on our business.

## Our intellectual property may be infringed upon by a third party.

Third parties may infringe one or more of our issued patents or trademarks. We cannot predict if, when or where a third party may infringe one or more of our issued patents or trademarks. To counter infringement, we may be required to file infringement claims, which can be expensive and time consuming. There is no assurance that we would be successful in a court of law in proving that a third party is infringing one or more of our issued patents or trademarks. Any claims we assert against perceived infringers could also provoke these parties to assert counterclaims against us, alleging that we infringe their intellectual property. In addition, in a patent infringement proceeding, a court may decide that a patent of ours is invalid or unenforceable, in whole or in part, construe the patent's claims narrowly and/or refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question, any of which may adversely affect our business. Even if we are successful in proving in a court of law that a third party is infringing one or more of our issued patents or trademarks there can be no assurance that we would be successful in halting their infringing activities, for example, through a permanent injunction, or that we would be fully or even partially financially compensated for any harm to our business. We may be forced to enter into a license or other agreement with the infringing third party at terms less profitable or otherwise commercially acceptable to us than if the license or agreement were negotiated under conditions between those of a willing licensee and a willing licensor. We may not become aware of a third-party infringer within legal timeframes for compensation or at all, thereby possibly losing the ability to be compensated for any harm to our business. Such a third party may be operating in a foreign country where the infringer is difficult to locate and/or the intellectual property laws may be more difficult to enforce. Some third-party infringers may be able to sustain the costs of complex infringement litigation more effectively than we can because they have substantially greater resources. Any inability to stop third-party infringement could result in loss in market share of some of our products or even lead to a delay, reduction and/or inhibition of the development, manufacture or sale of certain products by us. There is no assurance that a product produced and sold by a third-party infringer would meet our or other regulatory standards or would be safe for use. Such third-party infringer products could irreparably harm the reputation of our products thereby resulting in substantial loss in market share and profits.

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

We employ individuals who were previously employed at other biotechnology or pharmaceutical companies. We may be subject to claims that we or our employees, consultants or independent contractors have inadvertently or otherwise used or disclosed confidential information of our employees' former employers or other third parties. We may also be subject to claims that former

employers or other third parties have an ownership interest in our patents. Litigation may be necessary to defend against these claims. There is no guarantee of success in defending these claims, and if we do not prevail, we could be required to pay substantial damages and could lose rights to important intellectual property. Even if we are successful, litigation could result in substantial cost and be a distraction to our management and other employees.

## Risks Related to Employee Matters and Managing Growth and Other Risks Related to Our Business

We are subject to competition for our skilled personnel and may experience challenges in identifying and retaining key personnel that could impair our ability to conduct and grow our operations effectively.

Our future success depends on our ability to retain our executive officers and to attract, retain and motivate qualified personnel. If we are not successful in attracting and retaining highly qualified personnel, we may not be able to successfully implement our business strategy. Although we have not experienced problems attracting and retaining highly qualified personnel in the recent past, our industry has experienced a high rate of turnover of management personnel in recent years. Our ability to compete in the highly competitive biotechnology and pharmaceuticals industries depends upon our ability to attract and retain highly qualified management, scientific and medical personnel. We are highly dependent on our current management team, whose services are critical to the successful implementation of our product candidate development and regulatory strategies. In order to induce valuable employees to continue their employment with us, we have provided stock options that vest over time. The value to employees of stock options that vest over time is significantly affected by movements in our stock price that are beyond our control, and may at any time be insufficient to counteract more lucrative offers from other companies.

Despite our efforts to retain valuable employees, members of our management team may terminate their employment with us at any time, with or without notice. Further, we do not maintain "key person" insurance for any of our executives or other employees. The loss of the services of any of our executive officers and our inability to find suitable replacements could harm our business, financial condition, prospects and ability to achieve the successful development or commercialization of our product candidates. Our success also depends on our ability to continue to attract, retain and motivate highly skilled scientific and medical personnel at all levels.

We may experience growth in the number of our employees and the scope of our operations, especially in clinical development. This growth will place a significant strain on our management, operations and financial resources, and we may have difficulty managing this future potential growth. Moreover, no assurance can be provided that we will be able to attract new employees to assist in our growth. Many of the other biotech and pharmaceutical companies and academic institutions that we compete against for qualified personnel have greater financial and other resources, different risk profiles and a longer history in the industry than we do. We also may employ consultants or part-time and contract employees. There can be no assurance that these individuals are retainable. While we have been able to attract and retain skilled and experienced personnel and consultants in the past, no assurance can be given that we will be able to do so in the future.

## We may become subject to the risk of product liability claims.

We face an inherent risk of product liability as a result of the clinical testing of our product candidates and will face an even greater risk if we or our partners commercialize any products. Human therapeutic products involve the risk of product liability claims and associated adverse publicity. Currently, the principal risks we face relate to patients in our clinical trials, who may suffer unintended consequences. Claims might be made by patients, healthcare providers or pharmaceutical companies or others. For example, we may be sued if any product we develop allegedly causes injury or is found to be otherwise unsuitable during clinical testing, manufacturing, marketing or sale. Any such product

liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability and a breach of warranties. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of our product candidates, if approved. Even successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for our products due to negative public perception;
- injury to our reputation;
- withdrawal of clinical trial participants or difficulties in recruiting new trial participants;
- initiation of investigations by regulators;
- costs to defend or settle the related litigation;
- a diversion of management's time and our resources;
- substantial monetary awards to trial participants or patients;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- loss of revenues from product sales; and
- the inability to commercialize any of our product candidates, if approved.

We may not have or be able to obtain or maintain sufficient and affordable insurance coverage to cover product liability claims, and without sufficient coverage any claim brought against us could have a materially adverse effect on our business, financial condition or results of operations. We run clinical trials through investigators that could be negligent through no fault of our own and which could affect patients, cause potential liability claims against us and result in delayed or stopped clinical trials. We are required by contractual obligations to indemnify collaborators, partners, third-party contractors, clinical investigators and institutions. These indemnifications could result in a material impact due to product liability claims against us and/or these groups. We currently carry \$5 million in product liability insurance, which we believe is appropriate for our current clinical trials. Although we maintain such insurance, any claim that may be brought against us could result in a court judgment or settlement in an amount that is not covered, in whole or in part, by our insurance or that is in excess of the limits of our insurance coverage. Our insurance policies also have various exclusions, and we may be subject to a product liability claim for which we have no coverage. We will have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts. We may also need to expand our insurance coverage as our business grows or if any of our product candidates is commercialized. We may not be able to maintain or increase insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise.

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

We are exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include intentional failures to comply with FDA regulations, to provide accurate information to the FDA, to comply with manufacturing standards we have established, to comply with federal and state healthcare fraud and abuse laws and regulations, or to report financial information or data accurately or disclose unauthorized activities to us. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and

regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. We have adopted a Code of Business Conduct and Ethics, but it is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant fines or other sanctions, and our reputation.

## We may be vulnerable to disruption, damage and financial obligation as a result of system failures.

Despite the implementation of security measures, any of the internal computer systems belonging to us, our collaborators or our third-party service providers are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failure. Any system failure, accident or security breach that causes interruptions in our own, in collaborators' or in third-party service vendors' operations could result in a material disruption of our drug discovery and development programs. For example, the loss of clinical trial data from completed or future clinical trials could result in delays in our or our partners' regulatory approval efforts and significantly increase our costs in order to recover or reproduce the lost data. To the extent that any disruption or security breach results in a loss or damage to our data or applications, or inappropriate disclosure of confidential or proprietary information, we may incur liability as a result, our drug discovery programs and competitive position may be adversely affected and the further development of our product candidates may be delayed. Furthermore, we may incur additional costs to remedy the damages caused by these disruptions or security breaches.

Our business involves the controlled use of hazardous materials and as such we are subject to environmental and occupational safety laws. Continued compliance with these laws may incur substantial costs and failure to maintain compliance could result in liability for damages that may exceed our resources.

Our research, manufacturing and development processes, and those of our third-party contractors and partners, involve the controlled use of hazardous materials. We and our manufacturers are subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of such materials and certain waste products. Our operations involve the use of hazardous and flammable materials, including chemicals and biological materials. Our operations also produce hazardous waste products. The risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of such an accident, we could be held liable for any damages that result, and any such liability could exceed our resources. We are not insured against this type of liability. We may be required to incur significant costs to comply with environmental laws and regulations in the future, and our operations, business or assets may be materially adversely affected by current or future environmental laws or regulations or any liability thereunder.

## Risks Related to this Offering and Ownership of Our Common Stock

The market price of our common stock may be highly volatile, and you may not be able to resell your shares at or above the initial public offering price.

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

adverse results or delays in clinical trials;

- inability to obtain additional funding;
- any delay in filing a BLA for any of our product candidates and any adverse development or perceived adverse development with respect to the FDA's review of that BLA;
- failure to successfully develop and commercialize our product candidates;
- changes in laws or regulations applicable to our products;
- inability to obtain adequate product supply for our product candidates, or the inability to do so at acceptable prices;
- adverse regulatory decisions;
- introduction of new products or technologies by our competitors;
- failure to meet or exceed product development or financial projections we provide to the public;
- the perception of the pharmaceutical industry by the public, legislatures, regulators and the investment community;
- announcements of significant acquisitions, strategic partnerships, joint ventures or capital commitments by us or our competitors;
- disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- additions or departures of key scientific or management personnel;
- significant lawsuits, including patent or stockholder litigation;
- changes in the market valuations of similar companies;
- sales of our common stock by us or our stockholders in the future; and
- trading volume of our common stock.

In addition, the stock market in general, and the NASDAQ Global Market in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance.

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

Prior to this offering, there has not been a public market for our common stock. Although our common stock has been approved for listing on the NASDAQ Global Market, 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, you may not be able to sell your shares quickly or at the market price. The initial public offering price for the shares will be determined by negotiations between us and representatives of the underwriters and may not be indicative of prices that will prevail in the trading market.

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

Our executive officers, directors, 5% stockholders and their affiliates beneficially own, as a group, approximately 81.8% of our voting stock. Based upon the assumed number of shares to be sold in this offering as set forth on the cover page of this prospectus, upon the closing of this offering, that same group will beneficially own approximately 47.7% of our outstanding voting stock, or 59.9% if our current stockholders purchase all of the approximately \$20.5 million in shares of common stock they

have indicated an interest in purchasing in this offering, based on an assumed initial public offering price of \$5.50 per share as set forth on the cover page of this prospectus. Further, John S. Stafford III, one of our directors, beneficially owns approximately 45.3% of our voting stock and his family members beneficially own approximately an additional 16.3% of our voting stock. Following the offering, Mr. Stafford and his family members will beneficially own approximately 35.0% of our voting stock, or 44.2% if they purchase all of the approximately \$15.0 million in shares of common stock they have indicated an interest in purchasing in this offering, based on an assumed initial public offering price of \$5.50 per share as set forth on the cover page of this prospectus.

Therefore, even after this offering our officers, directors and 5% stockholders and their affiliates, including Mr. Stafford, will have the ability to influence us through this ownership position and so long as they continue to beneficially own a significant amount of our outstanding voting stock. These stockholders, and Mr. Stafford, in particular, may be able to determine all matters requiring stockholder approval and this concentration of ownership may deprive other stockholders from realizing the true value of our common stock. For example, these stockholders, acting together, 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, offers for our common stock or other transactions or arrangements that you may believe are in your best interest as one of our stockholders.

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 JOBS Act. 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:

- being permitted to provide only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory
  audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements;
- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved.

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 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 billion in non-convertible debt during the prior three-year period.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards 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.

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. The Sarbanes-Oxley Act of 2002 (the Sarbanes-Oxley Act) as well as rules subsequently implemented by the Securities and Exchange Commission (SEC) and the NASDAQ Global Market have imposed various requirements on public companies. Public companies are subject to the requirements of Section 404 of the Sarbanes-Oxley Act. Section 404 requires management to establish and maintain a system of internal control over financial reporting and annual reports on Form 10-K filed under the U.S. Securities Exchange Act of 1934, as amended (Exchange Act) to contain a report from management assessing the effectiveness of a company's internal control over financial reporting. We will be required to comply with Section 404 of the Sarbanes-Oxley Act, although as an emerging growth company, we are not required to comply with Section 404(b) which requires attestation from our external auditors on our internal control over financial reporting. We will, however, be subject to Section 404(a) which requires management to provide a report regarding the effectiveness of internal controls. We will be reviewing all of our control processes to align them to the Section 404 requirements. Failure to provide assurance that our financial controls are effective could lead to lack of confidence by investors which could lead to a lower share price. When and if we are no longer an "emerging growth company," our independent registered public accounting firm will be required to attest to the effectiveness of our internal control over financial reporting. The rules governing the standards that must be met for management to assess our internal control over financial reporting are complex and require significant documentation, testing, and possible remediation. To comply with the requirements of being a reporting company under the Exchange Act, we may need to upgrade our systems including information technology, implement additi

In addition, in July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act (the Dodd-Frank Act) was enacted. There are significant corporate governance and executive compensation related provisions in the Dodd-Frank Act and in rules and regulations subsequently adopted by the SEC in areas such as "say on pay" and proxy access. Stockholder activism, the current political environment and the current high level of government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact (in ways we cannot currently anticipate) the manner in which we operate our business.

Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to incur substantial costs to maintain our current levels of such coverage.

Raising additional funds through debt or equity financing may be dilutive or restrict our operations and raising funds through licensing may require us to relinquish rights to our technology or product candidates.

To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of those securities could result in substantial dilution for our current stockholders and the terms may include liquidation or other preferences that adversely affect the rights of our current stockholders. Existing stockholders may not agree with our financing plans or the terms of such financings. Moreover, the incurrence of debt financing could result in a substantial portion of our operating cash flow being dedicated to the payment of principal and interest on such indebtedness

and could impose restrictions on our operations. Debt financing and preferred equity 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. In addition, if we raise additional funds through product development partnerships and licensing arrangements, it may be necessary to relinquish potentially valuable rights to our products or proprietary technologies, or grant licenses on terms that are not favorable to us. If we are unable to obtain additional funding on required timelines, we may be required to (1) seek collaborators for one or more of our product candidates at an earlier stage than otherwise would be desirable or on terms that are less favorable than might otherwise be available; (2) relinquish or license on unfavorable terms our rights to technologies or product candidates that we otherwise would seek to develop or commercialize ourselves; or (3) significantly curtail one or more of our research or development programs or cease operations altogether. Additional funding may not be available to us on acceptable terms, or at all.

The clinical development stage of our operations may make it difficult for you to evaluate the success of our business to date and to assess our future viability.

Our operations to date have been limited to organizing and staffing our company, business planning, raising capital, developing our proprietary XmAb technology platform, identifying potential product candidates, and conducting preclinical studies and clinical trials. We are conducting a Phase 1b/2a clinical trial for XmAb5871, but have not completed any late stage clinical trials for this or any other product candidate. We have not yet demonstrated our ability to successfully complete any Phase 2 or pivotal clinical trials, obtain regulatory approvals, manufacture a commercial scale product, or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful product commercialization. Consequently, any predictions you make about our future success or viability may not be as accurate as they could be if we were further advanced in development of our product candidates.

In addition, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors. We will need to transition at some point from a company with a research and development focus to a company capable of supporting commercial activities. We may not be successful in such a transition.

We expect our financial condition and operating results to continue to fluctuate significantly from quarter to quarter and year to year due to a variety of factors, many of which are beyond our control. Accordingly, you should not rely upon the results of any quarterly or annual periods as indications of future operating performance.

We have identified material weaknesses and a significant deficiency in our internal control over financial reporting. If our internal control over financial reporting is not effective, we may not be able to accurately report our financial results or file our periodic reports in a timely manner, which may cause investors to lose confidence in our reported financial information and may lead to a decline in our stock price.

Effective internal control over financial reporting is necessary for us to provide reliable financial reports in a timely manner. In connection with the audits of our financial statements for the years ended December 31, 2011 and 2012, we concluded that there were material weaknesses and a significant deficiency in our internal control over financial reporting. A material weakness is a significant deficiency, or a combination of significant deficiencies, in internal control over financial reporting such that it is reasonably possible that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. A significant deficiency is a deficiency or combination of deficiencies in internal control over financial reporting that is less severe than a material weakness, yet important enough to merit attention by those responsible for oversight of a company's financial reporting.

The material weaknesses our independent registered public accounting firm identified related to (1) a lack of sufficient staff with appropriate training in GAAP and the various rules and regulations with respect to financial reporting and (2) revenue recognition as it relates to properly recording negotiated terms and conditions in our product development partnerships and license agreements and the misapplication of GAAP with respect to the timing of the recognition of revenue for such agreements. The material weakness in our revenue recognition led to the restatement of our financial statements as of and for the year ended December 31, 2011. The significant deficiency related to adjustments to stock-based compensation and additional paid-in capital, although the amounts were individually and in the aggregate not material.

In an attempt to remediate our resource weakness and the significant deficiency, we have hired and we intend to hire additional finance and accounting personnel to augment our accounting staff and to provide more resources for complex GAAP accounting matters. In an attempt to remediate our revenue recognition weakness, we intend to review our revenue recognition policies and procedures, enhance training of our personnel with respect to such policies and procedures and devote additional resources to our revenue recognition, including by adding additional accounting staff with technical experience in revenue recognition arrangements similar to our product development partnerships and license agreements. However, we cannot assure you that these efforts will remediate our material weaknesses or significant deficiency in a timely manner, or at all, or prevent restatements of our financial statements in the future. If we are unable to successfully remediate our material weaknesses and our significant deficiency, or identify any future significant deficiencies or material weaknesses, the accuracy and timing of our financial reporting may be adversely affected, we may be unable to maintain compliance with securities law requirements regarding timely filing of periodic reports, and our stock price may decline as a result.

In addition, even if we remediate our material weaknesses, following the completion of this offering, we will be required to expend significant time and resources to further improve our internal controls over financial reporting, including by further expanding our finance and accounting staff. If we fail to adequately staff our accounting and finance function to remediate our material weaknesses and our significant deficiency or otherwise to meet the demands that will be placed upon us as a public company, including the requirements of the Sarbanes-Oxley Act of 2002, or fail to maintain adequate internal control over financial reporting, any new or recurring material weakness could prevent our management from concluding our internal control over financial reporting is effective and impair our ability to prevent material misstatements in our financial statements, which could cause our business to suffer.

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

Investors purchasing common stock in this offering will pay a price per share that substantially exceeds the pro forma book value (deficit) per share of our tangible assets after subtracting our liabilities. As a result, investors purchasing common stock in this offering will incur immediate dilution of approximately \$3.52 per share, based on an assumed initial public offering price of \$5.50 per share and our pro forma net tangible book value (deficit) as of September 30, 2013. For more information on the dilution you may suffer as a result of investing in this offering, see "Dilution."

This dilution is due to the substantially lower price paid by our investors who purchased shares prior to this offering as compared to the price offered to the public in this offering. In addition, as of September 30, 2013, options to purchase 1,803,685 shares of our common stock at a weighted-average exercise price of \$1.61 per share were outstanding. The exercise of any of these 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.

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

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

Substantially all of our existing stockholders are subject to lock-up agreements with the underwriters of this offering that restrict the stockholders' ability to transfer shares of our common stock for 180 days from the date of this prospectus, subject to certain exceptions. The lock-up agreements limit the number of shares of common stock that may be sold immediately following the public offering. Subject to certain limitations, including sales volume limitations with respect to shares held by our affiliates, substantially all of our outstanding shares prior to this offering will become eligible for sale upon expiration of the lock-up period, as calculated and described in more detail in the section entitled "Shares Eligible for Future Sale." During the lock-up period, John S. Stafford III, one of our directors and our largest stockholder, will also be permitted to pledge (and transfer pursuant to such pledge) up to 1,000,000 shares of our common stock currently held by him, which excludes any shares he purchases in this offering. In addition, certain affiliates of our directors and other principal stockholders have indicated an interest in purchasing an aggregate of approximately \$20.5 million in shares of our common stock in this offering at the initial public offering price. While shares held by these stockholders prior to this offering will be subject to the transfer restrictions set forth in these lock-up agreements, any shares of our common stock purchased by these stockholders in this offering, other than by John S. Stafford III or Oxford Biosciences Partner V L.P., will not be subject to such transfer restrictions. Shares issued or issuable upon exercise of options and warrants vested as of the expiration of the lock-up period will also be eligible for sale at the time the 180-day lock-up period expires. Sales of stock by these stockholders could have a material adverse effect on the trading price of our common stock.

Certain holders of our securities are entitled to rights with respect to the registration of their shares under the Securities Act of 1933, as amended (the Securities Act), subject to the 180-day lock-up arrangement described above. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock

Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to our equity incentive plans, could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to fall.

We expect that significant additional capital will be needed in the future to continue our planned operations. To the extent we raise additional capital by issuing equity securities, our stockholders may experience substantial dilution. We may sell common stock, convertible securities or other equity securities in one or more transactions at prices and in a manner we determine from time to time. If we sell common stock, convertible securities or other equity securities in more than one transaction, investors may be materially diluted by subsequent sales. These sales may also result in material dilution to our existing stockholders, and new investors could gain rights superior to our existing stockholders.

Pursuant to our 2013 equity incentive plan (2013 plan), our management is authorized to grant stock options and other equity-based awards to our employees, directors and consultants. The number of shares available for future grant under the 2013 plan will automatically increase each year by 4% of all shares of our capital stock outstanding as of December 31 of the prior calendar year, subject to the ability of our Board of Directors to take action to reduce the size of the increase in any given year. Currently, we plan to register the increased number of shares available for issuance under the 2013

plan each year. If our Board of Directors elects to increase the number of shares available for future grant by the maximum amount each year, our stockholders may experience additional dilution, which could cause our stock price to fall.

## We are at risk of securities class action litigation.

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

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

Our management will have broad discretion in the application of the net proceeds, including for any of the purposes described in "Use of Proceeds," and you will not have the opportunity as part of your investment decision to assess whether the net proceeds are being used appropriately. Because of the number and variability of factors that will determine our use of the net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. The failure by our management to apply these funds effectively could harm our business. Pending their use, we may invest the net proceeds from this offering in short-term, investment-grade, interest-bearing securities. These investments may not yield a favorable return to our stockholders.

#### Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

Under Section 382 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an "ownership change," generally defined as a greater than 50% change (by value) in its equity ownership over a three-year period, the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes (such as research tax credits) to offset its post-change income may be limited. We expect that, with our most recent private placement and other transactions that have occurred over the past three years, we will trigger an "ownership change" limitation and that our net operating losses and tax credit carryforwards will be limited as a result of this initial public offering. The limitation may result in the expiration of our net operating losses and credits before we can use them, which could potentially result in increased future tax liability to us.

We may also experience ownership changes in the future as a result of future offerings and other subsequent shifts in our stock ownership. As a result, if we earn net taxable income, our ability to use our pre-change net operating loss carryforwards to offset United States federal taxable income may be subject to limitations, which could potentially result in increased future tax liability to us.

#### We do not intend to pay dividends on our common stock so any returns will be limited to the value of our stock.

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

Provisions in our amended and restated certificate of incorporation and bylaws, as well as provisions of Delaware law, could make it more difficult for a third party to acquire us or increase the cost of acquiring us, even if doing so would benefit our stockholders or remove our current management.

Some provisions of our charter documents and Delaware law may have anti-takeover effects that could discourage an acquisition of us by others, even if an acquisition would be beneficial to our

stockholders and may prevent attempts by our stockholders to replace or remove our current management. These provisions include:

- authorizing the issuance of "blank check" preferred stock, the terms of which may be established and shares of which may be issued without stockholder approval;
- prohibiting stockholder action by written consent, thereby requiring all stockholder actions to be taken at a meeting of our stockholders;
- eliminating the ability of stockholders to call a special meeting of stockholders; and
- establishing advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted upon at stockholder meetings.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our Board of Directors, which is responsible for appointing the members of our management. In addition, we are subject to Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with an interested stockholder for a period of three years following the date on which the stockholder became an interested stockholder, unless such transactions are approved by our Board of Directors. This provision could have the effect of delaying or preventing a change of control, whether or not it is desired by or beneficial to our stockholders. Further, other provisions of Delaware law may also discourage, delay or prevent someone from acquiring us or merging with us.

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

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

#### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. The forward-looking statements are contained principally in the sections entitled "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business." These statements relate to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements include, but are not limited to, statements about:

- the success, cost and timing of our or our partners' product development activities and clinical trials;
- our ability to obtain and maintain regulatory approval of our product candidates, and any related restrictions, limitations, and/or warnings in the label of an approved product candidate;
- our ability to obtain funding for our operations, including funding necessary to complete the clinical trials of any of our product candidates;
- our plans to research, develop and commercialize our product candidates;
- our ability to attract and retain collaborators with development, regulatory and commercialization expertise;
- · the size and growth potential of the markets for our product candidates, and our ability to serve those markets;
- our ability to successfully commercialize our product candidates;
- the rate and degree of market acceptance of our product candidates;
- our ability to develop sales and marketing capabilities, whether alone or with potential future collaborators;
- regulatory developments in the United States and foreign countries;
- the performance of our third-party suppliers and manufacturers;
- the success of competing therapies that are or become available;
- the loss of key scientific or management personnel;
- our expectations regarding the period during which we qualify as an emerging growth company under the JOBS Act;
- our use of the proceeds from this offering;
- · the accuracy of our estimates regarding expenses, future revenues, capital requirements and needs for additional financing; and
- our expectations regarding our ability to obtain and maintain intellectual property protection for our product candidates.

In some cases, you can identify these statements by terms such as "anticipate," "believe," "could," "estimate," "expects," "intend," "may," "plan," "potential," "predict," "project," "should," "will," "would" or the negative of those terms, and similar expressions. These forward-looking statements reflect our management's beliefs and views with respect to future events and are based on estimates and assumptions as of the date of this prospectus and are subject to risks and uncertainties. We discuss many of these risks in greater detail under the heading "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. Given these uncertainties, you should not place undue reliance on these forward-looking statements.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in this prospectus by these cautionary statements.

Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.

#### USE OF PROCEEDS

We estimate that we will receive net proceeds of approximately \$62.6 million (or approximately \$72.4 million if the underwriters' over-allotment option is exercised in full) from the sale of the shares of common stock offered by us in this offering, based on an assumed initial public offering price of \$5.50 per share, and after deducting the 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 \$5.50 per share would increase (decrease) the net proceeds to us from this offering by approximately \$11.8 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 the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, a one million share increase (decrease) in the number of shares offered by us, as set forth on the cover of this prospectus, would increase (decrease) the net proceeds to us by approximately \$5.1 million, assuming the assumed initial public offering price of \$5.50 per share remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The principal purposes of this offering are to obtain additional capital to support our operations, to create a public market for our common stock and to facilitate our future access to the public equity markets. We anticipate that we will use the net proceeds of this offering as follows:

- approximately \$19.3 million to fund the continued clinical development of XmAb5871 through a planned Phase 2b clinical trial;
- approximately \$21.7 million to fund initial clinical development of XmAb7195 through a planned Phase 1b clinical trial;
- approximately \$15.8 million to fund product candidate discovery, technology development and patent prosecution activities; and
- the remainder for working capital and other general corporate purposes, including the additional costs associated with being a public company.

We may also use a portion of the net proceeds from this offering to in-license, acquire, or invest in complementary businesses, technologies, products or assets. However we have no current plan, commitments or obligations to do so.

We believe that the net proceeds from this offering and our existing cash and cash equivalents, together with interest thereon, will be sufficient to fund our operations through 2016. Even with the expected net proceeds from this offering, we do not expect to have sufficient cash to complete the clinical development of any of our product candidates or, if applicable, to prepare for commercializing any product candidate that is approved.

Our expected use of net proceeds from this offering represents our current intentions based upon our present plans and business condition. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering, or the amounts that we will actually spend on the uses set forth above. The amounts and timing of our actual use of the net proceeds will vary depending on numerous factors, including our ability to obtain additional financing, the progress, cost and results of our preclinical and clinical development programs, and whether we are able to enter into future product development partnerships and technology license arrangements. As a result, our management will have broad discretion in the application of the net proceeds, and investors will be relying on our judgment regarding the application of the net proceeds from this offering.

Pending their use, we plan to invest the net proceeds from this offering in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

# DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain all available funds and any future earnings to support our operations and finance the growth and development of our business. We do not intend to pay cash dividends on our common stock for the foreseeable future. Any future determination related to our dividend policy will be made at the discretion of our Board of Directors and will depend upon, among other factors, our results of operations, financial condition, capital requirements, contractual restrictions, business prospects and other factors our Board of Directors may deem relevant.

#### **CAPITALIZATION**

The following table sets forth our cash and cash equivalents and our capitalization as of September 30, 2013:

- on an actual basis;
- on a pro forma basis, giving effect to the conversion of all our outstanding convertible preferred stock outstanding as of September 30, 2013 into an aggregate of 16,620,274 shares of our common stock upon the effectiveness of the registration statement of which this prospectus is a part; and
- on a pro forma as adjusted basis, reflecting the pro forma adjustments discussed above and giving further effect to the sale by us of 12,730,000 shares of our common stock at an assumed initial public offering price of \$5.50 per share, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

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

	As of September 30, 2013						
		Actual Pro Forma (in thousands, except sl per share amoun (unaudited)			nousands, except share per share amounts)		
Cash and cash equivalents	\$	9,621	\$	9,621	\$	72,235	
Mezzanine equity:  Convertible preferred stock; \$0.01 par value:							
69,219,264 shares authorized, 51,523,206 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	\$	79,601	\$	_	\$	_	
Stockholders' equity (deficit):							
Preferred stock; \$0.01 par value:							
No shares authorized, issued or outstanding, actual; 10,000,000 shares authorized, no shares issued or outstanding, pro forma and pro forma as adjusted		_		_		_	
Common stock and additional paid-in capital; \$0.01 par value:							
77,765,553 shares authorized, 72,302 shares issued and outstanding, actual; 200,000,000 shares authorized, 16,692,576 shares issued and outstanding, pro forma; 200,000,000 shares authorized, 29,422,576 shares issued and							
outstanding, pro forma as adjusted		1		167		294	
Additional paid-in capital		148,838		228,273		290,760	
Accumulated deficit	(	(223,868)	(	(223,868)		(223,868)	
Total stockholders' equity (deficit)		(75,029)		4,572		67,186	
Total capitalization	\$	4,572	\$	4,572	\$	67,186	

<sup>(1)</sup> Each \$1.00 increase or decrease in the assumed initial public offering price of \$5.50 per share would increase or decrease, respectively, the amount of cash and cash equivalents, additional paid-in capital and total capitalization by approximately \$11.8 million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering costs payable by us.

The number of common shares shown as issued and outstanding in the table is based on the number of shares of our common stock outstanding as of September 30, 2013, and excludes:

- 1,803,685 shares of common stock issuable upon the exercise of outstanding stock options as of September 30, 2013, at a weighted-average exercise price of \$1.61 per share;
- 2,390,448 shares of common stock reserved for future issuance under the 2013 plan, which will become effective as of the date of the effectiveness of the registration statement of which this prospectus forms a part (including 880,771 shares of common stock reserved for issuance under our 2010 pre-IPO plan, which shares will be added to the shares reserved under the 2013 plan upon its effectiveness); and
- 267,741 shares of common stock reserved for future issuance under the 2013 purchase plan, which will become effective as of the date of the effectiveness of the registration statement of which this prospectus forms a part.

#### DILUTION

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

Our historical net tangible book value (deficit) as of September 30, 2013 was approximately \$(84.0) million, or \$(1,162.37) per share of common stock. Our historical net tangible book value (deficit) is the amount of our total tangible assets less our liabilities and convertible preferred stock which is not included within equity. Net historical tangible book value (deficit) per share is our historical net tangible book value (deficit) divided by the number of shares of common stock outstanding as of September 30, 2013. Our pro forma net tangible book value (deficit) as of September 30, 2013 was \$(4.4) million, or \$(0.27) per share of common stock. Pro forma net tangible book value (deficit) gives effect to the conversion of all of our outstanding convertible preferred stock as of September 30, 2013, into an aggregate of 16,620,274 shares of our common stock.

Pro forma as adjusted net tangible book value is our pro forma net tangible book value (deficit), plus the effect of the sale of 12,730,000 shares of our common stock in this offering at an assumed initial public offering price of \$5.50 per share, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. This amount represents an immediate increase in pro forma as adjusted net tangible book value of approximately \$2.25 per share to our existing stockholders, and an immediate dilution of approximately \$3.52 per share to new investors participating in this offering.

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

Assumed initial public offering price per share	\$ 5.50
Historical net tangible book value (deficit) per share as of September 30, 2013	\$ (1,162.37)
Pro forma increase in net tangible book value per share as of September 30, 2013 attributable to the	
conversion of convertible preferred stock	1,162.10
Pro forma net tangible book value per share as of September 30, 2013, before giving effect to this offering	(0.27)
Increase in pro forma net tangible book value per share attributable to new investors participating in this	
offering	2.25
Pro forma as adjusted net tangible book value per share after this offering	1.98
Dilution per share to new investors participating in this offering	\$ 3.52

A \$1.00 increase (decrease) in the assumed initial public offering price of \$5.50 per share would increase (decrease) the pro forma as adjusted net tangible book value (deficit) per share after this offering by approximately \$0.40 per share and the dilution per share to new investors participating in this offering by approximately \$0.60 per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, a one million share increase (decrease) in the number of shares offered by us, as set forth on the cover of this prospectus, would increase (decrease) the pro forma as adjusted net tangible book value (deficit) per share after this offering by approximately \$0.10 and the dilution in pro forma per share to investors participating in this offering by approximately (\$0.10), assuming the assumed initial public offering price of \$5.50 per share remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

If the underwriters exercise their over-allotment option in full to purchase additional shares of our common stock in this offering, the pro forma as adjusted net tangible book value will increase to \$2.17

per share, representing an immediate dilution of \$3.33 per share to new investors participating in this offering.

The foregoing discussion is based on 72,302 shares of common stock outstanding as of September 30, 2013, and excludes:

- 1,803,685 shares of common stock issuable upon the exercise of outstanding stock options at a weighted-average exercise price of \$1.61 per share;
- 2,390,448 shares of common stock reserved for future issuance under the 2013 plan, which will become effective as of the date of the effectiveness of the registration statement of which this prospectus is a part (including 880,771 shares of common stock reserved for issuance under our 2010 pre-IPO plan, which shares will be added to the shares reserved under the 2013 plan upon its effectiveness); and
- 267,741 shares of common stock reserved for future issuance under our 2013 purchase plan, which will become effective as of the date of the effectiveness of the registration statement of which this prospectus is a part.

Effective as of the date of the effectiveness of the registration statement of which this prospectus forms a part, an aggregate of 2,390,448 and 267,741 shares of our common stock will be reserved for issuance under the 2013 plan (including 880,771 shares of common stock reserved for issuance under our 2010 pre-IPO plan, which shares will be added to the shares reserved under the 2013 plan upon its effectiveness) and the 2013 purchase plan, respectively, and these share reserves will also be subject to automatic annual increases in accordance with the terms of the plans. Furthermore, we may choose to raise additional capital through the sale of equity or convertible debt securities 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 any of these options are exercised, new options are issued under our equity incentive plans or we issue additional shares of common stock or other equity or convertible debt securities in the future, there will be further dilution to investors participating in this offering.

Certain affiliates of our directors and other principal stockholders have indicated an interest in purchasing an aggregate of approximately \$20.5 million in shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders, or any of these stockholders may determine to purchase more, less or no shares in this offering. The foregoing discussion and tables do not reflect any potential purchases by these stockholders.

#### SELECTED FINANCIAL DATA

The following selected financial data should be read together with our financial statements and related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations" appearing elsewhere in this prospectus. The selected financial data in this section are not intended to replace our financial statements and the related notes. Our historical results are not necessarily indicative of the results that may be expected in the future and results of interim periods are not necessarily indicative of the results for the entire year.

The selected statement of operations data for the years ended December 31, 2011 and 2012 and the selected balance sheet data as of December 31, 2011 and 2012 are derived from our audited financial statements appearing elsewhere in this prospectus. The selected statement of operations data for the nine months ended September 30, 2012 and 2013 and the selected balance sheet data as of September 30, 2013 are derived from our unaudited financial statements appearing elsewhere in this prospectus. The unaudited financial statements have been prepared on a basis consistent with our audited financial statements included in this prospectus and include, in our opinion, all adjustments, consisting only of normal recurring adjustments, necessary for the fair presentation of the financial information in those statements.

	Year Ended December 31,				Nine Mont Septem					
	2011 2012			2011 2012 2012						2013
	(R	(in tho estated)	usano	ls, except sh	are a	and per share (unau				
Statement of Operations Data:										
Revenues	\$	6,849	\$	9,524	\$	7,099	\$	8,428		
Operating expenses:		40.660		40.000		0.505		40.055		
Research and development		12,663		12,668		8,725		12,857		
General and administrative		3,638		3,086		2,081		2,381		
Total operating expenses		16,301		15,754		10,806		15,238		
Loss from operations		(9,452)		(6,230)		(3,707)		(6,810)		
Other income (expenses)										
Interest income		34		11		11		7		
Interest expense		(1,850)		(2,461)		(1,811)		(1,212)		
Other income (expense)		65		86		24		15		
Loss on settlement of notes(1)		_		_		_		(48,556)		
Total other income (expenses), net		(1,751)		(2,364)		(1,776)		(49,746)		
Net loss		(11,203)		(8,594)		(5,483)		(56,556)		
Net deemed contribution on exchange and sale of preferred stock(2)		` _ ´		` _		` _		144,765		
Net income (loss) attributable to common stockholders	\$	(11,203)	\$	(8,594)	\$	(5,483)	\$	88,209		
Net income (loss) per share attributable to common stockholders(3):										
Basic	\$	(154.95)	\$	(118.86)	\$	(75.83)	\$	1,220.01		
Diluted	\$	(154.95)	\$	(118.86)	\$	(75.83)	\$	(4.10)		
Weighted average shares of common stock used in computing net income (loss) per share attributable to common stockholders:			·		-	<del></del> -	-			
Basic		72,302		72,302		72,302		72,302		
Diluted		72,302		72,302	_	72,302	_	13,794,138		
Pro forma net loss per share of common stock, basic and dilulted (unaudited)(4)			\$	(0.51)			\$	(0.48)		
Weighted average shares used in computing pro forma net loss per share of common stock, basic and diluted (unaudited)(4)				16,692,576			_	16,692,576		

<sup>(1)</sup> See note 3 to our interim financial statements appearing elsewhere in this prospectus for a description of the adjustment to net loss resulting from exchange of convertible notes for preferred stock.

<sup>(2)</sup> See notes 8 and 3 to our annual and interim financial statements, respectively, appearing elsewhere in this prospectus for a description of the deemed contribution on exchange and sale of preferred stock.

- (3) See notes 1 and 5 to our annual and interim financial statements, respectively, appearing elsewhere in this prospectus for a description of the method used to calculate basic and diluted loss per common share.
- (4) Pro forma net loss per share attributable to common stockholders excludes the impact of non-recurring items recognized in income attributable to common stockholders for the periods presented. We calculated pro forma weighted average shares outstanding for the nine months ended September 30, 2013 to give effect to the automatic conversion into shares of common stock, on a 3.1:1 basis, of all shares of convertible preferred stock outstanding at September 30, 2013. We calculated pro forma weighted average shares outstanding for the year ended December 31, 2012 to give effect to the automatic conversion into shares of common stock, on a 3.1:1 basis, of all shares of convertible preferred stock outstanding at September 30, 2013, which includes 13,666,071 shares of common stock issuable upon conversion of the shares of preferred stock received in connection with the exchange of our outstanding convertible promissary notes on June 13, 2013. We believe the calculation of pro forma shares described above is the most meaningful to investors, as such calculation represents the actual number of shares of common stock our notes became convertible into, and prior to the exchange of our convertible notes in June 2013, such notes were not convertible at the option of the holders, and the number of shares of common stock such notes were automatically convertible into upon an initial public offering was contingent on the public offering price, which was not known at the time of the conversion of the notes or applicable to the actual number of shares of common stock issued upon conversion of the notes.

Pro forma net loss attributable to common stockholders (in thousands):

	 ear Ended mber 31, 2012	 Months Ended ember 30, 2013
Net income (loss) attributable to common stockholders	\$ (8,594)	\$ 88,209
Loss on settlement of notes		48,556
Net deemed contribution on exchange and sale of preferred stock	_	(144,765)
Pro forma net loss attributable to common stockholders	\$ (8,594)	\$ (8,000)

Pro forma weighted average shares outstanding, basic and diluted:

	Year Ended December 31, 2012	Nine Months Ended September 30, 2013
Common stock	72,302	72,302
Preferred Stock	16,620,274	16,620,274
Pro forma weighted average shares outstanding, basic and diluted	16,692,576	16,692,576
Pro forma net loss per share of common stock, basic and diluted (unaudited)	\$ (0.51)	\$ (0.48)

	As of December 31,				As	of September 30,
	2011 2012					2013
	( D			(in thousand	ls)	( Pr. D
	(restated)	)				(unaudited)
Balance Sheet Data:						
Cash and cash equivalents	\$ 14,5	37	\$	2,312	\$	9,621
Working capital (deficit)	(11,5	50)		(22,640)		2,127
Patents, licenses, and other intangible assets, net	7,2	50		8,460		9,013
Total assets	22,3	74		11,659		20,206
Deferred revenue, less current portion	7,1	14		5,672		7,000
Convertible preferred stock	146,7	66		146,766		79,601
Total stockholders' deficit	(157,7	03)	(	(166,268)		(75,029)

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

The following discussion and analysis should be read in conjunction with "Selected Financial Data" and our financial statements and related notes included elsewhere in this prospectus. This discussion and analysis and other parts of this prospectus contain forward-looking statements based upon current beliefs, plans and expectations that involve risks, uncertainties and assumptions, such as statements regarding our plans, objectives, expectations, intentions and projections. Our actual results and the timing of selected events could differ materially from those anticipated in these forward-looking statements as a result of several factors, including those set forth under "Risk Factors" and elsewhere in this prospectus. You should carefully read the "Risk Factors" section of this prospectus to gain an understanding of the important factors that could cause actual results to differ materially from our forward-looking statements. Please also see the section entitled "Special Note Regarding Forward-Looking Statements."

# Overview

We are a clinical-stage biopharmaceutical company focused on discovering and developing engineered monoclonal antibodies to treat severe and life-threatening diseases with unmet medical needs. We use our proprietary XmAb technology platform to create next-generation antibody product candidates designed to treat autoimmune and allergic diseases, cancer and other conditions. In contrast to conventional approaches to antibody design, which focus on the portion of antibodies that interact with target antigens, we focus on the portion of the antibody that interacts with multiple segments of the immune system. This portion, referred to as the Fc domain, is constant and interchangeable among antibodies. Our engineered Fc domains, the XmAb technology, can be readily substituted for natural Fc domains. We believe our Fc domains enhance antibody performance by, for example, increasing immune inhibitory activity, improving cytotoxicity or extending circulating half-life, while maintaining 99.5% identity in structure and sequence to natural antibodies. By improving over natural antibody function, we believe that our XmAbengineered antibodies offer innovative approaches to treating disease and potential clinical advantages over other treatments.

Our business strategy is based on the plug-and-play nature of the XmAb technology platform to modify features of natural antibodies and create numerous differentiated antibody product candidates. We have internally generated a pipeline that has allowed us to selectively partner certain development programs while maintaining full ownership of other programs. We also have a number of technology licenses under which we have licensed the XmAb technology platform to pharmaceutical and biotechnology companies for use in a limited number of programs, providing multiple revenue streams that require no further resources from Xencor. There are currently five antibody product candidates in clinical trials that have been engineered with XmAb technology, including four candidates being advanced by licensees and development partners. At present, our XmAb technology platform is protected by 21 issued U.S. patents and 44 U.S. patent applications, in addition to foreign counterparts.

We were founded in 1997 based on protein engineering technology developed by our co-founders Bassil Dahiyat, Ph.D. and Stephen Mayo, Ph.D. at the California Institute of Technology. We began our first therapeutic monoclonal antibody engineering and discovery programs in 2002 and entered into our first XmAb technology license in 2004. Our product development partnerships and technology licenses have provided us with approximately \$60 million in cash during the last five years, and we have the potential to receive an aggregate of approximately \$1.3 billion in milestone payments, in addition to royalties on sales, upon successful development and commercialization of the programs contemplated by our product development partnership and technology license agreements. These potential milestone payments include \$240 million relating to the achievement of clinical development milestones.

We have no products approved for commercial sale and have not generated any revenues from product sales, and we continue to incur significant research and development expenses and other

expenses related to our ongoing operations. To date, we have funded our operations primarily through the sale of our convertible preferred stock, sale of convertible promissory notes and through payments generated from our product development partnership and licensing arrangements.

We have incurred losses in each year since our inception. Our net losses were \$56.6 million for the nine months ended September 30, 2013 and \$11.2 million and \$8.6 million for years ended December 31, 2011 and 2012, respectively. As of September 30, 2013, we had an accumulated deficit of \$223.9 million. Substantially all of our operating losses resulted from expenses incurred in connection with our product candidate development programs, our research activities and general and administrative costs associated with our operations.

We expect to continue to incur significant expenses and increasing operating losses for at least the next several years. In the near term, we anticipate that our expenses will increase as we:

- continue clinical development of our XmAb5871 program pursuant to our collaboration and option agreement with Amgen, Inc. (Amgen), which will
  require additional expenditures for clinical trials and toxicology studies to support the clinical trials, including the manufacture of additional supply of
  the product candidate;
- continue development of our XmAb7195 program, which will require expenditures for clinical trials and toxicology studies to support the clinical trials, including the manufacture of additional supply of the product candidate;
- continue research expenditures in developing and advancing our pre-clinical programs and investing in improving our antibody discovery platform and technologies; and
- provide general and administrative support for our operations.

# **Key Company Milestones**

*XmAb5871.* In December 2010, we entered into a Collaboration and Option Agreement with Amgen for an option for the acquisition by Amgen of exclusive rights to our XmAb5871 product candidate and received an \$11.0 million upfront payment. For more information on our agreement with Amgen, see the section entitled "Business—Product Development Partnerships, Other Commercial Agreements and Technology Licenses" beginning on page 101 of this prospectus. In January 2013, we initiated a Phase 1b/2a clinical trial for XmAb5871 and received a \$2.0 million milestone payment. We expect to have preliminary results from the Phase 1b/2a trial treating patients with rheumatoid arthritis with active disease on stable non-biologic DMARD therapy in the second half of 2014. We expect to initiate the Phase 2b proof-of-concept trial in the first half of 2015 and complete the trial and deliver the clinical trial package to Amgen in 2017, following which Amgen will have 90 days to review the data and exercise its option.

*XmAb7195.* We expect to file an investigational new drug application (IND) with the FDA for our XmAb7195 program in the first half of 2014 and to begin dosing subjects in a Phase 1a clinical trial. We expect to complete the initial Phase 1a clinical trial at the end of 2014. Further, we plan on initiating a Phase 1b clinical trial of XmAb7195 in healthy volunteers and in patients with mild-to-moderate asthma in early 2015.

*XmAb5574/MOR208*. In June 2010, we entered into a Collaboration and License Agreement with MorphoSys AG (MorphoSys) for the worldwide rights to our XmAb5574/MOR208 product candidate, for which we received an upfront payment of \$13.0 million in July 2010. MorphoSys initiated a Phase 2 clinical trial with XmAb5574/MOR208 in May 2013, treating patients with non-Hodgkin lymphoma (NHL) and a second Phase 2 clinical trial in April 2013 to treat patients with acute lymphoblastic leukemia (ALL). In conjunction with the initiation of these trials, we received two milestone payments totaling \$3.0 million. For more information on our agreement with MorphoSys, see the section entitled

"Business—Product Development Partnerships, Other Commercial Agreements and Technology Licenses" beginning on page 101 of this prospectus.

Preferred Stock Financing and Note Conversion Agreement

From our inception in 1998 through 2007, we completed the sale of five rounds of convertible preferred stock: Series A, Series B, Series C, Series D and Series E convertible preferred stock (Preferred Series A – E) for total proceeds of \$146.8 million, which amount is classified as mezzanine equity as of December 31, 2012 and September 30, 2012. In 2009 and 2010, we sold a total of \$15.1 million of convertible promissory notes (the Notes) to our existing preferred stockholders. The Notes originally carried an interest rate of 10.0% per annum and originally matured within 12 months of issuance. In 2011, the Notes were amended to extend the maturity date to December 31, 2012 and to increase the interest rate on the Notes to 12.5% per annum. In 2012 and 2013, the Notes were amended on multiple occasions to subsequently extend the maturity date to March 31, 2013, April 15, 2013 and finally to June 15, 2013. The Notes provided that, upon a change of control or other liquidation event, the outstanding principal and accrued interest of the Notes would be converted into shares of our Series E-1 convertible preferred stock, at a per share price of \$2.41, which would be entitled to payment of a liquidation preference equal to three times such per share price in priority to any liquidation payments to be made to any other series of convertible preferred stock or common stock. The principal amount of the Notes, together with accrued and unpaid interest, was \$18.5 million and \$20.9 million as of December 31, 2011 and 2012, respectively, and was shown as a current liability on our balance sheet for each such date.

In June 2013, our Board of Directors and the requisite holders of the Notes and requisite preferred stockholders agreed to a series of transactions to exchange the Notes and existing Preferred Series A – E for a new class of preferred stock, the Series A-1 convertible preferred stock, and also authorized the sale of up to \$10.0 million of Series A-1 convertible preferred stock to existing stockholders. The transaction was completed in the following steps:

- an exchange of the outstanding principal due on the Notes for shares of Series A-1 convertible preferred stock and cancellation of the accrued and unpaid interest thereon, pursuant to a Note Conversion Agreement;
- an exchange of the current outstanding shares of Preferred Series A E for Series A-1 convertible preferred stock pursuant to the operation of provisions in our certificate of incorporation, which was amended and restated in connection with this series of transactions;
- the sale of an additional \$7.6 million in Series A-1 convertible preferred stock to existing stockholders that closed in June 2013;
- the conversion of certain shares of Series A-1 convertible preferred stock into shares of Series A-2 convertible preferred stock at a conversion rate of 1 for 3, pursuant to a mandatory conversion provision in our amended and restated certificate of incorporation; and
- the sale of an additional \$2.4 million in Series A-1 convertible preferred stock to existing stockholders that closed in September 2013.

The primary business purpose for this series of transactions was to raise an additional \$10.0 million of capital from the sale of shares of our Series A-1 convertible preferred stock (the Financing). The exchange of Notes, cancellation of interest, restatement of our certificate of incorporation to effect the exchange of Preferred Series A – E for Series A-1 convertible preferred stock and the conversion of certain shares of Series A-1 convertible preferred stock for shares of Series A-2 convertible preferred stock were each negotiated aspects of, and conditions to, the Financing. When considering the terms for the Financing, our Board of Directors took these conditions into account and, ultimately, determined that the Financing was in the best interests of the Company and our stockholders.

Subsequent to approval of the Financing by our Board of Directors, the requisite stockholders and holders of the Notes also approved this series of transactions.

Under the terms of the Note Conversion Agreement, the total outstanding principal due on the Notes as of June 13, 2013 was exchanged for 45,902,321 shares of Series A-1 convertible preferred stock, 5,303,597 of which were subsequently converted into 1,766,097 shares of Series A-2 convertible preferred stock. We determined that the per share fair value of the shares of Series A-1 convertible preferred stock issued under the Note Conversion Agreement was \$1.54 and the total fair value of the shares of Series A-1 convertible preferred stock was \$70.7 million and we recognized a loss on the exchange of \$48.6 million for the difference in the fair value of the shares of Series A-1 convertible preferred stock and the carrying value of the Notes as of June 13, 2013. The \$48.6 million loss is reported on our Statement of Operations as a Loss on Settlement of Notes as an Other Expense for the nine months ended September 30, 2013. Associated transaction costs of \$41,000 related to the exchange were expensed.

After the exchange of the Notes, the outstanding shares of Preferred Series A – E were exchanged for 1,977,137 shares of Series A-1 convertible preferred stock, 257,409 of which were subsequently converted into 85,717 shares of Series A-2 convertible preferred stock. We determined the fair value of the shares of Series A-1 convertible preferred stock issued to be \$3.0 million and we recorded a deemed contribution to equity of \$140.6 million (net of original issuance costs of \$3.0 million) equal to the difference in the fair value of the shares issued and the carrying value of the existing shares of Preferred Series A – E.

On June 26, 2013 we sold 5,586,510 additional shares of Series A-1 convertible preferred stock to existing stockholders for gross proceeds of \$7.6 million at a purchase price of \$1.36 per share. We determined that the fair value of the shares sold to be \$8.6 million and we recorded a deemed dividend of \$1.0 million for the difference in the sales price of the Series A-1 convertible preferred stock and the fair value of the shares. The \$40,000 of transaction costs related to the sale was recorded against Additional Paid-in Capital and the shares of Series A-1 convertible preferred stock issued were recorded at their fair value on our balance sheet as of September 30, 2013.

We determined that the fair value of the Series A-1 and Series A-2 convertible preferred stock as of June 26, 2013 was \$1.54 and \$0.58, respectively. We used the probability-weighted expected return method (PWERM) to determine the fair value of the shares of the Series A-1 and Series A-2 convertible preferred stock. PWERM is a scenario-based analysis that estimates the 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.

On September 23, 2013 we sold 1,766,430 additional shares of Series A-1 convertible preferred stock for gross proceeds of \$2.4 million at a purchase price of \$1.36 per share. We determined the fair value of the shares of Series A-1 convertible preferred stock sold to be \$4.7 million, based on a per share fair value of \$2.69, and we recorded a deemed dividend of \$2.3 million for the difference in the sales price of the Series A-1 convertible preferred stock and the fair value of the shares. We determined the fair value of the Series A-1 convertible preferred stock as of September 23, 2013 by estimating the enterprise value of the Company based on a projected offering price in an initial public offering. The Company filed a confidential registration on September 11, 2013 and estimated a per share price as of September 23, 2013 of \$2.69 per share. Transaction costs of \$34,000 related to the sale were recorded against Additional Paid-in Capital and the shares of Series A-1 convertible preferred stock were recorded at their fair value on our balance sheet as of September 30, 2013.

The outstanding shares of Series A-1 convertible preferred stock and Series A-2 convertible preferred stock have an aggregate liquidation preference of \$150.0 million that will increase at 6% per annum and is payable to the holders of Series A-1 convertible preferred stock and Series A-2

convertible preferred stock upon a sale or other liquidation of the Company. The aggregate liquidation preference of our convertible preferred stock at September 30, 2013 was \$152.3 million.

The Series A-1 convertible preferred stock and Series A-2 convertible preferred stock are currently convertible into shares of common stock on a 3.1 for 1 basis, subject to adjustment if we issue additional equity at a price per share that is less than the per share price of the Series A-1 convertible preferred stock and Series A-2 convertible preferred stock, as applicable. All of the outstanding Series A-1 convertible preferred stock and Series A-2 convertible preferred stock will automatically convert into common stock effective as of the effectiveness of the registration statement of which this prospectus forms a part.

We have not adjusted the original fair values to the current liquidation preferences as of September 30, 2013 of the shares of the Series A-1 convertible preferred stock and Series A-2 convertible preferred stock because it is uncertain whether or not an event would occur that would obligate us to pay the preferred stock liquidation preferences to the holders of the Series A-1 convertible preferred stock and Series A-2 convertible preferred stock.

Because a deemed liquidation event and payment of the preferred stock liquidation preferences could occur outside the control of our management, we have classified all convertible preferred stock outside of stockholders' deficit for all periods presented.

#### **Financial Operations Overview**

#### Revenues

To date, we have not generated any revenues from product sales and do not expect to do so for the foreseeable future. Revenues to date have been generated primarily from our research and product development partnerships and technology licensing agreements. Since our inception through September 30, 2013, we have generated \$63.4 million in revenues under our various product development partnership and technology license arrangements. Several of our product development partnership and technology license agreements provide us the opportunity to earn future milestone payments, royalties on product sales and option exercise payments. However, receipt of future milestone payments and royalties from our collaborators and receipt of the Amgen option payment are not wholly within our control, and the parties to our product development partnerships and license agreements have the right to cancel their programs without any future payments to us. Even if we receive future milestones, royalties and option payments, these payments will not be sufficient to fund our operations in the near term and there is no assurance that we will generate any future revenues from our existing product development partnerships and license agreements. We may also not generate any product revenue from our existing clinical development programs or any of our preclinical development programs, as we may never succeed in obtaining regulatory approval or commercializing any of these programs.

#### Summary of Collaboration and Licensing Revenue by Partner

The following is a comparison of collaboration and licensing revenue for the years ended December 31, 2011 and 2012 and the nine months ended September 30, 2012 and 2013 (unaudited) (in millions):

						Nine N		ıs		
		Years Ended				Ended				
		Decem	ber 3	1,		Septen	ıber 3	30,		
	2	011	)11 2		2012		2	2012		013
Amgen	\$	2.0	\$	1.8	\$	1.4	\$	1.7		
MorphoSys		2.2		2.0		1.5		3.0		
CSL		1.3		1.8		1.8		2.0		
Janssen		1.0		1.4		_		_		
BI		_		1.2		1.3		_		
Merck		_		_		_		1.0		
Other		0.3		1.3		1.1		0.7		
Total	\$	6.8	\$	9.5	\$	7.1	\$	8.4		

#### Research and Development Expenses

Research and development expenses consist primarily of salaries, benefits, stock-based compensation and related personnel costs, supplies, facility costs and preclinical testing costs and fees paid to external service providers. External service providers include contract research organizations (CRO) and contract manufacturing organizations (CMO) to conduct clinical trials, manufacturing and process development, IND-enabling toxicology testing and formulation of clinical drug supplies. We expense research and development expenses as incurred. We account for nonrefundable advance payments for goods and services that will be used in future research and development activities as expense when the service has been performed or when the goods have been received. We estimate preclinical study and clinical trial expenses based on the services performed pursuant to the contracts with research institutions and clinical research organizations that conduct and manage preclinical studies and clinical trials on our behalf based on the actual time and expenses incurred by them. We accrue expenses related to clinical trials based on the level of patient enrollment and activity according to the related agreement. We monitor patient enrollment levels and related activity to the extent reasonably possible and adjust estimates accordingly. Our estimates of clinical trial expense have fluctuated on a period-to-period basis due to changes in the stage of the clinical trials and patient enrollment levels. We expect to experience a continuing pattern of fluctuations in clinical trial expenses as current clinical trials are completed and as we initiate the next stage of clinical trials. To date, we have not experienced significant differences between our periodic estimates of clinical trial expense and the actual costs incurred. We expect changes in future clinical trial expenses to be driven by changes in service provider costs and changes in clinical stage and patient enrollment. We have incurred a total of \$188.2 million in research

At this time, due to the risks inherent in the clinical development process and the early stage of our development programs, we are unable to estimate with any certainty the costs we will incur in the continued development of XmAb5871, XmAb7195 or any of our preclinical development programs. We expect that our research and development expenses may increase over spending levels in recent years if we are successful in advancing XmAb5871, XmAb7195 or any of our preclinical programs into advanced stages of clinical development. The process of conducting preclinical studies and clinical trials necessary to obtain regulatory approval is costly and time-consuming. We or our partners may never succeed in achieving marketing approval for any of our product candidates. Numerous factors may affect the probability of success for each product candidate, including preclinical data, clinical data, competition, manufacturing capability, approval by regulatory authorities and commercial viability.

Our research and development operations are conducted such that design, management and evaluation of results of all of our research and development is performed internally, while the execution of certain phases of our research and development programs, such as toxicology studies in accordance with Good Laboratory Practices (GLP), and manufacturing in accordance with current Good Manufacturing Practices (cGMP), is accomplished using CROs and CMOs. We account for research and development costs on a program-by-program basis except in the early stages of research and discovery, when costs are often devoted to identifying preclinical candidates and improving our discovery platform and technologies, which are not necessarily allocable to a specific development program. We assign costs for such activities to distinct projects for preclinical pipeline development and new technologies. We allocate research management, overhead, commonly used laboratory supplies and equipment, and facility costs based on the number of full-time research personnel allocated to each program.

The following is a comparison of research and development expenses for the years ended December 31, 2011 and 2012 and the nine months ended September 30, 2012 and 2013 (unaudited) (in millions):

	 Years Decem		En			Nine Months Ended September 30, 2012 201			
Product programs:									
XmAb5871	\$ 4.3	\$	5.1	\$	3.3	\$	5.7		
XmAb7195	1.8		2.6		1.8		4.3		
XmAb5574/MOR208	2.2		1.5		1.3		0.4		
Other	4.4		3.5		2.3		2.5		
Total research and development expenses	\$ 12.7	\$	12.7	\$	8.7	\$	12.9		

We initiated a Phase 1b/2a clinical trial of XmAb5871 in January 2013 and expect to initiate a Phase 1a clinical trial of XmAb7195 in the first half of 2014. All of our other programs are in preclinical development or are being developed by licensees or collaborators. The successful development of our current and future product candidates is highly uncertain and may not result in approved products. Completion dates and completion costs can vary significantly for each product candidate and are difficult to predict for each candidate. Given the uncertainty associated with clinical trial enrollment rates and the risks inherent in the development process, we are unable to determine the duration and completion costs of the current or future clinical trials of our product candidates or if, or to what extent, we will generate revenues from the commercialization and sale of any of our product candidates. We anticipate we will need to raise additional capital or may seek additional partnerships in the future in order to complete the development and commercialization of our product candidates.

#### General and Administrative Expenses

General and administrative expenses consist primarily of salaries and related benefits, including stock-based compensation related to our executive, finance, business development and support functions. Other general and administrative expenses include rent and utilities, travel expenses and professional fees for auditing, tax and legal services. We expect that general and administrative expenses may increase in the future as we advance our development programs further. In addition, general and administrative costs are expected to reflect increased costs associated with our becoming a public reporting company. We anticipate incurring one-time costs in 2013 associated with our initial public offering, consisting primarily of legal and accounting fees.

#### Other Income (Expense), Net

Other income (expense), net, consists primarily of interest expense incurred on our convertible promissory notes issued in 2009 and 2010, interest income and miscellaneous gains and losses on the sale of excess equipment. Other income (expense), net, for the period ended September 30, 2013 also reflects the loss of \$48.6 million we recognized on the exchange of the convertible notes for preferred stock as described further in Note 8 to our audited financial statements and Note 3 to our interim unaudited financial statements included in this prospectus.

#### Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our financial statements which we have prepared in accordance with U.S. generally accepted accounting principles (GAAP). In preparing our financial statements, we are required to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. We have identified the following accounting policies that we believe require application of management's most subjective judgments, often requiring the need to make estimates about the effect of matters that are inherently uncertain and may change in subsequent periods. Our actual results could differ from these estimates and such differences could be material.

While our significant accounting policies are described in more detail in Note 1 of our audited financial statements included elsewhere in this prospectus, we believe the following accounting policies to be critical to the judgments and estimates used in the preparation of our financial statements.

#### Revenue Recognition

We have, to date, earned revenue from research collaborations, which may include research and development services, licenses of our internally-developed technologies, or a combination of both. We recognize revenue when all of the following criteria are met: persuasive evidence of an arrangement exists, transfer of or access to technology has been completed or services have been rendered, our price to the customer is fixed or determinable, and collectability is reasonably assured. The terms of our license and research and development agreements include nonrefundable upfront payments and license fees, milestone and other contingent payments to us for the achievement of defined collaboration objectives, and certain clinical, regulatory and sales-based events, as well as royalties on sales of any commercialized products. The terms of our licensing agreements include non-refundable upfront fees, annual licensing fees and contingent payments and milestones for the achievement of pre-defined preclinical, clinical, regulatory and sales-based events by our partners. The licensing agreements also include royalties on sales of any commercialized products by our partners.

# Multiple-Element Revenue Arrangements

Certain of our product development partnership and technology license agreements represent multiple-element revenue arrangements. To account for such transactions, we determine the elements, or deliverables, included in the arrangement and determine which deliverables are separate units for accounting purposes. We consider delivered items to be separate units of accounting if the delivered items have stand-alone value to the customer. If the delivered items are separate units we allocate the consideration received or due under the arrangement to the various elements based on each element's relative selling price. The identification of individual elements in a multiple-element arrangement and the estimation of the selling price of each element involve significant judgment, including consideration as to whether each delivered element has standalone value to the customer. We determine the estimated selling price for deliverables within each arrangement using vendor-specific objective evidence

(VSOE) of selling price, if available, or third-party evidence of selling price if VSOE is not available, or our best evidence of selling price if neither VSOE nor third-party evidence is available. Determining the best estimate of selling price for a deliverable requires significant judgment. The basis of our estimate of selling price is the arm's length negotiation with the licensee that occurs in each transaction. The potential value of our technology to a licensee in a transaction depends on a variety of factors unique to each transaction. Factors that impact the negotiation and hence that we consider in our estimates center on the specific product candidate and include: the product candidate's potential market size, the product candidate's stage of development, the existence of competitive technologies that could be substituted for ours by the licensee and the scientific assessment of the product candidate's likelihood of success at various development stages. The most common deliverable is the commercial license for our technology in the product candidate, and frequently a research license with an option for commercial license. The upfront payments, annual license fees, milestones and royalties relate to these licenses and/or options and depend on the product-specific factors described above. The other significant deliverable is research and development services and the price for these depends on estimates for our personnel and supply costs and the costs of third-party contract research organizations necessary to support the services.

We use our best estimate of selling price to estimate the selling price for licenses to our technologies and product candidates and our research and development services, since we do not have VSOE or third-party evidence of selling for these deliverables. We recognize consideration allocated to an individual element when all other revenue recognition criteria are met for that element. Our multiple-element revenue arrangements generally include the following:

- *License Arrangements:* The deliverables under our product development partnership and technology license agreements generally include exclusive or non-exclusive licenses to one or more of our technologies. The technologies can be applied to a collaborator's product candidates for discovery, development, manufacturing and commercialization. We will also enter into agreements for the exclusive or non-exclusive licenses to our internally developed product candidates. To account for this element of the arrangement, we evaluate whether the exclusive or non-exclusive license has standalone value apart from the undelivered elements to the collaborator, which generally include research and development services or options for commercial licenses, based on the consideration of the facts and circumstances of each arrangement, including the research and development capabilities of the collaborator and other market participants. We recognize arrangement consideration allocated to licenses upon delivery of the license, if the facts and circumstances indicate the license has standalone value apart from the undelivered elements. If facts and circumstances indicate that the delivered license does not have standalone value from the undelivered elements, we recognize the revenue as a combined unit of accounting. In those circumstances we recognize revenue from non-refundable upfront fees in the same manner as the undelivered item(s), which is generally the period over which we provide research and developments services.
- Research and Development Services: The deliverables under our product development partnership and technology license arrangements may include deliverables related to research and development services we perform on behalf of the collaborator. As the provision of research and development services is an integral part of our operations and we may be principally responsible for the performance of these services under the agreements, we recognize revenue on a gross basis for research and development services as we perform those services. Additionally, we recognize research related funding under collaboration research and development efforts as revenue as we perform or deliver the related services in accordance with contract terms.

*Milestone Revenue:* Our product development partnership and technology license agreements generally include contingent payments and milestone payments related to specific research, development and regulatory milestones and sales-based milestones. Research, development and

regulatory contingent payments and milestone payments are typically payable under our collaborations when our collaborator selects a compound, or initiates or advances a covered product candidate in preclinical or clinical development, upon submission for marketing approval of a covered product with regulatory authorities, upon receipt of actual marketing approvals of a covered product or for additional indications, or upon the first commercial sale of a covered product. Sales-based milestones are typically payable when annual sales of a covered product reach specific levels. At the inception of each arrangement that includes milestone payments, we evaluate whether each milestone is substantive and at risk to both parties based on the basis of the contingent nature of the milestone. We evaluate factors such as scientific, regulatory, commercial and other risks that we must overcome to achieve the respective milestone, whether the milestone consideration is reasonable relative to all deliverables and payment terms in the arrangement in making this assessment and whether the milestone payment relates solely to past performance.

We have elected to adopt the Financial Accounting Standards Board (FASB) Accounting Standards Update 2010-17, *Revenue Recognition—Milestone Method*, such that we recognize any payment that is contingent upon the achievement of a substantive milestone entirely in the period in which the milestone is achieved. A milestone is defined as an event that can only be achieved based in whole or in part on either on our performance, or the performance of our collaborators, or the occurrence of a specific outcome resulting from our past performance for which there is a substantive uncertainty at the date the arrangement is entered into that the event will be achieved.

# Capitalized Intellectual Property Costs

We capitalize and amortize third-party intellectual property costs such as amounts paid to outside patent counsel for filing, prosecuting and obtaining patents for our internally developed technologies and product candidates, to the extent such patents are deemed to have probable future economic benefit. We also capitalize amounts paid to third parties for licenses that we acquire for intellectual property or for research and development purposes. The total capitalized patents, licenses and other intangible assets as of December 31, 2011 and 2012 was \$7.3 and \$8.5 million, respectively. The total capitalized patents, licenses and other intangible assets as of September 30, 2013 was \$9.0 million. We believe that these costs should be capitalized as the intellectual property portfolio is the underlying property right to our technologies and product candidates and supports the upfront payments, licensing fees, and milestone payments made by our collaboration partners for licensing our technologies and product candidates.

We begin amortization of capitalized patent costs during the period that we obtain a patent relating to the capitalized cost over the shorter of the patent life or the estimated economic useful life. Capitalized licensing costs are amortized beginning in the period that access to the license or technology is available and is amortized over the shorter of the license term or the estimated economic useful life of the licensed asset. Such amortization is reflected in the General and Administrative section of our Statement of Operations.

On a regular basis we review the capitalized intellectual property portfolio and determine if there have been changes in the scientific or patent landscape that leads us to decide to abandon an in-process patent application or abandon a previously issued patent. While we confer with outside patent counsel, the decision to continue prosecuting certain patent claims or abandon other claims are made by us based on our judgment and existing knowledge of our technology, current U.S. and foreign patent authority rulings and expected rulings, and scientific advances and patent filings by competitors operating in our technology or drug development field. We record an expense for previously capitalized intangible assets in the period that the decision to abandon a claim or license is made. We also review the carrying value of capitalized licensing costs on a regular basis to determine if there have been any changes to the useful life or estimated amortization period over which the costs are being amortized. We recorded a charge for previously abandoned intangible assets of \$1.2 million and \$0.4 million for

the years ended December 31, 2011 and 2012, respectively, and recorded a charge for previously abandoned intangible assets of \$0.2 million for the nine months ended September 30, 2013. Such charges are reflected in the General and Administrative section of our Statement of Operations.

ASC 360 requires us to determine if there has been an impairment of our intangible assets which include the capitalized patent and licensing costs whenever events such as recurring operating losses or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. We evaluated the undiscounted cash flows related to the patent portfolio and determined that the future undiscounted cash flows exceeded the carrying value of the assets as of December 31, 2012. We individually evaluated the undiscounted cash flows and the potential for impairment for the three technology categories of our patent assets (IIb, ADCC and Xtend) by modeling the cash flows from our lead internal product development programs, XmAb5871 and XmAb7195, and licensed programs that use each particular category of patent asset. We used multiple published sources of pharmaceutical development-stage product failure rates to estimate failure rates at each stage of clinical development in order to apply a probability weighting to cash flows for each internal and licensed program.

# Preferred Stock Financing and Note Conversion Agreement

In June 2013, our Board of Directors and the requisite holders of the Notes and requisite holders of our preferred stock, agreed to exchange the Notes and their shares of Preferred Series A – E for shares of Series A-1 convertible preferred stock. Our Board of Directors and stockholders also authorized a sale of up to \$10.0 million in shares of Series A-1 convertible preferred stock to our existing stockholders at a purchase price of \$1.36 per share.

This series of transactions, as described further above, was between the company and our existing stockholders. Under ASC 470-50-40, the exchange of Notes for shares of preferred stock was treated as an extinguishment of debt and we recognized a loss on the Note exchange of \$48.6 million for the nine months ended September 30, 2013. The exchange of shares of Preferred Series A – E for shares of Series A-1 convertible Preferred stock was treated as a redemption of the shares of Preferred Series A – E and we recognized a deemed contribution to equity of \$140.6 million (net of original issuance costs of \$3.0 million related to shares of Preferred Series A – E) for the nine months ended September 30, 2013.

Both the loss on the exchange of the Notes and the deemed contribution from the exchange of Preferred Series A – E were based on our estimate of the per share fair value of the shares of Series A-1 convertible preferred stock of \$1.54. This estimate was determined in accordance with the guidelines under FASB ASC 718 and ASC 820. We used the valuation in determining our enterprise value for us and the probability weighted expected exit scenarios of the Company as of the date of the exchange. The assumptions for the valuation are based on our judgment and understanding of our business and our probability to have a successful exit in an initial public offering or through a sale of the Company.

On September 23, 2013 we sold 1,766,430 additional shares of Series A-1 convertible preferred stock for gross proceeds of \$2.4 million at a purchase price of \$1.36 per share. We determined the fair value of the shares of Series A-1 convertible preferred stock to be \$4.7 million based on a per share fair value of \$2.69, which was based upon an estimate of the enterprise value of the Company using a projected offering price in an initial public offering, and we recorded a deemed dividend of \$2.3 million for the difference in the sales price of the Series A-1 convertible preferred stock and the fair value of the shares. We determined the fair value of the Series A-1 convertible preferred stock as of September 23, 2013 taking into account all material facts and circumstances known to us as of the date of the sale of Series A-1 preferred stock on September 23, 2013 including the independent third party valuation of August 15, 2013 and subsequent changes in our operations, prospects and expected operating results.

#### Cross License with Related Party

In December 2012, we entered into a Cross-License Agreement with MedImmune, LLC (MedImmune), an affiliate of MedImmune Ventures, Inc., one of our 5% or greater stockholders. We provided MedImmune with a research license to one of our technologies and options to a limited number of worldwide, royalty-free exclusive licenses, subject to review and approval by us. In exchange, MedImmune provided us with a worldwide, non-exclusive, royalty-free license to certain patent rights. The transaction is a non-monetary transaction as provided under ASC 845-10.

We could not determine a fair value of the MedImmune patent rights received by us with reasonable certainty and established a fair value for the transaction by estimating the fair value of the license and options provided by us to MedImmune. We estimated the fair value of the license and options transferred to be approximately \$0.8 million. This amount was recognized as licensing revenue for the year ended December 31, 2012 and was capitalized and will be amortized over the remaining life of the MedImmune patent rights. Our estimate was based on a risk adjusted discounted cash flow analysis that is associated with the rights and options transferred to MedImmune. In determining this estimate, we compared the license and options rights transferred to MedImmune with comparable arms-length licensing and option transactions we have entered into with third parties in recent years. The calculation of the fair value is based on our experience and judgment with similar transactions. However, as each license and option is unique to the licensee and depends on the target, the potential market and the ability of the licensee to successfully advance a compound into clinical development, the actual value of the licenses and options could differ from the amount we estimated to be the fair value.

# Accrued Research and Development Expenses

As a result of contractual and timing differences in payment terms, we are required to make estimates of our accrued expenses as of each balance sheet date in our financial statements based on the facts and circumstances known to us at that time. Our expense accruals for clinical trials are based on estimates of the fees associated with services provided by clinical trial investigational sites and CROs. Payments under some of the contracts we have with such parties depend on factors such as successful enrollment of patients, site initiation and the completion of clinical trial milestones.

#### **Stock-Based Compensation**

We account for stock-based compensation expense related to stock options granted to employees and members of our Board of Directors by estimating the fair value of each stock option at the date of the grant using the Black-Scholes option-pricing model. For awards subject to time-based vesting conditions, we recognize stock-based compensation expense ratably over the vesting period of the options.

We recognized insignificant stock-based compensation expense as follows for the period indicated:

	Year I	Ended	Nine N	<b>Ionths</b>		
	Decem	ber 31,	Ended September 30			
	2011	2012	2012	2013		
Research and development	\$ (33,600)	\$ 10,000	\$ 8,000	\$ 28,100		
General and administrative	(23,500)	19,000	14,200	26,300		
Total stock-based compensation	\$ (57,100)	\$ 29,000	\$ 22,200	\$ 54,400		

Stock-based compensation expense for 2011 was negative because we recorded a reversal in 2011 of a previous stock compensation charge for an award issued to one of our executives prior to 2011.

#### **Key Assumptions**

We utilize the Black-Scholes option-pricing model, which requires the input of highly subjective assumptions, including the risk-free interest rate, the expected dividend yield of our common stock, the expected volatility of the price of our common stock and the expected life of the option. These estimates involve inherent risk and uncertainties and the application of management's judgment. If factors change and different assumptions are used, our stock-based compensation expense could be materially different in the future.

The fair value of options granted is estimated at the date of grant using the Black-Scholes option pricing model and the following assumptions:

	Year Ei Decemb		Nine Mo Ended Septe	
	2011	2012	2012	2013
Expected volatility	63.7%	63.7%	63.7%	56.8%
Risk-free interest rate	2.7	2.7	2.7	1.96
Expected term (in years)	6.0	6.0	6.0	5.4
Expected dividend yield	0.0	0.0	0.0	0.0

- Risk-free interest rate: The risk-free interest rate assumption is based on the U.S. Treasury instruments whose term was consistent with the expected option term of our stock options.
- *Expected Dividend Yield:* The expected dividend yield assumption is based on the fact that we have never paid cash dividends and have no present intention to pay cash dividends. Consequently, we used an expected dividend of zero.
- *Expected Volatility:* The expected stock price volatility is estimated by taking the average historic price volatility of industry peers and adjusting for differences in our life cycle and financing leverage. Our industry peers consist of several public companies in the biopharmaceutical industry.
- Expected life: We determine the average expected life of stock options based on the simplified method in accordance with SEC Staff Accounting Bulletin Nos. 107 and 110, as our common stock to date has not been publicly traded. We expect to continue to use the simplified method until we have sufficient historical exercise data to provide a reasonable basis upon which to estimate expected term.

# Valuation of Stock-Based Compensation

We record the fair value of stock options issued to employees as of the grant date as compensation expense over the service period. We recognize compensation expense over the requisite service period, which is equal to the vesting period. For non-employees, we also record the fair value of stock options as of the grant date as compensation expense over the service period. We then periodically re-measure the awards to reflect the current fair value at each reporting period until the non-employee completes the performance obligation or the date on which a performance commitment is reached. Expense is recognized over the related service period.

We calculate the fair value of stock-based compensation awards using the Black-Scholes option-pricing model. The Black-Scholes option-pricing model requires the use of subjective assumptions, including volatility of our common stock, the expected term of our stock options, the risk free interest rate for a period that approximates the expected term of our stock options and the fair value of the

underlying common stock on the date of grant. In applying these assumptions, we considered the following factors:

- We do not have sufficient history to estimate the volatility of our common stock price. We calculate expected volatility based on reported data for selected reasonably similar publicly traded companies for which the historical information is available. For the purpose of identifying peer companies, we consider characteristics such as industry, length of trading history, similar vesting terms and in-the-money option status. We plan to continue to use the guideline peer group volatility information until the historical volatility of our common stock is relevant to measure expected volatility for future option grants.
- The assumed dividend yield is based on our expectation of not paying dividends for the foreseeable future.
- We determine the average expected life of stock options based on the simplified method in accordance with SEC Staff Accounting Bulletin Nos. 107 and 110, as our common stock to date has not been publicly traded. We expect to continue to use the simplified method until we have sufficient historical exercise data to provide a reasonable basis upon which to estimate expected term.
- We determine the risk-free interest rate by reference to implied yields available from U.S. Treasury securities with a remaining term equal to the
  expected life assumed at the date of grant.
- We estimate forfeitures based on our historical analysis of actual stock option forfeitures.

# Common Stock Fair Value

The following table lists outstanding stock options previously granted by our Board of Directors, together with the intrinsic value of such outstanding options based on an assumed initial offering price of \$5.50:

	Number of Common Shares Underlying	- 1	otion Exercise Price per Fair Value per				Intrinsic Value per
Grant Date	Options Granted	anted Common Share			ommon Share	C	ommon Share
January 2010—February 2010	201,684	\$	0.59	\$	0.59	\$	4.91
July 2010*	896,854	\$	0.59	\$	0.59	\$	4.91
August 2010—November 2010	206,352	\$	0.59	\$	0.59	\$	4.91
February 2011—April 2012	3,995	\$	0.59	\$	0.59	\$	4.91
September 2012	58,289	\$	0.59	\$	0.59	\$	4.91
September 2013	502,062	\$	4.25	\$	4.25	\$	1.25

<sup>\*</sup> Our Board of Directors approved an exchange of all then-outstanding options that had exercise prices in excess of \$0.59 per share for new options, priced at \$0.59 per share on July 28, 2010. Prior to 2010, options had been granted at strike prices ranging from \$2.33 per share to \$91.82 per share; the total number of options issued in the exchange was 896,854 shares.

The fair value of our common stock for purposes of determining the exercise price for stock option grants was determined on each grant date by our Board of Directors, with input from management. All options to purchase shares of our common stock were intended to be granted with an exercise price per share not less than the fair value per share of our common stock underlying those options on the date of grant, determined in good faith and based on the information known to us on the date of grant. In the absence of a public trading market for our common stock, on each grant date, our Board of Directors, or a committee of our Board of Directors acting under delegated authority,

considered various objective and subjective factors, along with input from management, to determine the fair value of our common stock, including:

- external market conditions affecting the biotechnology industry;
- trends within the biotechnology industry including the state of the initial public offering market for similarly situated privately held biotechnology companies;
- the valuation of publicly traded companies in the life sciences and biotechnology sectors, as well as recently completed mergers and acquisitions of peer companies;
- · our stage of development and business strategy and the material risks related to our business and industry;
- the achievement of enterprise milestones, including entering into product development partnerships and license agreements, and the likelihood of entering into such agreements;
- the prices at which we sold shares of preferred stock to third-party investors;
- the superior rights and preferences of the preferred stock relative to our common stock at the time of each grant;
- our results of operations, financial position, status of our research and development efforts, stage of development and business strategy;
- the lack of liquidity of our common stock as a private company; and
- the likelihood of achieving a liquidity event in light of prevailing market conditions, such as an initial public offering or sale of the Company.

#### Common Stock Valuation Methodologies

We utilized unrelated third-party valuation specialists to assist us in preparing the December 18, 2009, December 31, 2012, June 26, 2013 and August 15, 2013 valuations in accordance with the guidelines in the American Institute of Certified Public Accountants, or AICPA, Audit and Accounting Practice Aid Series: Valuation of Privately Held Company Equity Securities Issued as Compensation, or AICPA Practice Guide (the Practice Aid) which prescribes several valuation methodologies for setting 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.

Methods Used to Determine Enterprise Value

We used the following methods to determine our enterprise value:

- December 18, 2009: In 2007, we determined our enterprise value based upon the sale of shares of our Series E convertible preferred stock primarily to unrelated investors. We determined our 2009 enterprise value by updating the 2007 valuation for interim changes in the marketplace and the Company's performance, the issuance by us of convertible debt and the then-current public market for shares of early clinical-stage biopharmaceutical companies. We viewed this approach as appropriate for estimating the enterprise value as of December 18, 2009 because our operations had not substantially changed since 2007 and were not expected to change in the near future, as well as the fact that alternative options to continue funding our operations were not readily available.
- December 31, 2012, June 26, 2013 and August 15, 2013: For these valuations, we determined the enterprise value using two methods. We used an initial public offering exit scenario in which the median total invested capital of comparable publicly traded companies was utilized for estimating our enterprise value. We also used an alternative exit strategy scenario under which

the discounted cash flow approach was utilized for estimating the enterprise value. These two approaches to establishing the enterprise value were then weighted as described more fully below.

The significant assumption used in the initial public offering exit scenario was the composition of comparable biotechnology public companies whose technologies and lead clinical candidates were primarily in Phase 1 and Phase 2 clinical development. The significant assumptions used in the discounted cash flow scenario were:

- the likelihood of success or failure of key clinical developments and milestone payments related to those developments;
- · a discount rate of 20% which reflects the expected rates of returns for observed comparable public companies adjusted for Company-specific risk; and
- the expected economic life of the Company-developed technologies and related intellectual property.

We viewed these two approaches as appropriate because our results of operations since the 2009 valuation, which included significant new licensing transactions and scientific developments, when combined with changes in the public markets for comparable companies, indicated that our potential exit strategies had changed.

We then considered the likelihood of the two scenarios at each valuation date, and applied a probability weighting to the applicable enterprise value to determine one enterprise value at each valuation date.

- For the valuation dated December 31, 2012, we determined the probability of an initial public offering to be 10% and an alternative exit to be 90%. During 2012, we discussed the possibility of an initial public offering with underwriters and were advised that, based on the stage of the Company and its development programs, an initial public offering within the next 12-18 months was unlikely given current market conditions. Based on our financial position and financing needs, an alternative exit was considered. We explored alternative exit strategies over the next few months including possible strategic sales or mergers.
- For the valuation dated June 28, 2013, we determined the probability of an initial public offering to be 10% and alternative exit strategies to be 90%. In the first half of 2013 we held discussions with strategic partners to consider alternative exit strategies including a sale or merger. We also continued discussions with investment bankers on the possibility of an initial public offering but the probability of an initial public offering as of the valuation date did not change from the December 31, 2012 valuation. During the first half of 2013, the Company completed a recapitalization of its capital structure and sold additional preferred shares to existing shareholders and our Board of Directors approved a plan to have the Company file a Form 10 Registration Statement to become a public reporting company.
- For the valuation dated August 15, 2013, we determined the probability of an initial public offering to be 50% and the probability of an alternative exit to be 50%. The changes that caused the increase in the probability from June 2013 were the new business development agreements that the Company entered into in the first half of 2013 and the continued progress that a collaborative partner made with its development program. This transaction generated cash proceeds to the Company, expanded the Company's business portfolio by way of advancing the development of a key program and therefore increased the potential value of our technology. This growth in our business corresponded with a change in the public markets' willingness to invest in earlier stage biotechnology development companies, which when combined, provided us with an opportunity to engage investment bankers to explore an initial public offering for 2013.

Methods Used to Allocate Our Enterprise Value to Classes of Securities

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

- Option Pricing Method: Under the option pricing method (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 values of the preferred and common stock are inferred by analyzing these options.
- Probability-Weighted Expected Return Method: The probability-weighted expected return method (PWERM), is a scenario-based analysis that
  estimates the 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.

We estimated the per share common stock fair value by allocating the enterprise value using the OPM for the December 18, 2009 valuation and using the PWERM for the December 31, 2012, June 26, 2013 and August 15, 2013 valuations.

#### December 18, 2009 Valuation

The valuation analysis as of December 18, 2009 identified two primary components of our business: development of our proprietary technologies for developing our therapeutic antibody candidates and the arrangements with our collaborators. The valuation was conducted using the OPM recommended in the Practice Aid. In this method, the fair value of our Company and our equity interests is based on the Capital Option Method, which allocates the fair value of our enterprise between our various sources of capital, including our common stock, the five classes of preferred stock, convertible promissory notes and, options to purchase common stock, using option pricing theory. Financial theory supports the notion that interests in the capital of an enterprise can be viewed as a basket of puts and calls on the firm's capital. In short, the expected payouts on each component of a firm's capital structure can be replicated or synthesized by a basket of options whose payout mimics that of the capital instrument. The key to this method is the creation of a synthetic version of each class of capital instruments issued by us, using a series of call options on the Company's equity value. Based on the OPM calculated as of December 31, 2009, we estimated the value of our common stock to be \$0.59 per share.

Following December 18, 2009, our Board of Directors made the grants set forth in the following table, in each case at a price of \$0.59 per share, which our Board of Directors determined was equal to or greater than the fair market value of our common stock as of the respective date of grant. In determining the fair market value of our common stock, our Board of Directors took into account all material facts and circumstances known to our Board of Directors as of the date of the grant, including but not limited to (a) our earnings/loss history and financial performance, (b) our current prospects and expected operating results (including but not limited to the present value of our anticipated future cash flows), (c) the value of our tangible and intangible assets, (d) recent material events in our operations, (e) the market value of stock or equity interests in similar corporations and other entities engaged in trades or businesses substantially similar to those engaged in by us and whose stock or equity interests can be valued through nondiscretionary, objective means (such as through trading prices on an

established securities market or an amount paid in an arm's length private transaction) and (f) such other items as our Board of Directors deemed material as of the date of its determination.

	Number of Common Shares	Option Exercise	Price
Grant Date	Underlying Options Granted	tions Granted Per Common Sha	
January 2010 – February 2010	201,684	\$	0.59
July 2010*	896,854	\$	0.59
August 2010 – November 2010	206,352	\$	0.59
February 2011 – April 2012	3,995	\$	0.59
September 2012	58,289	\$	0.59

<sup>\*</sup> Our Board of Directors approved an exchange of all then-outstanding options that had exercise prices in excess of \$0.59 per share for new options, priced at \$0.59 per share on July 28, 2010. Prior to 2010, options had been granted at strike prices ranging from \$2.33 per share to \$91.82 per share; the total number of options issued in the exchange was 896,854 shares.

## December 31, 2012 Valuation

We estimated that a share of our common stock had a value of \$0.34 per share at December 31, 2012, a decrease of \$0.25 per share from the December 18, 2009 valuation. In 2012, we changed our methodology from the OPM to the PWERM to account for different potential exit strategies for the Company. As of December 31, 2012 we estimated the probability of a successful initial public offering to be 10% and alternative exit strategies to be 90%. At that time, our board had not made a decision to explore accessing the public markets and our existing capital structure, including the seniority and liquidation preferences of the 2009 and 2010 convertible promissory notes, restricted our ability to consider alternative financing options. The issuance of \$7.5 million in Notes in December 2010 is the primary difference accounting for the decrease in the per share value of our common stock from December 2009 to December 31, 2012. We estimated the fair value of the common stock under the PWERM assumptions at December 31, 2012 to be \$0.47 per share. This value was reduced by 30% to account for a lack of marketability for our common stock resulting in the \$0.34 value per share for the common stock.

#### June 26, 2013 Valuation

We estimated that a share of our common stock had a value of \$0.68 per share at June 26, 2013, an increase of \$0.34 per share from the December 31, 2012 valuation. We used the PWERM to account for different potential exit strategies for the Company and we estimated the probability of a successful initial public offering to be 10% and alternative exit strategies to be 90%. At that time, our board had not made a decision to explore accessing the public markets. The increase in the estimated per share value of our common stock from \$0.34 at December 31, 2012 is due to the Series A-1 preferred stock financing transaction and the progress of our clinical development programs. The exchange of Notes and the sale of additional Series A-1 convertible preferred stock made alternative financing options more readily available to us as of June 26, 2013. The estimated fair value of the common stock under the PWERM assumptions at June 26, 2013 was \$0.96 per share. We reduced that value by 30% to account for a lack of marketability of our common stock, which resulted in the \$0.68 value per share for the common stock.

We did not grant stock options from October 2012 through July 2013 and thus we did not use the December 31, 2012 or June 26, 2013 valuations for purposes of our stock option accounting.

#### August 15, 2013 Valuation

We estimated that a share of our common stock had a value of \$4.25 per share at August 15, 2013, an increase of \$3.57 per share from the June 26, 2013 valuation. The increase in the value of our common stock as of such date from our last valuation date related primarily to our reassessment of potential exit strategies available to us in accordance with PWERM. Following June 26, 2013 and prior to August 15, 2013, we had extensive discussions with several investment bankers who advised us that we would be a potential candidate for an initial public offering. Following those discussions, we selected an underwriting syndicate and conducted an organizational meeting in early August 2013. Based primarily on those facts, as well as the overall market environment, we reassessed the assignment of weights for the PWERM to reflect the probability of a successful initial public offering to be 50% and alternative exit strategies to be 50% as of August 15, 2013. The alternative exit strategy considered was a potential sale of the Company or its assets to a strategic investor. We reduced the alternative exit strategy value by 20% to account for a lack of marketability. This discount was determined based on liquidity discounts observed in private investments with one- or two-year illiquidity periods principally through observations of restricted stock discounts. We did not reduce the initial public offering probability-weighted value for lack of marketability. The net impact of applied marketability discounts in the August 15, 2013 valuation was immaterial.

On September 4, 2013, our Board of Directors authorized the issuance of 502,062 stock options to employees and consultants at an exercise price of \$4.25 per share, which our Board of Directors determined was equal to or greater than the fair market value of our common stock as of the date of grant. In determining the fair market value of our common stock as of September 4, 2013, our Board of Directors took into account all material facts and circumstances known to our Board of Directors as of the date of the grants including: the independent third party valuation of the common stock performed as of August 15, 2013, changes in operations, prospects and expected operating results, recent material events in our operations and such other items that our Board of Directors deemed material as of the date of the grants.

We believe that the difference between the fair value of our common stock as of September 4, 2013 and \$5.50 (the assumed public offering price set forth on the cover page of this prospectus) is justified by and related to additional events occurring between September 4, 2013 and the date of this prospectus which contributed to this increase. Specifically:

- In late September 2013 we commenced enrolling patients in the Phase 2a portion of our Phase 1b/2a clinical trial for XmAb5871 to begin dosing patients with moderate to severe rheumatoid arthritis. XmAb5871 is our lead program for the treatment of autoimmune diseases and we determined that initiation of this trial significantly increased the value of this product candidate and our Fc technology and also increased our public exposure and opportunities.
- Subsequent to our confidential submission of a registration statement with the Securities and Exchange Commission on September 11, 2013, we engaged in discussions with potential investors in reliance on Section 5(d) of the Securities Act of 1933, as amended (testing the waters meetings). In connection with such testing the waters meetings we received feedback from potential investors regarding our enterprise value which caused us to increase our expectations regarding the anticipated price range of an initial public offering of our common stock.
- Since September 4, 2013, several technology platform biotechnology companies with early stage clinical candidates that we consider to be comparable to us in terms of valuation were successful in accessing the public markets, including Five Prime Therapeutics, Inc., Bind Therapeutics, Inc. and MacroGenics, Inc. Each of these offerings has been favorably received by investors. Of these examples, MacroGenics, the company which we consider to be most comparable to us of those that recently completed a successful initial public offering, conducted its offering in October 2013 with an approximate \$320 million pre-money valuation and, following the offering, has

recently had a market capitalization as high as approximately \$700 million. In addition, Prothena Corporation plc filed a registration statement for a successful follow-on offering which was declared effective on October 2, 2013. The success of these comparable companies and the valuations that they were able to achieve has caused us to revise upward our expectations regarding the value of our common stock.

- The valuation of our common stock by our Board of Directors on September 4, 2013 reflected the illiquidity of our common stock on that date. On the other hand, the assumed public offering price set forth on the cover page of this prospectus necessarily assumes that a successful initial public offering will ultimately occur and represents an estimate of the fair value of the unrestricted and freely tradeable stock that would be sold in the initial public offering market without any illiquidity discount.
- The valuation of our common stock by our Board of Directors on September 4, 2013 reflected the potential for outcomes other than an initial public offering, which in the aggregate had lower values than the initial public offering scenario. However, the assumed public offering price set forth on the cover page of this prospectus necessarily assumes a successful initial public offering with no weighting attributed to any other outcome for our business and without a marketability discount, resulting in a higher valuation.
- The holders of our convertible preferred stock currently enjoy substantial economic rights and preferences over the holders of our common stock. In particular, holders of our outstanding preferred stock are entitled to receive dividends prior to any dividends declared or paid on any shares of our common stock. In addition, holders of outstanding preferred stock are entitled to receive liquidation payments in preference to holders of common stock. The assumed public offering price set forth on the cover page of this prospectus assumes the conversion of all of our convertible preferred stock upon the effective date of the registration statement to which this prospectus forms a part. The corresponding elimination of the preferences and rights enjoyed by the holders of such preferred stock results in a higher valuation.
- The assumed public offering price set forth on the cover page of this prospectus assumes the completion of a successful initial public offering. A successful offering would provide us with significant additional cash proceeds, which would substantially strengthen our balance sheet. This is reflected in the assumed public offering price set forth on the cover page of this prospectus but is not reflected in the September 4, 2013 valuation set by our Board of Directors.
- A successful offering will also provide us with access to the public company debt and equity markets, and a "currency" of publicly tradeable securities to enable us to make strategic acquisitions as we may deem appropriate, which are all reflected in the assumed public offering price set forth on the cover page of this prospectus, and which were not reflected in the September 4, 2013 valuation set by our Board of Directors.
- As a result of general economic conditions, there were notable increases in the value of the common stock since September 2013 of many of the comparable public companies utilized in the September 4, 2013 valuation set by our Board of Directors.
- There were market increases in value of the New York Stock Exchange, S&P 500 and Dow Jones Industrial Average since September 4, 2013.

At September 4, 2013, our Board of Directors consisted of individuals with significant experience in business, finance, venture capital and/or private equity and significant experience in valuing technology companies, including determining the fair values of the common stock of such companies. Our Board of Directors reached its determination of the estimated fair value of our common stock after thorough discussions and made its determination in good faith, based on the information available at that time.

We believe that the fair value determined by our Board of Directors on September 4, 2013 is appropriate and demonstrates the diligent efforts of our Board of Directors in considering all relevant factors in determining the fair value and that the actions of our Board of Directors to estimate the fair value of our common stock complied with all applicable rules and regulations for the determination of fair value.

## **Net Operating Loss Carryforwards and Investment Tax Credits**

As of December 31, 2012, we had cumulative net operating loss carryforwards for federal and state income tax purposes of approximately \$146.7 million and \$131.6 million respectively, and available tax credit carryforwards of approximately \$12.9 million for federal income tax purposes and \$9.6 million for state income tax purposes, which can be carried forward to offset future taxable income, if any.

Our federal net operating loss carryforwards expire starting in 2018 and state net operating losses expire starting in 2013. Federal tax credit carryforwards expire starting in 2018 and state tax credit carryforwards began expiring in 2013. Utilization of the net operating losses and tax credits may be subject to a substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986 under Section 382 and similar state provisions. We expect that the limitations under Section 382 will be triggered and our net operating losses and tax credit carryforwards will be limited as a result of the shares sold in this offering. The limitation may result in the expiration of our net operating losses and credits before we can use them, which could potentially result in increased future tax liability to us.

# **Results of Operations**

## Comparison of the Nine Months Ended September 30, 2012 and 2013

The following table summarizes our results of operations for the nine months ended September 30, 2012 and 2013 (in millions) (unaudited):

	Nine Months Ended September 30,				
		2012 201			Change
Revenues:					
Research collaboration	\$	2.9	\$	1.7	\$ (1.2)
Licensing		1.1		2.0	0.9
Milestone		3.1		4.7	1.6
Total revenues		7.1		8.4	1.3
Operating aurences					
Operating expenses:		o =			
Research and development		8.7		12.9	4.2
General and administrative		2.1		2.4	0.3
Total operating expenses		10.8		15.3	4.5
Other income (expense), net		(1.8)	(4	49.7)	(47.9)
Net loss	\$	(5.5)	\$ (5	56.6)	\$ (51.1)

Research Collaboration Revenues

Research collaboration revenues decreased by \$1.2 million for the nine months ended September 30, 2013 compared to the same period in 2012. The decrease is primarily due to revenue earned from the research services we provided in connection with our partnership with MorphoSys

which was \$1.5 million for the nine months ended September 30, 2012 and \$0.0 for the same period in 2013. A majority of the services for the clinical trial we were conducting were completed during 2012.

## Licensing Revenues

Licensing revenues of \$2.0 million for the nine months ended September 30, 2013 increased by \$0.9 million in 2012 as a result of additional licensing transactions in 2013.

## Milestone Revenues

Milestone and contingent payments received from partners for the nine months ended September 30, 2013 were \$4.7 million compared to \$3.1 million for the same period in 2012, an increase of \$1.6 million, which reflects the receipt of additional milestone payments from our collaborators and licensees, including a \$3.0 million payment from MorphoSys in January 2013 for the initiation of Phase 2 clinical trials in NHL and ALL.

## Research and Development Expenses

The following table summarizes our research and development expenses for the periods ended September 30, 2013 and 2012, (in millions) (unaudited):

	Nine Monu Ended September ( 2012 2	
Product programs:		
XmAb5871	\$ 3.3 \$	5.7
XmAb7195	1.8	4.3
XmAb5574/MOR208	1.3	0.4
Other	2.3	2.5
Total research and development expense	\$ 8.7	12.9

Research and development expenses were \$12.9 million for the nine months ended September 30, 2013 compared to \$8.7 million for the same period in 2012, an increase of \$4.2 million. The increase is primarily due to a \$2.4 million increase in costs associated with the XmAb5871 program, primarily due to increases in clinical trial costs for CROs and site costs and manufacturing of drug product, which reflects the advancing stage of development of the program from Phase 1a to initiation of the Phase 1b portion of a Phase 1b/2a clinical trial in 2013. Approximately \$2.5 million of the increased costs are associated with the XmAb7195 program, including manufacturing drug product and IND-enabling toxicology studies, resulting from the advancement of the program as we plan to file an IND and begin clinical trials in the first half of 2014. The costs for the Xmab5574/MOR208 program, which is conducted under our MorphoSys collaboration, declined by \$0.9 million as we neared completion of the Phase 1 clinical trial at the end of 2012, which completed our development obligations under the MorphoSys agreement.

## General and Administrative Expenses

General and administrative expenses were comparable at \$2.1 million and \$2.4 million for the nine months ended September 30, 2012 and 2013, respectively; spending in this area was consistent between periods.

Other Income (Expense), Net

Other income (expense), net was \$(49.7) million for the nine months ended September 30, 2013 compared to \$(1.8) million for the same period in 2012, an increase of \$47.9 million. The increase reflects a loss of \$48.6 million reported on the exchange of our convertible promissory notes for preferred stock in June 2013.

## Comparison of the Years Ended December 31, 2011 and 2012

The following table summarizes the results of our operations for the years ended December 31, 2012 and 2011 (in millions):

	Years Ended December 31,					
		2011 2012			Change	
Revenues:						
Research collaboration	\$	4.3	\$	3.8	\$	(0.5)
Licensing		1.5		2.1		0.6
Milestone		1.0		3.6		2.6
Total revenues		6.8		9.5		2.7
Operating expenses:						
Research and development		12.7		12.7		_
General and administrative		3.6		3.1		(0.5)
Total operating expenses		16.3		15.8		(0.5)
Other income (expense), net		(1.7)		(2.3)		(0.6)
Net loss	\$	(11.2)	\$	(8.6)	\$	2.6

## Research Collaboration Revenues

Research collaboration revenues were \$4.3 million in 2011, compared to \$3.8 million in 2012, a decrease of \$0.5 million. The decrease in collaboration revenue in 2012 compared to 2011 is due primarily to lower revenue earned under our collaboration agreement with MorphoSys in 2012.

## Licensing Revenues

Licensing revenues were \$1.5 million in 2011 compared to \$2.1 million in 2012, an increase of \$0.6 million. The increase in licensing revenue is primarily due to license revenue recognized under the MedImmune transaction which is reported as a non-monetary exchange in 2012.

## Milestone and Contingent Payments

Milestone and contingent payments were \$1.0 million in 2011 compared to \$3.6 million in 2012, an increase of \$2.6 million. The increase is primarily due to a milestone payment of \$1.2 million received from Boehringer Ingelheim International GmbH and \$1.5 million milestone from another licensee during 2012 for advancing a compound that includes our licensed technologies into clinical development, offset by decreases in other milestone and contingent payments relative to those received in 2011.

## Research and Development Expenses

Research and development expenses were \$12.7 million in 2011 and \$12.7 million in 2012. There were changes within the program spending but overall spending was consistent between the two years. Total research spending in 2012 on the XmAb5871 program and the XmAb7195 program increased by

\$0.8 million and \$0.7 million, respectively, from the year ended 2011 due to advancement of both programs into later stages of development including larger clinical trials and additional toxicology studies. This increase in spending was offset by decreased spending on XmAb5574 program and other programs of \$1.5 million as we began winding down the XmAb5574 Phase 1 clinical trial in 2012.

General and Administrative Expenses

General and administrative expenses were \$3.6 million in 2011 compared to \$3.1 million in 2012. The decrease of \$0.5 million primarily reflects increased abandonment of intangible costs of \$0.8 million in 2011 and lower marketing and business development expenses in 2011 of \$0.2 million.

Other Income (Expense), Net

Other income (expense), net, was \$(1.7) million in 2011 compared to \$(2.3) million in 2012. The increase of \$0.6 million primarily reflects additional accrued interest expense on our convertible promissory notes. In connection with amendment of the 2009 and 2010 Notes in August 2011 and December 2011, the interest rate on the notes was increased from 10.0% to 12.5% per annum.

## **Liquidity and Capital Resources**

Since our inception, our operations have been primarily financed through private sales of our equity, convertible notes and payments received under our product development partnerships and licensing arrangements. We have devoted our resources to funding research and development programs, including discovery research, preclinical and clinical development activities.

We have incurred operating losses in each year since our inception and we expect to continue to incur operating losses into the foreseeable future as we advance the ongoing development of our lead product candidates XmAb5871 and XmAb7195, evaluate opportunities for the potential clinical development of our pre-clinical programs, and continue our research efforts.

At September 30, 2013, we had \$9.6 million of cash and cash equivalents compared to \$2.3 million at December 31, 2012. While we believe that our current cash and cash equivalents are sufficient to carry out our currently planned clinical development and operating plans into the second quarter of 2014, there remains uncertainty.

As of and for the year-ended December 31, 2012, the report on our financial statements included explanatory language describing the substantial doubt about our ability to continue as a going concern. This uncertainty arose from our results of operations and financial condition and the conclusion that we did not have sufficient cash to operate for 12 months from year-end. We had plans to operate as of December 31, 2012 that included projections of cash to be received from licensing and milestone payments and sales of preferred stock. Since December 31, 2012, and through September 30, 2013, we have generated cash from the receipt of licensing and milestone payments and the sale of preferred stock as more fully described below. As of September 30, 2013, there still exists substantial doubt about our ability to continue as a going concern. Such substantial doubt does not give effect to the receipt of any proceeds from this offering.

## **Plan of Operations and Future Funding Requirements**

Our primary uses of capital are, and we expect will continue to be, compensation and related expenses, third-party manufacturing services, third-party clinical research and development services, laboratory and related supplies, clinical costs, legal and other regulatory expenses and general overhead costs.

To fund future operations, we will need to raise additional capital. The amount and timing of future funding requirements will depend on many factors, including the timing and results of our

ongoing development efforts, the potential expansion of our current development programs, potential new development programs and related general and administrative support. We anticipate that we will seek to fund our operations through equity or debt financings or through research collaborations and licensing agreements with third parties. We cannot assure you that such additional financing will be available to us on favorable terms, or at all. Although we have previously been successful in obtaining financing through our private securities offerings, there can be no assurance that we will be able to do so in the future. To the extent that we raise additional capital through the future sale of equity or debt, the ownership interest of our stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our existing common stockholders. If we raise additional funds through collaboration arrangements in the future, we may have to relinquish valuable rights to our technologies, future revenue streams or product candidates or grant licenses on terms that may not be favorable to us.

We expect that the net proceeds from this offering, together with our existing cash and certain potential milestone payments, will fund our operating expenses and capital expenditure requirements through 2016. We have based these estimates on assumptions that may prove to be wrong, and we could use our capital resources sooner than we currently expect. Additionally, the process of testing product candidates in clinical trials is costly, and the timing of progress in these trials is uncertain. Because our product candidates are in various stages of development and the outcome of these efforts is uncertain, we cannot estimate the actual amounts necessary to successfully complete the development and commercialization of our product candidates or whether, or when, we may achieve profitability.

## Cash Flows for the Nine Months Ended September 30, 2013 and 2012 and the Years Ended December 31, 2012 and 2011

#### **Operating Activities**

Cash used in operating activities for the nine months ended September 30, 2013 was \$1.3 million compared to cash used in operations of \$7.1 million for the nine months ended September 30, 2012, a net decrease in cash used of \$5.8 million. The decrease in cash used is primarily due to a net increase in the deferred revenue accounts for the period ended September 30, 2013. During the nine months ended September 30, 2013, we received upfront payments on certain licensing agreements in which the revenue will be earned over the expected term of the licensing contract. Accordingly, a significant portion of the upfront payments were recorded into the deferred revenue accounts.

Cash used for operating activities for 2011 was \$1.1 million, compared to \$11.1 million in 2012, an increase of \$10.0 million. This increase relates primarily to upfront collaboration payments received in 2011, which are being recognized over the expected term that services will be provided under the collaboration agreement. This difference is reflected in the deferred revenue accounts for the 2011 and 2012 periods.

## Investing Activities

Investing activities consist primarily of purchases of intangible assets, capitalization of patent and licensing costs, purchases of property and equipment and proceeds on the sales of used equipment. Investing activities used cash of \$1.3 million for the nine months ended September 30, 2013 and used cash of \$0.9 million for the nine months ended September 30, 2012. We acquired \$1.1 million of intangible assets in the nine months ended September 30, 2013 compared to \$0.9 million in the nine months ended September 30, 2012. This increase reflects higher expenditures for our patent portfolio due to changes in U.S. patent filing procedures which became effective in the first half of 2013. We acquired \$136,000 of capital equipment for the nine months ended September 30, 2013 compared to \$37,000 for the same period in 2012. This increase is related to additional capital spending on laboratory equipment.

Investing activities used cash of \$1.3 million for 2011 and \$1.2 million for 2012. We acquired \$1.4 million of intangible assets during 2011 compared to \$1.2 million for 2012, a decrease of \$0.2 million. The decrease relates primarily to the acquisition of certain manufacturing rights from Catalent for the manufacture of our XmAb7195 candidate. We acquired \$55,000 of property and equipment during 2011 compared to \$41,000 in 2012. We received cash proceeds on the sale of equipment in 2011 of \$133,000 compared to \$97,000 in 2012, a decrease of \$36,000.

## Financing Activities

Financing activities consist primarily of net proceeds from the sale of convertible preferred stock and payments on capital lease obligations. We received proceeds of \$10.0 million from the proceeds on the sale of convertible preferred stock in the nine months ended September 30, 2013. There was no comparable sale of stock for the period ended September 30, 2012. We made payments on capital lease obligations of \$3,000 for the nine months ended September 30, 2013 compared to capital lease obligation payments of \$12,000 for the nine months ended September 30, 2012.

Financing activities used cash flows of \$11,000 in 2011 compared to \$12,000 in 2012, an increase of \$1,000. The increase relates primarily to a second capital lease agreement for certain technology equipment entered into during 2012.

## **Contractual Obligations and Commitments**

The following table summarizes our contractual obligations at December 31, 2012 (in thousands):

	Payments due by period									
		Less							<b>I</b> ore	
		Total	than				1 - 3 3 - 5 Years Year			han
	_		_	1 year				ears	3	years
Operating lease obligation relating to facility(1)	\$	1,382	\$	550	\$	832	\$	_	\$	_
Capital lease obligations		17		7		10		_		_
Purchase obligations(2)		7,806		4,231		825		_		2,750
Convertible promissory notes(3)		20,923		20,923		_		_		_
Total	\$	30,128	\$	25,711	\$	1,667	\$		\$	2,750
	_				_		_		_	

<sup>(1)</sup> Consists of our corporate headquarters lease encompassing 24,000 square feet of office space that expires in April 2015.

## **Off-Balance Sheet Arrangements**

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements.

# **Related Party Transactions**

For a description of our related party transactions, see "Certain Relationships and Related Party Transactions" beginning on page 149.

Purchase obligations include the amounts that are expected to become due from existing agreements for current and ongoing services that are related to the conduct of our preclinical and clinical development activities. These amounts are estimated as due by period based upon our expectation for the delivery of service and payment pursuant to contractual payment terms. These amounts could be increased, accelerated, deferred or decreased depending upon the actual level of preclinical and clinical development activities.

<sup>(3)</sup> In June 2013, 100% of the outstanding principal due on our convertible promissory notes was exchanged for shares of Series A-1 convertible preferred stock and the accrued and unpaid interest thereon was cancelled.

## JOBS Act

In April 2012, the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, was enacted. Section 107 of the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. Thus, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this extended transition period, and, as a result, we will adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies.

## **Quantitative and Qualitative Disclosure About Market Risk**

Our primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of U.S. interest rates. Due to the short-term duration of our investment portfolio and the low risk profile of our investments, an immediate 10.0% change in interest rates would not have a material effect on the fair market value of our portfolio. Accordingly, we would not expect our operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest rates on our investment portfolio.

We do not believe that our cash, cash equivalents and available-for-sale investments have significant risk of default or illiquidity. While we believe our cash and cash equivalents and certificates of deposit do not contain excessive risk, we cannot provide absolute assurance that in the future our investments will not be subject to adverse changes in market value. In addition, we maintain significant amounts of cash and cash equivalents at one or more financial institutions that are in excess of federally insured limits.

Inflation generally affects us by increasing our cost of labor and clinical trial costs. We do not believe that inflation has had a material effect on our results of operations during the periods presented.

#### BUSINESS

#### **OVERVIEW**

#### **Our Business**

We are a clinical-stage biopharmaceutical company focused on discovering and developing engineered monoclonal antibodies to treat severe and life-threatening diseases with unmet medical needs. We use our proprietary XmAb technology platform to create next-generation antibody product candidates designed to treat autoimmune and allergic diseases, cancer and other conditions. In contrast to conventional approaches to antibody design, which focus on the portion of antibodies that interact with target antigens, we focus on the portion of the antibody that interacts with multiple segments of the immune system. This portion, referred to as the Fc domain, is constant and interchangeable among antibodies. Our engineered Fc domains, the XmAb technology, can be readily substituted for natural Fc domains. We believe our Fc domains enhance antibody performance by, for example, increasing immune inhibitory activity, improving cytotoxicity or extending circulating half-life, while maintaining 99.5% identity in structure and sequence to natural antibodies. By improving over natural antibody function, we believe that our XmAbengineered antibodies offer innovative approaches to treating disease and potential clinical advantages over other treatments.

Our business strategy is based on the plug-and-play nature of the XmAb technology platform to modify features of natural antibodies and create numerous differentiated antibody product candidates. We have internally generated a pipeline that has allowed us to selectively partner certain development programs while maintaining full ownership of other programs. We also have a number of technology licenses under which we have licensed the XmAb technology platform to pharmaceutical and biotechnology companies for use in a limited number of programs, providing multiple revenue streams that require no further resources from Xencor. There are currently five antibody product candidates in clinical trials that have been engineered with XmAb technology, including four candidates being advanced by licensees and development partners.

Our internally-generated pipeline includes the following three lead XmAb-engineered antibodies that are currently in development:

- *XmAb5871* is being developed for the treatment of autoimmune diseases, including rheumatoid arthritis and lupus. It uses our Immune Inhibitor Fc Domain and targets B cells, an important component of the immune system. We believe XmAb5871 has the potential to address a key unmet need in autoimmune therapies due to its combination of potent B-cell inhibition without B-cell depletion. We are currently conducting a Phase 1b/2a clinical trial for XmAb5871 in rheumatoid arthritis patients with active disease on stable non-biologic DMARD therapy. We expect to report preliminary data from this trial in the second half of 2014. Our partner, Amgen Inc. (Amgen), has an option to acquire an exclusive worldwide license for XmAb5871, exercisable at any time before completion of a data review period following our planned subsequent Phase 2b proof-of-concept clinical trial. Until the option exercise, we lead research, development and manufacturing activities for XmAb5871 with collaborative input and development support from Amgen. According to the American College of Rheumatology, rheumatoid arthritis and lupus affect approximately 1.3 million and 160,000 adults in the United States, respectively. Humira, the leading antibody therapy for autoimmune diseases, generated sales of approximately \$9.3 billion worldwide in 2012
- XmAb7195 is being developed for the treatment of severe asthma and allergic diseases. It uses our Immune Inhibitor Fc Domain and is designed to reduce blood plasma levels of IgE, which mediates allergic responses and allergic disease. Its three specific mechanisms of action give it potential advantages over current therapies: (i) increased IgE binding, (ii) inhibition of IgE production and (iii) rapid clearance of IgE from circulation. We anticipate filing an

investigational new drug application (IND) with the United States Food and Drug Administration (FDA) and initiating a Phase 1a clinical trial in the first half of 2014. We plan to report preliminary data from this trial at the end of 2014. According to the U.S. Centers for Disease Control and Prevention (CDC), one in 12 Americans has asthma, and there were 1.8 million emergency room visits caused by asthma in 2010. Xolair, the leading antibody therapy for the treatment of severe refractory asthma, generated approximately \$1.3 billion in worldwide sales in 2012.

• *XmAb5574/MOR208* is being developed for the treatment of blood-based cancers and uses our Cytotoxic Fc Domain. Our partner, MorphoSys AG (MorphoSys), is currently conducting two Phase 2 clinical trials of XmAb5574/MOR208 in patients with B-cell acute lymphoblastic leukemia (B-ALL) and non-Hodgkin lymphomas (NHL). According to the Leukemia and Lymphoma Society, over 60,000 Americans are diagnosed with these cancers each year. Rituxan, the leading antibody therapy for NHL, generated approximately \$6.1 billion in worldwide oncology sales in 2012.

A summary of the partnered and non-partnered product development programs that we have generated internally is shown below.

	PROGRAM	Fc DOMAIN	PRIMARY	DISCOVERY PRECLIN PHASE	PHASE 2 COMMERCIAL RIGHTS
Programs	XmAb5871	Immune Inhibitor	Autoimmune		* Xencor Option to AMGEN
Prog	XmAb5574/MOR208	Cytotoxic	Oncology CLL/NHL/ALL		morphosus
	XmAb7195	Immune Inhibitor	Asthma/allergy		
	Xtend-TNF	Xtend	Autoimmune		
	CD3 x CD38	Heterodimer	Oncology	-	
SL	CD3 x CD123	Heterodimer	Oncology	-	
Programs	Xtend-CTLA4	Xtend	Autoimmune	-	
Pro	Anti-X/CD32b	Immune Inhibitor	TBD		

Currently enrolling Phase 2a portion of Phase 1b/2a clinical trial.

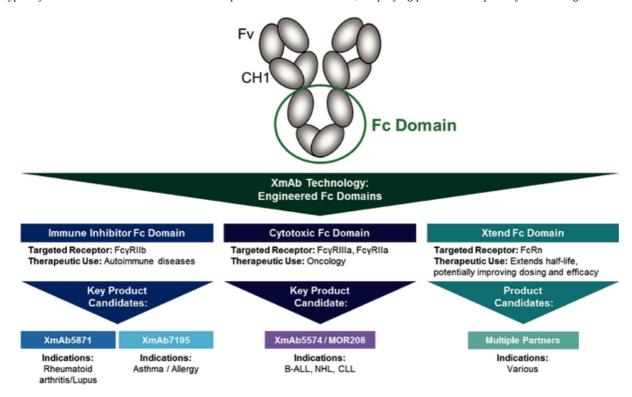
In addition, we have licensed our XmAb technology to pharmaceutical and biotechnology companies for use in a limited number of their programs. These licensees include Boehringer Ingelheim, CSL, Janssen, Merck and Alexion, and collectively these licensees have three Phase 1 clinical development-stage programs and four pre-clinical development-stage programs.

Our XmAb Fc domain technology is a platform of antibody components that enable the creation of therapeutic antibody candidates that have novel interactions with the human immune and antibody regulation systems. We have identified a set of Fc domains, each of which is engineered to have a specific function based on its Fc receptor binding profile, including:

- Immune Inhibitor Fc Domain—selective immune inhibition and rapid target clearance, targeting the receptor FcgRIIb
- Cytotoxic Fc Domain—increased cytotoxicity, targeting the receptors FcgRIIIa on natural killer (NK) cells and FcgRIIa on other immune system cells
- Xtend Fc Domain—extended antibody half-life, targeting the receptor FcRn on endothelial cells

In addition, we have engineered XmAb Fc domains with other properties, including rapid antigen clearance, antibody stability and multiple-antigen specificity (heterodimer). Each XmAb Fc domain consists of a naturally occurring Fc domain with a small number of amino acid changes, usually two,

that we found to be critical for modulating interactions with the desired Fc receptors. With such limited modifications of the natural Fc domain, XmAb-engineered antibodies are typically over 99.5% identical in structure and sequence to natural antibodies, simplifying product development yet enhancing function.



We were founded in 1997 based on protein engineering technology developed by our co-founders Bassil Dahiyat, Ph.D. and Stephen Mayo, Ph.D. at the California Institute of Technology. We began our first therapeutic monoclonal antibody engineering and discovery programs in 2002 and entered into our first XmAb technology license in 2004. Our product development partnerships and technology licenses have provided us with approximately \$60 million in cash during the last five years, and we have the potential to receive an aggregate of approximately \$1.3 billion in milestone payments, in addition to royalties on sales, upon successful development and commercialization of the programs contemplated by our product development partnership and technology license agreements. These potential milestone payments include \$240 million relating to the achievement of clinical development milestones. At present, our XmAb technology platform is protected by 21 U.S. issued patents and 44 U.S. patent applications, in addition to foreign counterparts.

## **Our Strategy**

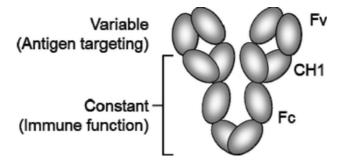
Our goal is to become a leading biopharmaceutical company focused on developing and commercializing engineered monoclonal antibodies to treat severe and life-threatening diseases with unmet medical needs. Key elements of our strategy are to:

Advance the clinical development of our lead Immune Inhibitor Fc Domain product candidates. We are developing XmAb5871, in collaboration with Amgen, for the treatment of autoimmune diseases and are developing XmAb7195 independently for the treatment of asthma and allergic diseases.

- Continue to monetize and expand the use of our XmAb technology platform. We are seeking additional licensing and partnering opportunities, similar to our collaborations with Amgen and with MorphoSys for XmAb5574/MOR208, with leading pharmaceutical and biotechnology companies.
- **Build a large and diversified portfolio of product candidates.** We aim to create new XmAb-engineered antibody product candidates that exploit the novel properties of our XmAb technology platform.
- **Broaden the functionality of our XmAb technology platform.** We are conducting further research into the function and application of antibody Fc domains in order to expand the scope of our XmAb technology platform.
- Continue to expand our patent portfolio protecting our XmAb technology platform. We seek to expand and protect our development programs and product candidates by filing and prosecuting patents in the United States and other countries.

#### **Antibodies as Therapeutic Agents**

Antibodies are Y-shaped proteins that are produced by B cells and used by the immune system to target and neutralize foreign objects known as antigens. These objects may include tumor cells, bacteria and viruses. Antibodies are composed of two structurally independent parts, the variable domain (the Fv domain) and the constant domain (the Fc domain and the CH1 domain). The Fv domain is responsible for targeting a specific antibody to a specific antigen and is different for every type of antibody. The Fc domain interacts with various receptors on immune cells and other cells and, rather than binding antibodies to target antigens, it endows antibodies with properties beyond simple binding, such as immune response regulation and cytotoxicity. Importantly, Fc domains are the same and interchangeable from antibody to antibody.



Most antibody research to date has been based on the ability to discover and improve antigen-selective antibody Fv domains. Many pharmaceutical and biotechnology companies have efforts to discover, develop and commercialize antibody drugs using such Fv-based tools. A number of successful products have resulted from these efforts and the global market for antibody therapeutics was estimated to be approximately \$45 billion in 2011, of which the U.S. market was estimated to be \$20 billion.

Intense competition drives companies to develop differentiated antibody drugs, often because of the common pursuit of the same antigen Fv targets across the industry. Industry efforts have focused on engineering Fv domains since the mid-1980s to enhance performance. More recently, many efforts at differentiation have attempted to improve upon antibody performance by drastically changing the antibody structure or substituting new molecules altogether, for example, new antibody-like scaffolds, bi-specific antibodies and antibody-drug conjugates. A challenge to these efforts has been making these new drug molecules replicate the beneficial features of natural antibodies, including ease of production, safety, efficacy and simplicity. These efforts, however, have largely ignored the Fc domain.

In contrast, in the last decade Xencor has focused on Fc engineering. Fc engineering involves additional complexities, particularly consideration of simultaneous interactions with multiple Fc receptors and immune cell types and requires significant expertise in structural biology and immunology. We developed the XmAb technology to create significantly enhanced antibody performance while preserving over 99.5% of the natural antibody structure because we believe that maintaining native antibody structure could retain these beneficial features in our highly differentiated antibody candidates.

## **Our XmAb Technology Platform**

We developed the XmAb technology platform from a systematic effort to engineer the Fc domain of antibodies to manipulate its interactions with a variety of its natural receptors. We used our patented screening technology, consisting of algorithms and computer models of the three-dimensional structure of the Fc domain, to focus on, from the vast number of possibilities, manageable sets of possible amino acid changes that result in small modifications to the Fc domain structure which effect significant changes in antibody function and performance.

From this design and screening effort, we have identified a set of Fc domains, each of which is engineered with particular amino acid changes to augment a specific naturally-occurring antibody function based on its Fc receptor binding profile:

- Immune Inhibitor Fc Domain—rapid target clearance and selective immune inhibition, targeting the receptor FcgRIIb;
- Cytotoxic Fc Domain—increased cytotoxicity, targeting the receptors FcgRIIIa on natural killer (NK) cells and FcgRIIa on other immune system cells;
- Xtend Fc Domain—extended half-life, targeting the receptor FcRn on endothelial cells.

In addition, we have engineered XmAb Fc domains with other properties, including rapid antigen clearance, antibody stability and multispecificity (heterodimer). Each XmAb Fc domain consists of a naturally occurring Fc domain with a small number of amino acid changes, usually two, that we found to be critical for modulating interactions with the desired Fc receptors. Therefore, XmAb product candidates are usually over 99.5% identical in structure and sequence to natural antibodies but have enhanced function. In contrast to other engineering approaches for next-generation antibodies, we believe that our platform minimizes changes to antibody structure while maximizing functional improvement. We believe this conservative design allows our engineered antibodies to retain the beneficial stability, pharmacokinetics, and ease of discovery of natural antibodies, as well as to use well-validated methods for antibody manufacturing. We believe we can thereby avoid the problems many new antibody platforms have had in production and drug stability.

Our XmAb technologies include modified Fc domains that modulate existing immune receptor interactions to tailor antibodies for improved therapeutic use. In the table below, we detail the properties of the Fc receptors targeted by our XmAb technologies:

XmAb Fc Domain	Receptor	Receptor Type	Function	Cell Types	Disease Area	
Immune Inhibitor	FcgRIIb	inhibitory	cell inhibition	B cells, other immune cells	autoimmune	
			rapid target clearance	liver sinusoidal endothelial cells	various	
Cytotoxic	FcgRIIa	activating	phagocytosis	macrophage	oncology	
	FcgRIIIa		cytotoxicity	NK cells		
Xtend	FcRn	salvage, transport	antibody recycling	endothelial cells	various	

#### Immune Inhibitor Fc Domain technology

FcgRIIb is an inhibitory receptor that is expressed on B cells and other cells. FcgRIIb, when engaged by Fc domains, signals inside the cell to block immune response activation pathways, for example the B-cell receptor pathway that activates in response to antigen recognition and ultimately results in the production of antibodies to antigen. We have focused on this role as an important negative feedback regulator of the B-cell response, where its biology is well-validated. Its expression and signaling characteristics have made it a difficult target for monoclonal antibodies, as targeting it by itself does not trigger its inhibitory properties. FcgRIIb must be associated with other specific partner proteins on the cell surface to activate its inhibitory properties. We have circumvented this problem by discovering variants of the Fc domain with enhanced binding to FcgRIIb and designed the Fv domain to target a B-cell protein. This coupling of the two target proteins, in some cases, will trigger the inhibitory properties of FcgRIIb.

We have discovered a series of FcgRIIb immune inhibitor Fc variants with increased binding affinity to FcgRIIb of up to 400-fold. The high affinity variant has two amino acid substitutions in the Fc domain and has been applied to create our first immune inhibitor product development candidate XmAb5871. This antibody, described in greater detail below, targets CD19 on B cells through its variable domain and recruits FcgRIIb to induce its inhibitory properties. We have shown in several preclinical studies that XmAb5871 inhibits B-cell responses to a variety of stimuli, and we have begun clinical development (in partnership with Amgen) on this product candidate.

We have also applied this high affinity Immune Inhibitor Fc Domain to our anti-IgE antibody XmAb7195, which as a result inhibits activation of only IgE-positive B cells and hence prevents production of IgE, a key mediator of allergic response. Also, we have discovered an exciting new mechanism of action mediated by the Immune Inhibitor Fc Domains. High FcgRIIb binding causes very rapid clearance from the circulation of the complexes formed between XmAb7195 and IgE, a property that we believe is unique among IgE inhibitor antibodies. This provides another mechanism to lower the amount of circulating IgE.

The rapid clearance mechanism of Immune Inhibitor Fc Domains offers a highly differentiating function for antibodies targeting soluble antigens, such as IgE, and opens opportunities for the technology beyond B-cell modulation. For example, we are generating discovery candidates using Immune Inhibitor Fc Domains to clear pathologic targets from circulation.

#### Cytotoxic Fc Domain technology

Our Cytotoxic Fc Domain technology consists of a series of variant Fc domains that improve binding to the activating Fcg receptors. This binding improvement drives increased antibody-dependent cell cytotoxicity (ADCC), a primary mechanism of antibody cytotoxicity. The lead Fc variant used in nearly all of our Cytotoxic Fc Domain antibody candidates is an Fc domain with two amino acid substitutions that increase affinity for FcgRIIIa, the activating receptor expressed on natural killer (NK) cells, by approximately 40-fold. NK cells are cytotoxic lymphocytes of the innate immune system and play a major role in elimination of tumor cells and virally infected cells. Our Cytotoxic Fc Domain also increases affinity for FcgRIIa by approximately five-fold, with potential for recruitment of other important effector cells such as macrophages, which play a role in both innate and adaptive immunity by engulfing and digesting foreign material. FcgRIIIa is considered an important mediator of the antitumor efficacy of antibodies such as Genentech's Herceptin (trastuzumab) and BiogenIdec/Genentech's Rituxan (rituximab).

Numerous publications have demonstrated the importance of Fcg receptors for anti-tumor efficacy in mouse models and also in clinical studies of Rituxan and Herceptin. We have applied our Cytotoxic Fc Domain to a large number of validated (e.g. Rituxan, Herceptin, Bristol-Myers Squibb and Eli Lilly and Company's Erbitux (cetuximab)) and unvalidated antibodies, and in all cases we have seen a marked increase of ADCC measured in vitro. We have established that the Cytotoxic Fc Domain technology increases the anti-tumor efficacy of antibodies in a number of mouse models. In primate studies, we have shown that our anti-CD19 antibody XmAb5574/MOR208, which incorporates our Cytotoxic Fc Domain, depletes monkey B cells whereas a similar anti-CD19 antibody with an unmodified Fc domain did not successfully kill B cells.

In Phase 1 clinical studies, antibodies incorporating our Cytotoxic Fc Domain, for example our XmAb2513 against CD30 in Hodkgin's lymphoma, have shown tumor reduction response rates comparable or superior to response rates in published reports of non-Fc engineered antibodies against the same target cells. Several partners and licensees are using our Cytotoxic Fc Domain in their oncology antibodies, including four programs currently in clinical trials.

## Xtend Fc Domain technology

Our Xtend Fc Domain technology consists of Fc domains designed to increase binding affinity to the receptor FcRn. FcRn is present inside lysosomes in endothelial cells lining the blood vessels and functions to rescue antibodies from the degradation that makes most proteins short-lived in circulation. As a result of interactions with FcRn, all antibodies have half-lives ranging from a few days to a few weeks, allowing less frequent dosing for antibody drugs than most other biologics. We have engineered a series of Fc variants that increase binding of the Fc domain to FcRn to enhance FcRn-mediated rescue and thereby increase circulating half-life. Our lead Xtend Fc Domain has two amino acid substitutions and has shown up to three-fold increases of *in vivo* half-life for a number of different antibodies in monkey models.

We believe extension of half-life can be exploited to improve therapeutic antibody performance in several ways:

- Increased dosing interval, providing superior patient convenience and likely compliance. Such a reduced frequency of dosing also results in lower drug
  use in aggregate, reducing cost of goods.
- Lower drug quantities at the same dosing interval as the parent antibody. This can simplify dosage formulation and sometimes enable subcutaneous formulation. Cost of goods is reduced as well.
- Higher drug levels using the same dose and dosing interval as the parent antibody, resulting in longer drug exposure and potentially translating to better
  efficacy.

We have licensed Xtend Fc Domain technology to several biopharmaceutical companies who are using Xtend Fc Domains to both improve existing antibody drugs and to create new drugs with long half-lives.

## Additional XmAb Fc domains

We continue to design Fc domain variants and have identified improved functions in addition to those described above. Our goal is to remain at the forefront of antibody engineering by using our expertise in Fc domain engineering to create new functions for use in antibody therapeutics. We have Fc variants that improve complement-dependent cytotoxicity. Other Fc variants have been engineered to eliminate binding to all Fcg receptors, thereby creating Fc domains that have no cytotoxic effector function at all. Such domains have important use in therapeutics where no effector function is desired.

We have created Fc variants that form heterodimeric Fc domains that enable the creation of bispecific antibodies that have different Fv domains on each side of the Fc domain in order to bind to a different antigen with each of their Fv domains. For example, we can readily create bispecific antibodies that bind both CD3 and a tumor antigen in order to recruit cytotoxic T cells to the tumor cell. Because of the Fc domain, these bispecific antibodies retain the long half-life and ease of production typical of standard antibodies. We have generated a number of bispecific antibody discovery programs using our XmAb heterodimer Fc domains and have demonstrated that a bispecific antibody built on these Fc domains is active in primate models.

## Antibody Fv domain engineering capabilities

We have developed tools to engineer humanized and fully human, high-affinity antibody Fv domains. Usually starting from a mouse antibody Fv domain, we analyze its amino acid sequence computationally to find the best matches with human antibody sequences, which we then substitute into the murine Fv domain to create antibodies with very high human sequence content. Our approach preserves the structural integrity of the antibody and maintains binding to antigen. We also perform antigen affinity enhancement by computationally filtering sequence changes and generating small, focused libraries of Fv variants that we screen for tighter binding. All of our internally discovered candidates, including XmAb5871, XmAb7195 and XmAb5574/MOR208, were generated using these tools.

#### **Lead XmAb Product Candidates**

Candidate XmAb5871	Indication lupus and rheumatoid arthritis	Fc Domain Immune Inhibitor	Worldwide Commercial Rights Xencor (Amgen option upon Phase 2b POC data)	Stage of Development Phase 1b/2a ongoing	Next Steps Preliminary data expected 2H 2014; Phase 2b POC trial planned first half of 2015
XmAb7195	asthma and allergic diseases	Immune Inhibitor	Xencor	preclinical	IND filing planned 1H 2014 Phase 1a trial planned 1H 2014
XmAb5574/MOR208	B-cell cancers	Cytotoxic	MorphoSys	Phase 2 trials ongoing	Phase 2 trials for other indications* Phase 3 clinical trials*

<sup>\*</sup> Timing and trial design for future clinical trials to be determined by MorphoSys

#### XmAb5871, a B-cell Inhibitor for the Treatment of Autoimmune Diseases

## **Background and Market Opportunity**

XmAb5871 is a monoclonal antibody that inhibits B cells, without depleting them, for the treatment of autoimmune diseases. B cells have an important natural role in the immune response, recognizing pathogens and ultimately producing anti-pathogen antibodies. The B-cell response is naturally regulated by a variety of mechanisms, including the use of the B-cell inhibitory receptor, FcgRIIb. FcgRIIb is triggered by an excess of anti-pathogen antibodies, preventing over-activation of B cells to a particular pathogen and over-production of antibodies. In autoimmune diseases, the immune system aberrantly attacks proteins and/or cells in the body (auto-antigens) through both B-cell- and T-cell-mediated pathways. In many autoimmune diseases, including rheumatoid arthritis and systemic lupus erythematosus (lupus), B cells play a significant role in pathogenesis, acting as antigen-presenting cells and as precursors to autoantibody-producing plasma cells.

The autoimmune disease therapeutic market presents a large opportunity with currently marketed antibody-based products, such as Rituxan (marketed under the trade name MabThera outside the United States), with 2012 worldwide sales for the treatment of autoimmune indications of approximately \$1.1 billion, and GlaxoSmithKline's Benlysta (belimumab), with 2012 worldwide sales of over \$200.0 million for the treatment of lupus. Management of rheumatoid arthritis frequently requires multiple therapies as patients cycle through various treatment options. Anti-TNF agents, such as Humira, are currently the first-line therapy for patients that fail disease modifying anti-rheumatic drug (DMARD) therapy. Management of lupus depends on disease severity and disease manifestations. Milder disease is often controlled with nonsteroidal anti-inflammatory drugs (NSAIDs) to treat inflammation and pain. The immunosuppressive antimalarial drug hydroxychloroquine and low-dose corticosteroids are used to treat skin and arthritis symptoms. Patients with disease manifestations in vital organs are often subject to prolonged use of systemic corticosteroids, which have significant short and long term side effects. Life-threatening manifestations of lupus, such as those involving the kidneys or central nervous system are treated more aggressively with drugs such as high dose corticosteroids and additional immunosuppressive agents. In aggregate, existing drugs for lupus are mostly old, have significant side effects, and lack sufficient efficacy to control the disease. Thus, the unmet need remains high in lupus, encouraging the development of biologic therapies. Because of the central role of B cells in lupus, therapies targeting B cells have been explored and showed detectable but modest signs of efficacy.

Rituxan, which causes outright depletion of B cells, has been approved for treatment of moderate-to-severe rheumatoid arthritis, with promising efficacy. In addition, while Rituxan has not been approved as a lupus therapy, we believe it is prescribed off-label as a treatment for lupus. A number of investigator-sponsored lupus clinical trials and case studies have suggested it may be efficacious. The nearly-complete B-cell depletion caused by Rituxan, however, comes with an increased risk of infection. For example, Rituxan has been associated with a low risk of the often fatal progressive multifocal leukoencephalopathy, which is inflammation of the brain that has been attributed to reactivation of a latent virus. Moreover, a second generation B-cell depleting product candidate being developed by Genentech and Biogen Idec, ocrelizumab, was suspended from development in rheumatoid arthritis and lupus due to serious and opportunistic infections, some of which were fatal. B-cell recovery after depletion can take weeks to months, exacerbating the situation if an infection arises.

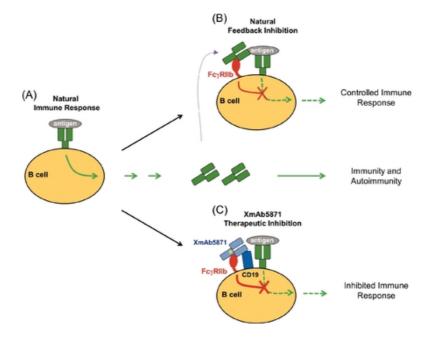
A second notable B-cell inhibitor is the anti-BLyS antibody Benlysta. BLyS (B-lymphocyte stimulator) is a B-cell survival factor, and Benlysta's inhibition of this factor leads to an attenuation of B cells and their responses. Despite FDA concern raised in advisory committee briefing documents over the "somewhat marginal efficacy" of Benlysta and lack of demonstrated efficacy in the African

American population, the high unmet need resulted in approval of Benlysta as the first FDA-approved lupus therapy in over 50 years. We believe Benlysta's sales reflect its modest efficacy.

Despite some promise from the two therapies mentioned above, because of their side effect risk and limited efficacy, the unmet need in lupus remains high for the over 160,000 Americans with a definite lupus diagnosis. Additionally, over 150,000 Americans have a probable lupus diagnosis and could potentially benefit from new therapies with improved efficacy and acceptable safety profiles.

## Overview of XmAb5871

XmAb5871 is a monoclonal antibody for the treatment of autoimmune diseases that uses our Immune Inhibitor Fc Domain to target FcgRIIb, an inhibitory receptor expressed on B cells and other immune cells, and through its Fv domain targets CD19, which is expressed on all B cells. By simultaneously targeting the B-cell proteins, CD19 and FcgRIIb, XmAb5871 has an ability to engage the natural inhibitory pathway provided by FcgRIIb, preventing further activation of B cells by autoantigens and potentially also suppressing the ability of B cells to further provoke downstream autoimmune responses from T cells. CD19 and FcgRIIb are expressed broadly throughout B-cell development, so we expect that XmAb5871 will confer broad suppression of B-cell activation and downstream events such as antibody production. We have demonstrated that XmAb5871 inhibits B-cell function in multiple animal models and in initial human clinical trials without destroying these important immune cells, in contrast to other B-cell targeting therapies, such as Rituxan, that attack and destroy B cells. We believe the combination of potent inhibition without B-cell depletion, which can lead to opportunistic infections, has the potential to address a key unmet need in autoimmune therapies. The coupling between CD19 and FcgRIIb, mediated by XmAb5871, promotes a strong negative signal in the B cell, preventing its activation and potentially blocking disease pathology in a variety of autoimmune and inflammatory conditions by broadly blocking all B-cell populations. XmAb5871 is the first potential therapy that we are aware of that targets FcgRIIb inhibition.



Therapeutic Inhibition by XmAb5871 Mimics Natural Pathways. (A) B-cell responses against antigen lead to antibody secretion, resulting in immunity and in some cases autoimmunity. (B) Excess antibodies produced in the B-cell response can engage both the antigen and the inhibitory receptor FcgRIIb on the B-cell surface, acting to control the immune response. (C) XmAb5871 mimics the natural feedback inhibition by targeting CD19, rather than the antigen, on the B-cell surface and recruiting FcgRIIb to inhibit activation of the targeted B cell.

In December 2010, we entered into a collaboration and option agreement with Amgen for XmAb5871. During the option period, which expires upon completion of a data review period following our planned Phase 2b proof-of-concept (POC) clinical trial, we lead research, development and manufacturing activities for XmAb5871 with collaborative input and development support from Amgen. Under the agreement, Amgen paid us an upfront payment and early development milestones and is obligated to pay additional milestones, both before and after payment of an option exercise fee, and royalties on sales following an exercise of the option by Amgen. If Amgen exercises its option and pays the option exercise fee, it will be solely responsible for the costs associated with the further development, commercialization, manufacture, distribution, marketing and promotion of XmAb5871.

## Clinical Development Summary

The clinical trial application for XmAb5871 was approved by the United Kingdom Medicines and Healthcare Products regulatory agency in September 2011. To date, all clinical development for XmAb5871 has been conducted in western and central Europe. We plan to file an IND for XmAb5871 with the FDA in 2014. In December 2012, we completed a Phase 1a clinical trial in healthy volunteers and XmAb5871 was observed to be well tolerated and to have promising immunosuppressive activity based on several biomarkers observed during the trial. Currently, we are conducting a Phase 1b/2a clinical trial in rheumatoid arthritis patients with active disease on stable non-biologic DMARD therapy to study safety, pharmacokinetics and XmAb5871's effect on rheumatoid arthritis disease response.

## Phase 1b/2a Clinical Trial

We initiated a Phase 1b/2a clinical trial of XmAb5871 in January 2013. This clinical trial is a multi-center, randomized, placebo-controlled, double-blinded, ascending multiple dose study of the safety, tolerability, pharmacokinetics and pharmacodynamics of XmAb5871 in rheumatoid arthritis patients with active disease on stable non-biologic DMARD therapy. The primary objectives of this clinical trial are (1) to determine the safety and tolerability profile of biweekly, multiple dose, intravenous administration at a single dose level of XmAb5871 in patients with rheumatoid arthritis and (2) to characterize the pharmacokinetics and immunogenicity of intravenously administered XmAb5871 in patients with rheumatoid arthritis at multiple doses. The secondary objectives of this clinical trial include evaluating the effect of XmAb5871 on rheumatoid arthritis disease response as measured by changes in Disease Activity Score 28 using C-reactive protein (DAS28 CRP) at Week 13 for the Phase 2a portion of this clinical trial.

This clinical trial is being conducted in two parts. In the first part, 29 rheumatoid arthritis patients with active disease on stable non-biologic DMARD therapy have been enrolled into four consecutive dose cohorts (0.3 to 10.0 mg/kg) randomized approximately 6:2 (six XmAb5871 patients to two placebo patients), other than for the lowest dose, where it was 3:1. Each patient will be administered XmAb5871 or placebo every 14 days for a total of six doses. We have enrolled the fourth and highest dose cohort.

Through September 30, 2013, XmAb5871 has been reported to be well-tolerated. Only one patient has experienced a serious adverse event (infusion-related reaction with hypotension), and this patient is the only one to have discontinued the study prematurely. Other adverse events that have been reported by investigators as related to treatment (whether a patient's treatment was placebo or XmAb5871 remains double-blinded) and have occurred in more than one patient include: nausea, vomiting, fever-increased temperature, headache and bronchitis. Further, preliminary immunogenicity testing data for the first 2 cohorts through the treatment phase of the study have been negative.

In the second part of this clinical trial, approximately 30 additional rheumatoid arthritis patients with active disease on stable non-biologic DMARD therapy will be enrolled in an expansion cohort, randomized 2:1 (two XmAb5871 patients to one placebo patient), at the highest dose studied in the

first part of the trial, 10.0 mg/kg. Each patient will be administered XmAb5871 or placebo every 14 days for a total of six doses. The expansion cohort will enable collection of more comprehensive multiple dose safety and PK data at the selected dose and potentially enable detection of early clinical activity in a rheumatoid arthritis patient population with moderate to high disease activity. We expect to report data from this trial in the second half of 2014.

Phase 1a Clinical Trial

We have completed a Phase 1a clinical trial of XmAb5871. This clinical trial was initiated in October 2011 and completed in December 2012 and was a randomized, blinded, placebo-controlled, single ascending dose clinical trial to investigate the safety, tolerability and pharmacokinetics of XmAb5871 in healthy male adult volunteers. Subjects received a single intravenous infusion of XmAb5871 or placebo in one of seven dose cohorts ranging from 0.03 mg/kg to 10.0 mg/kg. A total of 48 subjects were enrolled, with 36 subjects receiving XmAb5871 and 12 receiving placebo.

The primary objectives of this clinical trial were (1) to determine the safety and tolerability profile of single-dose intravenous administration of XmAb5871 and (2) to characterize the single-dose pharmacokinetics and immunogenicity of XmAb5871. We also included several biomarkers to evaluate the ability of XmAb5871 to suppress B-cell responses in treated subjects. XmAb5871 was well tolerated at all doses investigated. No subjects experienced a serious adverse event or a dose-limiting toxicity. The most frequently reported adverse events associated with XmAb5871 were gastrointestinal symptoms including nausea, vomiting, abdominal pain, abdominal discomfort, epigastric discomfort (upper stomach pain) and diarrhea. All but one were mild to moderate, with one subject experiencing severe nausea. All 48 subjects completed the clinical trial protocol. Samples positive for anti-drug antibodies (immunogenicity) were detected in 44% of subjects, with only half of these subjects having an immunogenicity signal greater than two-fold above baseline. Immunogenicity is a common occurrence for antibody therapies. These antibody responses did not appear to impact drug activity or disposition.

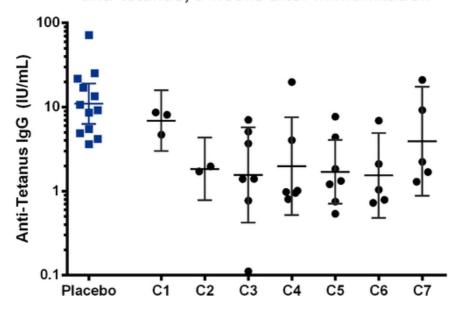
Biomarker analysis from this clinical trial suggests that XmAb5871 can achieve target saturation and B-cell immunosuppression at relatively low doses (0.03 mg/kg) and that biweekly dosing is feasible. CD19 was fully occupied on B-cell surfaces by XmAb5871 at all doses, and the time to recovery of free CD19 increased as the dose level increased. As discussed above, our ability to suppress B-cell responses without complete B-cell eradication may be an important safety differentiator relative to other therapies such as Rituxan. Hallmarks of B-cell depletion are sustained reduction of detectable B cells for weeks or months following cessation of therapy. In the Phase 1a clinical trial, B cells were reduced by approximately 50% from baseline at all doses. The extent of the B-cell reduction did not increase as dose level increased, and B-cell counts recovered to pre-treatment values nearly simultaneous with the clearance of XmAb5871.

To assess B-cell function in the treated subjects, we examined CD86 levels, a marker of B-cell activation and a precursor to T-cell activation. XmAb5871 suppressed this B-cell activation marker at all doses, and once again, the recovery of B-cell activation was concurrent with the clearance of XmAb5871 from the subjects' serum.

Our goal in the design of XmAb5871 was to create a potent and reversible inhibitor of autoimmune B-cell responses, including the ability to inhibit the pathogenic auto-antibody responses in autoimmune diseases. Because the healthy volunteers are not expected to have auto-antibodies, we immunized them with tetanus and keyhole limpet hemocyanin (KLH) to elicit antibody responses to those antigens. XmAb5871 suppressed anti-tetanus antibody responses for all doses, with the exception of our lowest starting dose (0.03 mg/kg) (figure below). Placebo treated subjects showed an increase in anti-tetanus antibody levels of over 12-fold compared to a 4-fold increase for XmAb5871 treated subjects. We observed similar immunosuppression of anti-KLH responses. The immunization

biomarkers show that XmAb5871 can effectively suppress an immune response at well-tolerated doses feasible for biweekly dosing.

# anti-tetanus, 3 weeks after immunization



XmAb5871 reduced responses to tetanus toxoid vaccination in subjects in a Phase 1a study. C1-7 were subjects treated with 0.03, 0.1, 0.2, 0.6, 2, 5 and 10 mg/kg of XmAb5871, respectively. Anti-tetanus antibody was measured three weeks after subjects were immunized with tetanus.

## Further Clinical Development

Our planned clinical trials include an intravenous to subcutaneous bridging study in humans to prepare for subcutaneous administration in our future clinical trials. We believe that a subcutaneous formulation will be more commercially attractive and convenient for patients. Several subcutaneous formulations are being developed in collaboration with Amgen and should be compatible with auto-injector devices for doses in the 1-3 mg/kg range. We expect to initiate our Phase 2b POC clinical trial in the first half of 2015 and expect to enroll 150-200 moderate-to-severe rheumatoid arthritis patients on stable DMARD therapy. This clinical trial is designed to assess efficacy at 24 weeks. We expect that data from this trial, if positive, will support pivotal Phase 3 clinical trials in rheumatoid arthritis and lupus.

Additionally, we may explore the utility of XmAb5871 in other diseases where B cells are implicated, including multiple sclerosis, myasthenia gravis, Sjogren's syndrome and a variety of orphan diseases.

## **Preclinical Development Summary**

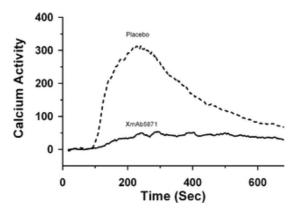
We have examined the ability of XmAb5871 to inhibit B cells in preclinical studies, including *in vitro* and *in vivo* studies. The observation in our preclinical studies include:

- No depletion of human B cells in culture;
- Inhibition of human B cells, including B cells donated by lupus and arthritis patients, stimulated by a variety of agents;
- Suppression of antibody responses in humanized mouse models;

- · Suppression of disease in mouse models of arthritis and multiple sclerosis without B-cell depletion; and
- Well tolerated at high doses in monkeys.

As discussed above, the lack of B-cell depletion is an important property of XmAb5871, giving it a potential safety advantage relative to B-cell depleting therapies like Rituxan. We have shown that XmAb5871 did not kill B cells in a culture of human blood cells over a wide concentration range. In contrast, Rituxan and XmAb5574, depleting antibodies for treating B-cell cancers, both significantly depleted B cells.

The hallmark of B-cell activation is intracellular calcium mobilization. B cells taken from human donors can be stimulated in vitro resulting in a readily observable mobilization of calcium. In contrast, in the presence of XmAb5871, stimulation of the B cells leads to very slight calcium mobilization, barely detectable with our assays (figure below).



XmAb5871 suppresses calcium mobilization, a hallmark of B-cell activation. Upon stimulation, B cells treated with placebo showed an increase in calcium flux. In contrast, B cells treated with XmAb5871 showed a low calcium signal.

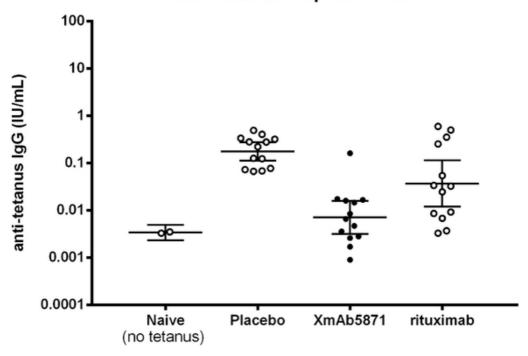
A second common measure of B-cell activation is their proliferation in response to various stimuli. In preclinical studies, we demonstrated XmAb5871 inhibits B-cell proliferation stimulated by anti-CD79b, IL-4, BLyS or lipopolysaccharide (LPS), a range of stimulants that signal through different pathways. The inhibition of the BLyS-mediated propagation is particularly notable given the recent approval of the anti-BLyS antibody Benlysta for treatment of lupus, suggesting that XmAb5871 inhibition includes the pathways blocked by Benlysta.

Because most autoimmune diseases involve contributions from T cells in addition to B cells, we examined the ability of XmAb5871 to reduce the propensity of the B cell to activate T cells. CD86 is the ligand for CD28 on T cells and their interaction is a major stimulant of T cells. For example, the blockade of CD86 by Bristol-Myers Squibb's Orencia (abatacept) is used as a treatment for rheumatoid arthritis and is also being investigated for the treatment of lupus. Upon B-cell stimulation, CD86 is increased on the B-cell surface, promoting the ability of the B cell to engage and activate the T-cell response. In the presence of XmAb5871, however, we observed that CD86 was significantly diminished. This observation led subsequently to the use of a similar assay as an activity biomarker for our Phase 1a clinical trial.

XmAb5871 was consistently immunosuppressive in mouse models of the human B-cell response. Because the antibody does not recognize mouse CD19 or mouse FcgRIIb, we used humanized mouse models (huSCID), in which human peripheral-blood cells, including B cells and T cells, are engrafted into an immune compromised mouse. These are well-established models and the human immune cells will normally react to immunization with antigen. Assuming that most of our human donors would have

been vaccinated with tetanus toxoid, we set up humanized mouse models with a tetanus booster vaccination to see if XmAb5871 could suppress the anti-tetanus response (figure below). We ran the model numerous times and observed a robust anti-tetanus antibody response in untreated mice (the placebo control group), which we did not observe in mice treated with XmAb5871, indicating effective B-cell inhibition. Rituximab was included as a control, showing only intermediate suppression of the anti-tetanus antibody response. XmAb5871's ability to prevent antibody responses in these humanized mouse models suggests it might be capable of inhibiting antibody responses in general and thus autoantibody responses in humans with autoimmune diseases.

# anti-Tetanus response in mice



XmAb5871 inhibited anti-tetanus antibody responses in mice engrafted with human B cells and immunized with tetanus.

We could not test XmAb5871 for activity in mouse disease models because of the lack of reactivity with the mouse CD19 and FcgRIIb. Accordingly, we created an XmAb5871 surrogate antibody called XENP8206, which has an Fv domain that recognizes mouse CD19 and an Fc domain identical to XmAb5871. We then used mice transgenic for human FcgRIIb as a background system for disease models. In these mice, the mouse FcgRIIb gene has been replaced with the human FcgRIIb gene so their FcgRIIb receptor can be recognized by the XENP8206 Immune Inhibitor Fc Domain. In vitro experiments with B cells taken from the transgenic mice showed us that XENP8206 was capable of mimicking XmAb5871's B-cell inhibition activity, and that the activity was dependent on engagement of human FcgRIIb. In a collagen-induced arthritis model, XENP8206-treated mice had little to no evidence of inflammation, whereas untreated mice had a 40% incidence of disease. XENP8206's ability to decrease symptoms in a mouse model of multiple sclerosis was at least as good as a Rituxan surrogate antibody, which caused complete depletion of the mouse B cells. XmAb5871's surrogate antibody XENP8206 did not cause significant B-cell depletion in our mouse studies.

We completed both 12-week and 24-week, multiple dose, preclinical monkey toxicology studies of XmAb5871 and found no adverse events in doses up to 200 mg/kg. Additional preclinical work has also

shown that XmAb5871 is capable of suppressing B cells donated by lupus and rheumatoid arthritis patients in both *in vitro* and *in vivo* models.

## XmAb7195, an IgE Inhibitor for the Treatment of Asthma and Allergic Diseases

## **Background and Market Opportunity**

XmAb7195 is an anti-IgE antibody engineered to reduce even very high IgE levels for the treatment of asthma and other atopic diseases. Its three specific mechanisms of action give it potential advantages over current therapies: increased IgE affinity, inhibition of the B-cell transition to IgE-secreting cells and rapid clearance of IgE from circulation. According to the CDC, asthma affects approximately one in 12 Americans, more than half of asthma sufferers have at least one attack each year and thousands of people die from asthma attacks each year. Disease severities cover a wide range, and the treatment landscape is multi-tiered for asthma patients. Patients with mild and moderate asthma are generally well controlled with inhaled corticosteroids and long-acting beta agonists. However, a small percentage of the estimated 25 million asthma patients in the United States have severe asthma and are refractory to high-dose combination therapy. This severe population is commonly treated with oral corticosteroids, which are associated with a host of undesirable side effects and are often insufficient to control the disease.

IgE, the target of Genentech and Novartis AG's Xolair (omalizumab), is the direct mediator of allergies and the allergic asthma response. When IgE binds to allergens, it triggers an allergic response, which can ultimately result in the debilitating bronchoconstriction of asthma, and other systemic pathologies such as atopic dermatitis and chronic urticaria, also known as hives. Xolair's efficacy in severe asthma through the suppression of IgE has validated IgE as a therapeutic target.

Xolair has been used to treat the severe asthma population, generating worldwide sales in 2012 of approximately \$1.3 billion. While Xolair has demonstrated efficacy in severe asthma, its modest potency has led to two key limitations:

- Because Xolair's modest potency would require an impractically large dose to control high IgE levels, it is approved for use only in a limited number of asthma patients, leaving approximately 20% of asthma patients that have high body weight and high IgE levels ineligible; and
- Of those patients treated with Xolair, approximately half do not reach target IgE reductions.

#### Overview

XmAb7195 is an anti-IgE antibody engineered to reduce IgE levels for the treatment of asthma and other atopic diseases. Its three specific mechanisms of action give it potential advantages over current therapies: increased IgE affinity, inhibition of the transition of B cells to IgE-secreting cells and rapid clearance of IgE from circulation.

- XmAb7195 is a humanized anti-IgE antibody with an Fv domain that targets the same IgE epitope as Xolair, which is validated to block IgE.
   XmAb7195's affinity for IgE is approximately three times higher than that of Xolair. We believe that this contributes to the increased suppression of IgE observed in our preclinical studies.
- XmAb7195, in contrast to Xolair, has our Immune Inhibitor Fc Domain that has a 400-fold higher affinity than natural antibodies for FcgRIIb. XmAb7195 and XmAb5871 have the same Fc domain, but XmAb7195, unlike XmAb5871, inhibits only IgE-positive B cells. By binding to FcgRIIb on IgE-positive B cells, XmAb7195 suppresses their activation and differentiation into IgE-secreting plasma cells. This binding reduces IgE production, a mechanism not seen with Xolair, and ultimately lowers IgE levels in the blood.

• In our preclinical primate and other animal studies, we observed rapid reductions in IgE levels, even from the highly-elevated levels found in chimpanzees, and rapid clearance of IgE from circulation. We did not observe any clearance or such magnitude of reduction with Xolair. This suggests a new mechanism of action in which high FcgRIIb binding causes very rapid clearance of the complexes formed between XmAb7195 and IgE in the liver. We believe XmAb7195 binds to FcgRIIb expressed in cells lining the blood vessels in the liver which take up and degrade the XmAb7195 IgE complex.

These three mechanisms lead to levels of serum IgE below quantifiable levels in preclinical chimpanzee studies and offer the potential for superior IgE control and superior clinical efficacy. We believe the limitations of current treatment with Xolair can be overcome with XmAb7195, and that superior IgE control means our product candidate can potentially treat a larger population with superior efficacy.

## **Preclinical Development Summary**

We have performed a variety of *in vitro* and *in vivo* studies to explore the ability of XmAb7195 to sequester IgE and inhibit its production. These preclinical studies have shown that XmAb7195 inhibits the production of IgE in a variety of settings, with greater and/or prolonged reductions of IgE compared to Xolair. We also have observed evidence of three different mechanisms of action. The observations from our preclinical studies include:

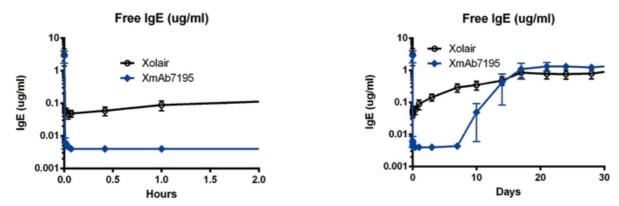
- Selective inhibition of IgE production in human B-cell assays;
- Prolonged reduction of free and total IgE in humanized mice compared to Xolair;
- Greater reduction of free and total IgE in chimpanzees compared to Xolair;
- · Well tolerated at high doses in monkeys; and
- Well tolerated in chimpanzees.

Important for XmAb7195's mechanisms of action is the binding of circulating IgE and our *in vitro* and *in vivo* studies reflect this activity and its three-fold tighter binding to IgE than Xolair. In a preclinical study, we treated B cells to induce their transition into IgE-secreting plasma cells and observed that XmAb7195 reduced the total amount of IgE produced. This is consistent with our prediction that the incorporation of our Immune Inhibitor Fc Domain causes the inhibition of IgE B cells. In this respect, XmAb7195 behaves similarly to XmAb5871, which we have shown to have broad capacity to inhibit the production of all classes of antibodies by B cells. In the case of XmAb7195, however, the B-cell inhibition is restricted to B cells expressing IgE on their surface, and our preclinical studies confirm this selectivity.

As with XmAb5871, XmAb7195's enhanced Fc domain does not bind well to mouse FcgRIIb, so we used models of mice engrafted with human blood cells and examined IgE levels in response to XmAb7195. Compared to Xolair, XmAb7195 prolonged the reduction of free IgE levels, indicating an additional biological effect beyond that of simple IgE binding. Total IgE levels (which is the sum of IgE complexed with anti-IgE antibody plus any free IgE) were significantly reduced in XmAb7195-treated mice, but not reduced in the Xolair-treated mice. We interpret these data as further evidence that XmAb7195, through its Immune Inhibitor Fc Domain, engages FcgRIIb on IgE B cells and prevents their transition into IgE-secreting plasma cells. In further studies in the humanized mice, we compared the activity of XmAb5871 to XmAb7195 and saw that the XmAb7195 suppression was restricted to IgE versus other immunoglobulins such as IgG and IgM.

We have also tested the activity of XmAb7195 in chimpanzees, which we believe is the most predictive animal model of the effects of XmAb7195 in humans. Chimpanzees, including those in our study, normally have very high levels of IgE compared to humans, and humans with these levels would be considered ineligible for Xolair because their IgE levels exceed Xolair's effective range. We treated

six chimpanzees, three with XmAb7195 and three with Xolair, and observed that both antibodies caused a reduction in circulating free IgE, as shown in the figures below.



XmAb7195 reduces free IgE levels in chimpanzees to below the limits of quantification of our IgE assay, 0.004 mg/ml. Chimpanzees treated with Xolair had transient impact, briefly reducing free IgE to approximately 0.050 mg/ml. The plots show data from the same study at different time intervals.

Xolair only transiently reduced the free IgE, however, and never achieved the low IgE levels generally believed necessary for efficacy (0.02 mg/ml or lower). Xolair, consistent with human clinical studies, increased total IgE three to five fold. XmAb7195, on the other hand, reduced free IgE levels to below our limit of quantification (0.004 mg/ml), amounting to at least 10-fold lower IgE than with Xolair. XmAb7195-treated chimpanzees had marked and rapid reductions in total IgE as well, once again consistent with the added mechanisms of action contributed by the Immune Inhibitor Fc Domain. We believe that the very rapid reduction in total IgE implicates a third mechanism of action, namely the ability to rapidly clear IgE bound to XmAb7195. A second chimpanzee study confirmed these findings, and additional preclinical studies with surrogate antibodies in FcgRIIb transgenic mice closely resemble our observations in chimpanzees, indicating that the rapid clearance mechanism is a general phenomenon and a potential new application of the Immune Inhibitor Fc Domain platform.

We have performed 12-week, multiple dose toxicology studies in cynomolgus monkeys up to 100 mg/kg and XmAb7195 is well tolerated with no adverse effects observed. Furthermore, although the chimpanzee studies were not designed as toxicology studies, XmAb7195 was well tolerated at the 5 mg/kg dose we tested at both single and multiple doses.

## Clinical Development Plans

We plan to file an IND for XmAb7195 for asthma with the FDA and to initiate a Phase 1a clinical trial in the first half of 2014 and to report preliminary data at the end of 2014. The Phase 1a single ascending dose clinical trial in healthy volunteers will include parallel cohorts in allergen-sensitive subjects with high IgE levels. This clinical trial will be designed to study safety and pharmacokinetics in humans and validate XmAb7195's ability to suppress both free and total IgE levels. If the Phase 1a clinical trial is successful, we anticipate starting a Phase 1b multiple ascending dose clinical trial of XmAb7195 in healthy adult volunteers and in patients with mild-to-moderate asthma in early 2015 to study safety, pharmacokinetics, and IgE reduction. We have received correspondence from the FDA in response to a pre-IND meeting request that concurred with our Phase 1 clinical trial plan, pending review of a full IND submission. Following the Phase la and 1b clinical trials, we anticipate initiating a Phase 2 POC clinical trial of XmAb7195 for intermediate-term treatment of patients with poorly-controlled asthma, which we expect will include patients with high IgE levels and/or high body mass. We expect the dosing for this clinical trial to be based on data from the Phase 1 clinical trials.

#### XmAb5574/MOR208, a Cytotoxic B-cell Depleting Product Candidate for the Treatment of B-cell Cancers

## **Background and Market Opportunity**

XmAb5574/MOR208 is a monoclonal antibody that targets CD19 and incorporates our Cytotoxic Fc Domain technology to kill malignant B cells. In contrast to XmAb5871, which uses our Immune Inhibitor Fc Domain, XmAb5574/MOR208 targets cancer cells where depletion is the goal in treating the disease.

B-cell cancers include lymphomas such as the non-Hodgkin Lymphomas (NHL) and leukemias such as chronic lymphocytic leukemia (CLL) and acute lymphoblastic leukemia (ALL). Collectively, lymphomas represent about five percent of all cancers diagnosed in the United States. NHL is the most prevalent of all lymphoproliferative diseases, with the National Cancer Institute estimating that over 69,000 new cases will be reported in the United States in 2013, and 85% of NHLs are classified as B-cell disorders. The Leukemia and Lymphoma Society estimates that over 16,000 new cases of CLL and over 6,000 new cases of ALL will be reported in 2013. CD19, the target of XmAb5871's Fv domain, is a B-cell surface protein that is highly expressed on the tumor cells in NHL and many leukemias, including ALL and CLL. We believe that targeting CD19 with XmAb5574/MOR208 offers potential advantages over the current standard of care for B-cell malignancies, which is treatment with Rituxan plus chemotherapy. Rituxan, an anti-CD20 antibody, plus chemotherapy has successfully treated many B-cell NHLs and some B-cell leukemias, demonstrating the utility of antibodies targeting B-cell diseases. Although the Rituxan-chemotherapy regimen has led to major improvements in response rates and progression-free survival, the majority of patients relapse and many lose responsiveness to Rituxan treatment.

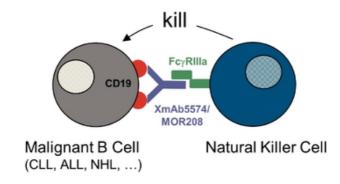
## Overview

XmAb5574/MOR208 is a monoclonal antibody that targets CD19 and incorporates our Cytotoxic Fc Domain technology for killing of malignant B cells. XmAb5574/MOR208 was discovered by us and is now being developed by MorphoSys, pursuant to a collaboration and license agreement that we entered into in June 2010. Under this agreement, we granted MorphoSys an exclusive worldwide license to XmAb5574/MOR208 for all indications. We were responsible for completing a Phase 1 clinical trial of XmAb5574/MOR208 in CLL, which was completed in January 2013. MorphoSys is solely responsible, at its own cost, for all other development and commercialization activities. MorphoSys commenced Phase 2 clinical trials in patients with B-ALL and NHL, in April and May 2013, respectively.

We humanized XmAb5574/MOR208 with our proprietary technology and applied our Cytotoxic Fc Domain to enhance binding to the human Fc receptors FcgRIIa and FcgRIIa, thereby enhancing recruitment of natural killer (NK) cells and other FcgR-bearing effector cells. We applied further engineering to the CD19-binding Fv domain of XmAb5574/MOR208 to enhance its affinity over 10-fold for human CD19, and also increased its affinity for monkey CD19, enabling monkey toxicology and efficacy studies.

CD19 is an alternative target to CD20 that can be used in salvage regimens for patients failing Rituxan. Further, CD19 is expressed on the B cell surface earlier in development and persists longer through B-cell maturation. Therefore, XmAb5574/MOR208 may be able to target a broader spectrum of lymphoid malignancies, such as ALL or CLL, where Rituxan's efficacy may be limited. Finally, we believe that combination therapy of XmAb5574/MOR208 with immunomodulatory agents, such as

lenalidomide, and/or new chemotherapy agents, offers the potential for superior efficacy to existing therapies.



XmAb5574 recruits Natural Killer cells to malignant B cells to promote their destruction.

# Clinical Development Summary

In preclinical studies, we demonstrated that XmAb5574/MOR208 had FcgR-dependent anti-tumor activity against multiple human B-cell lymphomas in vitro and strong anti-tumor effects in mouse lymphoma models. We also demonstrated favorable half-life and potent B-cell depletion in monkey models. We submitted the IND for XmAb5574/MOR208 with the FDA in February 2010. Our completed Phase 1 multiple ascending dose clinical trial in patients with CLL demonstrated an acceptable safety profile and encouraging signs of anti-tumor activity.

#### Phase 1 Clinical Trial

In January 2013, we completed a Phase 1 clinical trial of XmAb5574/MOR208 in patients with high-risk, heavily-pretreated CLL, in which the antibody showed encouraging signs of preliminary anti-tumor activity and an acceptable safety profile and was well tolerated. Dose levels from 0.3 to 12 mg/kg were tested. The trial protocol was amended to include a period of extended dosing for a total of eight patients at the 12 mg/kg dose to study the effect of longer duration of exposure on safety and response rate. The primary endpoints for this clinical trial were safety, pharmacokinetics and immunogenicity. The secondary endpoints for this clinical trial included clinical responses assessed according to International Working Group on CLL (IWCLL) 2008 and 1996 Guidelines. Overall response rate by IWCLL 2008 criteria was 29.6% (eight partial responses in 27 evaluable patients). Using IWCLL 1996, response criteria resulted in a response rate of 66.7% (18 partial responses). We expect regulatory approval of oncology therapies to require progression-free survival data or overall survival data.

During the Phase 1 clinical trial, the most common adverse events were mild to moderate infusion reactions which were experienced only with the first dose. Clinically-significant, treatment-related adverse events classified as Grade 3 or higher occurred in 5 out of 27 patients. One patient treated at the 1 mg/kg dose level experienced neutropenia (low white blood cells). Four patients at the 12 mg/kg dose level experienced one or more of neutropenia, febrile neutropenia (neutropenia with fever), thrombocytopenia (low platelets), elevated aspartate aminotransferase (liver enzyme level) or tumor lysis syndrome (metabolic toxicity linked to rapid destruction of tumor cells). Only one dose-limiting toxicity, neutropenia, was observed and this was in one of the 16 patients treated at the 12 mg/kg dose level. No maximum tolerated dose was reached in this clinical trial.

## Further Clinical Development

Based on the Phase 1 clinical trial results, MorphoSys decided to continue the development of XmAb5574/MOR208 and has initiated two Phase 2 clinical trials of XmAb5574/MOR208 in patients with ALL and NHL, respectively. The Phase 2 clinical trial in ALL began in April 2013 and is an

open-label, multicenter, single-arm clinical trial designed to assess efficacy in patients suffering from relapsed or refractory B-ALL. Secondary outcome measures include response duration, safety and pharmacokinetics of XmAb5574/MOR208. In total, 30 patients are planned to be enrolled. The Phase 2 clinical trial in NHL began in May 2013 and is an open-label, multicenter, single-arm clinical trial designed to assess the efficacy of XmAb5574/MOR208 in patients with relapsed or refractory NHL. Secondary outcome measures include response duration, safety and pharmacokinetics of XmAb5574/MOR208. A total of up to 120 patients are planned to be enrolled in four separate sub-indications (follicular lymphoma, MCL, diffuse large B-cell lymphoma, and other forms of NHL). Additional clinical trials in other B-cell malignancies and in combination with chemotherapy are possible and will be conducted at the discretion of and under the control of MorphoSys.

## **Preclinical Development Summary**

Our preclinical observations include:

- Cytotoxicity against multiple lymphoma cell lines;
- Cytotoxicity against malignant cells from ALL and MCL patients;
- Inhibition of tumor growth in mouse xenograft models;
- Rapid and sustained depletion of peripheral and tissue B cells in monkeys; and
- Well tolerated at high doses in monkeys.

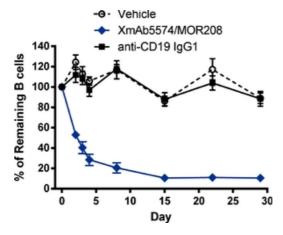
In preclinical *in vitro* studies, we tested XmAb5574/MOR208 for ADCC activity against a large number of lymphoma-derived tumor cell lines. In these studies, XmAb5574/MOR208 was shown to mediate strong NK-mediated killing against the CD19-positive tumor cell lines tested. Similar tests were performed with tumor cells taken directly from patients with either ALL or mantle cell lymphoma (MCL). In these studies, XmAb5574/MOR208 demonstrated substantial ADCC activity against both types of lymphomas. In all contexts examined, the control antibody, which is identical to XmAb5574/MOR208 except its Fc domain is an unmodified Fc domain (anti-CD19 IgG1), showed greatly reduced ADCC, in some cases with no detectable killing of tumor cells. This comparison highlights the impact of our Cytotoxic Fc Domain technology on the ability of anti-CD19 antibodies to recruit NK cells and attack tumor cells. In addition to NK-mediated killing, the presumed dominant mechanism of action, we also observed macrophage-mediated phagocytosis of tumor cells in vitro, and a direct anti-tumor effect (requiring no effector cells such as NK or macrophage) in which the antibody appears to slow the growth of some tumor lines.

We used mouse xenograft models to examine the *in vivo* activity of XmAb5574/MOR208 against subcutaneously implanted lymphoma cells. The antibody inhibits lymphoma growth in both prophylactic (tumor-prevention) models and established tumor models. Notably, anti-CD19 antibodies with unmodified Fc domains had diminished anti-tumor activity compared to XmAb5574/MOR208.

Although the precursor antibody does not react strongly with monkey CD19 or B cells, our affinity-enhanced Fv domain does react well with monkey B cells, and this enabled further POC and toxicology studies in cynomolgus monkeys. We performed an initial high-dose (10 mg/kg) study in monkeys and observed rapid depletion of peripheral B cells after a single dose of the antibody, ultimately reducing the B cells to less than five percent of their starting numbers. Significant B-cell reductions were also observed in the bone marrow, spleen and lymph nodes, notable because of Rituxan's relatively poor ability to impact tissue-resident B cells. The 10 mg/kg dose was well-tolerated by the monkeys, with no adverse effects.

In additional monkey studies, we compared the ability of different doses of XmAb5574/MOR208 to deplete monkey B cells and observed significant B-cell reductions at lower doses, 1 and 3 mg/kg. In a final study to demonstrate the impact of our Cytotoxic Fc Domain technology on *in vivo* tumor cell killing, we compared the ability of XmAb5574/MOR208 to an unmodified IgG1 control antibody (anti-CD19 IgG1) to deplete monkey B cells at a 3 mg/kg dose (figure below). The

XmAb5574/MOR208-treated animals displayed a marked drop in peripheral B-cell counts. The unmodified control antibody anti-CD19 IgG1, on the other hand, did not noticeably affect B-cell counts and was indistinguishable from the effects of treatment with vehicle alone.



A single dose of XmAb5574/MOR208 depletes peripheral B cells in cynomolgus monkeys. A control anti-CD19 antibody containing an unmodified IgG1 Fc domain and placebo, consisting of the buffer vehicle, have no effect on B cells.

## **Our Research and Development Pipeline**

We have used our various Fc platforms and antibody optimization capabilities to produce a growing pipeline of development candidates. These include new Immune Inhibitor Fc Domain candidates designed to remove target antigens from circulation and multiple oncology candidates using our CD3 bispecifics platform. We will continue to progress these candidates as additional options for clinical development by us or as out-licensing opportunities to generate additional revenue. From these efforts, we believe that we will have at least one additional product candidate identified for which we can submit an IND by mid-2015.

## Applying the rapid clearance property of the Immune Inhibitor Fc Domain

We are exploring multiple new candidate concepts for application of our Immune Inhibitor Fc Domain, in particular capitalizing on the newly discovered rapid clearance property, which builds off the natural scavenging role of FcgRIIb on liver sinusoidal endothelial cells. For example, building on our lead anti-IgE product candidate, XmAb7195, we are now characterizing a second-generation antibody with a modified version of the IIb immune inhibitor domain. The new Fc domain has intermediate affinity enhancement for FcgRIIb, which we have discovered promotes IgE control in mouse models with a longer dosing interval than XmAb7195. We plan to commence primate studies with this development candidate and begin development of a manufacturing cell line during 2013. We are also exploring approaches to clear pathologic immune complexes from circulation. Immune complexes are central to the kidney pathology in lupus nephritis and a variety of other conditions and form when antigens present in the circulation are recognized by antibodies of the immune system.

## CD3 bispecifics for oncology

Using our XmAb heterodimeric Fc domains, we are generating several tumor-targeted bispecific antibodies that contain a tumor antigen binding domain and a CD3 binding domain. Our platform enables the creation of Fc-containing bispecifics that recruit T-cells via CD3 binding to kill tumor cells targeted by the antigen binding domain. The inclusion of an Fc domain provides a potential improvement in half-life over first-generation bispecifics such as the Micromet (Amgen) BiTE technology, which require continuous infusion due to their extremely short half-life. We have produced a CD3 binding bispecific antibody that targets CD19, which demonstrates in primate models good

tolerability, a multi-day half-life and sustained target cell depletion from a single dose. We have produced a first development candidate targeting CD38 and confirmed the multi-day half-life in mouse models that is typical of standard antibodies, and have produced a second development candidate targeting CD123. We are creating a stable cell line for production and plan to perform activity studies in monkeys in the near future. Additional development candidates against additional tumor targets are in discovery.

## **Second Generation Biologics**

Our Xtend Fc Domain technology can potentially improve the performance of commercially successful therapeutic antibodies by enhancing their half-life and improving dosing convenience. We have produced several enhanced versions of antibodies, in some cases simply applying the Xtend Fc Domain mutations, and in other cases also modifying other features. AbbVie's Humira (adalimumab) is the industry-leading anti-TNF antibody for the treatment of rheumatoid arthritis, reaching global sales above \$5 billion. We have produced and characterized a half-life enhanced version of Humira that we call Xtend-TNF (also known as XmAb6755). It has approximately twice the *in vivo* half-life of Humira, which is dosed on a biweekly schedule, and we believe Xtend-TNF has the potential to achieve monthly dosing in rheumatoid arthritis patients without loss of efficacy. A stable cell line has been created and we have a business relationship with Boehringer Ingelheim to manufacture Xtend-TNF drug supply for preclinical toxicology and clinical studies.

A second enhanced rheumatoid arthritis drug is our Xtend-CTLA4, a CTLA-4-Fc fusion that we believe improves on the performance of Orencia. Orencia had initially inconvenient monthly intravenous dosing, but after approval of weekly subcutaneous dosing, global sales are now approaching \$1 billion annually. We applied the Xtend Fc Domain to our proprietary CTLA-4 fusion, achieving a 40% improvement in half-life in monkeys, and applying our engineering capabilities we enhanced affinity for its target CD86 by at least 20-fold. Monkey studies comparing Xtend-CTLA4 to abatacept showed that Xtend-CTLA4 had significantly superior immunosuppression and the potential for monthly subcutaneous dosing in humans.

## Product Development Partnerships, Other Commercial Agreements and Technology Licenses

We use product development partnerships with pharmaceutical and biotechnology companies to complement our internal drug discovery and development capabilities, to assist the efficient global commercialization of our products and technology and to generate near and long-term funding. To date, the revenue generated from upfront fees, license fees, option fees and milestone payments associated with these arrangements, combined with the development expenses assumed by our partners, have allowed us to better manage our operating expenses and continue to invest in building new opportunities. Under these partnership agreements and our technology license agreements, we are eligible to receive up to an aggregate of approximately \$1.3 billion in potential milestone payments upon successful commercialization of the programs contemplated by our product development partnership and technology license agreements. These payments include up to approximately \$240.0 million relating to the achievement of clinical development milestone events; up to approximately \$541.0 million relating to the filing and completion of regulatory approvals and up to approximately \$526.5 million relating to the achievement of certain product sale goals.

Below is a table summarizing our material product development agreements and exclusive technology license:

Year	Licensed Antibody/Technology	Indication	Milestones	Royalties	Development Stage
2010	XmAb5871	Autoimmune disease	Yes	Yes	Phase 1 clinical
2010	XmAb5574/MOR208	Oncology	Yes	Yes	Phase 2 clinical
2013	Xtend technology	Various	Yes	Yes	Preclinical
	2010 2010	Year         Antibody/Technology           2010         XmAb5871           2010         XmAb5574/MOR208	YearAntibody/TechnologyIndication2010XmAb5871Autoimmune disease2010XmAb5574/MOR208Oncology	YearAntibody/TechnologyIndicationMilestones2010XmAb5871Autoimmune diseaseYes2010XmAb5574/MOR208OncologyYes	YearAntibody/TechnologyIndicationMilestonesRoyalties2010XmAb5871Autoimmune diseaseYesYes2010XmAb5574/MOR208OncologyYesYes

## Collaboration and Option Agreement with Amgen

In December 2010, we entered into a collaboration and option agreement with Amgen Inc. (Amgen) pursuant to which we agreed to collaborate with Amgen to research, develop and commercialize XmAb5871, an Fc-engineered monoclonal antibody that targets CD19 via its Fv domains and FcgRIIb via its XmAb Fc domain, and products based thereon. Under the terms of the agreement, we granted to Amgen an exclusive license to research, develop, manufacture and commercialize XmAb5871 and certain related products worldwide, which license is exercisable by Amgen only after Amgen's (1) notification to us that it is electing to exercise the license and (2) payment of a \$50.0 million option exercise fee to us during the option period. The option period began when we received the upfront payment from Amgen and ends on the earliest to occur of (a) the 90<sup>th</sup> day after delivery by us of a clinical trial report package from the Phase 2 POC clinical trial, (b) the termination of the agreement, and (c) March 23, 2017 (or March 23, 2021, if Amgen exercises an option to take over certain aspects of development due to our failure to perform certain development obligations). During the option period and prior to Amgen exercising its option under the agreement, we are required to use reasonably diligent efforts to conduct development activities through completion of a POC trial. We are currently leading research, development and manufacturing activities for XmAb5871 with collaborative input and development support from Amgen and have established a joint development committee to govern the development activities of XmAb5871 which meets quarterly regarding the ongoing development program we are leading. If Amgen exercises its option and pays the option exercise fee under the agreement, the exclusive worldwide license to research, develop and commercialize XmAb5871 granted to Amgen under the agreement will become effective, and Amgen will thereafter have the right to control, and will be solely responsible for the costs associated with, the devel

Under the terms of the agreement, we received an initial upfront payment of \$11.0 million. In addition, if Amgen exercises its option, and if specified clinical, regulatory and sales milestones are achieved, we are entitled to milestone payments of up to \$439.0 million in the aggregate, \$2.0 million of which we received from Amgen upon the initiation of our Phase 1b/2a clinical trial of XmAb5871 in January 2013 in patients with moderate to severe rheumatoid arthritis. The additional \$437.0 million of milestone payments is comprised as follows: a total of \$62.0 million relates to clinical development milestone events; a total of \$150.0 million relates to the filing and completion of regulatory approvals and a total of \$225.0 million relates to the achievement of certain product sale goals. If licensed products are successfully commercialized, we are also entitled to receive tiered royalties in the high single-digit to the high-teen percent range based upon net sales of products by Amgen, its affiliates and its sublicensees in a calendar year, subject to minimum annual royalty payments and other adjustments in certain circumstances. The royalties payable by Amgen under the agreement may be increased if we elect to contribute to Amgen's development costs under the agreement. Amgen's royalty obligations continue on a product-by-product and country-by-country basis until the later to occur of the expiration of the last-to-expire valid claim in a licensed patent covering the applicable product in such country, or 10 years after the first commercial sale of such product in such country.

The term of this agreement will continue until all of Amgen's royalty payment obligations have expired or upon expiration of the option period if Amgen has not exercised the option. The agreement provides that it may be terminated by either party upon the other party's insolvency or the other party's material breach of the agreement if such breach remains uncured for 90 days, or 30 days in the case of a non-payment breach. Amgen may terminate the agreement without cause upon 90 days' advance written notice to us. If Amgen challenges the validity of a patent relating to XmAb5871, then we may terminate this agreement immediately. In the event that Amgen terminates this agreement for convenience or we terminate due to Amgen's material breach, worldwide rights to develop, manufacture and commercialize XmAb5871 will revert back to us completely. Along with these rights, Amgen is obligated to transfer all regulatory documents, clinical data and knowhow, and we are

granted a license from Amgen to allow us to develop, manufacture and commercialize XmAb5871 worldwide without any financial obligations to Amgen.

#### Collaboration and License Agreement with MorphoSys

In June 2010, we entered into a collaboration and license agreement with MorphoSys AG (MorphoSys) which we subsequently amended in March 2012. We granted to MorphoSys an exclusive worldwide license under certain of our patents and know-how to research, develop and commercialize XmAb5574/MOR208, as well as other anti-CD19 antibodies that incorporate our cytotoxic Fc domain technology, with the right to sublicense under certain conditions. Under the terms of the agreement, we agreed to collaborate with MorphoSys to develop and commercialize XmAb5574/MOR208, a high potency cytotoxic monoclonal antibody developed by us for the treatment of B-cell malignancies and other diseases. Under the terms of the agreement, we initiated and sponsored a Phase 1 clinical trial for XmAb5574/MOR208 in patients with chronic lymphocytic leukemia in December 2010 which was completed in January 2013. Following such completion, MorphoSys is responsible for all further clinical development and commercialization of licensed antibodies and licensed products under the agreement and is required to use commercially reasonable efforts to achieve certain developmental and regulatory milestones and other diligence obligations under the agreement. In addition, MorphoSys is responsible for all costs relating to the development and commercialization of XmAb5574/MOR208, or other antibodies covered by the agreement, including manufacturing, regulatory, clinical and registration costs.

Under the terms of the agreement, we received an upfront payment of \$13.0 million and received \$3.0 million for development milestones in 2013. If certain developmental, regulatory and sales milestones are achieved, we are also eligible to receive up to an additional \$299.0 million in milestone payments. The \$299.0 million of milestone payments is comprised as follows: \$62.0 million relates to clinical development milestone events, \$187.0 million relates to the filing and completion of regulatory approvals and an additional \$50.0 million of aggregate milestone payments relate to the achievement of certain product sale goals. If licensed products are commercialized, we are also entitled to receive tiered royalties in the high single-digit to low-teen percent range based upon net sales of products sold by MorphoSys, its affiliates and its sublicensees in a calendar year. MorphoSys' royalty obligations continue on a licensed product-by-licensed product and country-by-country basis until the later to occur of the expiration of the last valid claim in the licensed patent covering a licensed product in such country, or 11 years after the first sale of a licensed product following marketing authorization in such country.

The term of this agreement will continue until all of MorphoSys' royalty payment obligations have expired unless terminated earlier. The agreement provides that it may be terminated by either party upon written notice to the other party in the event of the other party's insolvency or the other party's material breach of the agreement if such breach remains uncured for 120 days, or 30 days in the case of a non-payment breach. MorphoSys may terminate the agreement without cause upon 90 days' advance written notice to us. In the event that MorphoSys terminates this agreement for convenience or we terminate due to MorphoSys' material breach, worldwide rights to develop, manufacture and commercialize XmAb5574/MOR208, as well as any other antibodies covered by the agreement, revert back to us completely. Along with these rights, MorphoSys is obligated to transfer all regulatory documents, clinical data and know how, and we are granted a license from MorphoSys to allow us to develop, manufacture and commercialize XmAb5574/MOR208, or other antibodies covered by the agreement, worldwide, subject to reimbursing MorphoSys a portion of their development costs out of future revenue generated from the development and commercialization of XmAb5574/MOR208.

## Option and License Agreement with Alexion

In January 2013, we entered into an option and license agreement with Alexion Pharmaceuticals, Inc. (Alexion). Under the terms of the agreement, we granted to Alexion an exclusive

research license, with limited sublicensing rights, to make and use our Xtend technology to evaluate and advance compounds against six different target programs during a five-year research term under the agreement, up to completion of the first multi-dose human clinical trial for each target compound. Alexion may extend the research term for an additional three years upon written notice to us and payment of an extension fee of \$2.0 million. Alexion is responsible for conducting all research and development activities under the agreement at its own expense.

In addition, we granted to Alexion an exclusive option, on a target-by-target basis, to obtain an exclusive commercial, worldwide, royalty-bearing license, with sublicensing rights, under our Xtend technology to develop and commercialize products that contain the target for which the option is exercised. In order to exercise this option, Alexion must pay a \$4.0 million option fee with respect to each target for which the option is exercised. Alexion may exercise this option at any time during the research term.

Under the agreement, we received an upfront payment of \$3.0 million. Alexion is also required to pay an annual maintenance fee of \$0.5 million during the research term of the agreement and \$1.0 million during any extension of the research term. In addition, if certain development, regulatory and commercial milestones are achieved, we are eligible to receive up to \$66.5 million for the first product to achieve such milestones on a target-by-target basis. If licensed products are successfully commercialized, we are also entitled to receive royalties based on a percentage of net sales of such products sold by Alexion, its affiliates or its sublicensees, which percentage is in the low single digits. Alexion's royalty obligations continue on a product-by-product and country-by-country basis until the expiration of the last-to-expire valid claim in a licensed patent covering the applicable product in such country.

Absent early termination, the term of the agreement will continue until the expiration of Alexion's royalty payment obligations or until the expiration of the research term if Alexion has not exercised its option for a product license under the agreement. Either party may terminate the agreement for a material breach of the agreement by the other party if such breach remains uncured for 60 days, or 30 days in the case of a non-payment breach. Alexion may terminate the agreement without cause on a target-by-target basis upon 90 days' advance written notice to us.

## Collaboration Agreement with Boehringer Ingelheim

In February 2012, we entered into a collaboration agreement with Boehringer Ingelheim International GmbH (BI) for the establishment of certain manufacturing processes and the production of our next generation monoclonal anti-TNF antibody for use in our preclinical and Phase 1 clinical development. Under the terms of the agreement, we are required to use commercially reasonable efforts to complete Phase 1 clinical testing of the product and to find a licensing partner for the further development and commercialization of the antibody into a therapeutic product.

We will be required to pay for services performed and products provided by BI under the agreement pursuant to project plans entered into from time to time. In addition, we are required to reimburse BI for all out-of-pocket expenses, including the cost of raw materials, incurred in connection with the project plan. BI has agreed to delay all payments due to them under the agreement, including an annual interest rate which is a low double digit percentage, until (A) in the case where we have entered into a license agreement with a third party, the later of (1) the effective date of such license agreement or (2) the earlier of (i) completion of the clinical summary report for a Phase 1 clinical trial of the product or (ii) February 10, 2017 or (B) in the case where we decide to continue to develop the product on our own, on or before five years from the earlier of (i) completion of the clinical summary report for a Phase 1 clinical trial of the product or (ii) February 10, 2017. Any payments due by us in the situation described in clause (A) of the preceeding sentence will be made in installments each of which will be limited to a maximum percentage of any licensing revenue that we receive under the applicable third-party license. We are not obligated to pay BI any or all of the amounts owed under the agreement, including interest payments if we: (a) are not able to further develop the product for

technical or scientific reasons or (b) do not decide to proceed with the further development of the product without a business partner and are unable to enter into a partnership agreement within an agreed upon period of time after Phase 1 clinical development.

Pursuant to the agreement, we have granted BI a first right to negotiate to manufacture and supply the products for use in any future Phase 2 and Phase 3 clinical trials, and should BI exercise such right, BI has a first right to negotiate to manufacture and supply commercial product as our principal supplier for an agreed upon period following the first commercial launch of the products. In the event that we desire to produce the products using the process developed and performed by BI outside the agreement or any manufacturing agreement which we may enter into with BI, we will be required to pay BI a one time technology access fee of \$3.5 million in exchange for a worldwide, irrevocable, exclusive and royalty free license, with sublicensing rights, to use the process developed by BI under the agreement to produce the products.

Absent early termination, the agreement will terminate upon completion of all projects set forth in the agreement. Either party may terminate the agreement upon 180 days prior written notice to the other party if such party will not be able to carry out the project contemplated by the agreement for scientific, technical or business reasons. Either party may also terminate by written notice to the other party if the other party breaches the agreement in any material manner if such breach remains uncured for 30 days following written notice from the terminating party.

## Clinical Supply Agreement with Cook Pharmica

In October 2012, we entered into a clinical supply agreement with Cook Pharmica, LLC (Cook). Under the terms of the agreement, Cook agreed to produce and supply drug substance and drug product for use in our clinical studies and perform related services, and we granted to Cook, its affiliates and subcontractors a non-exclusive license to use certain of our intellectual property and confidential information for the purpose of performing obligations under the agreement. Cook is currently performing services related to the manufacture under current good manufacturing practices (cGMP) of drug substance of XmAb7195 under the agreement.

We pay for services performed and drug substance provided by Cook under the agreement pursuant to project plans entered into from time to time. In addition, we are required to reimburse Cook for all pass-through and out-of-pocket costs specified in each project plan, plus an additional percentage mark-up on certain of such costs, which percentage is in the low double digits.

Absent early termination, the agreement will terminate five years after the effective date, provided that the agreement will automatically renew for an additional two-year term. Cook has the unilateral right to terminate the agreement upon 180 days prior written notice to us. Either party may terminate the agreement upon written notice to the other party in the event of the other party's insolvency or the other party's material breach of the agreement if such breach remains uncured for 15 days in the case of a payment related breach or 30 days in the case of a non-payment related breach.

### **Development and Manufacturing Services Agreement with Catalent**

In September 2005, we entered into a development and manufacturing services agreement (the Catalent Manufacturing Agreement) with Catalent Pharma Solutions LLC (formerly Cardinal Health PTS, LLC) (Catalent). Under the terms of the agreement, Catalent may, from time to time, provide development and manufacturing services for us related to our XmAb technology. Catalent is currently performing services related to the manufacture under cGMP of drug substance of XmAb5871 under the agreement. We pay for services performed by Catalent under the agreement pursuant to statements of work entered into from time to time.

Under the terms of the agreement, if Catalent develops one or more cell lines using its proprietary GPExgene product expression technology (GPEx Technology) in the course of performing services under the agreement, we have the option to license any such cell line for non-cGMP research

for a license fee of \$30,000 per year for a period of up to 10 years and on other terms to be agreed upon by Catalent and us. In addition, we have the option to license any cell line developed by Catalent in the course of performing services under the agreement that incorporates the GPEx Technology for use in the production of clinical and commercial supplies of gene expression products by us or any of our manufacturers for 10 years for an upfront fee that ranges between \$0 and \$0.3 million per cell line, an annual license fee of \$30,000, and development and regulatory milestones up to as much as an aggregate of \$3.1 million per cell line licensed, and on other terms to be agreed upon by Catalent and us.

This agreement will remain in effect unless either party terminates it in accordance with its terms. We may unilaterally terminate the agreement or activities under any statement of work entered into pursuant to the agreement upon 90 days written notice to Catalent. Catalent may unilaterally terminate the agreement upon 24 months written notice to us. Either party may terminate the agreement upon written notice to the other party upon the other party's insolvency or the other party's material breach of the agreement if such breach remains uncured for 30 days following notice thereof.

## Cell Line Sale Agreement with Catalent

In December 2011, we entered into a GPEx-derived cell line sale agreement with Catalent pursuant to which we purchased a cell line (the GPEx Cell Line) developed by Catalent under the Catalent Manufacturing Agreement for use in the manufacture of XmAb7195.

As consideration for the purchase and sale of the GPEx Cell Line under the agreement, we paid an initial upfront fee of \$125,000. In addition, we are required to pay an annual fee to Catalent and royalties based on a percentage of net sales for products that are derived from or utilize the GPEx Cell Line. Such percentage is less than 1.0%. We are also required to make payments to Catalent based upon the achievement of certain developmental and regulatory milestones totaling up to approximately \$2.9 million.

We have the unilateral right to terminate the agreement upon 30 days written notice to Catalent. In addition, either party may terminate the agreement upon written notice to the other party in the event of the other party's insolvency or the other party's material breach of the agreement if such breach remains uncured for 60 days following notice thereof. Absent early termination, the agreement will remain in effect. If we terminate the agreement without cause or if Catalent terminates the agreement for our material breach of the agreement, our ownership rights in the GPEx® Cell Line will automatically terminate, and title thereto will revert to Catalent.

#### Other Technology Licenses

In addition to the product development partnerships and technology license agreement described above, we also enter into non-exclusive relationships whereby we license our intellectual property around a specific XmAb technology to a pharmaceutical or biotechnology company to use in one or more of their own products. By accessing our technology, our partners hope to improve the pharmacology of their antibodies and create potential commercial differentiation for their product candidates. Under these technology licenses, we generally grant rights to our licensees that are limited to the specific XmAb Fc domains that are required and also limited to a specific program or set of programs of the partner that are outside of our core strategic areas. This approach allows us to maintain control over the vast majority of the rights to our platform while still disseminating our technology for broad use. The plug-and-play nature of XmAb technology allows us to structure nearly all of these licenses without any work commitment on our part; hence, these licenses allow us to generate revenue to support our own internal programs with no additional obligations on our part. The revenue we generate from these licenses comes in the form of license fees, annual maintenance fees, milestone payments and royalties. Typically, per antibody, the license fees are in the range of \$0.5 million to \$2.0 million depending on the size of the maintenance fees and early milestone payments. We may receive aggregate potential milestones payments under our technology license

agreements of approximately \$172.5 million, and we may receive royalties under each agreement as a percentage of net sales, which percentage is in the low single digit range. The aggregate potential milestone payments payable to us include up to approximately \$65.0 million relating to the achievement of clinical development milestone events; up to approximately \$36.0 million relating to the filing and completion of regulatory approvals and up to approximately \$71.5 million relating to the achievement of certain product sale goals. Below is a table summarizing these technology licenses:

		Xencor				Current
Licensee	Year	Technology	Indication	Milestones	Royalties	Development Stage
BI	2007	Cytotoxic	Oncology	Yes	Yes	Phase 1 trials
						(two candidates)
Janssen R&D, LLC	2009	Xtend	Autoimmune disease	Yes	Yes	preclinical
CSL Limited	2009	Cytotoxic	Oncology	Yes	Yes	Phase 1
CSL Limited	2013	Xtend	Hematological diseases	Yes	Yes	Preclinical
Merck	2013	Fc optimization	Autoimmune disease	Yes	Yes	Preclinical

### **Intellectual Property**

The foundation for XmAb technology and our product candidates and partnering is the generation and protection of intellectual property for novel antibody therapeutics. We combine proprietary computational methods for amino acid sequence design with laboratory generation and testing of new antibody compositions. Our design and engineering team prospectively assesses, with patent counsel, the competitive landscape with the goal of building broad patent positions and avoiding third-party intellectual property.

As a pioneer in Fc domain engineering, we systematically scanned the structure of the Fc domain to discover Fc variants. We have filed patent applications relating to thousands of specific Fc domain variants with experimental data on specific improvements of immune function, pharmacokinetics, structural stability and novel structural constructs. We have filed additional patent applications derived from these applications as we discover new properties of the Fc variants and as new business opportunities arise. We continually seek to expand the intellectual property coverage of our technology and candidates, and invest in discovering new Fc domain technologies and antibody product candidates.

As of September 30, 2013, our patent estate, on a worldwide basis, includes 164 issued patents (48 of which are in the United States) and over 180 pending patent applications (72 of which are in the United States) which we own or for which we have a fully-paid exclusive license, with claims directed to XmAb Fc domains, all of our clinical and preclinical stage antibodies and our computational protein design methods, called the PDA protein design platform. Of these patents and patent applications, 73 issued patents (21 of which are in the United States) and 106 pending patent applications (44 of which are in the United States) relate to our XmAb Fc domains, with claims directed to their incorporation into antibodies, Fc domain engineering and compositions of matter. These patents are expected to expire in the United States between 2023 and 2031. Our three lead product candidates are covered by issued U.S. composition of matter patents relating to both the XmAb Fc domains and the individual product candidates. The composition of matter patents relating to our lead product candidates are expected to expire in the United States between 2027 and 2030, one of which relates to XmAb5574/MOR208, two relate to XmAb5871 and two relate to XmAb7195.

In addition to patent protection, we rely on trade secret protection and know-how to expand our proprietary position around our technology and other discoveries and inventions that we consider important to our business. We seek to protect this intellectual property in part by entering into confidentiality agreements with our employees, consultants, scientific advisors, clinical investigators and other contractors and also by requiring our employees, commercial contractors and certain consultants and investigators, to enter into invention assignment agreements that grant us ownership of certain discoveries or inventions made by them.

Further, we seek trademark protection in the United States and in certain other jurisdictions where available and when we deem appropriate. We have obtained registrations for the Xencor trademark, as well as certain other trademarks, which we use in connection with our pharmaceutical research and development services and our clinical-stage products, including XmAb, PDA and Protein Design Automation. We currently have registrations for Xencor and PDA in the United States, Australia, Canada, the European Community and Japan, for Protein Design Automation in the United States, Australia, Canada and the European Community, and for XmAb in the United States, Australia and the European Community.

### Manufacturing

We have adopted a manufacturing strategy of contracting with third parties in accordance with cGMP for the manufacture of drug substance and product. Additional contract manufacturers are used to fill, label, package and distribute investigational drug products. This allows us to maintain a more flexible infrastructure while focusing our expertise on developing our products. XmAb5871 and XmAb7195 are produced by mammalian cell culture of a Chinese hamster ovary (CHO) cell line that expresses the antibody, followed by multiple purification and filtration steps typical of those used for monoclonal antibodies. We will ultimately depend on contract manufacturers for the manufacture of our products for commercial sale, as well as for process development. Contract manufacturers are subject to extensive governmental regulation. We have multiple potential sources for the manufacturing of XmAb5871 and XmAb7195.

We are able to internally manufacture the quantities of our product candidates required for relatively short preclinical animal studies. We believe that this allows us to accelerate the drug development process by not having to rely on third parties for all of our manufacturing needs. However, we do rely and expect to rely on a number of contract manufacturers to produce sufficient quantities of our product candidates for use in more lengthy preclinical research.

### Competition

We compete in an industry that is characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. Our competitors include pharmaceutical companies, biotechnology companies, academic institutions and other research organizations. We compete with these parties for promising targets for antibody-based therapeutics, new technology for optimizing antibodies and in recruiting highly qualified personnel. Many competitors and potential competitors have substantially greater scientific, research and product development capabilities as well as greater financial, marketing and sales and human resources than we do. In addition, many specialized biotechnology firms have formed collaborations with large, established companies to support the research, development and commercialization of products that may be competitive with ours. Accordingly, our competitors may be more successful than we may be in developing, commercializing and achieving widespread market acceptance. In addition, our competitors' products may be more effective or more effectively marketed and sold than any treatment we or our development partners may commercialize and may render our product candidates obsolete or noncompetitive before we can recover the expenses related to developing and commercializing any of our product candidates.

Competition in autoimmune disease drug development is intense and includes multiple monoclonal antibodies, other biologics and small molecules approved for the treatment of rheumatoid arthritis and autoimmune diseases, many of which are being developed or marketed by large multinational pharmaceutical companies such as GlaxoSmithKline plc, AbbVie Inc., Janssen Pharmaceuticals, Inc., Genentech Inc. and Amgen Inc. Benlysta is currently the only monoclonal antibody that we are aware of that is approved for the treatment of lupus, although we believe that Rituxan is prescribed, off label, for this indication. Humira, Amgen's Enbrel (etanercept), Janssen Pharmaceuticals, Inc.'s Remicade (infliximab) and Simponi (golimumab), Orencia and Rituxan, among others, are approved for the

treatment of rheumatoid arthritis. In addition, these and other pharmaceutical companies have monoclonal antibodies or other biologics in clinical development for the treatment of autoimmune diseases.

Many companies have approved therapies or are developing drugs for the treatment of asthma including multinational pharmaceutical companies such as GlaxoSmithKline, Novartis AG and AstraZeneca plc. Monoclonal antibody drug development has primarily focused on allergic asthma. Xolair is currently the only monoclonal antibody that we are aware of that is approved for the treatment of severe asthma. In addition, we are aware that Novartis, AstraZeneca/MedImmune and Genentech each have an antibody targeting IgE in Phase 1 or 2 clinical development for asthma. Other monoclonal antibodies in development target cytokines such as IL-13, IL-4, IL-5, IL-9, GM-CSF or their receptors. Although these drugs function differently from our products, if successfully developed, these drugs will compete in the asthma market. We are not aware of any companies developing drugs that target FcgRIIb for the treatment of asthma.

Competition in blood cancer drug development is intense, with more than 250 compounds in clinical trials by large multinational pharmaceutical companies and Rituxan is just one of many monoclonal antibodies approved for the treatment of NHL or other blood cancers. In addition, we are aware of a number of other companies with development stage programs that may compete with XmAb5574/MOR208 in the future. We anticipate that we will face intense and increasing competition as new treatments enter the market and advanced technologies become available.

## **Regulatory Overview**

Our business and operations are subject to a variety of U.S. federal, state and local and foreign supranational, national, provincial and municipal laws, regulations and trade practices. The FDA and comparable regulatory authorities in state and local jurisdictions and in other countries impose substantial and burdensome requirements upon companies involved in the clinical development, manufacture, marketing and distribution of drugs and biologics. These agencies and other federal, state and local entities regulate research and development activities and the testing, manufacture, quality control, safety, effectiveness, labeling, storage, recordkeeping, approval, advertising and promotion and export and import of our product candidate.

#### **U.S. Government Regulation**

U.S. Drug Development Process

In the United States, the FDA regulates drugs and biologic products under the Federal Food, Drug and Cosmetic Act (FDCA) (21 U.S.C. §301, et seq), its implementing regulations and other laws, including, in the case of biologics, the Public Health Service Act. Our antibody product candidates are subject to regulation by the FDA as a biologic. Biologics require the submission of a Biologics License Application (BLA), to the FDA and approval of the BLA by the FDA before marketing in the United States. The process of obtaining regulatory approvals for commercial sale and distribution and the subsequent compliance with applicable federal, state, local and foreign statutes and regulations require 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 administrative or judicial civil or criminal sanctions. These sanctions could include the FDA's refusal to approve pending applications, license suspension or revocation, withdrawal of an approval, imposition of a clinical hold on clinical trials, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of

government contracts, restitution, disgorgement or civil and/or criminal penalties. The process required by the FDA before a biologic may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests, animal studies and formulation studies performed in accordance with the FDA's current Good Laboratory Practices (GLP) regulations;
- submission to the FDA of an investigational new drug application (IND) which must become effective before human clinical trials in the United States may begin;
- performance of adequate and well-controlled human clinical trials in accordance with the FDA's current good clinical practices (GCP) regulations to establish the safety and efficacy of the product candidate for its intended use;
- submission to the FDA of a BLA;
- satisfactory completion of an FDA inspection (if the FDA deems it as a requirement) of the manufacturing facility or facilities where the product is
  produced to assess compliance with the FDA's cGMP regulations to assure that the facilities, methods and controls are adequate to preserve the
  product's identity, strength, quality and purity;
- potential audits by the FDA of the nonclinical and clinical trial sites that generated the data in support of the BLA;
- review of the BLA by an external Advisory Committee to the FDA, whose recommendations are not binding on the FDA; and
- FDA review and approval of the BLA prior to any commercial marketing or sale.

Before testing any compounds with potential therapeutic value in humans, the product candidate enters the preclinical testing stage. Preclinical tests include laboratory evaluations of product chemistry, stability and formulation, as well as animal studies to assess the potential toxicity and activity of the product candidate. The conduct of the preclinical tests must comply with federal regulations and requirements including GLPs. The sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data, any available clinical data or literature and a proposed clinical protocol, to the FDA as part of the IND. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA raises concerns or questions about the conduct of the clinical trial, including concerns that human research subjects will be exposed to unreasonable health risks. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. The FDA may also impose clinical holds on a product candidate at any time before or during clinical trials due to safety concerns or non-compliance, or for other reasons.

Clinical trials involve the administration of the product candidate to human patients under the supervision of qualified investigators, generally physicians not employed by or under the clinical trial sponsor's control. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria and the parameters to be used to monitor subject safety and effectiveness. Each protocol must be submitted to the FDA as part of the IND. Clinical trials must be conducted in accordance with GCPs. Further, each clinical trial must be reviewed and approved by an IRB at or servicing each institution at which the clinical trial will be conducted. An IRB is charged with protecting the welfare and rights of clinical trial participants and considers such items as whether the risks to individuals participating in the clinical trials are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the form and content of the informed consent that must be signed by each clinical trial subject or his or

her legal representative and must monitor the clinical trial until completed. Human clinical trials are typically conducted in three sequential phases that may overlap or be combined:

- *Phase 1.* The product candidate is initially introduced into a limited population of healthy human subjects and tested for safety, dosage tolerance, absorption, metabolism, distribution and excretion. In the case of some products for some diseases, or when the product may be too inherently toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients with the disease or condition for which the product candidate is intended to gain an early indication of its effectiveness.
- *Phase 2.* The product candidate is evaluated in a limited patient population (but larger than in Phase 1) to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted indications and to assess dosage tolerance, optimal dosage and dosing schedule.
- Phase 3. Clinical trials are undertaken to further evaluate dosage and provide substantial evidence of clinical efficacy and safety in an expanded patient population (such as several hundred to several thousand) at geographically dispersed clinical trial sites. Phase 3 clinical trials are typically conducted when Phase 2 clinical trials demonstrate that a dose range of the product candidate is effective and has an acceptable safety profile. These trials typically have at least 2 groups of patients who, in a blinded fashion, receive either the product or a placebo. Phase 3 clinical trials are intended to establish the overall risk/benefit ratio of the product and provide an adequate basis for product labeling. Generally, two adequate and well-controlled Phase 3 clinical trials are required by the FDA for approval of a BLA.

Post-approval studies, sometimes referred to as Phase 4 clinical trials, may be conducted after initial marketing approval. These studies are used to gain additional experience from the treatment of patients in the intended therapeutic indication to further assess the biologic's safety and effectiveness after BLA approval. Phase 4 clinical trials can be initiated by the drug sponsor or as a condition of BLA approval by the FDA.

Annual progress reports detailing the results of the clinical trials must be submitted to the FDA and written IND safety reports must be promptly submitted to the FDA and the investigators for serious and unexpected adverse events or any finding from tests in laboratory animals that suggests a significant risk for human subjects.

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

## U.S. Review and Approval Processes

The results of product development, preclinical studies and clinical trials, along with descriptions of the manufacturing process, analytical tests, proposed labeling and other relevant information are submitted to the FDA in the form of a BLA requesting approval to market the product for one or more specified indications. The submission of a BLA is subject to the payment of substantial user fees.

Once the FDA receives a BLA, it has 60 days to review the BLA to determine if it is substantially complete and the data is readable, before it accepts the BLA for filing. Once the submission is accepted for filing, the FDA begins an in-depth review of the BLA. Under the goals and policies

agreed to by the FDA under the Prescription Drug User Fee Act (PDUFA), the FDA has 12 months from submission in which to complete its initial review of a standard BLA and make a decision on the application and eight months from submission for a priority BLA, and such deadline is referred to as the PDUFA date. The FDA does not always meet its PDUFA dates for either standard or priority BLAs. The review process and the PDUFA date may be extended by three months if the FDA requests or the BLA sponsor otherwise provides additional information or clarification regarding information already provided in the submission within the last three months before the PDUFA date.

After the BLA submission is accepted for filing, the FDA reviews the BLA to determine, among other things, whether the proposed product is safe and effective for its intended use, and whether the product is being manufactured in accordance with cGMP to assure and preserve the product's identity, strength, quality and purity. The FDA may refer applications for novel drug or biological products or drug or biological products which present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions. During the approval process, the FDA also will determine whether a risk evaluation and mitigation strategy (REMS) is necessary to assure the safe use of the product. If the FDA concludes a REMS is needed, the sponsor of the BLA must submit a proposed REMS; the FDA will not approve the BLA without an approved REMS, if required. A REMS can substantially increase the costs of obtaining approval.

Before approving a BLA, the FDA can inspect the facilities at which the product is manufactured. The FDA will not approve the BLA 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 a BLA, the FDA will typically inspect one or more clinical sites to assure that the clinical studies were conducted in compliance with GCP requirements. If the FDA determines that the application, manufacturing process or manufacturing facilities are not acceptable, it will outline the deficiencies in the submission and often will request additional clinical testing or information before a BLA can be approved.

The FDA will issue a complete response letter if the agency decides not to approve the BLA. The complete response letter describes all of the specific deficiencies in the BLA identified by the FDA. The deficiencies identified may be minor, for example, requiring labeling changes, or major, for example, requiring additional clinical trials. Additionally, the complete response letter may include recommended actions that the applicant might take to place the application in a condition for approval. If a complete response letter is issued, the applicant may either resubmit the BLA, addressing all of the deficiencies identified in the letter, or withdraw the application.

If a product receives regulatory approval, the approval may be significantly limited to specific diseases and dosages or the indications for use may otherwise be limited, which could restrict the commercial value of the product. Further, the FDA may require that certain contraindications, warnings or precautions be included in the product labeling. In addition, the FDA may require post marketing studies, sometimes referred to as Phase 4 testing, which involves clinical trials designed to further assess drug safety and effectiveness and may require testing and surveillance programs to monitor the safety of approved products that have been commercialized. After approval, certain changes to the approved biologic, such as adding new indications, manufacturing changes or additional labeling claims, are subject to further FDA review and approval. Depending on the nature of the change proposed, a BLA supplement must be filed and approved before the change may be implemented. For many proposed post-approval changes to a BLA, the FDA has up to 180 days to review the application. As with new BLAs, the review process is often significantly extended by the FDA requests for additional information or clarification.

#### Post-Approval Requirements

Any biologic products for which we or our collaborators receive FDA approvals are subject to continuing regulation by the FDA, including, among other things, record-keeping requirements, reporting of adverse experiences with the product, providing the FDA with updated safety and efficacy information, product sampling and distribution requirements, complying with certain electronic records and signature requirements and complying with FDA promotion and advertising requirements, which include, among others, restrictions on direct-to-consumer advertising, promoting biologics for uses or in patient populations that are not described in the product's approved labeling (known as "off-label use"), industry-sponsored scientific and educational activities and promotional activities involving the internet. The FDA closely regulates the post-approval marketing and promotion of biologics, and although physicians may prescribe legally available drugs for off-label uses, manufacturers may not market or promote such off-label uses. Failure to comply with these or other FDA requirements can subject a manufacturer to possible legal or regulatory action, such as warning letters, suspension of manufacturing, seizure of product, injunctive action, mandated corrective advertising or communications with healthcare professionals, possible civil or criminal penalties or other negative consequences, including adverse publicity.

We will rely, and expect to continue to rely, on third-parties for the production of clinical and commercial quantities of our products. Our collaborators may also utilize third-parties for some or all of a product we are developing with such collaborator. Manufacturers are required to comply with applicable FDA manufacturing requirements contained in the FDA's cGMP regulations. cGMP regulations require among other things, quality control and quality assurance as well as the corresponding maintenance of records and documentation. Drug manufacturers and other entities involved in the manufacture and distribution of approved biologics are required to register their establishments with the FDA and certain state agencies and are subject to periodic inspections by the FDA and certain state agencies for compliance with cGMP and other laws. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain cGMP compliance.

### U.S. Patent Term Restoration and Marketing Exclusivity

Depending upon the timing, duration and specifics of the FDA approval of our biologic product candidate, some of our U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, commonly referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent restoration term of up to five years as compensation for patent term lost during product development and the FDA regulatory review process. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. The patent term restoration period is generally one-half the time between the effective date of an IND and the submission date of a BLA plus the time between the submission date of a BLA and the approval of that application. Only one patent applicable to an approved product is eligible for the extension and the application for the extension must be submitted prior to the expiration of the patent. The U.S. Patent and Trademark Office, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, we may intend to apply for restoration of patent term for one of our currently owned or licensed patents to add patent life beyond its current expiration date, depending on the expected length of the clinical trials and other factors involved in the filing of the relevant BLA.

Market exclusivity provisions under the FDCA can also delay the submission or the approval of certain applications of other companies seeking to reference another company's BLA. Specifically, the Biologics Price Competition and Innovation Act (BPCIA) established an abbreviated pathway for the approval of biosimilar and interchangeable biological products. The new abbreviated regulatory pathway establishes legal authority for the FDA to review and approve biosimilar biologics, including the

possible designation of a biosimilar as "interchangeable" based on their similarity to existing brand product. Under the BPCIA, an application for a biosimilar product cannot be approved by the FDA until 12 years after the original branded product was approved under a BLA. However, an application may be submitted after four years if it contains a certification of patent invalidity or non-infringement to one of the patents listed with the FDA by the innovator BLA holder. The BPCIA is complex and is only beginning to be interpreted and implemented by the FDA. As a result, its ultimate impact, implementation and meaning is subject to uncertainty.

### U.S. Foreign Corrupt Practices Act

The U.S. Foreign Corrupt Practices Act, to which we are subject, prohibits corporations and individuals from engaging in certain activities to obtain or retain business or to influence a person working in an official capacity. It is illegal to pay, offer to pay or authorize the payment of anything of value to any foreign government official, government staff member, political party or political candidate in an attempt to obtain or retain business or to otherwise influence a person working in an official capacity.

## Pharmaceutical Coverage, Pricing and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any product candidate for which we obtain regulatory approval. In the United States and markets in other countries, sales of any products for which we receive regulatory approval for commercial sale will depend in part on the availability of coverage and adequate reimbursement from third-party payors. Third-party payors include government payor programs at the federal and state levels, including Medicare and Medicaid, managed care providers, private health insurers and other organizations. The process for determining whether a payor will provide coverage for a drug product may be separate from the process for setting the price or reimbursement rate that the payor will pay for the drug product. Third-party payors may limit coverage to specific drug products on an approved list or formulary, which might not include all of the FDA-approved drug products for a particular indication. Third-party payors are increasingly challenging the price and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy. We may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of our products, in addition to the costs required to obtain the FDA approvals. Our product candidates may not be considered medically necessary or cost-effective. A payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development.

The cost of pharmaceuticals continues to generate substantial governmental and third-party payor interest. We expect that the pharmaceutical industry will experience pricing pressures due to the trend toward managed healthcare, the increasing influence of managed care organizations and additional legislative proposals. Third-party payors are increasingly challenging the prices charged for medical products and services and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their 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 approval as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our products 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 the product candidates that we are developing and could adversely affect our net revenue and results.

Different pricing and reimbursement schemes exist in other countries. In the European Community, governments influence the price of pharmaceutical products through their pricing and reimbursement rules and control of national healthcare systems that fund a large part of the cost of those products to consumers. Some jurisdictions operate positive and negative list systems under which products may only be marketed once a reimbursement price has been agreed. To obtain reimbursement or pricing approval, some of these countries may require the completion of clinical trials that compare the cost-effectiveness of a particular product candidate to currently available therapies. Other member states allow companies to fix their own prices for medicines, but monitor and control company profits. The downward pressure on healthcare costs in general, and particularly prescription drugs, has become very 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 a commercial pressure on pricing within a country. There can be no assurance that any country that has price controls or reimbursement limitations for drug products will allow favorable reimbursement and pricing arrangements for any of our products.

## Healthcare Reform

In the United States and foreign jurisdictions, there have been and continue to be a number of legislative and regulatory proposals to change the healthcare system in ways that could affect our ability to sell our product candidates profitably, once they are approved for sale. Among policy makers and payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and/or expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives.

In March 2010, the Patient Protection and Affordable Health Care Act, as amended by the Health Care and Education Affordability Reconciliation Act (collectively, PPACA) was enacted, which includes measures to significantly change the way healthcare is financed by both governmental and private insurers. Among the provisions of PPACA of importance to the pharmaceutical and biotechnology industries are the following:

- an annual, nondeductible fee on any entity that manufactures or imports certain branded prescription drugs and biologic agents, apportioned among
  these entities according to their market share in certain government healthcare programs, that began in 2011;
- an increase in the rebates a manufacturer must pay under the Medicaid Drug Rebate Program to 23.1% and 13% of the average manufacturer price for branded and generic drugs, respectively;
- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts to negotiated prices of applicable brand 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;
- extension of manufacturers' Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care
  organizations;
- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals and by adding new mandatory eligibility categories for certain individuals with income at or below 133% of the Federal Poverty Level beginning in 2014, thereby potentially increasing manufacturers' Medicaid rebate liability;

- expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;
- new requirements under the federal Open Payments program, created under Section 6002 of PPACA and its implementing regulations, that manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) report annually to the U.S. Department of Health and Human Services (HHS) information related to "payments or other transfers of value" made or distributed to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals and that applicable manufacturers and applicable group purchasing organizations report annually to HHS ownership and investment interests held by physicians (as defined above) and their immediate family members, with data collection required beginning August 1, 2013, reporting to the Centers for Medicare & Medicaid Services (CMS) required by March 31, 2014 and by the 90th day of each subsequent calendar year, and disclosure of such information to be made by CMS on a publicly available website beginning in September 2014;
- a new requirement to annually report drug samples that manufacturers and distributors provide to physicians, effective April 1, 2012;
- expansion of healthcare fraud and abuse laws, including the False Claims Act and the Anti-Kickback Statute, new government investigative powers, and enhanced penalties for noncompliance;
- a licensure framework for follow-on biologic products;
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research;
- creation of the Independent Payment Advisory Board which, beginning in 2014, will have authority to recommend certain changes to the Medicare
  program that could result in reduced payments for prescription drugs and those recommendations could have the effect of law even if Congress does
  not act on the recommendations; and
- establishment of a Center for Medicare Innovation at CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending that began on January 1, 2011.

In addition, other legislative changes have been proposed and adopted since PPACA was enacted. In August 2011, the President signed into law the Budget Control Act of 2011, which, among other things, created the Joint Select Committee on Deficit Reduction to recommend proposals in spending reductions to Congress. The Joint Select Committee on Deficit Reduction did not achieve its targeted deficit reduction of at least \$1.2 trillion for the years 2013 through 2021, triggering the legislation's automatic reductions to several government programs. These reductions include aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, starting in 2013. Under the Budget Control Act of 2011, as amended, federal budget "sequestration" became effective in March 2013 and automatically reduced payments under various government programs, including for example certain Medicare provider and supplier reimbursement payments. Sequestration may have a material adverse effect on our customers and accordingly, our financial operations. In January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, reduced Medicare payments to several types of providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws may result in additional reductions in Medicare and other healthcare funding, which could have a material adverse effect on our customers and accordingly, our financial operations.

Other Healthcare Laws and Compliance Requirements

In the United States, the research, manufacturing, distribution, sale and promotion of drug products and medical devices are potentially subject to regulation by various federal, state and local authorities in addition to the FDA, including CMS, other divisions of HHS (e.g., the Office of Inspector General), the U.S. Department of Justice, state Attorneys General, and other state and local government agencies. For example, sales, marketing and scientific/educational grant programs must comply with fraud and abuse laws such as the federal Anti-Kickback Statute, as amended, the federal False Claims Act, as amended, and similar state laws. Pricing and rebate programs must comply with the Medicaid Drug Rebate Program requirements of the Omnibus Budget Reconciliation Act of 1990, as amended, and the Veterans Health Care Act of 1992, as amended. If products are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply. All of these activities are also potentially subject to federal and state consumer protection and unfair competition laws.

The federal Anti-Kickback Statute prohibits any person, including a prescription drug manufacturer (or a party acting on its behalf), from knowingly and willfully soliciting, receiving, offering or providing remuneration, directly or indirectly, to induce or reward either the referral of an individual, or the furnishing, recommending or arranging for a good or service, for which payment may be made under a federal healthcare program such as the Medicare and Medicaid programs. This statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on one hand and prescribers, purchasers and formulary managers on the other. Several courts have interpreted the statute's intent requirement to mean that if any one purpose of an arrangmement involving remuneration is to induce referrals of federal healthcare covered business, the statute has been violated. The term "remuneration" is not defined in the federal Anti-Kickback Statute and has been broadly interpreted to include anything of value, including for example, gifts, discounts, the furnishing of supplies or equipment, credit arrangements, payments of cash, waivers of payments, ownership interests and providing anything at less than its fair market value. Although there are a number of statutory exemptions and regulatory safe harbors protecting certain business arrangements from prosecution, the exemptions and safe harbors are drawn narrowly, and practices that involve remuneration intended to induce prescribing, purchasing or recommending may be subject to scrutiny if they do not qualify for an exemption or safe harbor. Our practices may not in all cases meet all of the criteria for safe harbor protection from federal Anti-Kickback Statute liability. The reach of the Anti-Kickback Statute was broadened by the recently enacted PPACA, which, among other things, amends the intent requirement of the federal Anti-Kickback Statute such that a person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it in order to have committed a violation. In addition, 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 federal False Claims Act (discussed below) or the civil monetary penalties statute, which imposes fines against any person who is determined to have presented or caused to be presented claims to a federal healthcare program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent. Additionally, many states have adopted laws similar to the federal Anti-Kickback Statute, and some of these state prohibitions apply to referral of patients for healthcare items or services reimbursed by any third-party payor, not only the Medicare and Medicaid programs in at least some cases, and do not contain safe harbors.

The federal False Claims Act imposes liability on any person or entity that, among other things, knowingly presents or causes to be presented, a false or fraudulent claim for payment by a federal healthcare program. The qui tam provisions of the False Claims Act allow a private individual to bring civil actions on behalf of the federal government alleging that the defendant has submitted a false claim to the federal government, and to share in any monetary recovery. In recent years, the number of suits brought by private individuals has increased dramatically. In addition, various states have enacted false

claims laws analogous to the False Claims Act. Many of these state laws apply where a claim is submitted to any third-party payor and not merely a federal healthcare program. There are many potential bases for liability under the False Claims Act. Liability arises, primarily, when an entity knowingly submits, or causes another to submit, a false claim for reimbursement to the federal government. The False Claims Act has been used to assert liability on the basis of inadequate care, kickbacks and other improper referrals, improperly reported government pricing metrics such as Best Price or Average Manufacturer Price, improper use of Medicare numbers when detailing the provider of services, improper promotion of off-label uses (i.e., uses not expressly approved by FDA in a drug's label) and allegations as to misrepresentations with respect to the services rendered. Our future activities relating to the reporting of discount and rebate information and other information affecting federal, state and third-party reimbursement of our products, and the sale and marketing of our products and our service arrangements or data purchases, among other activities, may be subject to scrutiny under these laws. We are unable to predict whether we would be subject to actions under the False Claims Act or a similar state law, or the impact of such actions. However, the cost of defending such claims, as well as any sanctions imposed, could adversely affect our financial performance. Also, the Health Insurance Portability and Accountability Act of 1996 (HIPAA) created several new federal crimes, including healthcare fraud, and false statements relating to healthcare matters. The healthcare fraud statute prohibits knowingly and willfully executing a scheme to defraud any healthcare benefit program, including private third-party payors. The false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection wit

In addition, we may be subject to, or our marketing activities may be limited by, data privacy and security regulation by both the federal government and the states in which we conduct our business. For example, HIPAA and its implementing regulations established uniform federal standards for certain "covered entities" (healthcare providers, health plans and healthcare clearinghouses) governing the conduct of certain electronic healthcare transactions and protecting the security and privacy of protected health information. The American Recovery and Reinvestment Act of 2009, commonly referred to as the economic stimulus package, included expansion of HIPAA's privacy and security standards called the Health Information Technology for Economic and Clinical Health Act (HITECH) which became effective on February 17, 2010. Among other things, HITECH makes HIPAA's privacy and security standards directly applicable to "business associates"—independent contractors or agents of covered entities that create, receive, maintain, or transmit protected health information in connection with providing a service for or on behalf of a covered entity. HITECH also increased the civil and criminal penalties that may be imposed against covered entities, business associates and possibly other persons, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorney's fees and costs associated with pursuing federal civil actions.

There are also an increasing number of state "sunshine" laws that require manufacturers to make reports to states on pricing and marketing information. Several states have enacted legislation requiring pharmaceutical companies to, among other things, establish marketing compliance programs, file periodic reports with the state, make periodic public disclosures on sales, marketing, pricing, clinical trials and other activities and/or register their sales representatives and prohibiting or limiting certain other sales and marketing practices. In addition, beginning in 2013, a similar federal requirement will require manufacturers to track and report to the federal government certain payments and other transfers of value made to physicians and other healthcare professionals and teaching hospitals and ownership or investment interests held by physicians and their immediate family members. The government, in turn, will make reported information available to the public. These laws may adversely affect our sales, marketing and other activities by imposing administrative and compliance burdens on

us. If we fail to track and report as required by these laws or otherwise comply with these laws, we could be subject to the penalty provisions of the pertinent state and federal authorities.

Because of the breadth of these laws and the narrowness of available statutory and regulatory exemptions, it is possible that some of our business activities could be subject to challenge under one or more of such laws. If our operations are found to be in violation of any of the federal and state laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including criminal and significant civil monetary penalties, damages, fines, imprisonment, exclusion from participation in government healthcare programs, injunctions, recall or seizure of products, total or partial suspension of production, denial or withdrawal of pre-marketing product approvals, private "qui tam" actions brought by individual whistleblowers in the name of the government or refusal to allow us to enter into supply contracts, including government contracts, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations. To the extent that any of our products are sold in a foreign country, we may be subject to similar foreign laws and regulations, which may include, for instance, applicable post-marketing requirements, including safety surveillance, anti-fraud and abuse laws and implementation of corporate compliance programs and reporting of payments or transfers of value to healthcare professionals.

## Europe / Rest of World Government Regulation

In addition to regulations in the United States, we, and our collaborators, will be subject to a variety of regulations in other jurisdictions governing, among other things, clinical trials and any commercial sales, marketing and distribution of our products.

Whether or not we, or our collaborators, obtain FDA approval for a product, we must obtain the requisite approvals from regulatory authorities in foreign countries prior to the commencement of clinical trials or marketing of the product in those countries. The requirements and process governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country. In addition, we and our collaborators may be subject to foreign laws and regulations and other compliance requirements, including, without limitation, anti-kickback laws, false claims laws and other fraud and abuse laws, as well as laws and regulations requiring transparency of pricing and marketing information and governing the privacy and security of health information, such as the European Union's Directive <sup>95</sup>/46 on the Protection of Individuals with regard to the Processing of Personal Data.

If we, or our collaborators, fail to comply with applicable foreign regulatory requirements, we may be subject to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

#### **Employees**

As of September 30, 2013, we had 31 employees, 28 of whom were full-time, 14 of whom hold Ph.D. or M.D. degrees, 21 of whom were engaged in research and development activities and 10 of whom were engaged in business development, finance, information systems, facilities, human resources or administrative support. None of our employees are represented by any collective bargaining unit. We believe that we maintain good relations with our employees.

### Facilities

Our principal laboratory and administrative facilities are located in Monrovia, California, which is located in the greater Los Angeles region. We currently lease approximately 24,000 square feet of laboratory and office space in Monrovia, California under a lease that expires April 30, 2015. We believe that our existing facilities are adequate to meet our current needs, and that suitable additional alternative spaces will be available in the future on commercially reasonable terms.

## **Legal Proceedings**

We are not currently subject to any material legal proceedings.

#### MANAGEMENT

The following table sets forth information about our executive officers and directors as of November 1, 2013.

Name	Age	Position
Bassil I. Dahiyat, Ph.D.	43	President and Chief Executive Officer, Director
Edgardo Baracchini, Jr., Ph.D.	54	Chief Business Officer
Paul Foster, M.D.	59	Chief Medical Officer
John R. Desjarlais, Ph.D.	49	Vice President, Research
John J. Kuch	54	Vice President, Finance
Bruce L.A. Carter, Ph.D.(2)(3)	70	Chairman of the Board and Director
Robert F. Baltera, Jr.	48	Director
Jonathan Fleming(1)(2)	56	Director
Atul Saran(1)(3)	40	Director
John S. Stafford III	43	Director
Harold R. Werner(1)(2)(3)	65	Director
11aroid 11 (1cmcr(1)(2)(3)	05	Director

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

### **Executive Officers**

Bassil I. Dahiyat, Ph.D. has served as our President and Chief Executive Officer since February 2005 and as a member of our Board of Directors since August 1997. Dr. Dahiyat co-founded Xencor in 1997 and, from 1997 to 2003, served as our Chief Executive Officer and, from 2003 to 2005, served as our Chief Scientific Officer. In 2005, Dr. Dahiyat was recognized as a technology pioneer by the World Economic Forum. Additionally, Dr. Dahiyat was named one of 2003's Top 100 Young Innovators by MIT's Technology Review magazine for his work on protein design and its development for therapeutic applications and has received awards from the American Chemical Society, the Controlled Release Society and the California Institute of Technology. Dr. Dahiyat holds a Ph.D. in Chemistry from the California Institute of Technology and B.S. and M.S.E. degrees in Biomedical Engineering from Johns Hopkins University. We believe Dr. Dahiyat's experience in the pharmaceutical industry and as one of our founders qualifies him to serve on our Board of Directors.

*Edgardo Baracchini, Jr., Ph.D.* joined us as Chief Business Officer in January 2010. From March 2002 through June 2009, he served as Senior Vice President of Business Development at Metabasis Therapeutics, Inc., a publicly-held biopharmaceutical company, until its merger with Ligand Pharmaceuticals Inc. From June 1999 through February 2002, Dr. Baracchini was Vice President of Business Development at Elitra Pharmaceuticals Inc., and the Director of Business Development at Agouron Pharmaceuticals, Inc. until its acquisition by Warner-Lambert Co. Dr. Baracchini holds a Ph.D. in Molecular and Cell Biology from the University of Texas at Dallas and conducted his postdoctoral research at the University of California, San Diego and The Scripps Research Institute. He also earned an M.B.A. from the University of California, Irvine, and a B.S. in Microbiology from the University of Notre Dame.

*Paul Foster, M.D.* joined us as Chief Medical Officer in August 2012, after serving in a substantially similar capacity as an outside consultant from January 2010 until August 2012. Dr. Foster has 27 years of experience in a career spanning academic basic research, academic medical practice, research & development, product development, clinical development, drug safety, medical affairs, regulatory affairs and product commercialization. From June 2008 through May 2009 he served as Chief Medical Officer

for Cardium Therapeutics Inc., a publicly-held health sciences and regenerative medicine company, and prior to that provided medical/clinical consulting services as Senior Vice President Development and Chief Medical Officer of Development & Strategic Consulting Associates, LLC. He has held senior leadership positions in both large and small biopharmaceutical companies including Biogen Idec, Inc., IDEC Pharmaceuticals Corp., Abbott Laboratories, Alpha Therapeutics Corporation, Reata Pharmaceuticals, Inc. and Dade Behring, Inc. He has experience with the development of biologics, small molecules and in-vitro diagnostics in therapeutic areas including oncology, hematology, inflammation and autoimmune diseases. Dr. Foster received his M.D. from Duke University School of Medicine and trained in Internal Medicine and Hematology/Oncology, and received a B.S. in Chemistry from the University of Michigan.

John R. Desjarlais, Ph.D. has served as our Vice President, Research since October 2006, and joined the Company in July 2001, initially serving as our Director of Protein Engineering. Dr. Desjarlais oversees all aspects of discovery and research at the company including technology development, protein and antibody engineering and generation of product candidates. Prior to joining us, Dr. Desjarlais was an Assistant Professor of Chemistry at Penn State University from 1997 to 2001. Dr. Desjarlais received a B.S. in Physics from the University of Massachusetts and holds a Ph.D. in Biophysics from Johns Hopkins University. He then conducted postdoctoral research at the University of California, Berkeley. Dr. Desjarlais has driven the Company's technology development and engineering efforts for over five years and participated in the development of the Company's business and intellectual property strategies.

*John J. Kuch* has served as our Vice President, Finance since October 2010, and joined the Company in October 2000, serving as our Senior Director of Finance. Mr. Kuch has primary responsibility for financial reporting, budgeting, cash-flow management, investments and facility issues for the Company. Prior to joining us, he worked for over 15 years in public accounting. From August 1997 through December 1998 he served as a Director at PricewaterhouseCoopers LLP. Mr. Kuch is a certified public accountant and received his B.S. and M.S. in Accounting from the University of Illinois.

### **Non-Employee Directors**

Bruce L.A. Carter, Ph.D. has served as a member of our Board of Directors since September 2009, and was appointed Chairman of the Board in December 2009. Since June 2012, Dr. Carter has served as a director of Regulus Therapeutics Inc., a publicly-held biopharmaceutical company. From November 2009 until May 2011, Dr. Carter served as Executive Chairman of the Board of Directors of Immune Design Corp., a privately-held biotechnology company, and as Chairman of its Board of Directors until February 2012, and continues to serve as an independent director. Since June 2008, he has served as a director of Dr. Reddy's Laboratories Limited, a publicly-held pharmaceutical company. From April 1998 to January 2009, Dr. Carter served as Chief Executive Officer of ZymoGenetics, Inc., a publicly-held biotechnology company (acquired by Bristol-Myers Squibb in October 2010). Dr. Carter holds a Ph.D. in Microbiology from Queen Elizabeth College, University of London and a B.Sc. with Honors in Botany from the University of Nottingham, England. We believe that Dr. Carter's experience as an executive and his breadth of knowledge and valuable understanding of the pharmaceutical industry qualify him to serve on our Board of Directors.

Robert F. Baltera, Jr. joined our Board of Directors in November 2013. Most recently, Mr. Baltera was the Chief Executive Officer of Amira Pharmaceuticals, Inc., a private pharmaceutical development company, a position he held from July 2007 through September 2011. Amira was sold to Bristol-Myers Squibb in September 2011. Before becoming Amira's Chief Executive Officer, he held a number of senior management positions at Amgen Inc., a private biopharmaceutical company, the last being Vice President of Corporate and Contract Manufacturing. He served as Amgen's team leader responsible for the approval of Kineret® in rheumatoid arthritis. Mr. Baltera currently serves on the board of directors of Organovo Holdings, Inc., a publicly-held biotechnology development company, and the following

private companies: Panmira Pharmaceuticals, LLC, FLAP, LLC, Synovex Corporation and Ruga Corporation, as well as an industry group, the San Diego Venture Group. Mr. Baltera holds an M.B.A. from the Anderson School at the University of California, Los Angeles and earned a B.S. in Microbiology and an M.S. in Genetics from The Pennsylvania State University. Mr. Baltera attended the Director Education and Certification program at the University of California, Los Angeles and passed the certification exam. We believe that Mr. Baltera's previous executive leadership and product development experience, as well as his educational background qualify him to serve on our Board of Directors.

Jonathan Fleming has served as a member of our Board of Directors since January 2013. Mr. Fleming is the Managing General Partner of Oxford Bioscience Partners, an international venture capital firm specializing in life science technology-based investments, a position which he has held since June 1999. He joined Oxford Bioscience Partners in August 1996 as a General Partner. Prior to joining Oxford Bioscience Partners, Mr. Fleming was a Founding General Partner of MVP Ventures in Boston from 1988 to 1996. He began his investment career with TVM Techno Venture Management in Munich, Germany in 1985. Mr. Fleming is also a co-founder of Medica Venture Partners, a venture capital investment firm specializing in early-stage healthcare and biotechnology companies in Israel. Mr. Fleming was on the board of directors of Asterand plc from September 2008 to September 2011, the board of directors of Memory Pharmaceuticals Corp. from January 1998 to May 2005 and from October 2006 to November 2008, the board of directors of IMCOR Pharmaceuticals Co. from June 2003 to March 2009, and is a director of several private companies including Leerink Swann LLC, an investment bank specializing in healthcare companies, since June 1998, Laboratory Partners, a clinical diagnostic testing company, since June 2006, and RailRunner, N.A., Inc., a rail products and services company, since June 1999. Mr. Fleming is a Trustee of the Museum of Science in Boston, a director of the New England Healthcare Institute, and a senior lecturer at the Massachusetts Institute of Technology Sloan School of Business. He holds an M.P.A from Princeton University and a B.A. from the University of California, Berkeley. We believe that Mr. Fleming's experience and his success as a venture capitalist specializing in healthcare and biotech companies qualify him to serve on our Board of Directors.

Atul Saran has served as a member of our Board of Directors since August 2011. Since May 2013, Mr. Saran has been the Vice President, Corporate Development & Ventures for AstraZeneca plc, a multinational pharmaceutical and biologics company, and Chair of the MedImmune Ventures, Inc. investment committee. From February 2003 to May 2013, Mr. Saran held various positions at MedImmune, LLC (formerly MedImmune, Inc.), a biotechnology company, and its various corporate affiliates, both before and after its acquisition by AstraZeneca in 2007. In particular, from January 2011 to May 2013, Mr. Saran was Senior Vice President, Corporate Development & Ventures of MedImmune and a member of the MedImmune Ventures investment committee, and from September 2008 to January 2011, he served as the Vice President, Deputy General Counsel and Assistant Secretary of MedImmune. From April 1998 to January 2003, Mr. Saran was an associate attorney in the private equity/emerging business practice group at Hogan & Hartson LLP. Mr. Saran currently serves on the board of directors of VentiRx Pharmaceuticals, Inc. and previously served on the board of directors of Arriva Pharmaceuticals, Inc. and Inotek Pharmaceuticals Corporation. Mr. Saran graduated summa cum laude from the University of Illinois College of Law, and received his B.S. in Biological Sciences from Stanford University. He also successfully completed two years of medical school at the University of Illinois College of Medicine and Step 1 of the United States Medical Licensing Examination. We believe that Mr. Saran's experience as an executive in the biopharmaceutical industry and legal training qualify him to serve on our Board of Directors.

*John S. Stafford III* has served as a member of our Board of Directors since October 1997. Since January 2001, Mr. Stafford has served as Chief Executive Officer of Ronin Capital, LLC, a registered broker-dealer with proprietary trading operations encompassing equity, fixed income and derivative

securities. Ronin Capital, LLC is a member of the Chicago Board Options Exchange, the Chicago Board of Trade, the Chicago Mercantile Exchange and other U.S. principal exchanges. Prior to joining Ronin Capital, LLC, Mr. Stafford was a Managing Director of Stafford Trading, Inc., a business primarily involved in proprietary trading operations and venture capital investments, from 1996 to 2001. The company, headquartered in Chicago, operated a successful specialist and market-making business and conducted proprietary trading in equities, futures and fixed income products. Mr. Stafford's venture capital activities consisted of investments in over 40 companies, and he is a board member on several of these companies, including Aware, Inc., Clinical Micro Sensors, Inc. and All Optical Networks, Inc. We believe that Mr. Stafford's capital markets and venture capital experience qualifies him to serve on our Board of Directors.

Harold R. Werner has served as a member of our Board of Directors since February 2008. Mr. Werner is a co-founder and since 1985 is a General Partner of HealthCare Ventures LLC, a venture capital fund specializing in the health-care industry. Mr. Werner has served as a director of over 30 public and private companies. Prior to the formation of HealthCare Ventures in 1985, Mr. Werner was Director of New Ventures for Johnson & Johnson Development Corporation. Mr. Werner currently serves on the board of directors of Aciex, Inc., Stemgent, Inc. and InfaCare Pharmaceutical Corp. He also serves as an advisor to Ophthalmic Research Associates, Inc. and SinoLogic Pharmaceuticals Limited. Mr. Werner received his B.S. and M.S. degrees in Engineering from Princeton University and an M.B.A. from the Harvard Graduate School of Business Administration. We believe that Mr. Werner's experience as a venture capitalist specializing in the healthcare industry qualifies him to serve on our Board of Directors.

### **Board Composition**

Our business and affairs are organized under the direction of our Board of Directors, which currently consists of seven members. The primary responsibilities of our Board of Directors are to provide oversight, strategic guidance, counseling and direction to our management. Our Board of Directors meets on a regular basis and on an ad hoc basis as required.

Our Board of Directors has determined that all of our directors other than Dr. Dahiyat and Mr. Stafford are independent directors, as defined by Rule 5605(a)(2) of the NASDAQ Listing Rules.

In accordance with the terms of our certificate of incorporation and bylaws that will become effective upon the closing of this offering, our board of directors will be elected annually to a one-year term. The authorized size of our Board of Directors is currently seven members. The authorized number of directors may be changed only by resolution of the board of directors. Our directors may be removed with or without cause by the affirmative vote of the holders of a majority of our voting stock.

### **Board Leadership Structure**

The Board of Directors has a Chairman of the Board, Bruce L.A. Carter, Ph.D., who has authority, among other things, to call and preside over Board of Directors meetings, to set meeting agendas, and to determine materials to be distributed to the Board of Directors. Accordingly, the Chairman has substantial ability to shape the work of the Board of Directors. We believe that separation of the positions of Chairman and Chief Executive Officer reinforces the independence of the Board of Directors in its oversight of our business and affairs. In addition, we have a separate chair for each committee of the Board of Directors. The chairs of each committee are expected to report annually to the Board of Directors on the activities of their committee in fulfilling their responsibilities as detailed in their respective charters or specify any shortcomings should that be the case. In addition, we believe that having a separate Chairman creates an environment that is more conducive to objective evaluation and oversight of management's performance, increasing management accountability and improving the ability of the Board of Directors to monitor whether management's actions are in the

best interests of us and our stockholders. As a result, we believe that having a separate Chairman can enhance the effectiveness of the Board of Directors as a whole.

### Role of the Board in Risk Oversight

The Audit Committee of the Board of Directors is primarily responsible for overseeing our risk management processes on behalf of the Board of Directors. Going forward, we expect that the Audit Committee will receive reports from management at least quarterly regarding our assessment of risks. In addition, the Audit Committee reports regularly to the Board of Directors, which also considers our risk profile. The Audit Committee and the Board of Directors focus on the most significant risks we face and our general risk management strategies. While the Board of Directors oversees our risk management, management is responsible for day-to-day risk management processes. Our Board of Directors expects management to consider risk and risk management in each business decision, to proactively develop and monitor risk management strategies and processes for day-to-day activities and to effectively implement risk management strategies adopted by the Audit Committee and the Board of Directors. We believe this division of responsibilities is the most effective approach for addressing the risks we face and that our Board of Directors leadership structure, which also emphasizes the independence of the Board of Directors in its oversight of its business and affairs, supports this approach.

## **Board Committees**

Our Board of Directors has established an audit committee, a compensation committee and a nominating and corporate governance committee.

#### **Audit Committee**

Our audit committee consists of Messrs. Fleming, Saran and Werner. Our Board of Directors has determined that each of the members of our audit committee satisfies the NASDAQ Stock Market and SEC independence requirements. Mr. Fleming serves as the chair of our audit committee. The functions of this committee include, among other things:

- evaluating the performance, independence and qualifications of our independent auditors and determining whether to retain our existing independent auditors or engage new independent auditors;
- reviewing and approving the engagement of our independent auditors to perform audit services and any permissible non-audit services;
- monitoring the rotation of partners of our independent auditors on our engagement team as required by law;
- prior to engagement of any independent auditor, and at least annually thereafter, reviewing relationships that may reasonably be thought to bear on their independence, and assessing and otherwise taking the appropriate action to oversee the independence of our independent auditor;
- reviewing our annual and quarterly financial statements and reports, including the disclosures contained under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations," and discussing the statements and reports with our independent auditors and management;
- reviewing with our independent auditors and management significant issues that arise regarding accounting principles and financial statement
  presentation and matters concerning the scope, adequacy and effectiveness of our financial controls;

- reviewing with management and our auditors any earnings announcements and other public announcements regarding material developments;
- establishing procedures for the receipt, retention and treatment of complaints received by us regarding financial controls, accounting or auditing matters and other matters;
- preparing the report that the SEC requires in our annual proxy statement;
- reviewing and providing oversight of any related-person transactions in accordance with our related person transaction policy and reviewing and monitoring compliance with legal and regulatory responsibilities, including our code of business conduct and ethics;
- reviewing our major financial risk exposures, including the guidelines and policies to govern the process by which risk assessment and risk management is implemented;
- reviewing on a periodic basis our investment policy; and
- reviewing and evaluating on an annual basis its own performance, including its compliance with its charter.

Our Board of Directors has determined that Mr. Fleming qualifies as an audit committee financial expert within the meaning of SEC regulations and that each member of the audit committee meets the financial literacy requirements of the NASDAQ Listing Rules. Both our independent registered public accounting firm and management periodically meet privately with our audit committee.

#### **Compensation Committee**

Our compensation committee consists of Dr. Carter and Messrs. Fleming and Werner. Mr. Werner serves as the chair of our compensation committee. Our Board of Directors has determined that each of the members of our compensation committee is a non-employee director, as defined in Rule 16b-3 promulgated under the Securities Exchange Act of 1934, as amended (the Exchange Act) is an outside director, as defined pursuant to Section 162(m) of the Code and satisfies the NASDAQ Stock Market independence requirements. The functions of this committee include, among other things:

- · reviewing, evaluating and making recommendations to the full Board of Directors for approval of, our overall compensation strategy and policies;
- reviewing, evaluating and making recommendations to the full Board of Directors for approval of, the compensation and other terms of employment of our executive officers;
- reviewing, evaluating and making recommendations to the full Board of Directors for approval of, performance goals and objectives relevant to the compensation of our executive officers and assessing their performance against these goals and objectives;
- reviewing, evaluating and making recommendations to the full Board of Directors for approval of, equity incentive plans, compensation plans and similar programs advisable for us, as well as modifying, amending or terminating existing plans and programs;
- evaluating risks associated with our compensation policies and practices and assessing whether risks arising from our compensation policies and practices for our employees are reasonably likely to have a material adverse effect on us;
- reviewing, evaluating and making recommendations to the full Board of Directors for approval of, the type and amount of compensation to be paid or awarded to our non-employee board members;

- evaluating policies with respect to votes by our stockholders to approve executive compensation as required by Section 14A of the Exchange Act and determining our recommendations regarding the frequency of advisory votes on executive compensation;
- reviewing and assessing the independence of compensation consultants, legal counsel and other advisors as required by Section 10C of the Exchange Act;
- · administering our equity incentive plans;
- establishing policies with respect to equity compensation arrangements;
- reviewing the competitiveness of our executive compensation programs and evaluating the effectiveness of our compensation policy and strategy in achieving expected benefits to us;
- reviewing, and making recommendations to the full Board of Directors for approval of, the terms of any employment agreements, severance arrangements, change in control protections and any other compensatory arrangements for our executive officers;
- reviewing the adequacy of its charter on a periodic basis;
- reviewing with management and approving our disclosures under the caption "Compensation Discussion and Analysis" and related tables in our
  periodic reports or proxy statements to be filed with the SEC;
- preparing the report that the SEC requires in our annual proxy statement; and
- reviewing and assessing on an annual basis its own performance.

### Nominating and Corporate Governance Committee

Our nominating and corporate governance committee consists of Dr. Carter and Messrs. Saran and Werner. Our Board of Directors has determined that each of the members of this committee satisfies the NASDAQ Stock Market independence requirements. Dr. Carter serves as the chair of our nominating and corporate governance committee. The functions of this committee include, among other things:

- identifying, reviewing and evaluating candidates to serve on our Board of Directors consistent with criteria approved by our Board of Directors;
- determining the minimum qualifications for service on our Board of Directors;
- evaluating director performance on the board and applicable committees of the board and determining whether continued service on our board is appropriate;
- evaluating, nominating and recommending individuals for membership on our Board of Directors;
- evaluating nominations by stockholders of candidates for election to our Board of Directors;
- considering and assessing the independence of members of our Board of Directors;
- developing a set of corporate governance policies and principles, including a code of business conduct and ethics, periodically reviewing and assessing these policies and principles and their application and recommending to our Board of Directors any changes to such policies and principles;
- considering questions of possible conflicts of interest of directors as such questions arise;
- reviewing the adequacy of its charter on an annual basis; and
- annually evaluating the performance of the nominating and corporate governance committee.

### **Compensation Committee Interlocks and Insider Participation**

None of our current or former executive officers serves as a member of the compensation committee. None of our officers serves, or has served during the last completed fiscal year on the board of directors or compensation committee, or other committee serving an equivalent function, of any other entity that has one or more of its executive officers serving as a member of our Board of Directors or our compensation committee. Prior to establishing the compensation committee, our full board of directors made decisions relating to compensation of our officers. For a description of transactions between us and members of our compensation committee and affiliates of such members, please see "Certain Relationships and Related Party Transactions."

#### **Code of Business Conduct and Ethics**

We have adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or person performing similar functions. Following this offering, a current copy of the code will be available on the Corporate Governance section of our website, www.xencor.com.

## Limitation of Liability and Indemnification

Our amended and restated certificate of incorporation, which will become effective upon the closing of this offering, limits the liability of directors to the maximum extent permitted by Delaware law. Delaware law allows a corporation to eliminate the personal liability of directors of a corporation to the corporation and its stockholders for monetary damages for breach of their fiduciary duties as directors, except for liability for any:

- breach of their duty of loyalty to the corporation or its stockholders;
- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; or
- transaction from which the directors derived an improper personal benefit.

Our amended and restated certificate of incorporation, which will become effective upon the closing of this offering, does not eliminate a director's duty of care and, in appropriate circumstances, equitable remedies, such as injunctive or other forms of non-monetary relief, will remain available under Delaware law. These limitations also do not affect a director's responsibilities under any other laws, such as the federal securities laws or other state or federal laws. Our amended and restated bylaws, which will become effective upon the closing of this offering, provide that we will indemnify our directors and executive officers and may indemnify other officers, employees and other agents, to the fullest extent permitted by law. Our amended and restated bylaws, which will become effective upon the closing of this offering, also provide that we are obligated to advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding and also 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 connection with their services to us, regardless of whether our amended and restated bylaws permit such indemnification. We have obtained a policy of directors' and officers' liability insurance

We intend to enter into separate indemnification agreements with our directors and executive officers, in addition to the indemnification provided for in our amended and restated bylaws. These agreements, among other things, will require us to indemnify our directors and executive officers for

certain expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or executive officer in any action or proceeding arising out of their services as one of our directors or executive officers or any other company or enterprise to which the person provides services at our request. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder's investment may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

Except as otherwise disclosed under the heading "Legal Proceedings" in the "Business" section of this prospectus, at present, there is no pending litigation or proceeding involving any of our directors or executive officers as to which indemnification is required or permitted, and we are not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

## **EXECUTIVE AND DIRECTOR COMPENSATION**

Our named executive officers for the year ended December 31, 2012, which consist of our principal executive officer and our two other most highly compensated executive officers, are:

- Bassil I. Dahiyat, Ph.D., our President and Chief Executive Officer;
- · Edgardo Baracchini, Jr., Ph.D., our Chief Business Officer; and
- Paul Foster, M.D., our Chief Medical Officer.

### **Summary Compensation Table**

Name and principal position	Year	Salary (\$)	Option awards (\$)(1)	Non-equity incentive plan compensation (\$)(2)	All other compensation (\$)(3)	Total (\$)
Bassil I. Dahiyat, Ph.D.  President and Chief Executive  Officer	2012	358,750	_	87,894	175	446,819
Edgardo Baracchini, Jr., Ph.D. Chief Business Officer	2012	286,103	_	66,877	175	353,155
Paul Foster, M.D.(4)  Chief Medical Officer	2012	403,000	10,940	32,340	73	446,353

- (1) In accordance with SEC rules, this column reflects the aggregate grant date fair value of the option awards granted during 2012 computed in accordance with Financial Accounting Standard Board Accounting Standards Codification Topic 718 for stock-based compensation transactions (ASC 718). Assumptions used in the calculation of these amounts are included in Note 5 to our financial statements appearing elsewhere in this prospectus. These amounts do not reflect the actual economic value that will be realized by the named executive officer upon the vesting of the stock options, the exercise of the stock options, or the sale of the common stock underlying such stock options.
- (2) This column reflects the annual performance-based cash bonuses earned for 2012 which were paid in a lump sum cash payment in the first quarter of 2013. For more information, see below under "—Annual Performance-Based Bonus Opportunity."
- (3) This column reflects term life and disability insurance premiums paid by us on behalf of the named executive officers. All of these benefits are provided to the named executive officers on the same terms as provided to all of our regular full-time employees. For more information regarding these benefits, see below under "—Perquisites, Health, Welfare and Retirement Benefits."
- (4) Dr. Foster became our Chief Medical Officer on August 1, 2012 and prior to this time served as a consultant to us. The amount in the "Salary" column includes \$278,000 paid during 2012 for his consulting services prior to his commencement of employment with us and \$125,000 paid to Dr. Foster as base salary.

## **Annual Base Salary**

The compensation of our named executive officers is generally determined and approved by our Board of Directors at the beginning of each year or, if later, in connection with the commencement of employment of the executive, based on the recommendation of the Compensation Committee. Our Board of Directors approved the following 2012 base salaries for our named executive officers, which

became effective after such approval in February 2012, except with respect to Dr. Foster, whose base salary became effective upon his commencement of employment with us on August 1, 2012.

Name	2012 Base Salary (\$)
Bassil I. Dahiyat, Ph.D.	358,750
Edgardo Baracchini, Jr., Ph.D.	286,103
Paul Foster, M.D.(1)	300,000

<sup>(1)</sup> Prior to his commencement of employment on August 1, 2012, Dr. Foster performed consulting services to us pursuant to an Amended Consulting Agreement between Development and Strategic Consulting Associates, LLC and us described below under "—Agreements with our Named Executive Officers." We paid Development and Strategic Consulting Associates, LLC a total of \$278,000 in fees for Dr. Foster's consulting services during 2012.

In January 2013, based on the recommendation of the Compensation Committee, the Board of Directors approved an increase to Dr. Dahiyat's and Dr. Baracchini's annual base salaries to \$364,131 and \$290,395, respectively.

### **Annual Performance-Based Bonus Opportunity**

In addition to base salaries, our named executive officers are eligible to receive annual performance-based cash bonuses, which are designed to provide appropriate incentives to our executives to achieve defined annual corporate goals and to reward our executives for individual achievement towards these goals.

The annual performance-based bonus each named executive officer is eligible to receive is based on (1) the individual's target bonus, as a percentage of base salary, (2) the percentage attainment of the corporate goals established by the Board of Directors, after recommendation by the Compensation Committee for such year, and, with respect to our named executive officers other than Dr. Dahiyat, (3) the percentage attainment of the individual goals established by the Board of Directors, upon recommendation by the Compensation Committee and the Chief Executive Officer, for each named executive officer for such year. The actual performance-based bonus paid, if any, is calculated by multiplying the executive's annual base salary, target bonus percentage, percentage attainment of the individual goals, as applicable.

At the end of the year, the Board of Directors approves the extent to which we achieved our corporate goals, after recommendation by the Compensation Committee. The extent to which each executive achieves his individual goals is determined by our Board of Directors, based on the Compensation Committee's and our Chief Executive Officer's review and recommendation.

Corporate and individual goals are communicated to the named executive officers each year, prior to or shortly following the beginning of the year to which they relate or if later, in connection with the named executive officer's commencement of employment with us. The corporate goals are composed of several goals that relate to our annual corporate objectives and various business accomplishments which vary from time to time depending on our overall strategic objectives, but relate generally to business development, financial and research and development objectives. The individual goals are composed of factors that relate to each named executive officer's ability to drive his own performance and the performance of his direct employee reports towards reaching our corporate goals. The proportional emphasis placed on each goal within the corporate and individual goals may vary from time to time depending on our overall strategic objectives and the Board of Directors' subjective determination of which goals have more impact on our performance.

For 2012, the Board of Directors determined that each named executive officer's target bonus was 35% of base salary. Additionally, each named executive officer was eligible to receive up to an additional 35% of the named executive officer's target bonus in the event that we attained certain stretch corporate goals, resulting in a maximum overall potential bonus of up to 135% of each named

executive officer's target bonus if we achieved all of our corporate goals and stretch corporate goals in full. Dr. Dahiyat's 2012 bonus was entirely dependent upon corporate goals, whereas Drs. Baracchini's and Foster's bonuses were weighted 75% based on corporate goals and 25% based on individual goals. Dr. Foster's bonus was pro rated for the period of time during which he served as our employee in 2012.

The corporate goals and relative overall weighting towards corporate goal achievement for 2012 were (1) research and development progress (50%) (consisting of commencement of various clinical and pre-clinical development activities for our XmAb5871 and XmAb7195 antibodies and completion of research tasks for our Immune Inhibitor Fc Domain technology); (2) business development achievements (40%) (consisting of cash targets for revenue in new deals and in total for new and existing deals); and (3) financial objectives (10%) (consisting of maintaining our expenditures within budget and matching our year-end cash target). The stretch goals and the additional potential percentage of target bonus that could be earned with respect to such goals were licensing particular antibody-related intellectual property (15%) and exceeding a particular target in revenue in new deals (20%).

The individual goals for 2012 related to our corporate goals and varied by individual. Dr. Baracchini's individual goals related to his efforts towards our business development goal relating to cash revenue and Dr. Foster's individual goals related to his efforts towards our research and development goals, particularly enrollment of Phase 1b trial for our XmAb5871 antibody.

In early 2013, the Board of Directors considered each corporate goal in detail and upon recommendation by the Compensation Committee, determined that we had achieved 70% of the 2012 corporate goals (including corporate stretch goals). Specifically, we achieved the majority of our research and development goals for our XmAb5871 and XmAb7195 antibodies. We met our financial goal of maintaining expenditures within budget, but we did not meet our goal of matching our year-end cash target and we partially achieved our business development revenue goal. We achieved our stretch goal of licensing particular antibody-related intellectual property and we did not achieve our stretch goal relating to revenue.

As a result, in early 2013, the Board of Directors after recommendation by the Compensation Committee approved an overall corporate goal achievement of 70%. Accordingly, Dr. Dahiyat received a bonus of \$87,894. Based on Dr. Dahiyat's review and recommendation with respect to Dr. Baracchini and Dr. Foster, and the Compensation Committee's deliberations with respect to each named executive officer's individual performance against his individual goals, the Board of Directors approved performance-based bonus amounts of \$66,877 for Dr. Baracchini, in recognition of his efforts towards our revenue goal and \$32,340 for Dr. Foster, due to his efforts in the clinical development of our XmAb5871 antibody, which represented a pro-rated bonus for the period of time he provided services to us as an employee in 2012.

### **Equity-Based Incentive Awards**

Our equity-based incentive awards are designed to align our interests with those of our employees and consultants, including our named executive officers. The Board of Directors or the Compensation Committee is responsible for approving equity grants.

We use stock options as the primary incentive for long-term compensation to our named executive officers because they are able to profit from stock options only if our stock price increases relative to the stock option's exercise price. Although we may grant equity awards to our employees and consultants from time to time, we do not have a current practice of making annual equity grants to our executives. However, our executives generally are awarded an initial grant upon commencement of employment. Additional grants may occur periodically in order to specifically incentivize executives with respect to achieving certain corporate goals or to reward executives for exceptional performance.

Prior to this offering, we have granted all stock options pursuant to our 2010 Equity Incentive Plan (the 2010 plan) and our Amended and Restated 2000 Stock Incentive Plan (the 2000 plan). In 2010, we instituted an option exchange program under which each holder of an option under our 2000 plan elected to exchange that option for options under our 2010 plan covering the same number of shares with the same vesting schedule and exercise price per share equal to the fair market value of our common stock on the date of exchange. We may no longer grant stock options under our 2000 plan and there are no outstanding stock options outstanding under this plan. Following this offering, we will grant equity incentive awards under the terms of our 2013 Equity Incentive Plan. The terms of our equity plans are described below under "—Equity Benefit Plans."

All options are granted with an exercise price per share that is no less than the fair market value of our common stock on the date of grant of each award. Our stock option awards generally vest over a four-year period and may be subject to acceleration of vesting and exercisability under certain termination and change of control events.

On September 26, 2012, the Board of Directors granted an option to purchase 58,064 shares of common stock to Dr. Foster in connection with his commencement of employment with us, with an exercise price of \$0.59 per share. We did not grant stock options or other equity awards to any of our other named executive officers in 2012. In September 2013, we granted stock options to purchase 202,024, 62,393 and 19,778 shares to Drs. Dahiyat, Baracchini and Foster, respectively, each with an exercise price of \$4.25 per share. These options vest over a four-year period subject to each of the named executive officer's continued service with us.

## **Agreements with our Named Executive Officers**

Below are written descriptions of our employment agreements, consulting agreements and offer letters with our named executive officers.

*Dr. Dahiyat.* We entered into a Second Amended and Restated Executive Employment Agreement with Dr. Dahiyat in January 2007 setting forth the terms of his employment. Pursuant to the agreement, Dr. Dahiyat is entitled to an initial annual base salary of \$350,000, subject to increase by the Board of Directors and subject to decrease by the Board of Directors upon certain circumstances. Dr. Dahiyat is eligible to receive an annual cash performance bonus up to 25% of his base salary based upon achievement of performance metrics. Pursuant to the agreement, Dr. Dahiyat was granted an option to purchase 282,451 shares of our common stock in January 2007 that vested over a four-year period subject to Dr. Dahiyat's continued service and an option to purchase 96,774 shares of our common stock in January 2007 that vested upon achievement of our annual performance bonus metrics over the following four years, of which 61,693 shares vested upon achievement of such metrics and 35,081 shares failed to vest and were forfeited. The agreement also forgave any unpaid interest due under promissory notes between Dr. Dahiyat and us. In September 2013, we entered into a Third Amended and Restated Executive Employment Agreement with Dr. Dahiyat that amends and restates his 2007 agreement described above. This agreement makes certain clarifications and updates in the law, including the tax code, and reflects Dr. Dahiyat's 2013 annual base salary of \$364,131 and annual target performance bonus of 35% of his base salary. Dr. Dahiyat is additionally entitled to certain severance and change of control benefits pursuant to his agreements, the terms of which are described below under "—Potential Payments Upon Termination or Change of Control." In September 2013, we agreed to forgive all outstanding promissory notes between Dr. Dahiyat and us, contingent and effective upon the filing of the registration statement for this offering.

*Dr. Baracchini.* In January 2010, we entered into an offer letter agreement with Dr. Baracchini setting forth the terms of his employment. Pursuant to the agreement, Dr. Baracchini is entitled to an initial annual base salary of \$275,000 and is eligible to receive an annual cash performance bonus up to 25% of his annual base salary based upon achievement of corporate and individual performance goals.

In addition, the offer letter agreement provides for an option to purchase 183,171 shares of our common stock that was granted in January 2010 and vests over a four-year period subject to Dr. Baracchini's continued service. Until July 2011, Dr. Baracchini also received \$2,000 per month for housing and transportation expenses. In September 2013, we entered into a letter agreement with Dr. Baracchini that amends and restates his 2010 letter agreement described above. This agreement makes certain clarifications and updates in the law, including the tax code, and reflects Dr. Baracchini's 2013 annual base salary of \$290,395 and annual target performance bonus of 35% of his base salary. Dr. Baracchini is entitled to certain severance and change of control benefits pursuant to his agreements, the terms of which are described below under "—Potential Payments Upon Termination or Change of Control."

*Dr. Foster.* In August 2012, we entered into an offer letter agreement with Dr. Foster setting forth the terms of his employment. Pursuant to the agreement, Dr. Foster provides services to us at a 75% of full-time basis, is entitled to an initial annual base salary of \$300,000 and is eligible to receive an annual performance bonus based upon achievement of corporate and individual performance goals. In addition, the offer letter agreement provides for an option to purchase 58,064 shares of our common stock that was granted in September 2012 and vests over a four-year period subject to Dr. Foster's continued service. In August 2013, we entered into a new letter agreement with Dr. Foster which provides that he provides services to us at a 90% of full-time basis at an annual base salary of \$360,000.

Prior to commencing employment with us, Dr. Foster performed consulting services pursuant to a consulting agreement between us and Development and Strategic Consulting Associates, LLC which became effective in January 2010 and was amended in January 2011. Under the amended consulting agreement, Development and Strategic Consulting Associates, LLC was paid a monthly rate of \$24,000 for Dr. Foster's services for approximately 60 hours of work relating to clinical trial management and clinical strategy commensurate with the level of a part-time Chief Medical Officer, in addition to reimbursement of out-of-pocket expenses related to these services.

### **Potential Payments Upon Termination or Change of Control**

Regardless of the manner in which a named executive officer's service terminates, the named executive officer is entitled to receive amounts earned during his or her term of service, including salary and unused vacation pay.

*Dr. Dahiyat.* Pursuant to his Second Amended and Restated Executive Employment Agreement, if we terminate Dr. Dahiyat's employment without cause or if Dr. Dahiyat resigns for good reason at any time, he will be entitled to a pro rated annual performance bonus for the year of termination. In addition, if Dr. Dahiyat's termination without cause or resignation for good reason occurs within 13 months following a "change of control," subject to his execution of an effective release and waiver of claims in favor of us, Dr. Dahiyat will receive a lump sum severance payment equal to 12 months of his base salary in effect at the time of termination (calculated with respect to no less than a \$350,000 annual base salary rate) and payment for continued health benefits under COBRA for 12 months.

For purposes of Dr. Dahiyat's employment agreement:

- "cause" generally means his (i) indictment or conviction of any felony or crime involving moral turpitude or dishonesty; (ii) participation in any fraud against us; (iii) material breach of his duties to us, including persistent unsatisfactory performance or habitual neglect of job duties; (iv) refusal to follow our lawful written directions or material failure to perform his duties other than due to his physical or mental disability; or (v) material breach of our written policies or his Proprietary Information and Inventions Agreement with us.
- "change of control" generally means (i) any sale, merger, consolidation, tender offer or similar acquisition of shares or other transaction or series of related transaction which results in a

change in the majority of our voting power; (ii) a sale or other disposition of all or a substantial part of our assets; or (iii) a change in the majority of our incumbent board.

• "good reason" generally means Dr. Dahiyat's resignation within three months of any of the following actions taken with respect to Dr. Dahiyat without his express written consent (i) assignment of any duties or responsibilities which result in any material diminution of or material change that is adverse to his position, status or circumstances of employment; (ii) a reduction in his base salary; (iii) any action which would adversely affect his participation in, or reduce his benefits under our benefit plans; (iv) a relocation to a location more than 200 miles from our Monrovia, California location; (v) any breach by us of any material provision of his employment agreement; or (vi) any failure by us to obtain the assumption of his employment agreement by any successor or assign of us.

Pursuant to his Third Amended and Restated Executive Employment Agreement that became effective in September 2013, if we terminate Dr. Dahiyat's employment without cause or if Dr. Dahiyat resigns for good reason at any time, subject to his execution of an effective release and waiver of claims in favor of us, Dr. Dahiyat will receive (1) a lump sum severance payment equal to 12 months of his base salary in effect at the time of termination (calculated with respect to no less than a \$364,131 annual base salary rate), (2) payment for continued health benefits under COBRA for 12 months, (3) a pro rated target bonus and (4) accelerated vesting of all of his outstanding stock options and other equity awards subject to time-based vesting as if Dr. Dahiyat had completed an additional 12 months of service. If Dr. Dahiyat's termination without cause or resignation for good reason occurs within one month before or 13 months following a change of control, subject to his execution of an effective release and waiver of claims in favor of us, Dr. Dahiyat will receive the benefits described above, except that his target bonus will not be pro rated and he will receive full acceleration of all of his outstanding stock options and other equity awards subject to time-based vesting. For purposes of Dr. Dahiyat's Third Amended and Restated Executive Employment Agreement, "cause" and "change of control" generally have the same meanings as set forth in his Second Amended and Restated Executive Employment Agreement and "good reason" generally means Dr. Dahiyat's resignation within 15 days after providing us with notice and the opportunity to cure any of the following actions taken with respect to Dr. Dahiyat without his express written consent: (i) a material diminution or material adverse change to his authority, duties or responsibilities; (ii) a material diminution in the authority, duties or responsibilities of his supervisor; (iii) a material reduction in his annual base salary; (iv) a relocation of his principal office to a loca

Dr. Baracchini. Pursuant to his offer letter agreement, if we terminate Dr. Baracchini's employment without cause or if Dr. Baracchini resigns for good reason, in each case prior to or more than 12 months following a "change of control," subject to his execution of an effective release and waiver of claims in favor of us, Dr. Baracchini will receive (1) a lump sum severance payment equal to the sum of (a) 75% of his then-current annual base salary and (b) the arithmetic mean of his annual bonuses for the three full completed years prior to the date of termination, pro rated for the number of days Dr. Baracchini worked during the year of his termination and (2) vesting acceleration of his outstanding stock options and restricted stock to the extent such options or restricted stock would have vested during the nine months following his termination. In the event that Dr. Baracchini's termination without cause or resignation for good reason occurs within a "change of control period," defined as the period beginning on the execution of a definitive written agreement that if consummated would result in a change of control and ending on the earlier of the termination of such agreement or 12 months following the consummation of such change of control, subject to his execution of an effective release and waiver of claims in favor of us, Dr. Baracchini will receive (1) a lump sum severance payment equal to the sum of (a) 125% of his then-current annual base salary and (b) the arithmetic mean of his

annual bonuses for the three full completed years prior to the date of termination, pro rated for the number of days Dr. Baracchini worked during the year of his termination and (2) vesting acceleration in full of his outstanding stock options and restricted stock.

For purposes of Dr. Baracchini's offer letter agreement:

- "cause" generally means his (i) gross negligence or willful misconduct in performing his duties; (ii) material and willful violation of any federal or state law or regulation applicable to our business; (iii) significant or material refusal or failure to act in accordance with any lawful specific direction or order of our Board of Directors; (iv) commission or any act of fraud with respect to us; (v) breach of any material provision of his Proprietary Information and Inventions Agreement with us; (vi) conviction or entry of plea of nolo contendere to a felony or a crime involving moral turpitude.
- "change of control" generally means (i) a sale or other disposition of all or substantially all of our assets; (ii) a merger or consolidation in which we are not the surviving entity and in which our stockholders cease to own 50% of the voting power of the surviving entity; (iii) a reverse merger in which we are the surviving entity but our stockholders cease to own 50% of our voting power; (iv) an acquisition by any person, entity or group of beneficial ownership of more than 50% of our combined voting power.
- "good reason" generally means Dr. Baracchini's resignation following certain notice and cure periods due to any of the following actions taken with respect to Dr. Baracchini without his consent (i) a material reduction in his authority or job responsibilities, accompanied by a change in title; (ii) a material reduction in his combined annual base salary and non-cash benefits; (iii) a relocation of our executive offices by 50 miles that requires an increase in his one-way driving distance by more than 25 miles.

Pursuant to his letter agreement that became effective in September 2013, Dr. Baracchini receives substantially the same severance benefits as under his 2010 letter agreement described above, except that the vesting acceleration benefits apply to all outstanding stock options and equity awards held by Dr. Baracchini that are subject to time-based vesting.

Dr. Foster is not entitled to any severance or change of control benefits under the terms of his offer letter agreements or his prior consulting agreement.

Each of our named executive officers holds stock options under our equity incentive plans that were granted subject to our form of stock option agreements. A description of the termination and change of control provisions in such equity incentive plans and form of stock option agreements is provided below under "—Equity Benefit Plans."

Each of our named executive officers was eligible to participate in a retention bonus plan that provided for certain payments in connection with a change of control. The retention bonus plan and all eligibility for benefits under this plan terminated on December 31, 2012.

### **Outstanding Equity Awards at Fiscal Year-End**

The following table sets forth certain information regarding equity awards granted to our named executive officers that remain outstanding as of December 31, 2012

	Grant Date	Number of Securities Underlying Unexercised Options Exercisable (#)	Option Awards(1)  Number of Securities Underlying Unexercised Options Unexercisable (#)	Ex	Option kercise Price (\$)(2)	Option Expiration Date
Bassil I. Dahiyat, Ph.D.	7/28/2010	282,451(3)	_	\$	0.59	12/31/2016
	7/28/2010	249,914(4)	_	\$	0.59	6/8/2015
	7/28/2010	61,693(3)(5)	_	\$	0.59	12/31/2016
Edgardo Baracchini, Jr., Ph.D.	1/18/2010	133,562	49,609(6)	\$	0.59	1/17/2020
Eugardo Baraccinii, Jr., Fir.D.	1/10/2010	133,302	43,003(0)	Ψ	0.55	1/1//2020
Paul Foster, M.D.	9/26/2012	_	58,064(7)	\$	0.59	9/25/2022

<sup>(1)</sup> All of the outstanding option awards were granted under and subject to the terms of the 2010 plan, described below under "—Equity Benefit Plans." Except as otherwise indicated, each option award becomes exercisable as it becomes vested and all vesting is subject to the executive's continuous service with us through the vesting dates and the potential vesting acceleration described above under "—Potential Payments Upon Termination or Change of Control."

- (3) This option was originally granted on January 1, 2007 and was subject to our option exchange program in 2010 described above under "—Equity-Based Incentive Awards."
- (4) This option was originally granted on June 9, 2005 and was subject to our option exchange program in 2010 described above under "—Equity-Based Incentive Awards."
- (5) This option originally covered 96,774 shares and vested based upon the achievement of certain performance objectives over a four-year period. 35,081 shares underlying this option failed to vest and were cancelled upon failure to achieve such objectives.
- (6) 45,793 shares vested and became exercisable on January 12, 2011 and 3,816 shares vest and become exercisable on the 12<sup>th</sup> day of each month commencing thereafter and ending on January 12, 2014.
- (7) 14,516 shares vest and become exercisable on August 1, 2013 and 1,210 shares vest and become exercisable on the 1<sup>st</sup> day of each month commencing thereafter and ending on August 1, 2016.

### **Option Exercises and Stock Vested**

Our named executive officers did not exercise any stock option awards during the fiscal year ended December 31, 2012.

## **Option Repricings**

We did not engage in any repricings or other modifications or cancellations to any of our named executive officers' outstanding equity awards during the year ended December 31, 2012. We engaged in an option exchange program in 2010 described above under "—Equity-Based Incentive Awards."

# Perquisites, Health, Welfare and Retirement Benefits

Our named executive officers are eligible to participate in our employee benefit plans, including our medical, dental, vision, group life, disability and accidental death and dismemberment insurance plans, in each case on the same basis as all of our other employees. We provide a 401(k) plan to our employees, including our named executive officers, as discussed in the section below entitled "—401(k) Plan."

<sup>(2)</sup> All of the option awards were granted with a per share exercise price equal to the fair market value of one share of our common stock on the date of grant, as determined in good faith by our Board of Directors.

We do not provide perquisites or personal benefits to our named executive officers. We do, however, pay the premiums for term life insurance and disability insurance for all of our employees, including our named executive officers. Our Board of Directors may elect to adopt qualified or non-qualified benefit plans in the future if it determines that doing so is in our best interests.

### 401(k) Plan

We maintain a defined contribution employee retirement plan (401(k) plan) for our employees. Our named executive officers are eligible to participate in the 401(k) plan on the same basis as our other employees. The 401(k) plan is intended to qualify as a tax-qualified plan under Section 401(k) of the Internal Revenue Code. The 401(k) plan provides that each participant may contribute up to the lesser of 100% of his or her compensation or the statutory limit, which was \$17,000 for calendar year 2012. Participants that are 50 years or older can also make "catch-up" contributions, which in calendar year 2012 was up to an additional \$5,500 above the statutory limit. We currently do not make matching contributions into the 401(k) plan on behalf of participants. Participant contributions are held and invested, pursuant to the participant's instructions, by the plan's trustee.

## **Nonqualified Deferred Compensation**

None of our named executive officers participate in or have account balances in nonqualified defined contribution plans or other nonqualified deferred compensation plans maintained by us. Our Board of Directors may elect to provide our officers and other employees with non-qualified defined contribution or other nonqualified deferred compensation benefits in the future if it determines that doing so is in our best interests.

#### **Equity Benefit Plans**

### 2013 Equity Incentive Plan

Our Board of Directors adopted the 2013 plan in November 2013, and we expect our stockholders will approve the 2013 plan prior to this offering and that the 2013 plan will become effective as of the date of the effectiveness of the registration statement of which this prospectus is a part. Once the 2013 plan is effective, no further grants will be made under the 2010 plan.

Stock Awards. The 2013 plan provides for the grant of incentive stock options (ISOs), nonstatutory stock options (NSOs), stock appreciation rights, restricted stock awards, restricted stock unit awards, performance-based stock awards, and other forms of equity compensation (collectively, stock awards), all of which may be granted to employees, including officers, non-employee directors and consultants of us and our affiliates. Additionally, the 2013 plan provides for the grant of performance cash awards. ISOs may be granted only to employees. All other awards may be granted to employees, including officers, and to non-employee directors and consultants.

Share Reserve. Initially, the aggregate number of shares of our common stock that may be issued pursuant to stock awards under the 2013 plan after the 2013 plan becomes effective will not exceed 4,194,133 shares, which includes (i) 1,509,677 new shares, (ii) the number of shares reserved for future grant under our 2010 plan at the time our 2013 plan becomes effective, plus (iii) any shares subject to outstanding stock options or other stock awards that were granted under our 2010 plan and that are forfeited, terminate, expire or are otherwise not issued. Additionally, the number of shares of our common stock reserved for issuance under our 2013 plan will automatically increase on January 1 of each year, beginning on January 1, 2014 (assuming the 2013 plan becomes effective before such date) and continuing through and including January 1, 2023, by 4% 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 2013 plan is 8,388,266 shares.

No person may be granted stock awards covering more than 2,000,000 shares of our common stock under our 2013 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 or strike price of at least 100% of the fair market value on the date the stock award is granted. Additionally, no person may be granted in a calendar year a performance stock award covering more than 2,000,000 shares or a performance cash award having a maximum value in excess of \$3,000,000. Such limitations are designed to help assure that any deductions to which we would otherwise be entitled with respect to such awards will not be subject to the \$1,000,000 limitation on the income tax deductibility of compensation paid to any covered executive officer imposed by Section 162(m) of the Code.

If a stock award granted under the 2013 plan expires or otherwise terminates without being exercised in full, or is settled in cash, the shares of our common stock not acquired pursuant to the stock award again will become available for subsequent issuance under the 2013 plan. In addition, the following types of shares under the 2013 plan may become available for the grant of new stock awards under the 2013 plan: (1) shares that are forfeited to or repurchased by us prior to becoming fully vested; (2) shares withheld to satisfy income or employment withholding taxes; or (3) shares used to pay the exercise or purchase price of a stock award. Shares issued under the 2013 plan may be previously unissued shares or reacquired shares bought by us on the open market. As of the date hereof, no awards have been granted and no shares of our common stock have been issued under the 2013 plan.

Administration. Our Board of Directors, or a duly authorized committee thereof, has the authority to administer the 2013 plan. Our Board of Directors may also delegate to one or more of our officers the authority to (1) designate employees (other than other officers) to be recipients of certain stock awards, and (2) determine the number of shares of common stock to be subject to such stock awards. Subject to the terms of the 2013 plan, our Board of Directors or the authorized committee, referred to herein as the plan administrator, determines recipients, dates of grant, the numbers and types of stock awards to be granted and the terms and conditions of the stock awards, including the period of their exercisability and vesting schedule applicable to a stock award. Subject to the limitations set forth below, the plan administrator will also determine the exercise price, strike price or purchase price of awards granted and the types of consideration to be paid for the award.

The plan administrator has the authority to modify outstanding awards under our 2013 plan. Subject to the terms of our 2013 plan, the plan administrator has the authority to reduce the exercise, purchase or strike price of any outstanding stock award, cancel any outstanding stock award in exchange for new stock awards, cash or other consideration, or take any other action that is treated as a repricing under generally accepted accounting principles, with the consent of any adversely affected participant.

Stock Options. ISOs and NSOs are granted pursuant to stock option agreements adopted by the plan administrator. The plan administrator determines the exercise price for a stock option, within the terms and conditions of the 2013 plan, provided that the exercise price of a stock option generally cannot be less than 100% of the fair market value of our common stock on the date of grant. Options granted under the 2013 plan vest at the rate specified by the plan administrator.

The plan administrator determines the term of stock options granted under the 2013 plan, up to a maximum of 10 years. Unless the terms of an option holder's stock option agreement provide otherwise, if an option holder's service relationship with us, or any of our affiliates, ceases for any reason other than disability, death or cause, the option holder may generally exercise any vested options for a period of three months following the cessation of service. The option term may be extended in the event that exercise of the option following such a termination of service is prohibited by applicable securities laws or our insider trading policy. If an optionholder's service relationship with us or any of our affiliates ceases due to disability or death, or an optionholder dies within a certain

period following cessation of service, the optionholder or a beneficiary may generally exercise any vested options for a period of 12 months in the event of disability and 18 months in the event of death. In the event of a termination for cause, options generally terminate immediately upon the termination of the individual for cause. In no event may an option be exercised beyond the expiration of its term.

Acceptable consideration for the purchase of common stock issued upon the exercise of a stock option will be determined by the plan administrator and may include (1) cash, check, bank draft or money order, (2) a broker-assisted cashless exercise, (3) the tender of shares of our common stock previously owned by the optionholder, (4) a net exercise of the option if it is an NSO, and (5) other legal consideration approved by the plan administrator.

Unless the plan administrator provides otherwise, options generally are not transferable except by will, the laws of descent and distribution, or pursuant to a domestic relations order. An optionholder may designate a beneficiary, however, who may exercise the option following the optionholder's death.

Tax Limitations On Incentive Stock Options. The aggregate fair market value, determined at the time of grant, of our common stock with respect to ISOs that are exercisable for the first time by an optionholder during any calendar year under all of our stock plans may not exceed \$100,000. Options or portions thereof that exceed such limit will generally be treated as NSOs. No ISO may be granted to any person who, at the time of the grant, owns or is deemed to own stock possessing more than 10% of our total combined voting power or that of any of our affiliates unless (1) the option exercise price is at least 110% of the fair market value of the stock subject to the option on the date of grant, and (2) the term of the ISO does not exceed five years from the date of grant.

Restricted Stock Awards. Restricted stock awards are granted pursuant to restricted stock award agreements adopted by the plan administrator. Restricted stock awards may be granted in consideration for (1) cash, check, bank draft or money order, (2) services rendered to us or our affiliates, or (3) any other form of legal consideration. Common stock acquired under a restricted stock award may, but need not, be subject to a share repurchase option in our favor in accordance with a vesting schedule to be determined by the plan administrator. A restricted stock award may be transferred only upon such terms and conditions as set by the plan administrator. Except as otherwise provided in the applicable award agreement, restricted stock awards that have not vested will be forfeited upon the participant's cessation of continuous service for any reason.

Restricted Stock Unit Awards. Restricted stock unit awards are granted pursuant to restricted stock unit award agreements adopted by the plan administrator. Restricted stock unit awards may be granted in consideration for any form of legal consideration. A restricted stock unit award may be settled by cash, delivery of stock, a combination of cash and stock as deemed appropriate by the plan administrator, or in any other form of consideration set forth in the restricted stock unit award agreement. Additionally, dividend equivalents may be credited in respect of shares covered by a restricted stock unit award. Except as otherwise provided in the applicable award agreement, restricted stock units that have not vested will be forfeited upon the participant's cessation of continuous service for any reason.

Stock Appreciation Rights. Stock appreciation rights are granted pursuant to stock appreciation grant agreements adopted by the plan administrator. The plan administrator determines the strike price for a stock appreciation right, which generally cannot be less than 100% of the fair market value of our common stock on the date of grant. Upon the exercise of a stock appreciation right, we will pay the participant an amount equal to the product of (1) the excess of the per share fair market value of our common stock on the date of exercise over the strike price, multiplied by (2) the number of shares of common stock with respect to which the stock appreciation right is exercised. A stock appreciation right granted under the 2013 plan vests at the rate specified in the stock appreciation right agreement as determined by the plan administrator.

The plan administrator determines the term of stock appreciation rights granted under the 2013 plan, up to a maximum of ten years. Unless the terms of a participant's stock appreciation right agreement provides otherwise, if a participant's service relationship with us or any of our affiliates ceases for any reason other than cause, disability or death, the participant may generally exercise any vested stock appreciation right for a period of three months following the cessation of service. The stock appreciation right term may be further extended in the event that exercise of the stock appreciation right following such a termination of service is prohibited by applicable securities laws. If a participant's service relationship with us, or any of our affiliates, ceases due to disability or death, or a participant dies within a certain period following cessation of service, the participant or a beneficiary may generally exercise any vested stock appreciation right for a period of 12 months in the event of disability and 18 months in the event of death. In the event of a termination for cause, stock appreciation right be exercised beyond the expiration of its term.

*Performance Awards*. The 2013 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 of compensation paid to a covered executive officer imposed by Section 162(m) of the Code. To help assure that the compensation attributable to performance-based awards will so qualify, our Compensation Committee can structure such awards so that stock or cash will be issued or paid pursuant to such award only after the achievement of certain pre-established performance goals during a designated performance period.

The performance goals that may be selected include one or more of the following: (1) earnings (including earnings per share and net earnings); (2) earnings before interest, taxes and depreciation; (3) earnings before interest, taxes, depreciation and amortization; (4) earnings before interest, taxes, depreciation, amortization and legal settlements; (5) earnings before interest, taxes, depreciation, amortization, legal settlements and other income (expense); (6) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense) and stock-based compensation; (7) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense), stock-based compensation and changes in deferred revenue; (8) total stockholder return; (9) return on equity or average stockholder's equity; (10) return on assets, investment, or capital employed; (11) stock price; (12) margin (including gross margin); (13) income (before or after taxes); (14) operating income; (15) operating income after taxes; (16) pre-tax profit; (17) operating cash flow; (18) sales or revenue targets; (19) increases in revenue or product revenue; (20) expenses and cost reduction goals; (21) improvement in or attainment of working capital levels; (22) economic value added (or an equivalent metric); (23) market share; (24) cash flow; (25) cash flow per share; (26) share price performance; (27) debt reduction; (28) implementation or completion of projects or processes; (29) user satisfaction; (30) stockholders' equity; (31) capital expenditures; (32) debt levels; (33) operating profit or net operating profit; (34) workforce diversity; (35) growth of net income or operating income; (36) billings; (37) bookings; (38) the number of users, including but not limited to unique users; (39) employee retention; (40) initiation of phases of clinical trials and/or studies by specific dates; (41) patient enrollment rates; (42) budget management; (43) submission to, or approval by, a regulatory body (including, but not limited to the U.S. Food and Drug Administration) of an applicable filing or a product candidate; (44) implementation or completion of projects or processes (including, without limitation, clinical trial initiation, clinical trial enrollment, clinical trial results, new and supplemental indications for existing products, regulatory filing submissions, regulatory filing acceptances, regulatory or advisory committee interactions, regulatory approvals, and product supply); (45) regulatory milestones; (46) progress of internal research or clinical programs; (47) progress of partnered programs; (48) implementation or completion of projects and processes; (49) partner satisfaction; (50) timely completion of clinical trials; (51) submission of INDs and NDAs and other regulatory achievements; (52) research progress, including the development of programs; (53) strategic

partnerships or transactions (including in-licensing and out-licensing of intellectual property; and (54) 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.

The performance goals may be based on a company-wide basis, with respect to one or more business units, divisions, affiliates, or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Unless specified otherwise (i) in the award agreement at the time the award is granted or (ii) in such other document setting forth the performance goals at the time the goals are established, we will appropriately make adjustments in the method of calculating the attainment of performance goals as follows: (1) to exclude restructuring and/or other nonrecurring charges; (2) to exclude exchange rate effects, as applicable, for non-U.S. dollar denominated goals; (3) to exclude the effects of changes to generally accepted accounting principles; (4) to exclude the effects of any statutory adjustments to corporate tax rates; (5) to exclude the effects of any "extraordinary items" as determined under generally accepted accounting principles; (6) to exclude the dilutive effects of acquisitions or joint ventures; (7) to assume that any business divested by us achieved performance objectives at targeted levels during the balance of a performance period following such divestiture; (8) to exclude the effect of any change in the outstanding shares of our common stock by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends; (9) to exclude the effects of stock based compensation and the award of bonuses under our bonus plans; (10) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to be expensed under generally accepted accounting principles; (11) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under generally accepted accounting principles; (12) to exclude the effect of any other unusual, non-recurring gain or loss or other extraordinary item; and (13) to exclude the effects of the timing of acceptance for review and/or approval of submissions to the Food and Drug Administration or any other regulatory body. In addition, we retain the discretion to reduce or eliminate the compensation or economic benefit due upon attainment of the goals. The performance goals may differ from participant to participant and from award to award.

*Other Stock Awards.* The plan administrator may grant other awards based in whole or in part by reference to our common stock. The plan administrator will set the number of shares under the stock award and all other terms and conditions of such awards.

Changes to Capital Structure. In the event that there is a specified type of change in our capital structure, such as a stock split or recapitalization, appropriate adjustments will be made to (a) the class and maximum number of shares reserved for issuance under the 2013 plan, (b) the class and maximum number of shares by which the share reserve may increase automatically each year, (c) the class and maximum number of shares that may be issued upon the exercise of ISOs, (d) the class and maximum number of shares subject to stock awards that can be granted in a calendar year (as established under the 2013 plan pursuant to Section 162(m) of the Code) and (e) the class and number of shares and exercise price, strike price, or purchase price, if applicable, of all outstanding stock awards.

*Corporate Transactions*. In the event of certain specified significant corporate transactions, the plan administrator has the discretion to take any of the following actions with respect to stock awards:

- arrange for the assumption, continuation or substitution of a stock award by a surviving or acquiring entity or parent company;
- arrange for the assignment of any reacquisition or repurchase rights held by us to the surviving or acquiring entity or parent company;

- accelerate the vesting of the stock award and provide for its termination prior to the effective time of the corporate transaction;
- arrange for the lapse of any reacquisition or repurchase right held by us;
- cancel or arrange for the cancellation of the stock award in exchange for such cash consideration, if any, as our Board of Directors may deem appropriate; or
- make a payment equal to the excess of (a) the value of the property the participant would have received upon exercise of the stock award over (b) the
  exercise price otherwise payable in connection with the stock award.

Our plan administrator is not obligated to treat all stock awards, even those that are of the same type, in the same manner.

Under the 2013 plan, a corporate transaction is generally the consummation of (i) a sale or other disposition of all or substantially all of our consolidated assets, (ii) a sale or other disposition of at least 90% of our outstanding securities, (iii) a merger, consolidation or similar transaction following which we are not the surviving corporation, or (iv) a merger, consolidation or similar transaction following which we are the surviving corporation but the shares of our common stock outstanding immediately prior to such transaction are converted or exchanged into other property by virtue of the transaction.

Change of Control. The plan administrator may provide, in an individual award agreement or in any other written agreement between a participant and us that the stock award will be subject to additional acceleration of vesting and exercisability in the event of a change of control. Under the 2013 plan, a change of control is generally (i) the acquisition by a person or entity of more than 50% of our combined voting power other than by merger, consolidation or similar transaction; (ii) a consummated merger, consolidation or similar transaction immediately after which our stockholders cease to own more than 50% of the combined voting power of the surviving entity; or (iii) a consummated sale, lease or exclusive license or other disposition of all or substantially of our consolidated assets.

Amendment and Termination. Our Board of Directors has the authority to amend, suspend, or terminate our 2013 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 2013 plan.

### 2010 Equity Incentive Plan

Our Board of Directors and our stockholders approved our 2010 plan and it became effective in February 2010 and was subsequently amended by our Board of Directors and stockholders in June 2013. Our 2010 plan is a continuation of and successor to our 2000 plan and after our 2010 plan became effective, no further stock awards may be granted under our 2000 plan. As of September 30, 2013, there were 880,771 shares remaining available for the grant of stock awards under our 2010 plan and there were outstanding stock options covering a total of 1,803,685 shares that were granted under our 2010 plan. There were no outstanding stock awards under our 2000 plan as of September 30, 2013.

After the effective date of the 2013 plan, no additional awards will be granted under the 2010 plan, and all awards granted under the 2010 plan that are repurchased, forfeited, expire or are cancelled will become available for grant under the 2013 plan in accordance with its terms.

Stock awards. The 2010 plan provides for the grant of ISO, NSOs, stock appreciation rights, restricted stock awards and restricted stock unit awards (collectively, stock awards), all of which may be granted to employees, including officers, non-employee directors and consultants of us and our affiliates. ISOs may be granted only to employees. All other awards may be granted to employees,

including officers, and to non-employee directors and consultants. We have only granted stock options under the 2010 plan.

Share Reserve. The aggregate number of shares of our common stock reserved for issuance pursuant to stock awards under the 2010 plan is 2,684,506, which includes any shares subject to stock options or other stock awards granted under our 2000 plan that expire or terminate for any reason, are forfeited or repurchased by us or are reacquired, withheld or not issued to satisfy a tax withholding obligation. The maximum number of shares that may be issued upon the exercise of ISOs under our 2010 plan was 3,017,389 shares.

If a stock award granted under the 2010 plan is forfeited back to us because of the failure to meet a contingency or condition required to vest, such shares will become available for subsequent issuance under the 2010 plan. In addition, shares withheld to satisfy income or employment withholding taxes and shares used to pay the exercise price of a stock option will become available for the grant of new stock awards under the 2010 plan. Shares issued under the 2010 plan may be previously unissued shares or reacquired shares bought by us on the open market.

Administration. Our Board of Directors, or a duly authorized committee thereof, has the authority to administer the 2010 plan. Our Board of Directors may also delegate to one or more of our officers the authority to (1) designate employees (other than other officers) to be recipients of certain stock awards, and (2) determine the number of shares of common stock to be subject to such stock awards. Subject to the terms of the 2010 plan, our Board of Directors or the authorized committee, referred to herein as the plan administrator, determines recipients, dates of grant, the numbers and types of stock awards to be granted and the terms and conditions of the stock awards, including the period of their exercisability and vesting schedule applicable to a stock award. Subject to the limitations set forth below, the plan administrator will also determine the exercise price, strike price or purchase price of awards granted and the types of consideration to be paid for the award.

The plan administrator has the authority to modify outstanding awards under our 2010 plan. Subject to the terms of our 2010 plan, the plan administrator has the authority to reduce the exercise, purchase or strike price of any outstanding stock award, cancel any outstanding stock award in exchange for new stock awards, cash or other consideration, or take any other action that is treated as a repricing under generally accepted accounting principles, with the consent of any adversely affected participant.

Stock Options. Incentive and nonstatutory stock options are granted pursuant to stock option agreements adopted by the plan administrator. The plan administrator determines the exercise price for a stock option, within the terms and conditions of the 2010 plan, provided that the exercise price of a stock option generally cannot be less than 100% of the fair market value of our common stock on the date of grant. Options granted under the 2010 plan vest at the rate specified by the plan administrator.

The plan administrator determines the term of stock options granted under the 2010 plan, up to a maximum of 10 years. Unless the terms of an option holder's stock option agreement provide otherwise, if an option holder's service relationship with us, or any of our affiliates, ceases for any reason other than disability, death or cause, the option holder may generally exercise any vested options for a period of three months following the cessation of service. The option term may be extended in the event that exercise of the option following such a termination of service is prohibited by applicable securities laws or our insider trading policy. If an optionholder's service relationship with us or any of our affiliates ceases due to disability or death, or an optionholder dies within a certain period following cessation of service, the optionholder or a beneficiary may generally exercise any vested options for a period of 12 months in the event of disability and 18 months in the event of death. In the event of a termination for cause, options generally terminate immediately upon the termination of the individual for cause. In no event may an option be exercised beyond the expiration of its term.

Acceptable consideration for the purchase of common stock issued upon the exercise of a stock option will be determined by the plan administrator and may include (1) cash, check, bank draft or money order, (2) a broker-assisted cashless exercise, (3) the tender of shares of our common stock previously owned by the optionholder, (4) a net exercise of the option if it is an NSO, and (5) other legal consideration approved by the plan administrator.

Unless the plan administrator provides otherwise, options generally are not transferable except by will, the laws of descent and distribution, or pursuant to a domestic relations order. An optionholder may designate a beneficiary, however, who may exercise the option following the optionholder's death.

Tax Limitations On Incentive Stock Options. The aggregate fair market value, determined at the time of grant, of our common stock with respect to ISOs that are exercisable for the first time by an optionholder during any calendar year under all of our stock plans may not exceed \$100,000. Options or portions thereof that exceed such limit will generally be treated as NSOs. No ISO may be granted to any person who, at the time of the grant, owns or is deemed to own stock possessing more than 10% of our total combined voting power or that of any of our affiliates unless (1) the option exercise price is at least 110% of the fair market value of the stock subject to the option on the date of grant, and (2) the option is not exercisable after the expiration of five years from the date of grant.

Changes to Capital Structure. In the event that there is a specified type of change in our capital structure, such as a stock split or recapitalization, appropriate adjustments will be made to (a) the class and maximum number of shares reserved for issuance under the 2010 plan, (b) the class and maximum number of shares that may be issued upon the exercise of ISOs, and (c) the class and number of shares and price per share of stock subject to all outstanding stock awards.

Corporate Transactions. In the event of certain specified significant corporate transactions, unless otherwise provided in a stock award or other written agreement between us and the holder of a stock award, the plan administrator has the discretion to take any of the following actions with respect to stock awards:

- arrange for the assumption, continuation or substitution of a stock award by a surviving or acquiring entity or parent company;
- arrange for the assignment of any reacquisition or repurchase rights held by us to the surviving or acquiring entity or parent company;
- accelerate the vesting of the stock award and provide for its termination at or prior to the effective time of the corporate transaction;
- arrange for the lapse of any reacquisition or repurchase right held by us;
- cancel or arrange for the cancellation of the stock award, to the extent not vested or not exercised prior to the effective time of the corporate transaction, in exchange for such cash consideration, if any, as our Board of Directors may deem appropriate; or
- make a payment equal to the excess of (a) the value of the property the participant would have received upon exercise of the stock award over (b) the exercise price otherwise payable in connection with the stock award.

Our plan administrator is not obligated to treat all stock awards, even those that are of the same type, in the same manner.

Under the 2010 plan, a corporate transaction is generally the consummation of (i) a sale or other disposition of all or substantially all of our consolidated assets, (ii) a sale or other disposition of at least 90% of our outstanding securities, (iii) a merger, consolidation or similar transaction following which we are not the surviving corporation, or (iv) a merger, consolidation or similar transaction following

which we are the surviving corporation but the shares of our common stock outstanding immediately prior to such transaction are converted or exchanged into other property by virtue of the transaction.

Change of Control. The plan administrator may provide, in an individual award agreement or in any other written agreement between a participant and us that the stock award will be subject to additional acceleration of vesting and exercisability in the event of a change of control. Under the 2010 plan, a change of control is generally (i) the acquisition by a person or entity of more than 50% of our combined voting power other than by merger, consolidation or similar transaction; (ii) a consummated merger, consolidation or similar transaction immediately after which our stockholders cease to own more than 50% of the combined voting power of the surviving entity or of its parent entity; (iii) approval by the stockholders or our Board of Directors of a plan of complete dissolution or liquidation of us; or (iv) a consummated sale, lease or exclusive license or other disposition of all or substantially of our consolidated assets.

Amendment and Termination. The 2010 plan will terminate on February 17, 2020. However, our Board of Directors has the authority to amend, suspend, or terminate our 2010 plan, provided that such action does not materially impair the existing rights of any participant without such participant's written consent.

## 2013 Employee Stock Purchase Plan

Our Board of Directors adopted the 2013 Employee Stock Purchase Plan (the ESPP) in November 2013 and we expect our stockholders will approve the ESPP prior to the execution and delivery of the underwriting agreement for this offering. The ESPP will become effective as of the date of the effectiveness of the registration statement of which this prospectus is a part. The purpose of the ESPP is to retain the services of new employees and secure the services of new and existing employees while providing incentives for such individuals to exert maximum efforts toward our success and that of our affiliates.

Share Reserve. Following this offering, the ESPP authorizes the issuance of 267,741 shares of our common stock pursuant to purchase rights granted to our employees or to employees of any of our designated affiliates. The number of shares of our common stock reserved for issuance will automatically increase on January 1 of each calendar year, from January 1, 2014 (assuming the ESPP becomes effective before such date) through January 1, 2023 by the least of (a) 1% of the total number of shares of our common stock outstanding on December 31 of the preceding calendar year, (b) 621,814 shares, or (c) a number determined by our Board of Directors that is less than (a) and (b). The ESPP is intended to qualify as an "employee stock purchase plan" within the meaning of Section 423 of the Code. As of the date hereof, no shares of our common stock have been purchased under the ESPP.

Administration. Our Board of Directors has delegated its authority to administer the ESPP to our Compensation Committee. The ESPP is implemented through a series of offerings of purchase rights to eligible employees. Under the ESPP, we may specify offerings with durations of not more than 27 months, and may specify shorter purchase periods within each offering. Each offering will have one or more purchase dates on which shares of our common stock will be purchased for employees participating in the offering. An offering may be terminated under certain circumstances.

Payroll Deductions. Generally, all regular employees, including executive officers, employed by us or by any of our designated affiliates, may participate in the ESPP and may contribute, normally through payroll deductions, up to 15% of their earnings for the purchase of our common stock under the ESPP. Unless otherwise determined by our Board of Directors, common stock will be purchased for accounts of employees participating in the ESPP at a price per share equal to the lower of (a) 85% of

the fair market value of a share of our common stock on the first date of an offering or (b) 85% of the fair market value of a share of our common stock on the date of purchase.

Limitations. Employees may have to satisfy one or more of the following service requirements before participating in the ESPP, as determined by our Board of Directors: (a) customarily employed for more than 20 hours per week, (b) customarily employed for more than five months per calendar year or (c) continuous employment with us or one of our affiliates for a period of time (not to exceed two years). No employee may purchase shares under the ESPP at a rate in excess of \$25,000 worth of our common stock based on the fair market value per share of our common stock at the beginning of an offering for each year such a purchase right is outstanding. Finally, no employee will be eligible for the grant of any purchase rights under the ESPP if immediately after such rights are granted, such employee has voting power over 5% or more of our outstanding capital stock measured by vote or value pursuant to Section 424(d) of the Code.

Changes to Capital Structure. In the event that there occurs a change in our capital structure through such actions as a stock split, merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or similar transaction, the Board of Directors will make appropriate adjustments to (a) the number of shares reserved under the ESPP, (b) the maximum number of shares by which the share reserve may increase automatically each year and (c) the number of shares and purchase price of all outstanding purchase rights.

Corporate Transactions. In the event of certain significant corporate transactions, including: (i) a sale of all our assets, (ii) the sale or disposition of 90% of our outstanding securities, (iii) the consummation of a merger or consolidation where we do not survive the transaction, and (iv) the consummation of a merger or consolidation where we do survive the transaction but the shares of our common stock outstanding immediately prior to such transaction are converted or exchanged into other property by virtue of the transaction, any then-outstanding rights to purchase our stock under the ESPP may be assumed, continued or substituted for by any surviving or acquiring entity (or its parent company). If the surviving or acquiring entity (or its parent company) elects not to assume, continue or substitute for such purchase rights, then the participants' accumulated payroll contributions will be used to purchase shares of our common stock within 10 business days prior to such corporate transaction, and such purchase rights will terminate immediately.

*Plan Amendments*, *Termination*. Our Board of Directors has the authority to amend or terminate our ESPP, provided that except in certain circumstances any such amendment or termination may not materially impair any outstanding purchase rights without the holder's consent. We will obtain stockholder approval of any amendment to our ESPP as required by applicable law or listing requirements.

### **Director Compensation**

Historically, we have not paid cash or equity compensation to directors who are also our employees for service on our Board of Directors, nor have we paid cash or equity compensation to our non-employee directors who are associated with our principal stockholders for service on our Board of Directors. We have reimbursed and will continue to reimburse all of our non-employee directors for their travel, lodging and other reasonable expenses incurred in attending meetings of our Board of Directors and committees of our Board of Directors.

We provide compensation to Dr. Carter for his services as the Chairman of the Board of Directors pursuant to a letter agreement between us and Dr. Carter dated September 28, 2009, as amended on November 18, 2010. Under the offer letter agreement, we provide Dr. Carter an annual cash retainer

of \$50,000 payable monthly in arrears as well as \$1,500 for each visit to our facilities for interfacing and liaising with our management and reimbursement for his reasonable expenses incurred in attending meetings. In addition, in connection with his letter agreement with us, Dr. Carter was granted an option to purchase 96,774 shares that vest over a four-year period measured from September 30, 2009, subject to his continued service with us. In September 2013, we granted stock options to purchase 32,964 shares to Dr. Carter with an exercise price of \$4.25 per share. These options vest over a four-year period subject to Dr. Carter's continued service with us.

In November 2013, our Board of Directors approved an option to purchase 15,000 shares to Mr. Baltera under our 2013 plan which will be granted effective and contingent upon the execution and delivery of the underwriting agreement related to this offering, at an exercise price per share equal to the price per share at which our common stock is first sold to the public in this offering. This option grant will vest over three years following the grant date, subject to Mr. Baltera's continued service with us.

The following table sets forth in summary form information concerning the compensation that we paid or awarded during the year ended December 31, 2012 to each of our non-employee directors:

Name(1)	Fees Earned or Paid in Cash (\$)	Option Awards(2)	All Other Compensation (\$)	Total (\$)
Bruce L.A. Carter, Ph.D.(2)	50,000	_	_	50,000
Douglas Fambrough, Ph.D.	_	_		_
Donald C. Foster, Ph.D.	_	_	_	_
Atul Saran	_	_		_
John S. Stafford III	_	_	_	_
Charles K. Stewart(3)	_	_		_
Harold R. Werner	_	_	_	_

- (1) Dr. Dahiyat was an employee director during 2012 and his compensation is fully reflected in the "—Summary Compensation Table" above. Dr. Dahiyat did not receive any compensation in 2012 for services provided as a member of our Board of Directors. Mr. Baltera was not a director during 2012 and is not included in this table.
- (2) We did not grant any stock options to our non-employee directors in 2012. The aggregate number of shares subject to each non-employee director's outstanding option awards as of December 31, 2012 was as follows: Dr. Carter, 96,774 outstanding and unexercised options.
- (3) Mr. Stewart resigned from our Board of Directors on July 30, 2013.

In November 2013, our Board of Directors adopted a new compensation policy applicable to all of our non-employee directors that will be effective upon the execution and delivery of the underwriting agreement related to this offering. This compensation policy provides that each such non-employee director will receive the following compensation for service on our Board of Directors:

- a cash payment of \$8,750 for in person attendance at each regular meeting of the Board of Directors and an additional cash payment of \$6,250 to the
  chairman of the Board of Directors for such attendance, provided that the compensation committee may consider exceptions to the requirement to
  attend regular meetings in person;
- an annual cash retainer of \$15,000, \$10,000 and \$7,500 for service as chairman of the audit committee, compensation committee or the nominating and corporate governance committee, respectively;

- an annual cash retainer of \$7,500, \$5,000 and \$3,500 for service on (and other than than as the chairperson of) the audit committee, compensation committee and nominating and corporate governance committee, respectively;
- · an annual option grant to purchase 7,500 shares of our common stock vesting one year following the grant date; and
- upon first joining our Board of Directors, an automatic initial grant of an option to purchase 15,000 shares of our common stock vesting over a three
  year period following the grant date.

Each of the option grants described above will vest and become exercisable subject to the director's continuous service to us, provided that each option will vest in full upon a change of control (as defined under our 2013 plan). The term of each option will be 10 years. The options will be granted under our 2013 plan, the terms of which are described in more detail above under "—Equity Benefit Plans—2013 Equity Incentive Plan."

### **Risk Assessment of Compensation Program**

In October and November 2011, the compensation committee assessed our compensation program for the purpose of reviewing and considering any risks presented by our compensation policies and practices that are reasonably likely to have a material adverse effect on us. As part of that assessment, the compensation committee reviewed the primary elements of our compensation program, including base salary, short-term incentive compensation and long-term incentive compensation. The compensation committee's risk assessment included a review of the overall design of each primary element of our compensation program, and an analysis of the various design features, controls and approval rights in place with respect to compensation paid to management and other employees that mitigate potential risks to us that could arise from our compensation program. Following the assessment, the compensation committee determined that our compensation policies and practices did not create risks that were reasonably likely to have a material adverse effect on us.

# CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

The following includes a summary of transactions since January 1, 2010 to which we have been a party, in which the amount involved in the transaction exceeded \$120,000, and in which any of our directors, executive officers or, to our knowledge, beneficial owners of more than 5% of our capital stock or any member of the immediate family of any of the foregoing persons had or will have a direct or indirect material interest, other than equity and other compensation, termination, change in control and other arrangements, which are described under "Compensation Discussion and Analysis."

### **Loan Arrangements**

Since January 1, 2010, we have entered into various loan arrangements pursuant to which we issued an aggregate of \$7.5 million of convertible promissory notes to investors, including one of our directors, entities affiliated with our directors and beneficial owners of more than 5% of our capital stock. The participants in these loan arrangements included the following holders of more than 5% of our capital stock or entities affiliated with them. The following table presents the aggregate principal amount of convertible promissory notes issued to these related parties in these loan arrangements:

Participants	egate Principal ount of Notes
John S. Stafford III	\$ 3,915,776
John Stafford, Jr.(1)	\$ 989,232
James Stafford	\$ 415,613
HealthCareVentures VIII, L.P.	\$ 415,997

(1) Consists of \$870,048 aggregate principal amount of notes issued to John Stafford, Jr. and \$119,184 aggregate principal amount of notes issued to the Kimberly Susan Stafford 2005 Irrevocable Trust.

The convertible promissory notes referred to above initially carried an interest rate of 10.0% per annum, which interest rate was increased to 12.5% in June 2011. In June 2013, the noteholders waived their right to receive payment of unpaid accrued interest under these notes in exchange for an aggregate of 17,114,751 shares of our Series A-1 convertible preferred stock pursuant to a note conversion agreement.

### Series A-1 Preferred Stock Financing

In June 2013, we entered into a Series A-1 Preferred Stock Purchase Agreement (the Series A-1 Purchase Agreement), pursuant to which we issued and sold an aggregate of 7,352,940 shares of our Series A-1 convertible preferred stock at a purchase price of \$1.36 per share, for an aggregate purchase price of \$9,999,998 in two closings. The following table sets forth the number of shares of Series A-1 preferred stock purchased by our executive officers, directors and holders of more than 5% of our common stock in this preferred stock financing:

Name(1)	Shares of Series A-1 Preferred Stock	ırchase Price	
John S. Stafford III	2,997,951	\$	4,077,213
John Stafford, Jr.(2)	903,108	\$	1,228,227
James Stafford	412,103	\$	560,460
MedImmune Ventures, Inc.	544,560	\$	740,602
HealthCare Ventures VIII, L.P.	427,308	\$	581,139
Oxford Biosciences Partners V L.P.(3)	326,393	\$	443,894

<sup>(1)</sup> Additional detail regarding these stockholders and their equity holdings is provided in "Security Ownership of Certain Beneficial Owners and Management."

- (2) Consists of 564,422 shares of Series A-1 convertible preferred stock issued to John Stafford, Jr., 118,280 shares of Series A-1 convertible preferred stock issued to the Kimberly Susan Stafford 2005 Irrevocable Trust and 220,406 shares of Series A-1 convertible preferred stock issued to the Susan Yang Stafford 2010 Kimborama Trust.
- (3) Consists of 319,200 shares of Series A-1 convertible preferred stock issued to Oxford Biosciences Partners V L.P. and 7,193 shares of Series A-1 convertible preferred stock issued to MRNA Fund V L.P.

Certain of our directors participated in, or have affiliations with the investors that participated in, the loan arrangements and preferred stock financing described above, as indicated in the table below:

Director	Investor
Jonathan Fleming	Oxford Bioscience Partners V L.P.
Atul Saran	MedImmune Ventures, Inc.
Harold Werner	HealthCare Ventures VIII, L.P.

### **Investor Agreements**

In connection with our preferred stock financing, we entered into amended and restated investor rights agreements and an amended and restated voting, right of first refusal and co-sale agreements containing registration rights, voting rights, information rights and rights of first refusal among other things, with certain holders of our preferred stock and certain holders of our common stock, including all of the holders of more than 5% of our capital stock. Upon the closing of this offering, only the registration rights described in "Description of Capital Stock—Registration Rights" will remain in effect and the other provisions of these agreements will terminate.

### **Employee Loan**

In May 2011, we made a loan of \$152,333 to Dr. Dahiyat, our President and Chief Executive Officer, bearing interest at an annual rate of 0.56% pursuant to two promissory notes. On September 4, 2013 our Board of Directors authorized the forgiveness of the entire outstanding principal and interest, effective and contingent upon the filing of the registration statement for this offering, which occurred on October 11, 2013.

### Cross-License Agreement with MedImmune, LLC

In December 2012, we entered into a cross-license agreement with MedImmune, LLC, an affiliate of MedImmune Ventures, Inc., a holder of more than 5% of our capital stock. Under the terms of the agreement, we cross-licensed certain technology relating to our Xtend Fc Domain technology. We value this agreement at approximately \$750,000 using a discounted cash flow valuation analysis. One of our directors, Atul Saran, served as senior vice president, corporate development and ventures at MedImmune, LLC from January 2011 to May 2013 and currently serves as the vice president of corporate development and ventures at AstraZeneca plc and as chairman of the MedImmune Ventures, Inc. investment committee.

## **Indemnification Agreements**

We have entered, and intend to continue to enter, into separate indemnification agreements with each of our directors and executive officers.

## Participation in this Offering

John S. Stafford III, a member of our board of directors and our largest stockholder, HealthCare Ventures VIII, L.P., one of our principal stockholders and an affiliate of a member of our board of directors, Oxford Biosciences Partners V L.P., an affiliate of a member of our board of directors, and

John Stafford, Jr. and James Stafford, two of our principal stockholders, have indicated an interest in purchasing an aggregate of approximately \$20.5 million in shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders, or any of these stockholders may determine to purchase more, less or no shares in this offering.

### Policies and Procedures for Transactions with Related Persons

We have adopted a written related-person transactions policy that sets forth our policies and procedures regarding the identification, review, consideration and oversight of "related-person transactions." For purposes of our policy only, a "related-person transaction" is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which we and any "related person" are participants involving an amount that exceeds \$120,000.

Transactions involving compensation for services provided to us as an employee, consultant or director are not considered related-person transactions under this policy. A related person is any executive officer, director or a holder of more than five percent of our common stock, including any of their immediate family members and any entity owned or controlled by such persons.

Under the policy, where a transaction has been identified as a related-person transaction, management must present information regarding the proposed related-person transaction to our audit committee (or, where review by our audit committee would be inappropriate, to another independent body of our Board of Directors) for review. The presentation must include a description of, among other things, the material facts, the direct and indirect interests of the related persons, the benefits of the transaction to us and whether any alternative transactions are available. To identify related-person transactions in advance, we rely on information supplied by our executive officers, directors and certain significant stockholders. In considering related-person transactions, our audit committee or other independent body of our Board of Directors takes into account the relevant available facts and circumstances including, but not limited to:

- the risks, costs and benefits to us;
- the impact on a director's independence in the event the related person is a director, immediate family member of a director or an entity with which a director is affiliated;
- the terms of the transaction;
- the availability of other sources for comparable services or products; and
- the terms available to or from, as the case may be, unrelated third parties or to or from our employees generally.

In the event a director has an interest in the proposed transaction, the director must recuse himself or herself from the deliberations and approval.

### PRINCIPAL STOCKHOLDERS

The following table sets forth information regarding beneficial ownership of our capital stock as of September 30, 2013 by:

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

The percentage ownership information under the column entitled "Before offering" is based on 16,692,576 shares of common stock outstanding as of September 30, 2013, assuming conversion of all outstanding shares of our convertible preferred stock as of September 30, 2013 into 16,620,274 shares of common stock. The percentage ownership information under the column entitled "After offering" is based on the sale of 12,730,000 shares of common stock in this offering.

Information with respect to beneficial ownership has been furnished by each director, officer or beneficial owner of more than 5% of our common stock. We have determined beneficial ownership in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. In addition, the rules include shares of common stock issuable pursuant to the exercise of stock options or warrants that are either immediately exercisable or exercisable on or before November 29, 2013, which is 60 days after September 30, 2013. These shares are deemed to be outstanding and beneficially owned by the person holding those options or warrants for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person. Unless otherwise indicated, the persons or entities identified in this table have sole voting and investment power with respect to all shares shown as beneficially owned by them, subject to applicable community property laws.

John S. Stafford III, a member of our board of directors and our largest stockholder, HealthCare Ventures VIII, L.P., one of our principal stockholders and an affiliate of a member of our board of directors, Oxford Biosciences Partners V L.P., an affiliate of a member of our board of directors, and John Stafford Jr. and James Stafford, two of our principal stockholders, have indicated an interest in purchasing an aggregate of approximately \$20.5 million in shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders, or any of these stockholders may determine to purchase more, less or no shares in this offering. The following table does not reflect any potential purchases by these stockholders, which purchases, if any, will increase the percentage of shares owned after the offering of such stockholders from that set forth in the table below.

Except as otherwise noted below, the address for each person or entity listed in the table is c/o Xencor, Inc., 111 West Lemon Avenue, Monrovia, California.

		Percentage of beneficially	
Name and address of beneficial owner	Number of shares beneficially owned	Before offering	After offering
5% or greater stockholders			
MedImmune Ventures, Inc.(1) One MedImmune Way Gaithersburg, MD 20878	1,319,522	7.9%	4.5%
HealthCare Ventures VIII, L.P.(2) 47 Thorndike Street, Suite B1-1 Cambridge, MA 02141	1,035,407	6.2%	3.5%
John S. Stafford III(3) 1854 N. Maud Avenue Chicago, IL 60614	7,566,203	45.3%	25.7%
John Stafford, Jr.(4) 45 N. Green Bay Road Lake Forest, IL 60045	1,725,443	10.3%	5.9%
James Stafford(5) c/o RSSM 757 Third Avenue, 6 <sup>th</sup> Floor New York, NY 10017	998,690	6.0%	3.4%
Directors and named executive officers			
Bassil I. Dahiyat, Ph.D.(6)	606,215	3.5%	2.0%
Paul Foster, M.D.(7)	18,145	3.570	*
Edgardo Baracchini, Jr., Ph.D.(8)	175,539	1.0%	*
Bruce L.A. Carter, Ph.D.(9)	96,774	*	*
Jonathan Fleming(10)	790,881	4.7%	2.7%
Atul Saran(11)	1,319,522	7.9%	4.5%
John S. Stafford III(3)	7,566,203	45.3%	25.7%
Harold R. Werner(12)	1,035,407	6.2%	3.5%
All current executive officers and directors as a group (10 persons)(13)	11,853,551	66.5%	38.8%

<sup>\*</sup> Represents beneficial ownership of less than 1%.

<sup>(1)</sup> Includes 1,319,522 shares of common stock issuable upon conversion of convertible preferred stock.

<sup>(2)</sup> Includes 1,035,407 shares of common stock issuable upon conversion of convertible preferred stock.

<sup>(3)</sup> Includes (a) 22,858 shares of common stock held by John S. Stafford III, (b) 7,260,773 shares of common stock issuable upon conversion of convertible preferred stock held by John S. Stafford III and (c) 282,572 shares of common stock issuable upon conversion of convertible preferred stock held by DROGHEDA, LLC.

<sup>(4)</sup> Includes (a) 90 shares of common stock held by John Stafford, Jr., (b) 1,367,651 shares of common stock issuable upon conversion of convertible preferred stock held by John Stafford, Jr., (c) 286,604 shares of common stock issuable upon conversion of convertible preferred stock held by the Kimberly Susan Stafford 2005 Irrevocable Trust, and (d) 71,098 shares of common stock issuable upon conversion of convertible preferred stock held by the Susan Yang Stafford Kimborama Trust. On November 12, 2013, John Stafford, Jr. transferred the shares of convertible preferred stock described in subsection (b) above to JSS, Jr. 2013 XAT, a grantor retained annuity trust for which John Stafford, Jr. is trustee.

<sup>(5)</sup> Includes 123 shares of common stock and 998,567 shares of common stock issuable upon conversion of convertible preferred stock.

- (6) Includes 12,156 shares of common stock and 594,059 shares of common stock that Dr. Dahiyat has the right to acquire from us within 60 days of September 30, 2013 pursuant to the exercise of stock options.
- (7) Includes 18,145 shares of common stock that Dr. Foster has the right to acquire from us within 60 days of September 30, 2013 pursuant to the exercise of stock options.
- (8) Includes 175,539 shares of common stock that Dr. Baracchini has the right to acquire from us within 60 days of September 30, 2013 pursuant to the exercise of stock options.
- (9) Includes 96,774 shares of common stock that Dr. Carter has the right to acquire from us within 60 days of September 30, 2013 pursuant to the exercise of stock options.
- (10) Includes (a) 773,452 shares of common stock issuable upon conversion of convertible preferred stock held by Oxford Bioscience Partners V L.P. (Oxford) and (b) 17,429 shares of common stock issuable upon conversion of convertible preferred stock held by mRNA Fund V L.P. (mRNA). Mr. Fleming and Matthew A. Gibbs are the general partners of OBP Management V L.P., the sole general partner of Oxford and mRNA. Mr. Fleming disclaims beneficial ownership of such shares of common stock except to the extent of his pecuniary interest therein.
- (11) Includes the shares held by MedImmune Ventures, Inc. referred to in footnote (1) above. Mr. Saran serves as the chairperson of the six-person investment committee of MedImmune Ventures, Inc. Mr. Saran disclaims benefical ownership of such shares of common stock except to the extent of his pecuniary interest therein.
- (12) Includes the shares held by HealthCare Ventures VIII, L.P. referred to in footnote (2) above. Mr. Werner disclaims beneficial ownership of such shares except to the extent of his pecuniary interest therein.
- Includes 10,724,291 shares held by all current executive officers and directors as a group and 1,129,260 shares that all current executive officers and directors as a group have the right to acquire from us within 60 days of September 30, 2013 pursuant to the exercise of stock options, including 19 shares of common stock and 156,565 shares of common stock that Dr. Desjarlais has the right to acquire from us within 60 days of September 30, 2013 pursuant to the exercise of stock options, 103 shares of common stock issuable upon conversion of convertible preferred stock held by Mr. Kuch and 88,178 shares of common stock that Mr. Kuch has the right to acquire from us within 60 days of September 30, 2013 pursuant to the exercise of stock options. Mr. Baltera was not a director as of September 30, 2013 and is not included in this table.

### DESCRIPTION OF CAPITAL STOCK

Upon the closing of this offering and the filing of our amended and restated certificate of incorporation, our authorized capital stock will consist of 200,000,000 shares of common stock, par value \$0.01 per share and 10,000,000 shares of preferred stock, par value \$0.01 per share. All of our authorized preferred stock upon the closing of this offering will be undesignated. The following is a summary of the rights of our common and preferred stockholders and some of the provisions of our amended and restated certificate of incorporation and amended and restated bylaws, which will become effective upon the closing of this offering and of the Delaware General Corporation Law. This summary is not complete. For more detailed information, please see our amended and restated certificate of incorporation and amended and restated bylaws, which are filed as exhibits to the registration statement of which this prospectus is a part, as well as the relevant provisions of the Delaware General Corporation Law.

## Common Stock

### **Outstanding Shares**

On September 30, 2013, there were 72,302 shares of common stock outstanding, held of record by 115 stockholders. This amount excludes our outstanding shares of convertible preferred stock as of September 30, 2013, which will convert into 16,620,274 shares of common stock upon the effectiveness of the registration statement of which this prospectus is a part. Based on the number of shares of common stock outstanding as of September 30, 2013, and assuming (1) the conversion of all outstanding shares of our preferred stock and (2) the issuance by us of 12,730,000 shares of common stock in this offering, there will be 29,422,576 shares of common stock outstanding upon the closing of this offering.

As of September 30, 2013, there were 1,803,685 shares of common stock subject to outstanding options under our equity incentive plans.

## Voting

Our common stock is entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders, including the election of directors, and does not have cumulative voting rights. Accordingly, the holders of a majority of the shares of our common stock entitled to vote in any election of directors can elect all of the directors standing for election.

### Dividends

Subject to preferences that may be applicable to any then-outstanding preferred stock, the holders of common stock are entitled to receive dividends, if any, as may be declared from time to time by our Board of Directors out of legally available funds.

### Liquidation

In the event of our liquidation, dissolution or winding-up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

# **Rights and Preferences**

Holders of our common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to, and may be adversely affected by, the

rights of the holders of shares of any series of our preferred stock that we may designate and issue in the future.

## Fully Paid and Nonassessable

All of our outstanding shares of common stock are, and the shares of common stock to be issued in this offering will be, fully paid and nonassessable.

### Convertible Preferred Stock

On September 30, 2013, there were 51,523,206 shares of convertible preferred stock outstanding, held of record by 223 stockholders. Upon the effectiveness of the registration statement of which this prospectus is a part, all outstanding shares of preferred stock will be converted into 16,620,274 shares of our common stock. Upon the closing of this offering, our certificate of incorporation will be amended and restated to delete all references to such shares of preferred stock. Under the amended and restated certificate of incorporation, our Board of Directors will have the authority, without further action by the stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences and privileges of the shares of each wholly unissued series and any qualifications, limitations or restrictions thereon and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

Our Board of Directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in our control that may otherwise benefit holders of our common stock and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock. We have no current plans to issue any shares of preferred stock.

### **Registration Rights**

Holders of our preferred stock have the right to require us to register with the SEC the shares of common stock issuable upon conversion of such preferred stock so that those shares of common stock may be publicly resold, or to include those shares in any registration statement we file. The shares of common stock issuable upon conversion of the outstanding shares of preferred stock are hereinafter referred to as the "Underlying Securities." We anticipate that such holders will waive their registration rights with respect to this offering.

Demand registration rights. At any time beginning 180 days after the effective date of this registration statement, the holders of at least a 25% of the Underlying Securities having registration rights have the right to demand that we file a registration statement under the Securities Act to register the Underlying Securities requested to be registered by the holders of Underlying Securities. These registration rights are subject to specified conditions and limitations, including a limitation on the number of such registration statements that can be demanded by the holders of Underlying Securities, restrictions on the exercise of such demand registration rights during periods of time that may be detrimental to the Company and its stockholders, and the right of the underwriters to limit the number of shares of Underlying Securities included in any such registration under certain circumstances.

Form S-3 registration rights. If we are eligible to file a registration statement on Form S-3, each holder of shares of Underlying Securities having registration rights has the right to demand that we file no more than one registration statement for the holders on Form S-3 in any 12-month period so long as the aggregate offering price of securities to be sold under the registration statement on Form S-3 is at least \$1,000,000, subject to specified exceptions, conditions and limitations.

"Piggyback" registration rights. If we register any securities for public sale, stockholders with registration rights will have the right to include their shares in the registration statement. The underwriters of any underwritten offering will have the right to limit the number of shares having registration rights to be included in the registration statement.

*Expenses of registration.* We will pay all expenses, including up to \$50,000 for the reasonable fees and costs of one counsel to the holders of Underlying Securities, relating to all demand registrations, Form S-3 registrations and piggyback registrations.

*Expiration of registration rights.* The registration rights described above will terminate, as to a given holder of Underlying Securities, at any time following the Company's initial public offering when such holder can sell all of such holder's Underlying Securities pursuant to Rule 144 promulgated under the Securities Act during any 90-day period.

## Anti-Takeover Effects of Provisions of Our Amended and Restated Certificate of Incorporation, Our Bylaws and Delaware Law

### Delaware Anti-Takeover Law

We are subject to Section 203 of the Delaware General Corporation Law (Section 203). Section 203 generally prohibits a public Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years following the time that such stockholder became an interested stockholder, unless:

- prior to such time the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by 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
- at or subsequent to such time the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66<sup>2</sup>/3% of the outstanding voting stock which is not owned by the interested stockholder.

### Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

### Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Provisions of our amended and restated certificate of incorporation and amended and restated bylaws, which will become effective upon the closing of this offering, may delay or discourage transactions involving an actual or potential change in our control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our common stock. Among other things, our amended and restated certificate of incorporation and amended and restated bylaws:

- permit our Board of Directors to issue up to 10,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate (including the right to approve an acquisition or other change in our control);
- provide that the authorized number of directors may be changed only by resolution of the board of directors;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a
  majority of directors then in office, even if less than a quorum;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting
  of stockholders must provide notice in writing in a timely manner and also specify requirements as to the form and content of a stockholder's notice;
- do not provide for cumulative voting rights (therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose); and
- provide that special meetings of our stockholders may be called only by the chairman of the board, our Chief Executive Officer or by our Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors.

The amendment of any of these provisions, with the exception of the ability of our Board of Directors to issue shares of preferred stock and designate any rights, preferences and privileges thereto, would require approval by the holders of at least  $66^2/3\%$  of our then-outstanding common stock.

### **NASDAQ Global Market Listing**

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

## **Transfer Agent and Registrar**

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A. The transfer agent and registrar's address is 250 Royall Street, Canton, MA, 02021.

### SHARES ELIGIBLE FOR FUTURE SALE

Immediately prior to this offering, there has been no public market for our common stock. Future sales of substantial amounts of common stock in the public market could adversely affect prevailing market prices. Furthermore, since only a limited number of shares will be available for sale shortly after this offering because of contractual and legal restrictions on resale described below, sales of substantial amounts of common stock in the public market after the restrictions lapse could adversely affect the prevailing market price for our common stock as well as our ability to raise equity capital in the future.

Based on the number of shares of common stock outstanding as of September 30, 2013, upon the closing of this offering, 29,422,576 shares of common stock will be outstanding, assuming no exercise of the underwriters' over-allotment option and no exercise of options. All of the shares sold in this offering will be freely tradable unless held by an affiliate of ours. Except as set forth below, the remaining 16,692,576 shares of common stock outstanding after this offering will be restricted as a result of securities laws or lock-up agreements. These remaining shares will generally become available for sale in the public market as follows:

- No restricted shares will be eligible for immediate sale upon the closing of this offering;
- Up to 3,526,725 restricted shares will be eligible for sale under Rule 144 or Rule 701 by non-affiliates upon expiration of lock-up agreements 180 days
  after the date of this offering; and
- The remainder of the restricted shares will be eligible for sale from time to time thereafter under Rule 144 or Rule 701 subject to the volume limitations and other limitations described in detail below, but could be sold earlier if the holders exercise any available registration rights.

## Rule 144

In general, under Rule 144 as currently in effect, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, any person who is not an affiliate of ours and has held their shares for at least six months, including the holding period of any prior owner other than one of our affiliates, may sell shares without restriction, provided current public information about us is available. In addition, under Rule 144, any person who is not an affiliate of ours and has held their shares for at least one year, including the holding period of any prior owner other than one of our affiliates, would be entitled to sell an unlimited number of shares immediately upon the closing of this offering without regard to whether current public information about us is available. Beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is an affiliate of ours and who has beneficially owned restricted securities for at least six months, including the holding period of any prior owner other than one of our affiliates, is entitled to sell a number of restricted shares within any three-month period that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately 294,226 shares immediately after this offering; or
- the average weekly trading volume of our common stock on the NASDAQ Global Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

Sales of restricted shares under Rule 144 held by our affiliates are also subject to requirements regarding the manner of sale, notice and the availability of current public information about us. Rule 144 also provides that affiliates relying on Rule 144 to sell shares of our common stock that are not restricted shares must nonetheless comply with the same restrictions applicable to restricted shares, other than the holding period requirement.

Notwithstanding the availability of Rule 144, the holders of substantially all of our restricted shares have entered into lock-up agreements as described below and their restricted shares will become eligible for sale at the expiration of the restrictions set forth in those agreements.

### **Rule 701**

Under Rule 701, shares of our common stock acquired upon the exercise of currently outstanding options or pursuant to other rights granted under our stock plans may be resold by:

- persons other than affiliates, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, subject only to the manner-of-sale provisions of Rule 144; and
- our affiliates, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, subject to the manner-of-sale and volume limitations, current public information and filing requirements of Rule 144, in each case, without compliance with the six-month holding period requirement of Rule 144.

As of September 30, 2013, options to purchase a total of 1,803,685 shares of common stock were outstanding, of which 1,189,206 were vested. Of the total number of shares of our common stock issuable under these options, substantially all are subject to contractual lock-up agreements with us or the underwriters described below under "Underwriting" and will become eligible for sale at the expiration of those agreements unless held by an affiliate of ours.

### **Lock-Up Agreements**

We, along with our directors, executive officers and substantially all of our other stockholders and optionholders, have agreed that for a period of 180 days after the date of this prospectus, subject to specified exceptions, we or they will not offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock. During the lock-up period, John S. Stafford III, one of our directors and our largest stockholder, will also be permitted to pledge (and transfer pursuant to such pledge) up to 1,000,000 shares of our common stock currently held by him, which excludes any shares he purchases in this offering. Upon expiration of the "lock-up" period, certain of our stockholders will have the right to require us to register their shares under the Securities Act. See "Registration Rights" below.

In addition, certain affiliates of our directors and other principal stockholders have indicated an interest in purchasing an aggregate of approximately \$20.5 million in shares of our common stock in this offering at the initial public offering price. While shares held by these stockholders prior to this offering will be subject to the transfer restrictions set forth in these lock-up agreements, any shares of our common stock purchased by these stockholders in this offering other than by John S. Stafford, III or Oxford Bioscience Partners V L.P., will not be subject to such transfer restrictions.

## **Registration Rights**

Upon the closing of this offering, the holders of 16,651,404 shares of our common stock will be entitled to rights with respect to the registration of their shares under the Securities Act, subject to the lock-up arrangement described above. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act, except for shares purchased by affiliates, immediately upon the effectiveness of the registration statement of which this prospectus is a part. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock. See "Description of Capital Stock—Registration Rights."

## **Equity Incentive Plans**

We intend to file with the SEC a registration statement on Form S-8 under the Securities Act covering the shares of common stock reserved for issuance under the 2013 plan and the 2013 purchase plan. The registration statement is expected to be filed and become effective as soon as practicable after the closing of this offering. Accordingly, shares registered under the registration statement will be available for sale in the open market following its effective date, subject to Rule 144 volume limitations and the lock-up agreements described above, if applicable.

# MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS OF OUR COMMON STOCK

The following summary describes the material U.S. federal income consequences of the acquisition, ownership and disposition of our common stock acquired in this offering by Non-U.S. Holders (as defined below). This discussion does not address all aspects of U.S. federal income taxes that may be relevant to Non-U.S. Holders in light of their particular circumstances, does not deal with foreign, state and local tax consequences and does not address U.S. federal tax consequences other than income taxes. Special rules different from those described below may apply to certain Non-U.S. Holders that are subject to special treatment under the Code, such as financial institutions, insurance companies, tax-exempt organizations, tax-qualified retirement plans, broker-dealers and traders in securities, commodities or currencies, U.S. expatriates, "controlled foreign corporations," "passive foreign investment companies," corporations that accumulate earnings to avoid U.S. federal income tax, persons that hold our common stock as part of a "straddle," "hedge," "conversion transaction," "synthetic security," integrated investment or other risk reduction strategy, holders deemed to sell our common stock under the constructive sale provisions of the Code, holders who hold or receive our common stock pursuant to the exercise of employee stock options or otherwise as compensation, holders who are subject to the alternative minimum tax or the Medicare Contribution tax, partnerships and other pass-through entities, including hybrid entities and investors in such entities or an entity that is treated as a disregarded entity for U.S. federal income tax purposes (regardless of its place of organization or formation). Such Non-U.S. Holders are urged to consult their own tax advisors to determine the U.S. federal, state, local and other tax consequences that may be relevant to them. Furthermore, the discussion below is based upon the provisions of the Code, and Treasury regulations, rulings and judicial decisions thereunder as of the date hereof, and such authorities may be repealed, revoked or modified, perhaps retroactively, so as to result in U.S. federal income tax consequences different from those discussed below. We have not requested a ruling from the U.S. Internal Revenue Service (IRS), with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS will agree with such statements and conclusions. This discussion assumes that the Non-U.S. Holder holds our common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment).

Persons considering the purchase of our common stock pursuant to this offering should consult their own tax advisors concerning the U.S. federal income tax consequences of acquiring, owning and disposing of our common stock in light of their particular situations as well as any consequences arising under the laws of any other taxing jurisdiction, including any state, local or foreign tax consequences and any U.S. federal non-income tax consequences.

For the purposes of this discussion, a "Non-U.S. Holder" is, for U.S. federal income tax purposes, a beneficial owner of common stock that has not been excluded from this discussion, is not a U.S. Holder and is not a partnership for U.S. federal income tax purposes. A "U.S. Holder" means a beneficial owner of our common stock that is for U.S. federal income tax purposes (a) an individual who is a citizen or resident of the United States, (b) a corporation or other entity treated as a corporation created or organized in or under the laws of the United States, any state thereof or the District of Columbia, (c) an estate the income of which is subject to U.S. federal income taxation regardless of its source or (d) a trust if it (1) is subject to the primary supervision of a court within the United States and one or more U.S. persons have the authority to control all substantial decisions of the trust or (2) has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

### **Distributions on Our Common Stock**

Subject to the discussion below regarding back-up withholding and foreign accounts, distributions, if any, made on our common stock to a Non-U.S. Holder of our common stock to the extent made out

of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles) generally will constitute dividends for U.S. tax purposes and will be subject to withholding tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. To obtain a reduced rate of withholding under a treaty, a Non-U.S. Holder generally will be required to provide us with a properly executed IRS Form W-8BEN, or other appropriate form, certifying the Non-U.S. Holder's entitlement to benefits under that treaty. In the case of a Non-U.S. Holder that is an entity, Treasury regulations and the relevant tax treaty provide rules to determine whether, for purposes of determining the applicability of a tax treaty, dividends will be treated as paid to the entity or to those holding an interest in that entity. If a Non-U.S. Holder holds stock through a financial institution or other agent acting on the holder's behalf, the holder will be required to provide appropriate documentation to such agent. The holder's agent will then be required to provide certification to the applicable withholding agent, either directly or through other intermediaries. If you are eligible for a reduced rate of U.S. federal withholding tax under an income tax treaty, you should consult with your own tax advisor to determine if you are able to obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim for a refund with the IRS.

We generally are not required to withhold tax on dividends paid to a Non-U.S. Holder that are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, are attributable to a permanent establishment that such holder maintains in the United States) if a properly executed IRS Form W-8ECI, stating that the dividends are so connected, is furnished to us (or, if stock is held through a financial institution or other agent, to such agent). In general, such effectively connected dividends will be subject to U.S. federal income tax, on a net income basis at the regular graduated rates, unless a specific treaty exemption applies. A corporate Non-U.S. Holder receiving effectively connected dividends may also be subject to an additional "branch profits tax," which is imposed, under certain circumstances, at a rate of 30% (or such lower rate as may be specified by an applicable treaty) on the corporate Non-U.S. Holder's effectively connected earnings and profits, subject to certain adjustments.

To the extent distributions on our common stock, if any, exceed our current and accumulated earnings and profits, they will constitute a non-taxable return of capital and will first reduce your basis in our common stock, but not below zero, and then will be treated as gain and taxed in the same manner as gain realized from a sale or other disposition of common stock as described in the next section.

### Gain on Disposition of Our Common Stock

Subject to the discussion below regarding backup withholding and foreign accounts, a Non-U.S. Holder generally will not be subject to U.S. federal income tax with respect to gain realized on a sale or other disposition of our common stock unless (a) the gain is effectively connected with a trade or business of such holder in the United States (and, if required by an applicable income tax treaty, is attributable to a permanent establishment that such holder maintains in the United States), (b) the Non-U.S. Holder is a non-resident alien individual and is present in the United States for 183 or more days in the taxable year of the disposition and certain other conditions are met, or (c) we are or have been a "United States real property holding corporation" within the meaning of Code Section 897(c)(2) at any time within the shorter of the five-year period preceding such disposition or such holder's holding period. In general, we would be a United States real property holding corporation if interests in U.S. real estate comprised (by fair market value) at least half of our business assets. We believe that we are not, and do not anticipate becoming, a United States real property holding corporation. Even if we are treated as a United States real property holding corporation, gain realized by a Non-U.S. Holder on a disposition of our common stock will not be subject to U.S. federal income tax so long as (1) the Non-U.S. Holder owned, directly, indirectly and constructively, no more than 5% of our common stock at all times within the shorter of (i) the five-year period preceding the disposition or

(ii) the holder's holding period and (2) our common stock is regularly traded on an established securities market. There can be no assurance that our common stock will qualify or continue to qualify as regularly traded on an established securities market.

If you are a Non-U.S. Holder described in (a) above, you will be required to pay tax on the net gain derived from the sale at regular graduated U.S. federal income tax rates, unless a specific treaty exemption applies, and corporate Non-U.S. Holders described in (a) above may be subject to the additional branch profits tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. If you are an individual Non-U.S. Holder described in (b) above, you will be required to pay a flat 30% tax on the gain derived from the sale, which gain may be offset by U.S. source capital losses (even though you are not considered a resident of the United States).

## **Information Reporting Requirements and Backup Withholding**

Generally, we or certain financial middlemen must report information to the IRS with respect to any dividends we pay on our common stock including the amount of any such dividends, the name and address of the recipient, and the amount, if any, of tax withheld. A similar report is sent to the holder to whom any such dividends are paid. Pursuant to tax treaties or certain other agreements, the IRS may make its reports available to tax authorities in the recipient's country of residence.

Dividends paid by us (or our paying agents) to a Non-U.S. Holder may also be subject to U.S. backup withholding. U.S. backup withholding generally will not apply to a Non-U.S. Holder who provides a properly executed IRS Form W-8BEN or otherwise establishes an exemption. The current backup withholding rate is 28%.

Under current U.S. federal income tax law, U.S. information reporting and backup withholding requirements generally will apply to the proceeds from a disposition of our common stock effected by or through a U.S. office of any broker, U.S. or foreign, except that information reporting and such requirements may be avoided if the holder provides a properly executed IRS Form W-8BEN or otherwise meets documentary evidence requirements for establishing Non-U.S. Holder status or otherwise establishes an exemption. Generally, U.S. information reporting and backup withholding requirements will not apply to a payment of disposition proceeds to a Non-U.S. Holder where the transaction is effected outside the United States through a non-U.S. office of a non-U.S. broker. For information reporting purposes, certain brokers with substantial U.S. ownership or operations will generally be treated in a manner similar to U.S. brokers.

If backup withholding is applied to you, you should consult with your own tax advisor to determine if you are able to obtain a tax benefit or credit with respect to such backup withholding.

### **Foreign Accounts**

A U.S. federal withholding tax of 30% may apply to dividends paid after June 30, 2014 and the gross proceeds from a disposition of our common stock paid after December 31, 2016 to a foreign financial institution (as specifically defined for this purpose), including when the foreign financial institution holds our common stock on behalf of a Non-U.S. Holder, unless such institution enters into an agreement with the U.S. government to withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding U.S. account holders of such institution (which may include certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners). Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing these withholding and reporting requirements may be subject to different rules. This U.S. federal withholding tax of 30% will also apply to dividends paid after June 30, 2014 and the gross proceeds from a disposition of our common stock paid after December 31, 2016 to a non-financial foreign entity unless such entity provides the withholding agent with either a certification that it does not have any substantial direct or

indirect U.S. owners or provides information regarding direct and indirect U.S. owners of the entity. The withholding tax described above will not apply if the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from the rules. Under certain circumstances, a Non-U.S. Holder might be eligible for refunds or credits of such taxes. Holders are encouraged to consult with their own tax advisors regarding the possible implications of the legislation on their investment in our common stock.

THE PRECEDING DISCUSSION OF U.S. FEDERAL INCOME TAX CONSIDERATIONS IS FOR GENERAL INFORMATION ONLY. IT IS NOT TAX ADVICE. EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE TAX CONSEQUENCES OF PURCHASING, HOLDING AND DISPOSING OF OUR COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY PROPOSED CHANGE IN APPLICABLE LAW.

### UNDERWRITING

Under the terms and subject to the conditions contained in an underwriting agreement dated , 2013, we have agreed to sell to the underwriters named below, for whom Credit Suisse Securities (USA) LLC and Leerink Swann LLC are acting as representatives, the following respective numbers of shares of common stock:

Underwriter	Number of Shares
Credit Suisse Securities (USA) LLC	
Leerink Swann LLC	
Wedbush Securities Inc	
Total	12,730,000

The underwriting agreement provides that the underwriters are obligated to purchase all the shares of common stock in the offering if any are purchased, other than those shares covered by the over-allotment option described below. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may be increased or the offering may be terminated.

We have granted to the underwriters a 30-day option to purchase on a pro rata basis up to 1,909,500 additional shares at the initial public offering price less the underwriting discounts and commissions. The option may be exercised only to cover any over-allotments of common stock.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel including the validity of the shares, and subject to other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officer's certificates and legal opinions. The offering of the shares by the underwriters is also subject to the underwriters' right to reject any order in whole or in part.

The underwriters propose to offer the shares of common stock initially at the public offering price on the cover page of this prospectus and to selling group members at that price less a selling concession of up to \$ per share. The underwriters and selling group members may allow a discount of \$ per share on sales to other broker-dealers. After the initial public offering the representatives may change the public offering price and concession and discount to broker-dealers.

The following table summarizes the compensation we will pay:

	Per S	Share	To	tal
	Without	With	Without	With
	Over-	Over-	Over-	Over-
	allotment	allotment	allotment	allotment
Underwriting Discounts and Commissions paid by us	\$	\$	\$	\$

We estimate that our out of pocket expenses for this offering (not including any underwriting discounts and commissions) will be approximately \$2.5 million. We have agreed to reimburse the underwriters for expenses of approximately \$35,000 related to the clearance of this offering with the Financial Regulatory Authority (FINRA).

The underwriters have informed us that they do not expect sales to accounts over which the underwriters have discretionary authority to exceed 5% of the shares of common stock being offered.

We have agreed that we will not offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, or file with the Securities and Exchange Commission a registration statement under the Securities Act of 1933, as amended (the Securities Act) relating to, any shares of our common stock or

securities convertible into or exchangeable or exercisable for any shares of our common stock, or publicly disclose the intention to make any offer, sale, pledge, disposition or filing, without the prior written consent of the representatives for a period of 180 days after the date of this prospectus except issuances pursuant to the conversion or exchange of convertible or exchangeable securities outstanding on the date hereof or the exercise of warrants or options outstanding on the date hereof, grants of employee stock options pursuant to our existing plans or issuances pursuant to the exercise of such employee options.

Our officers and directors and substantially all of our existing security holders have agreed that they will not offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock, enter into a transaction that would have the same effect, or enter into any swap, hedge or other arrangement that transfers, in whole or in part, any of the economic consequences of ownership of our common stock, whether any of these transactions are to be settled by delivery of our common stock or other securities, in cash or otherwise, or publicly disclose the intention to make any offer, sale, pledge or disposition, or to enter into any transaction, swap, hedge or other arrangement, without, in each case, the prior written consent of the representatives, for a period of 180 days after the date of this prospectus, subject to limited exceptions. However, during the lock-up period, John S. Stafford III, one of our directors and our largest stockholder, will also be permitted to pledge (and transfer pursuant to such pledge) up to 1,000,000 shares of our common stock currently held by him, which excludes any shares he purchases in this offering. In addition, certain affiliates of our directors and other principal stockholders have indicated an interest in purchasing an aggregate of approximately \$20.5 million in shares of our common stock in this offering at the initial public offering price. While shares held by these stockholders prior to this offering will be subject to the transfer restrictions set forth in these lock-up agreements, any shares of our common stock purchased by these stockholders in this offering, other than by John S. Stafford III or Oxford Biosciences Partner V L.P., will not be subject to such transfer restrictions.

We have agreed to indemnify the several underwriters against liabilities under the Securities Act, or contribute to payments that the underwriters may be required to make in that respect.

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

Prior to the offering, there has been no public market for our common stock. The initial public offering price will be determined through negotiations between us and the representatives. In determining the initial public offering price, we and the representatives expect to consider a number of factors including:

- the information set forth in this prospectus and otherwise available to the underwriters;
- our prospects and the history and prospects for the industry in which we compete;
- an assessment of our management;
- · our prospects for future earnings;
- the recent market prices of, and demand for, publicly-traded common stock of generally comparable companies;
- the general condition of the securities markets at the time of the offering; and
- other factors deemed relevant by the underwriters and us.

Neither we nor the underwriters can assure investors that an active trading market will develop for our common stock, or that shares of our common stock will trade in the public market at or above the initial public offering price.

In connection with the offering the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions, penalty bids and passive market making in accordance with Regulation M under the Exchange Act.

- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.
- Over-allotment transactions involve sales by the underwriters of shares in excess of the number of shares the underwriters are obligated to purchase, creating a syndicate short position. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the over-allotment option. In a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. The underwriters may close out any covered short position by either exercising their over-allotment option and/or purchasing shares in the open market.
- Syndicate covering transactions involve purchases of the common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option. If the underwriters sell more shares than could be covered by the over-allotment option, a naked short position, the position can only be closed out by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.
- Penalty bids permit the representatives to reclaim a selling concession from a syndicate member when the common stock originally sold by the syndicate member is purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.
- In passive market making, market makers in the common stock who are underwriters or prospective underwriters may, subject to limitations, make bids for or purchases of our common stock until the time, if any, at which a stabilizing bid is made.

These stabilizing transactions, over-allotment transactions, syndicate covering transactions, penalty bids and passive market making may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of the common stock. As a result the price of our common stock may be higher than the price that might otherwise exist in the open market. These transactions may be effected on The NASDAQ Global Market or otherwise and, if commenced, may be discontinued at any time.

A prospectus in electronic format may be made available on the websites maintained by one or more of the underwriters, or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The representatives may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make Internet distributions on the same basis as other allocations.

### Other Relationships

Certain of the underwriters and their affiliates may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they may receive customary fees and commissions. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for

their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future. The underwriters are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities.

One of our directors, Mr. Jonathan Fleming, is also a member of the Board of Managers of Leerink Swann Holdings, LLC and a trustee of Leerink Swann Massachusetts Business Trust, which are affiliates of Leerink Swann LLC, one of the representatives of the underwriters in this offering.

### **Selling Restrictions**

### Notice to Prospective Investors in the 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"), each underwriter represents and agrees that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State, it has not made and will not make an offer of shares which are the subject of the offering contemplated by this prospectus to the public in that Relevant Member State other than:

- (a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- (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 shall require us or any underwriter to publish 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 in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, 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.

## Notice to Prospective Investors in the United Kingdom

Each of the underwriters severally represents, warrants and agrees as follows:

- (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 ("FSMA") received by it in connection with the issue or sale of the shares in circumstances in which Section 21 of the FSMA does not apply to us; and
- (b) it has complied with, and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

### LEGAL MATTERS

The validity of the shares of common stock being offered by this prospectus will be passed upon for us by Cooley LLP, Santa Monica, California. The underwriters are being represented by Davis Polk & Wardwell LLP, Menlo Park, California.

#### **EXPERTS**

The financial statements as of December 31, 2011 and 2012 and for the years then ended included in this Registration Statement have been so included in reliance on the report of BDO USA, LLP, an independent registered public accounting firm (the report on the financial statements contains an explanatory paragraph regarding the Company's ability to continue as a going concern), appearing elsewhere in the Registration Statement, given on the authority of said firm as experts in auditing and accounting.

## WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act, with respect to the shares of common stock being offered by this prospectus. This prospectus does not contain all of the information in the registration statement and its exhibits. For further information with respect to us and the common stock offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document that is filed as an exhibit are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

You can read our SEC filings, including the registration statement, on the Internet at the SEC's website at www.sec.gov. You may also read and copy any document we file with the SEC at its public reference facilities at 100 F Street NE, Washington, D.C. 20549. You may also obtain copies of these documents at prescribed rates by writing to the Public Reference Section of the SEC at 100 F Street N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facilities. You may also request a copy of these filings, at no cost, by writing us at 111 West Lemon Avenue, Monrovia, California 91016 Attn: Corporate Secretary or telephoning us at (626) 305-5900.

Upon the closing of this offering, we will be subject to the information reporting requirements of the Exchange Act, and we will file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information will be available for inspection and copying at the public reference room and website of the SEC referred to above. We also maintain a website at www.xencor.com, at which, following the closing of this offering, you may access these materials free of charge as soon as reasonably practicable after they are 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 in, and is not part of, this prospectus.

## **Financial Statements**

<b>Audited Financial</b>	Statements for the	Verre Ended D	acambar 31	2011 and 2012
Audited Financial	Statements for the	rears Ended D	ecember 51.	ZULL AND ZULZ

Report of Independent Registered Public Accounting Firm	<u>F-2</u>
Balance Sheets	<u>F-3</u>
Statements of Operations	<u>F-4</u>
Statements of Mezzanine Equity and Stockholders' Deficit	<u>F-5</u>
Statements of Cash Flows	<u>F-6</u>
Notes to Financial Statements	<u>F-7</u>
Unaudited Interim Condensed Financial Statements for the Nine Months Ended September 30, 2012 and 2013:	
Condensed Balance Sheets	<u>F-32</u>
Condensed Statements of Operations	F-33
Condensed Statements of Mezzanine Equity and Stockholders' Deficit	F-34
Condensed Statements of Cash Flows	<u>F-35</u>
Notes to Financial Statements	<u>F-36</u>

## Report of Independent Registered Public Accounting Firm

Board of Directors and Stockholders Xencor, Inc. Monrovia, California

We have audited the accompanying balance sheets of Xencor, Inc as of December 31, 2012 and 2011 and the related statements of operations, mezzanine equity and stockholders' deficit, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Xencor, Inc. at December 31, 2012 and 2011, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 9 to the financial statements, the financial statements as of and for the year ended December 31, 2011, have been restated to correct a misstatement related to accounting for revenue.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has recurring losses and a substantial accumulated deficit. These factors raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to this matter are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ BDO USA, LLP

Los Angeles, California September 11, 2013, except for note 10, which is as of November 3, 2013

## **Balance Sheets**

# (in thousands, except share and per share data)

		Decemb		
		2011 estated)		2012
Assets	(IXC	istateu)		
Comment and the				
Current assets  Cash and cash equivalents	\$	14,537	\$	2.312
Accounts receivable	Ψ	29	Ψ	354
Prepaid expenses and other current assets		81		173
Total current assets		14,647		2,839
Property and equipment		4.550		2.254
Computers, software and equipment Furniture and fixtures		4,570 132		3,374 107
Leasehold improvements		3,081		3,081
Less accumulated depreciation and amortization	_	(7,399)	_	(6,279)
Property and equipment, net	_	384	_	283
rroperty and equipment, net		304		203
Other assets				
Patents, licenses, and other intangible assets, net		7,250		8,460
Other assets		93		77
Total other assets		7,343		8,537
Total assets	\$	22,374	\$	11,659
Liabilities, mezzanine equity and stockholders' deficit			_	
Current liabilities				
Accounts payable	\$	1,835	\$	1,315
Accrued expenses		826		1,286
Current portion of deferred revenue Current portion of capital lease obligations		5,063 10		1,948 7
Convertible promissory notes payable		18,463		20,923
Total current liabilities		26,197	_	25,479
Total Current Informacis		20,137		23,473
Deferred revenue, less current portion		7,114		5,672
Capital lease obligations, less current portion		_		10
Total liabilities Total liabilities		33,311		31,161
Commitments and contingencies (see note 6) Mezzanine Equity				
Series A convertible preferred stock, \$0.01 par value: 857,797 authorized shares; 857,792 issued and outstanding shares (liquidation preference of \$3,551)		3,550		3,550
637,797 additionized shares, 637,792 issued and outstanding shares (hydrodaton preference of 35,531)		3,330		3,330
Series B convertible preferred stock, \$0.01 par value:				
1,328,946 authorized shares; 1,328,941 issued and outstanding shares (liquidation preference of \$12,399)		12,375		12,375
Series C convertible preferred stock, \$0.01 par value:		E0 000		F0.000
2,416,284 authorized shares; 2,416,281 issued and outstanding shares (liquidation preference of \$50,017)		50,000		50,000
Series D convertible preferred stock, \$0.01 par value:				
7,966,667 authorized shares; 7,936,483 issued and outstanding shares (liquidation preference of \$20,000)		20,000		20,000
Series E convertible preferred stock, \$0.01 par value:				
25,253,000 authorized shares; 25,245,566 issued and outstanding shares (liquidation preference of \$88,047 and \$95,090 at		CO 0.41		CO 0.41
December 31 2011 and 2012, respectively)		60,841		60,841
Total mezzanine equity		146,766		146,766
Stockholders' deficit				
Common stock, \$0.01 par value: 57,225,000 authorized shares: 72,302 issued and outstanding shares at December 31, 2012 and 2011		1		1
		-		-
Additional paid-in capital		1,014		1,043
		(450 5:0		(4 CE 0 10
Accumulated deficit		(158,718)	_	(167,312)
Total stockholders' deficit		(157,703)		(166,268)
Total liabilities, mezzanine equity and stockholders' deficit	\$	22,374	\$	11,659

# **Statements of Operations**

# (in thousands, except share and per share data)

	Years ended December 31,			
	_	2011		2012
Revenue	(1	Restated)		
Collaborations, licenses and milestones, including related party revenue of zero and \$0.75 million for 2011 and 2012, respectively	\$	6,849	\$	9,524
Costs and expenses				
Research and development (includes equity-based compensation of \$(34) and \$11 for 2011 and 2012, respectively)		12,663		12,668
General and administrative (includes equity-based compensation of \$(23) and \$18 for 2011 and 2012, respectively)		3,638		3,086
Total operating expenses		16,301		15,754
Loss from operations		(9,452)		(6,230)
Other income (expenses)				
Interest income		34		11
Interest expense		(1,850)		(2,461)
Other (expense) income		65		86
Total other income (expenses)		(1,751)		(2,364)
Net loss	\$	(11,203)	\$	(8,594)
Net loss per share attributable to common stockholders basic and diluted	\$	(154.95)	\$	(118.86)
Weighted average shares used to compute net loss per share attributable to common stockholders, basic and diluted:		72,302		72,302

# Statements of Mezzanine Equity and Stockholders' Deficit

# (in thousands, except share data)

	Serie Conve Preferre	rtible	Series Conver Preferred	tible	Serie Conver Preferred	rtible	Series D Convertible Preferred Stock		Convertible		Convertible		Convertible		Convertible		Convertible		Convertible Convert		ible
Mezzanine Equity	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount											
Balance, December 31, 2010 (Restated)	857,792	\$ 3,550	1,328,941	\$ 12,375	2,416,281	\$ 50,000	7,936,483	\$ 20,000	25,245,566	\$ 60,841											
Net loss, as restated																					
Stock-based compensation	_	_	_	_	_	_	_	_	_	_											
Balance, December 31, 2011 (Restated)	857,792	3,550	1,328,941	12,375	2,416,281	50,000	7,936,483	20,000	25,245,566	60,841											
Net loss, as restated	_	_	_	_		_	_	_	_	_											
Stock-based compensation				_						_											
Balance, December 31, 2012	857,792	\$ 3,550	1,328,941	\$ 12,375	2,416,281	\$ 50,000	7,936,483	\$ 20,000	25,245,566	\$ 60,841											

Stockholders' Deficit	Commo Shares	on Stock Amount	Additional Paid-in Capital thousands, except sl		Accumulated  Deficit hare amounts)		Total Stockholders' Deficit	
Balance, December 31, 2010 (Restated)	72,302	\$ 1	\$	1,071	\$	(147,515)	\$	(146,443)
Net loss, as restated	_	_		_		(11,203)		(11,203)
Stock-based compensation	_	_		(57)		_		(57)
Balance, December 31, 2011 (Restated)	72,302	1		1,014		(158,718)		(157,703)
Net loss	_	_		_		(8,594)		(8,594)
Stock-based compensation	_	_		29				29
Balance, December 31, 2012	72,302	\$ 1	\$	1,043	\$	(167,312)	\$	(166,268)

# **Statements of Cash Flows**

# (in thousands)

	Years December 2011	
Cash flows from operating activities	(Restated)	
Net loss	\$ (11,203)	\$ (8,594)
Adjustments to reconcile net loss to net cash used in operating activities:	,	
Depreciation and amortization	607	527
Stock-based compensation	(57)	29
Abandonment of capitalized intangible assets	1,231	388
Gain from non-monetary exchange	_	(754)
Gain on disposal of assets	(127)	(86)
Accrued interest on convertible promissory notes	1,846	2,456
Changes in operating assets and liabilities:		
Accounts receivable	(29)	(325)
Prepaid expenses and other current assets	96	(90)
Other assets	23	15
Accounts payable	(239)	(522)
Accrued expenses	34	460
Deferred revenue	6,733	(4,556)
Net cash used in operating activities	(1,085)	(11,052)
Cash flows from investing activities	<u> </u>	
Purchase of intangible assets	(1,364)	(1,217)
Purchase of property and equipment	(55)	(41)
Proceeds from sale of property and equipment	133	97
Net cash used in investing activities	(1,286)	(1,161)
Cash flows from financing activities		
Dermonte en anital lessa abligations	(11)	(12)
Payments on capital lease obligations	(11)	(12)
Net cash used in financing activities	(11)	(12)
Net decrease in cash and cash equivalents	(2,382)	(12,225)
Cash and cash equivalents, beginning of year	16,919	14,537
Cash and cash equivalents, end of year	\$ 14,537	\$ 2,312
Supplemental disclosures of cash flow information  Cash paid for:		
Interest	\$ 1	\$ 3
Taxes	· <u>-</u>	
Supplemental Schedule of Noncash Investing Activities		
Capitalization of licensing rights acquired in non-monetary exchange	\$ —	\$ 754
Equipment acquired under capital lease		\$ 22

### **Notes to Financial Statements**

### 1. Summary of Significant Accounting Policies

### **Description of Business**

Xencor, Inc. ("we," "us," "our," or the "Company") was incorporated in California in 1997 and reincorporated in Delaware in September 2004. We are a clinical-stage biopharmaceutical company focused on discovering and developing engineered monoclonal antibodies to treat severe and life-threatening diseases with unmet medical needs. We use our proprietary XmAb technology platform to create next-generation antibody product candidates designed to treat autoimmune and allergic diseases, cancer, and other conditions. We focus on the portion of the antibody that interacts with multiple segments of the immune system, referred to as the Fc domain, which is constant and interchangeable among antibodies. Our engineered Fc domains, the XmAb technology, are applied to our pipeline of antibody-based drug candidates to increase immune inhibition, improve cytotoxicity, or extend half-life.

Our operations are based in Monrovia, California and we operate in one segment.

### **Basis of Presentation**

The Company's audited financial statements as of December 31, 2011 and December 31, 2012 and for the years then-ended have been prepared in accordance with accounting principles generally accepted In the United States. As discussed in Note 9, the Company has restated its previously issued financial statements as of December 31, 2011 and for the year ended December 31, 2011.

### Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ materially from those estimates.

### **Going Concern**

Since our inception, we have incurred losses and negative cash flows from operations, and at December 31, 2012 we have an accumulated deficit of \$167.3 million. We are forecasting continued losses and negative cash flows from operations to fund our clinical and research programs and will need additional funding to continue advancing them. Our prospects are subject to the risks and uncertainties frequently encountered by clinical-stage biopharmaceutical companies.

As of December 31, 2012, our ability to continue as a going concern is uncertain and dependent upon our ability to obtain additional financing to fund our ongoing operations. To fund future operations, we will need to raise additional capital. The amount and timing of future funding requirements will depend on many factors, including the timing and results of our ongoing development efforts, the potential expansion of our current development programs, potential new development programs and related general and administrative support. We anticipate that we will seek to fund our operations through equity or debt financings or through research collaborations and licensing agreements with third parties. We cannot assure you that such additional financing will be available to us on favorable terms, or at all. Although we have previously been successful in obtaining financing through our private securities offerings, there can be no assurance that we will be able to do so in the future. To the extent that we raise additional capital through the future sale of equity or debt, the ownership interest of our stockholders will be diluted, and the terms of these securities may include

## **Notes to Financial Statements (Continued)**

## 1. Summary of Significant Accounting Policies (Continued)

liquidation or other preferences that adversely affect the rights of our existing common stockholders. If we raise additional funds through collaboration arrangements in the future, we may have to relinquish valuable rights to our technologies, future revenue streams or product candidates or grant licenses on terms that may not be favorable to us.

The results of our operations and our current financial condition raise substantial doubt about our ability to continue as a going concern. Should we not be able to successfully execute on our plans to raise additional capital or generate sufficient cash flow from operations to fund our continuing operations, we may need to significantly curtail the level of our operations. There has been no adjustment in the accompanying financial statements to reflect this uncertainty.

## Revenue Recognition

We have, to date, earned revenue from research collaborations, which may include research and development services, licenses of our internally-developed technologies, or a combination of both. We recognize revenue when all of the following criteria are met: persuasive evidence of an arrangement exists; transfer or access of technology has been completed or services have been rendered; our price to the customer is fixed or determinable and collectability is reasonably assured.

The terms of our license and research and development agreements include nonrefundable upfront payments and license fees, milestone and other contingent payments to us for the achievement of defined collaboration objectives and certain clinical, regulatory and sales-based events, as well as royalties on sales of any commercialized products.

The terms of our licensing agreements include non-refundable upfront fees, annual licensing fees, and contingent payments and milestones for the achievement of pre-defined preclinical, clinical, regulatory and sales-based events by our partners. The licensing agreements also include royalties on sales of any commercialized products by our partners.

Multiple-Element Revenue Arrangements. Certain of our collaboration and license agreements represent multiple-element revenue arrangements. To account for such transactions, we determine the elements, or deliverables, included in the arrangement and determine which deliverables are separate units for accounting purposes. We consider delivered items to be separate units of accounting if the delivered items have stand-alone value to the customer. If the delivered items are separate units we allocate the consideration received or due under the arrangement to the various elements based on each elements' relative selling price. The identification of individual elements in a multiple-element arrangement and the estimation of the selling price of each element involve significant judgment, including consideration as to whether each delivered element has standalone value to the customer. We determine the estimated selling price for deliverables within each arrangement using vendor-specific objective evidence (VSOE) of selling price, if available, or third-party evidence of selling price if NSOE is not available, or our best evidence of selling price if neither VSOE nor third-party evidence is available.

Determining the best estimate of selling price for a deliverable requires significant judgment. We use our best estimate of selling price to estimate the selling price for licenses to our technologies and product candidates, since we do not have VSOE or third-party evidence of selling for these deliverables. The basis of our estimate of selling price is the arm's length negotiation with the licensee that occurs in each transaction. The potential value of our technology to a licensee in a transaction

## **Notes to Financial Statements (Continued)**

## 1. Summary of Significant Accounting Policies (Continued)

depends on a variety of factors unique to each transaction. Factors that impact the negotiation and hence that we consider in our estimates center on the specific product candidate and include: the product candidate's potential market size, the product candidate's stage of development, the existence of competitive technologies that could be substituted for ours by the licensee and the scientific assessment of the product candidate's likelihood of success at various development stages. The most common deliverable is the commercial license for our technology in the product candidate, and frequently a research license with an option for commercial license. The upfront payments, annual license fees, milestones and royalties relate to these licenses and/or options and depend on the product-specific factors described above. The other significant deliverable is research and development services and the price for these depends on estimates for our personnel and supply costs and the costs of third-party contract research organizations necessary to support the services.

We recognize consideration allocated to an individual element when all other revenue recognition criteria are met for that element. Our multiple-element revenue arrangements generally include the following:

- **License arrangements:** The deliverables under our collaboration and license agreements generally include exclusive or non-exclusive licenses to one or more of our technologies. The technologies can be applied to a collaborator's product candidates for discovery, development, manufacturing and commercialization. We will also enter into agreements for the exclusive or non-exclusive licenses to our internally developed product candidates. To account for this element of the arrangement, we evaluate whether the exclusive or non-exclusive license has standalone value apart from the undelivered elements to the collaboration partner, which generally include research and development services or options for commercial licenses, based on the consideration of the facts and circumstances of each arrangement, including the research and development capabilities of the collaboration partner and other market participants. We recognize arrangement consideration allocated to licenses upon delivery of the license, if the facts and circumstances indicate the license has standalone value apart from the undelivered elements. If facts and circumstances indicate that the delivered license does not have standalone value from the undelivered elements, we recognize the revenue as a combined unit of accounting. In those circumstances we recognize revenue from non-refundable upfront fees in the same manner as the undelivered item(s), which is generally the period over which we provide research and developments services.
- Research and Development Services. The deliverables under our collaboration and license arrangements may include deliverables related to research and development services we perform on behalf of the collaboration partner. As the provision of research and development services is an integral part of our operations and we may be principally responsible for the performance of these services under the agreements, we recognize revenue on a gross basis for research and development services as we perform those services. Additionally, we recognize research related funding under collaboration research and development efforts as revenue as we perform or deliver the related services in accordance with contract terms.

*Milestone Revenue.* Our collaboration and license agreements generally include contingent payments and milestone payments related to specific research, development and regulatory milestones and sales-based milestones. Research, development and regulatory contingent payments and milestone payments are typically payable under our collaborations when our collaborator selects a compound, or

## **Notes to Financial Statements (Continued)**

## 1. Summary of Significant Accounting Policies (Continued)

initiates or advances a covered product candidate in preclinical or clinical development, upon submission for marketing approval of a covered product with regulatory authorities, upon receipt of actual marketing approvals of a covered product or for additional indications, or upon the first commercial sale of a covered product. Salesbased milestones are typically payable when annual sales of a covered product reach specific levels.

At the inception of each arrangement that includes milestone payments, we evaluate whether each milestone is substantive and at risk to both parties based on the basis of the contingent nature of the milestone. We evaluate factors such as scientific, regulatory, commercial and other risks that we must overcome to achieve the respective milestone, whether the milestone consideration is reasonable relative to all deliverables and payment terms in the arrangement in making this assessment and whether the milestone payment relates solely to past performance.

We have elected to adopt the Financial Accounting Standards Board Accounting Standards Update 2010-17, *Revenue Recognition—Milestone Method*, such that we recognize any payment that is contingent upon the achievement of a substantive milestone entirely in the period in which the milestone is achieved. A milestone is defined as an event that can only be achieved based in whole or in part either on our performance, or the performance of our collaborators, or the occurrence of a specific outcome resulting from our past performance for which there is a substantive uncertainty at the date the arrangement is entered into that the event will be achieved.

## **Collaborative Research and Licensing Agreements**

## MorphoSys Ag

In June 2010, we entered into a Collaboration and License Agreement with MorpohSys AG (MorphoSys), which we subsequently amended in March 2012. The agreement provided us with an upfront payment of \$13.0 million in exchange for an exclusive worldwide license to our patents and know-how to research, develop and commercialize our XmAb5574 product candidate (subsequently renamed MOR208) with the right to sublicense under certain conditions. Under the agreement, we agreed to collaborate with MorphoSys to develop and commercialize XmAb5574/MOR208. We determined that the arrangement was one with multiple deliverables and we identified the multiple elements in the agreement as the license of XmAb5574/MOR208 and the research and development services provided by us for the initial Phase 1 clinical trial. If certain developmental, regulatory and sales milestones are achieved, we are eligible to receive future milestone payments and royalties. We determined that the future milestone payments were substantive and contingent and we did not allocate any of the upfront consideration to these milestones. Our responsibility with respect to the collaboration services is limited to completion of the Phase 1 clinical trial. MorphoSys is responsible all further development of XmAb5574/MOR208.

At inception of the arrangement, we determined that \$8.0 million of the \$13.0 million upfront payment was the value of the worldwide license rights to XmAb5574/MOR208 and \$5.0 million was the value of the research and development services. We recognized the value related to the license of XmAb5574/MOR208 in income in 2010, the period that the license was transferred. We allocated \$5.0 million of the upfront fee to research and development services to be recognized as income over the expected service period to complete the Phase 1 clinical trial which was 27 months. The March 2012 amendment to the agreement extended the length of the Phase 1 clinical trial. Under the terms of the amendment, we received additional proceeds for the additional research and development services

## Notes to Financial Statements (Continued)

#### 1. Summary of Significant Accounting Policies (Continued)

related to extension of the Phase 1 clinical trial. During 2012, we recognized \$0.4 million of revenue related to the additional services provided.

The total revenue recognized under this arrangement was \$2.2 million and \$2.0 million for the years ended December 31, 2011 and 2012, respectively.

## Amgen, Inc.

In December 2010, we entered into a Collaboration and Option Agreement with Amgen, Inc. (Amgen), pursuant to which we agreed to collaborate with Amgen to research, develop and commercialize XmAb5871 and products based thereon. Under the agreement, we granted to Amgen an option to acquire an exclusive license to research, develop, manufacture and commercialize XmAb5871 and certain related products worldwide, which option is exercisable by Amgen only after Amgen's (1) notification to us that it is electing to exercise the option and (2) payment of an option exercise fee to us during the option period under the agreement. The term of the option began at the effective date of the Agreement and expires 90 days after delivery of the data from a Phase 2 proof-of-concept (POC) clinical trial. During the option period and prior to Amgen exercising its option under the agreement, we retain ownership of the compound and are responsible for all clinical development of the compound through completion of the Phase 2 POC clinical trial and delivery of the clinical study data for the POC clinical trial. We received a nonrefundable upfront payment of \$11.0 million upon execution of the agreement. We are eligible to receive milestone payments through the option period and following the exercise of the option by Amgen, additional milestone payments and royalties. We determined that substantially all of the future milestones and related payments were substantive and contingent and we did not allocate any of the upfront consideration to the milestones.

We determined that the arrangement is one with multiple deliverables and we identified the multiple elements at the inception of the agreement. We determined that the deliverables under the arrangement were the research and development services and the option to acquire the rights to XmAb5871. Since the option is a contingent and a substantive element, no portion of the upfront fee was allocated to it. The upfront payment was allocated to the research and development services and is being recognized ratably over the estimated service period to complete the Phase 2 POC trial and delivery of the clinical study reports to Amgen. At inception of the agreement, we originally estimated the term of the services period to be 41 months. During 2012, we corrected our original estimate of the service period from 41 months (see note 9) and changed our estimate of the time to complete the development work through completion of the POC trial to 72 months. We are recognizing the effect of this change prospectively as a change in estimate.

The total revenue recognized under this arrangement was \$2.0 million and \$1.8 million for the years ended December 31, 2011 and 2012, respectively.

## MedImmune LLC

In December 2012, we entered into a Cross-License Agreement with MedImmune, LLC (MedImmune). Under the agreement we provided MedImmune with a non-exclusive research license to certain technology and options to acquire commercial licenses to a limited number of compounds. The commercial licenses will be worldwide, royalty-free exclusive licenses and are subject to our review and approval. In exchange, MedImmune provided us with a worldwide, non-exclusive, royalty-free license and sub-license to certain U.S. patent rights granted to MedImmune. We determined that the exchange

## **Notes to Financial Statements (Continued)**

#### 1. Summary of Significant Accounting Policies (Continued)

is a non-monetary transaction as provided under ACS 845-10, Non-Monetary Transactions. The transaction did not include any cash proceeds and only the exchange of intellectual property rights between the two companies.

We could not determine a fair value of the MedImmune patent rights received by us with reasonable certainty but could establish a fair value for the transaction by estimating the fair value of the research license and options for the commercial licenses provided by us to MedImmune. We estimated the fair value of the license and options transferred to be \$0.75 million. Our estimate was based on the risk adjusted discounted cash flow that is associated with the research license and options to commercial licenses transferred to MedImmune. In determining this estimate, we compared the license and options rights transferred to MedImmune with comparable arms-length non-related party licensing and option transactions that we have entered into with third parties in recent years. The calculation of the fair value is based on our experience and judgment with similar cash transactions. We recognized licensing revenue on the exchange of \$0.75 million for the year ended December 31, 2012 equal to the fair value of the assets transferred. We also recorded an asset of \$0.75 million to reflect the licensing rights that we acquired from MedImmune in the exchange; the capitalized rights are being amortized over the shorter of the remaining patent term or the estimated useful life of the license.

MedImmune Ventures, Inc., an affiliate of MedImmune, is one of our 5% stockholders and has a designee on our Board of Directors.

## **Boehringer Ingelheim International GmbH**

In 2007 we entered into a Research Licensee and Collaboration Agreement with Boehringer Ingelheim International GmbH (BI). Under the agreement, we provided BI with a three-year research license to one of our technologies and commercial options. We identified the deliverables under the agreement at inception as the research licenses and options to acquire commercial licenses to up to two compounds. Upon exercise of an option to a commercial license, we are eligible to receive future milestone payments and royalties. We determined that the future milestones and related payments were substantive and contingent and we did not allocate any of the upfront consideration to the milestones. The upfront payment and the annual license fees are being recognized ratably into income over the research license term which expired in 2011 and payments for the commercial options were recognized in the period the commercial option was exercised since the options were contingent and substantive. During 2012, BI advanced a compound that incorporates our technology into clinical development and we received a milestone payment of \$1.2 million. We have recognized the payment under the milestone method and recorded it into income during the period that the milestone event occurred.

## Janssen, Research & Development, LLC

In 2009 we entered into a Research License and Option Agreement with Janssen, Research & Development, LLC (Janssen). Under the agreement, we provided Janssen with non-exclusive research license and options for exclusive commercial licenses to apply our technology to their compounds. We identified the deliverables under the agreement at inception as the research licenses and options to acquire commercial licenses to up to three compounds. Upon exercise of an option, we are eligible to receive future milestone and royalty payments. We determined that the options and future milestones and related payments were substantive and contingent and we did not allocate any of the upfront consideration to the options or milestones. The upfront payment of \$1.0 million received at inception

## **Notes to Financial Statements (Continued)**

## 1. Summary of Significant Accounting Policies (Continued)

and the annual research license renewal payments are being recognized as revenue recorded ratably over the two-year term of the research license. During 2011, we recognized total revenue of \$1.0 million consisting in annual research license revenue. During 2012, we recognized total revenue of \$1.4 million consisting of \$0.9 million in research license revenue and \$0.5 million for the exercise of a commercial option.

## CSL Limited

In 2009 we entered into a Research License and Commercialization Agreement with CSL Limited (CSL). Under the agreement, we provided CSL with a research license to one of our technologies and up to five commercial options. The upfront payment of \$0.75 million received at inception and the annual research license renewal payments are being recognized as revenue ratably over the five-year term of the research license. During 2011, we recognized total revenue of \$1.3 million consisting of \$0.3 million in research license revenue and \$1.0 million in milestone and option exercise payments. During 2012, we recognized total revenue of \$1.8 million consisting of \$0.3 million in annual research license revenue and \$1.5 million in milestone payments. We identified the deliverables under the agreement at inception as the five-year research licenses and options to acquire commercial licenses. Upon exercise of an option to acquire a commercial license, we are eligible to receive future milestones and royalties. The upfront payment and the annual license fees were allocated to the research license and are being recognized into income over the research term and payments for commercial options are being recognized in the period the commercial option was exercised since the options were contingent and substantive. We determined that the future milestones and related payments were substantive and contingent and we did not allocate any of the upfront consideration to the milestones. During 2011, CSL elected to take a commercial license to a compound and we received a payment of \$0.5 million related to the commercial license. The payment of \$0.5 million received for the commercial license was recognized in income in the period that the commercial license became effective, 2011.

The \$6.8 million and \$9.5 million of revenue recorded for the years ended December 31, 2011 and December 31, 2012 was earned principally from four and five licensees, respectively (following table in millions):

		Ended
	Decem	
	2011	2012
Amgen	\$ 2.0	\$ 1.8
MorphoSys	2.2	2.0
Janssen	1.0	1.4
CSL	1.3	1.8
BI	<del>-</del>	1.2
Other	0.3	1.3
Total	\$ 6.8	\$ 9.5

As of December 31, 2012, our accounts receivables consisted of one receivable from a major customer, MorphoSys, for \$0.3 million.

## **Notes to Financial Statements (Continued)**

## 1. Summary of Significant Accounting Policies (Continued)

As of December 31, 2012, the Company may be eligible to receive the following maximum payments from its collaborative partners and licensees based upon contractual terms in the agreements and assuming all options are exercised and all milestones are achieved:

	Potential Milestones (in millions)							
Partner	Developme	nt-based	Regulato	ry-based	Sale	s-based		Fotal lestones
MorphoSys(2)	\$	65.0	\$	187.0	\$	50.0	\$	302.0
Amgen(1)		64.0		150.0		225.0		439.0
BI(2)		9.0		6.0		12.0		27.0
Janssen(2)		6.0		_		4.0		10.0
CSL(2)		38.0		27.5		25.0		90.5
Total	\$	182.0	\$	370.5	\$	316.0	\$	868.5

- (1) These potential milestones include milestones that were determined to be substantive because they require the Company to devote substantial effort to perform services for the benefit of the counterparty prior to achievement of the milestone and the payments due upon achievement of the milestone are reasonable in connection with the services provided and the remainder of the milestones in the arrangement.
- (2) The payments are solely dependent upon activities of the collaborative partner and licensees.

A substantial portion of our revenue is earned from collaboration partners outside the United States. Non-U.S. revenue is denominated in U.S. dollars. A breakdown of our revenue from U.S. and non-U.S. sources for the years ended December 31, 2011 and 2012 is as follows (in millions):

	Ended ber 31.
	2012
\$ 3.3	\$ 4.4
3.5	5.1
\$ 6.8	\$ 9.5
	2011 \$ 3.3 3.5

## **Deferred Revenue**

Deferred revenue arises from payments received in advance of the culmination of the earnings process. We have classified deferred revenue expected to be recognized within the next 12 months as a current liability. We recognize deferred revenue as revenue in future periods when the applicable revenue recognition criteria have been met. The total amounts reported as deferred revenue were \$12.2 million and \$7.6 million for the years ended December 31, 2011 and 2012, respectively.

## **Research and Development Expenses**

Research and development expenses include costs we incur for our own and for our collaborators' research and development activities. Research and development costs are expensed as incurred. These costs consist primarily of salaries and benefits, including associated stock-based compensation,

## **Notes to Financial Statements (Continued)**

## 1. Summary of Significant Accounting Policies (Continued)

laboratory supplies, facility costs, and applicable overhead expenses of personnel directly involved in the research and development of new technology and products, as well as fees paid to other entities that conduct certain research development activities on our behalf. We estimate preclinical study and clinical trial expenses based on the services performed pursuant to the contracts with research institutions and clinical research organizations that conduct and manage preclinical studies and clinical trials on our behalf based on the actual time and expenses incurred by them. Further, we accrue expenses related to clinical trials based on the level of patient enrollment and activity according to the related agreement. We monitor patient enrollment levels and related activity to the extent reasonably possible and adjust estimates accordingly. During 2011 and 2012, we expensed \$12.7 million and \$12.7 million, respectively, for research and development.

We capitalize acquired research and development technology licenses and third-party contract rights and amortize the costs over the shorter of the license term or the expected useful life. We review the license arrangements and the amortization period on a regular basis and adjust the carrying value or the amortization period of the licensed rights if there is evidence of a change in the carrying value or useful life of the asset. See "—Patents, licenses and other intangible assets."

#### Cash and Cash Equivalents

We consider cash equivalents to be only those investments which are highly liquid, readily convertible to cash and which mature within three months from the date of purchase.

The primary objectives for our investment portfolio are liquidity and safety of principal. Investments are made to achieve the highest rate of return for us, while maintaining consistency with these two objectives. In 2011 and 2012, we maintained our investment portfolio in money-market funds.

## Concentrations of Risk

Cash and cash equivalents are maintained at financial institutions and, at times, balances may exceed federally insured limits. We have never experienced any losses related to these balances. All of our non-interest bearing cash balances were fully insured at December 31, 2012 due to a temporary federal program in effect from December 31, 2010 through December 31, 2012. Under the program, there was no limit to the amount of insurance for eligible accounts. Beginning in January 2013, insurance coverage reverted to \$250,000 per depositor at each financial institution, and our non-interest bearing cash balances exceeded federally insured limits. Interest-bearing amounts on deposit in excess of federally insured limits at December 31, 2011 and 2012 approximated \$14.5 and \$2.3 million, respectively.

We have payables with two service providers that represent 38.3% and 27.2% of our total payables for the years ended December 31, 2011 and 2012, respectively. We have never experienced an interruption in service related to these two vendors and also believes that there are alternative vendors available and as such do not perceive this concentration to present a significant risk to our operation. No other vendor accounted for more than 10.0% of payables.

## Fair Value of Financial Instruments

Our financial instruments primarily consist of cash, money market funds, trade accounts receivable, accounts payable, accrued expenses and convertible notes payable. The fair value of cash, money

## **Notes to Financial Statements (Continued)**

## 1. Summary of Significant Accounting Policies (Continued)

market funds, trade accounts receivable, accounts payable and accrued expenses closely approximate their carrying value due to their short maturities. The carrying amounts of convertible notes payable approximate their fair value, as the interest rates, in consideration of the conversion feature, approximate the interest rates presently available to us.

We determine the fair value of the principal amount of financial and nonfinancial assets and liabilities using the fair value hierarchy, which describes three levels of inputs that may be used to measure fair value, as follows:

Level 1— Quoted prices in active markets for identical assets or liabilities;

Level 2— Observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; and

Level 3— Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

Level 1 assets consist of highly-liquid money market funds. The fair value of Level 1 assets has been determined using quoted prices in active markets for identical assets. There were no transfers between Level 1 and Level 2 assets during the years presented.

The assets recorded at fair value at December 31, are classified within the hierarchy as follows for the years reported (in millions):

		2011	1			201	2	
	Tot	al			T	otal		
	Fair V	/alue	L	evel 1	Fair	Value	Le	vel 1
Money Market Funds	\$	14.5	\$	14.5	\$	2.3	\$	2.3

For disclosure purposes at December 31, the fair value of the principal amount of our outstanding convertible promissory notes are classified within the hierarchy as follows (in millions):

	2011		2012					
	T	otal			1	Total .		
	Fair	Value	L	evel 3	Fair	r Value	L	evel 3
Convertible Promissory Notes	\$	15.1	\$	15.1	\$	15.1	\$	15.1

These convertible promissory notes were to mature as of December 31, 2011 and 2012 (see note 2 for further detail) and when considering the lack of time value, the absence of an established market for the convertible promissory notes, and our knowledge of the terms, rates, risk and returns provided by the convertible promissory notes as compared to financing available for privately-held biopharmaceutical companies, we determined that the carrying value of the convertible promissory notes approximates their fair value. There were no transfers between Level 3 and Level 2 or Level 1 during the year.

## **Notes to Financial Statements (Continued)**

## 1. Summary of Significant Accounting Policies (Continued)

## **Property and Equipment**

Property and equipment are recorded at cost and depreciated using the straight-line method over the estimated useful lives of the assets, ranging from three to seven years, or the lease term, whichever is shorter. Expenditures for repairs and maintenance are charged to expense as incurred while renewals and improvements are capitalized. Useful lives by asset category are as follows:

Computers, software and equipment	3-5 years
Furniture and fixtures	5-7 years
	5-7 years or remaining
Leasehold improvements	lease term, whichever is less

During 2012, we entered into a capital lease for certain computer equipment for \$22,000. Total assets under capital lease were \$32,000 and \$54,000 of December 31, 2011 and 2012, respectively; accumulated depreciation for these assets was \$21,000 and \$37,000 at December 31, 2011 and 2012, respectively.

Depreciation expense in 2011 and 2012 was \$333,000 and \$154,000, respectively.

#### Patents, Licenses, and Other Intangible Assets

The cost of acquiring licenses is capitalized and amortized on the straight-line basis over the shorter of the term of the license or its estimated economic life, ranging from five to 25 years. Third-party costs incurred for acquiring patents are capitalized. Capitalized costs are accumulated until the earlier of the period that a patent is issued or we abandon the patent claims. Cumulative capitalized patent costs are amortized on a straight-line basis from the date of issuance over the shorter of the patent term or the estimated useful economic life of the patent, ranging from 13 to 20 years. Our senior management, with advice from outside patent counsel, assesses three primary criteria to determine if a patent will be capitalized initially: i) technical feasibility, ii) magnitude and scope of new technical function covered by the patent compared to the company's existing technology and patent portfolio, particularly assessing the value added to our product candidates or licensing business, and iii) legal issues, primarily assessment of patentability and prosecution cost. We review our intellectual property on a regular basis to determine if there are changes in the estimated useful life of issued patents and if any capitalized costs for unissued patents should be abandoned. Capitalized patent costs related to abandoned patent filings are charged off in the year of the decision to abandon. During 2011 and 2012, we abandoned previously capitalized patent related charges of \$714,000 and \$388,000, respectively. During 2011 and 2012, we abandoned previously capitalized licenses of \$0.5 million and \$0, respectively.

## **Notes to Financial Statements (Continued)**

## 1. Summary of Significant Accounting Policies (Continued)

The carrying amount and accumulated amortization of patents, licenses, and other intangibles is as follows (in thousands):

	Decem	ber 31,
	2011	2012
Patents, definite life	\$ 3,280	\$ 4,416
Patents, pending issuance	3,698	3,293
Licenses and other amortizable intangible assets	902	1,669
Nonamortizable intangible assets (trademarks)	340	356
Total gross carrying amount	8,220	9,734
Accumulated amortization—patents	(747)	(985)
Accumulated amortization—licenses and other	(223)	(289)
Total intangible assets, net	\$ 7,250	\$ 8,460

Amortization expense for patents, licenses, and other intangible assets was \$274,000 and \$373,000 for the years ended December 31, 2011 and 2012, respectively.

Future amortization expense for patents, licenses, and other intangible assets recorded as of December 31, 2012, and for which amortization has commenced, is as follows:

	Years ending
	December 31,
	(in thousands)
2013	\$ 489
2014	442
2015	440
2016	438
2017	438
Thereafter	2,564
Total	\$ 4,811

The above amortization expense forecast is an estimate. Actual amounts of amortization expense may differ from estimated amounts due to additional intangible asset acquisitions, impairment of intangible assets, accelerated amortization of intangible assets, and other events. As of December 31, 2012, the Company has \$3.6 million of intangible assets which are in-process and have not been placed in service and, accordingly amortization on these assets has not commenced.

## Long-Lived Assets

Management reviews long-lived and certain identifiable intangibles for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset (or asset group) may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured as the amount by which the carrying amount of the assets exceeds the fair value of the assets. Fair value for our long-lived

## **Notes to Financial Statements (Continued)**

#### 1. Summary of Significant Accounting Policies (Continued)

assets is determined using the expected cash flows discounted at a rate commensurate with the risks involved.

As of December 31, 2012, we determined that our continuing losses triggered a review of the carrying value of our long-lived assets including our capitalized patent and licensing costs. We conducted an impairment analysis of the assets in accordance with ASC 360 and ASC 820 by estimating the future undiscounted cash flows as of December 31, 2012, by patent family, which included granted and pending patents and related licenses. For purposes of the analysis, we grouped our patents into the three primary technology groups, IIb, ADCC and Xtend, and compared the carrying value of the group to the undiscounted cash flows expected to be received from the patents in each group. We determined that the fair value of the potential future cash flows using this method was in excess of the carrying value of the intangible assets as of December 31, 2012. The patent groups assessed for impairment were the IIb, ADCC and Xtend patent families and represented the lowest level of cash flows for evaluation. These three patent families cover all of our current product candidates and our current license agreements. We modeled the cash flows from our internal product development programs (XmAb5871 and XmAb7195) and licensed programs that use each particular category of patent asset. We used multiple published sources of pharmaceutical product development stage failure rates to estimate failure rates at each stage of clinical development in order to probability weight the cash flows for each internal and licensed program. We did not recognize a loss from impairment for the years ended December 31, 2011 and 2012.

#### **Income Taxes**

We account for income taxes in accordance with accounting guidance which requires an asset and liability approach to financial accounting and reporting for income taxes. Deferred income tax assets and liabilities are computed annually for differences between the financial statement and tax bases of assets and liabilities that will result in taxable or deductible amounts in the future based on enacted tax laws and rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. Income tax expense is the tax payable or refundable for the period plus or minus the change during the period in deferred tax assets and liabilities.

We assess our income tax positions and record tax benefits for all years subject to examination based upon our evaluation of the facts, circumstances and information available at the reporting date. For those tax positions where there is greater than 50% likelihood that a tax benefit will be sustained, we have recorded the largest amount of tax benefit that may potentially be realized upon ultimate settlement with a taxing authority that has full knowledge of all relevant information. For those income tax positions where there is a 50% or less likelihood that a tax benefit will be sustained, no tax benefit has been recognized in the financial statements.

Our policy is to recognize interest and penalties on taxes, if any, within operations as income tax expense. We did not have any unrecognized tax positions at December 31, 2011 and 2012.

We are subject to U.S. federal and state tax authority audits for the years from December 31, 2009 to December 31, 2012.

## **Notes to Financial Statements (Continued)**

#### 1. Summary of Significant Accounting Policies (Continued)

## Stock-Based Compensation

We recognize compensation expense using a fair-value-based method for costs related to all share-based payments, including stock options. Stock-based compensation cost related to employees and directors is measured at the grant date, based on the fair-value—based measurement of the award using the Black-Scholes method, and is recognized as expense over the requisite service period on a straight-line basis. We are required to estimate forfeitures at the time of grant and revise those estimates in subsequent period if actual forfeitures differ from those estimates. We use historical data to estimate pre-vesting option forfeitures and record stock-based compensation expense only for those awards that are expected to vest. We recorded stock-based compensation (benefit) and expense for stock-based awards to employees and directors of approximately \$(57,000) and \$29,000 for the years ended December 31, 2011 and 2012, respectively.

Options granted to individual service providers that are not employees or directors are accounted for at estimated fair value using the Black-Scholes option-pricing method and are subject to periodic re-measurement over the period during which the services are rendered.

## Net Loss Per Share

Basic net loss per common share is computed by dividing the net loss by the weighted-average number of common shares outstanding during the period. Potentially dilutive securities consisting of stock options, convertible preferred stock and convertible promissory notes were not included in the diluted net loss per common shares calculation because the inclusion of such shares would have had an antidilutive effect.

Year E	nded
Decemb	oer 31,
2011	2012
(in thou	sands)
12,188	12,188
2,471	2,800
1,245	1,305
15,904	16,293
	December 2011 (in thou 12,188 2,471 1,245

## 2. Convertible Notes Payable

In 2009, we issued \$7.65 million of convertible promissory notes (the 2009 Notes) to existing preferred stockholders. The 2009 notes included a contingent redemption feature which provided that, upon a change of control or other liquidation event, the outstanding principal and accrued interest would be converted to shares of our Series E-1 convertible preferred stock which were entitled to a payment of liquidation preference equal to three times the per share price of \$2.41 used for the conversion in priority to any liquidation payments to be made to any other series of convertible preferred stock or common stock. Originally, the 2009 Notes had an interest rate of 10.0% per annum and original maturity date of September 30, 2009 which was subsequently extended to July 31, 2011. In June 2011, the 2009 Notes were amended to increase the interest rate on the Note from 10.0% to 12.5% and to extend the maturity date to December 31, 2012. We determined that these amendments of the 2009 Notes were not an extinguishment of debt under ASC 470-50-40, Debt Modifications and

## **Notes to Financial Statements (Continued)**

## 2. Convertible Notes Payable (Continued)

Extinguishments. Accordingly, we did not recognize a gain or loss as a result of the amendments and they were treated as a modification of the debt. The new effective interest rate was 12.5%

In December 2010, we issued an additional \$7.5 million of convertible promissory notes (the 2010 Notes) to existing preferred stockholders. The 2010 Notes included a contingent redemption feature which provided that, upon a change of control or other liquidation event, the outstanding principal and accrued interest would be converted to shares of our Series E-1 convertible preferred stock which were entitled to a payment of liquidation preference equal to three times the per share price of \$2.41 used for the conversion in priority to any liquidation payments to be made to any other series of convertible preferred stock or common stock. The 2010 Notes bear similar terms as the 2009 notes and, originally had an interest rate of 10.0% per annum and an original maturity date of December 31, 2011. In December 2011, the 2010 Notes were amended to increase the interest rate from 10.0% to 12.5% and to extend the maturity date of the Notes to December 31, 2012. We determined that these amendments of the 2010 Notes were not an extinguishment of debt under ASC 470-50-40. Accordingly, we did not recognize a gain or loss as a result of the amendments and they were treated as a modification of the debt. The new effective interest rate was 12.5%

In December 2012 the maturity dates for the 2009 Notes and the 2010 Notes were extended to April 15, 2013 and in April 2013 the maturity dates were extended again to June 15, 2013, with each such extension considered to be a modification of debt under ASC 470-50-40.

In June 2013, and prior to the maturity dates of the 2009 Notes and the 2010 Notes, our Board of Directors and the requisite stockholders and holders of the 2009 Notes and 2010 Notes agreed to exchange the outstanding principal into shares of our Series A-1 convertible preferred stock in connection with a concurrent financing (see Note 8). The exchange of the 2009 Notes and 2010 Notes was not pursuant to the terms of the applicable Notes so we accounted for the exchange as an extinguishment of the original debt instrument under ASC 470-50-40. (see Note 8).

At December 31, 2011, we had \$18.5 million of convertible notes payable which include principal of \$15.2 million and accrued interest due of \$3.3 million. At December 31, 2012, we had \$20.9 million of convertible notes payable which include principal of \$15.1 million and accrued interest due of \$5.8 million. The 2009 Notes and 2010 Notes included a contingent redemption feature which provided that, upon a change of control or other liquidation event, the outstanding principal and accrued interest of such notes would be converted in shares of our Series E-1 convertible preferred stock which were entitled to payment of a liquidation preference equal to three times the per share price of \$2.41 used for the conversion in priority to any liquidation payments to be made to any other series of convertible preferred stock or common stock. As of December 31, 2011 and 2012, \$6.5 million of convertible promissory notes were held by a director of the Company.

## **Notes to Financial Statements (Continued)**

## 3. Capital Structure

## **Authorized Capital Stock**

We are authorized to issue 57,225,000 shares of common stock and 45,322,694 shares of convertible preferred stock, of which 857,797 are shares of Series A convertible preferred stock (Series A), 1,328,946 are shares of Series B convertible preferred stock (Series B), 2,416,284 are shares of Series C convertible preferred stock (Series C), 7,966,667 are shares of Series D convertible preferred stock (Series D), 25,253,000 are shares of Series E convertible preferred stock (Series E) and 7,500,000 are shares of Series E-1 convertible preferred stock (Series E-1) (collectively, the Preferred Series A – E). The shares of Series E-1 convertible preferred stock were authorized for potential issuance upon conversion of the 2009 Notes and 2010 Notes. Because no shares of Series E-1 were ever issued by us, the disclosure that follows does not include the rights of the Series E-1.

## Rights of Convertible Preferred Stock

## Anti-Dilution

In the event we sell or issue additional shares of preferred or common stock at a price less than the Series E original conversion prices of \$2.41 per share and/or less than the Series D original conversion price of \$2.52 per share, the Series E and/or the Series D conversion prices shall be reduced to reflect the effective price of the most recent sale or issuance. Where there is a reduction in the Series E and/or the Series D conversion price, additional Series E and/or Series D shares shall be issued to the Series E, and/or Series D holders such that the product of the conversion price and the original shares issued remains constant. Such an event will result in a beneficial event for the Series E, and Series D that will be recorded as a deemed dividend.

#### Conversion

Each 3.1 shares of convertible preferred stock is convertible, at the stockholders' option, into one share of common stock. Additionally, upon written consent of 75% of the holders of the then outstanding shares of all convertible preferred stock voting together, each share of convertible preferred stock is automatically converted into common stock and, in the event of a public offering of our equity securities with a price to the public of greater than \$5.00 per share and resulting in gross proceeds to us of \$35.0 million or more, all outstanding convertible preferred stock will automatically be converted into common stock.

#### Liquidation

In the event of any liquidation, dissolution or winding up of the Company, either voluntary or involuntary, including any merger, consolidation or similar transaction:

- the holders of Series E preferred stockholders are entitled to receive preference to Series D, Series C, Series B, Series A and common stockholders to any distribution of any assets of the Company in an amount per share equal to \$2.41 per share plus all accrued and unpaid liquidation dividends on such Series E:
- the holders of Series D are entitled to receive preference to Series C, Series B, Series A and common stockholders to any distribution of assets of the Company in an amount per share equal to \$2.52 per share; and

## **Notes to Financial Statements (Continued)**

## 3. Capital Structure (Continued)

• the holders of Series C, Series B, and Series A are entitled to receive preference to the common stockholders to any distribution of any assets of the Company in an amount per share equal to \$20.70, \$9.33 and \$4.14 per share, respectively (as adjusted for any stock splits, stock dividends, recapitalizations, or the like).

After full payment of the Series E, Series D, Series B and Series A convertible preferred stock liquidation preference amounts, the remaining assets are distributed ratably to the holders of shares of common stock and convertible preferred stock on an as-converted to common stock basis.

The convertible preferred stock is classified as mezzanine equity outside stockholders' equity because each series of preferred Stock A through E is subject to a deemed liquidation clause that could potentially require redemption of the preferred shares for cash as a result of events outside the control of the Company.

We have not adjusted the carrying values of the convertible preferred stock to the liquidation preferences of such shares because it is uncertain whether or when an event would occur that would obligate us to pay the liquidation preferences to holders of shares of convertible preferred stock. Subsequent adjustments to increase the carrying values to the liquidation preferences will be made if an when it becomes probable that an event would occur that would obligate us to pay the liquidation preferences to holders of shares of convertible preferred stock.

## Dividends

Dividends will be paid if and when declared by the Board of Directors at its sole discretion. Holders of outstanding shares of Series E in preference to the holders of Series A, Series B, Series C, Series D and common stock, shall be entitled to receive cash dividends at an annual rate of 8% of the original issue price per share of Series E, as applicable, outstanding, payable only when, as and if declared by the Board of Directors. The right to such dividends on the Series E shall be cumulative and is payable in the event of a liquidation. As of December 31, 2011 and 2012, the accumulated Series E dividend was \$27.2 million and \$34.2 million, respectively.

Holders of outstanding shares of Series D in preference to the holders of Series A, Series B, Series C and common stock, shall be entitled to receive cash dividends at an annual rate of 8% of the original issue price per share of Series D outstanding, payable only when, as and if declared by the Board of Directors. Holders of Series A, Series B, and Series C, in preference to the holders of common stock, shall be entitled to receive cash dividends at an annual rate of 8% of the original issue price per share of their respective series of convertible preferred stock, payable only when, as and if declared by the Board of Directors. The right to such dividends on the Series A, Series B, Series C, and Series D shares shall not be cumulative and no right shall accrue to holders of Series A, Series B, Series C, and Series D by reason of the fact that dividends are not declared or paid in any previous fiscal year.

## Voting

Each share of Preferred Series A – E carries one vote for each share of common stock into which such shares of convertible preferred stock may be converted.

## **Notes to Financial Statements (Continued)**

## 3. Capital Structure (Continued)

## Redemption

The convertible preferred stock has no date-specific mandatory redemption features.

As of December 31, 2011 and 2012, 7.5 million shares of Series A – E convertible preferred stock were held by a director of the Company.

As of December 31, 2011 and 2012, there were notes outstanding issued to one of our stockholders by us in the aggregate amount of \$0.2 million. We made the loans to facilitate the purchase by such stockholder of shares of our common stock. The notes mature on the earlier of May 2014 or the filing of a registration statement for our initial public offering and bear interest at 0.56% per annum. These notes are not reflected on the accompanying balance sheets as of December 31, 2011 and 2012 as the notes have been accounted for as an in-substance common stock option grant.

## 4. Income Taxes

Our effective tax rate differs from the statutory federal income tax rate, primarily as a result of the net operating loss carryforwards and research credit carryforwards.

A reconciliation of the federal statutory income tax rate to our effective income tax rate is as follows (in thousands):

	Year E	nded
	Decemb	er 31,
	2011	2012
Federal statutory income tax rate	(3,809)	(2,922)
Other	338	348
Net change in valuation allowance	3,471	2,574
Net effective federal tax rate		

## **Notes to Financial Statements (Continued)**

## 4. Income Taxes (Continued)

The tax effect of temporary differences that give rise to a significant portion of the deferred tax assets and liabilities at December 31, 2012 and 2011, is presented below (in thousands):

	 2011	2012
Deferred tax assets		
Net operating loss carryforwards	\$ 52,880	\$ 57,782
Research credits	20,776	22,503
Depreciation	915	892
Accrued compensation	109	163
Deferred revenue	4,871	3,048
Total deferred tax assets	79,551	84,388
Valuation allowance	(76,736)	(81,076)
Net deferred tax assets	2,815	3,312
75 ( ) 1. 11.11111111111111111111111111111		
Deferred tax liabilities		
Patent costs	(2,534)	(2,738)
Licensing costs	(162)	(455)
Capitalized legal costs	(119)	(119)
Net deferred taxes	\$	\$ 

Due to the uncertainty surrounding the timing of realization of the benefits of our deferred tax assets in future tax periods, we have placed a valuation allowance against its deferred tax assets. During the years ended December 31, 2011 and 2012, the valuation allowance increased by \$6.0 million and \$4.3 million respectively. The Company's tax returns remain open to potential inspection for the years ended 2009 and later.

As of December 31, 2012, we had cumulative net operating loss carryforwards for federal and state income tax purposes of \$146.7 million and \$131.6 million respectively, and available tax credit carryforwards of approximately \$12.9 million for federal income tax purposes and \$9.6 million for state income tax purposes, which can be carried forward to offset future taxable income, if any.

Our federal net operating loss carryforwards expire starting in 2018 and state net operating losses expire starting in 2013. Federal tax credit carryforwards expire starting in 2018 and state tax credit carryforwards expire starting in 2013. Utilization of the net operating losses and tax credits may be subject to a substantial annual limitation due to the ownership change limitations which may occur on the sale of additional common or preferred stock, provided by the Internal Revenue Code of 1986 under Section 382 and similar state provisions, which could result in the expiration of our net operating losses and tax credits before we can use them.

## 5. Stock-Based Compensation

In December 2010, the Board of Directors and the requisite stockholders approved a stock Option Plan, the 2010 Equity Incentive Plan (the 2010 Plan). All options granted under the 2010 Plan are to be made at prices not less than fair value of the stock at the date of grant. Options granted under the 2010 Plan are exercisable at various dates over their 10-year life. Generally, our Board of Directors grants options under our 2010 Plan with 100% of the shares initially subject to vesting and where 25%

## **Notes to Financial Statements (Continued)**

## 5. Stock-Based Compensation (Continued)

of such shares vest on the one-year anniversary of the date of grant and  $^{1}$ /48 of the shares vest monthly thereafter.

The following table summarizes certain information related to options for common stock:

	Number of Shares	Weighted Average Exercise Price
Outstanding at December 31, 2010	1,298,655	\$ 0.59
Grants	1,642	0.59
Surrendered, forfeited or expired	(54,899)	0.59
Exercised		_
Outstanding at December 31, 2011	1,245,398	0.59
Grants	60,642	0.59
Surrendered, forfeited or expired	(1,192)	0.59
Exercised	_	
Outstanding at December 31, 2012	1,304,848	\$ 0.59

Information with respect to stock options outstanding is as follows:

		Decemb	er 3	1,
		2012		2011
Exercisable options		1,094,573		914,706
Weighted average price per share of exercisable options	\$	0.59	\$	0.59
Weighted average grant date fair value per share of options granted during the year	\$	0.34	\$	0.34
Options available for future grants		753,692		813,142
Weighted average remaining contractual life	_	7.79	_	8.70

We estimated the fair value of employee and non-employee awards using the Black-Scholes valuation model. The fair value of employee stock options is being amortized on a straight-line basis over the requisite service period of the awards.

For the options granted in the years ended December 31, 2010 and 2011, we used an estimated fair value per share of \$0.59, originally determined by our Board of Directors as of December 31, 2009. We used the capital asset valuation model to determine fair value with the following key assumptions: junior nature of the common stock to outstanding convertible preferred stock and convertible preferred promissory notes, conversion dilution, minority status and the illiquid nature of our common stock.

## Notes to Financial Statements (Continued)

## 5. Stock-Based Compensation (Continued)

The fair value of employee stock options was estimated using the following weighted average assumptions for the years ended December 31, 2011 and 2012.

	2011	2012
Common stock fair value per share	\$ 0.59	\$ 0.59
Volatility	63.7%	63.7%
Risk-free interest rate	2.68	2.68%
Dividend yield	_	%
Expected term (in years)	6.0	6.0

The expected term of stock options represents the average period the stock options are expected to remain outstanding. The expected stock price volatility for our stock options for the years ended December 31, 2011 and 2012 was determined by examining the historical volatilities for industry peers and adjusting for differences in our life cycle and financing leverage. Industry peers consist of several public companies in the biopharmaceutical industry.

We determined the average expected life of stock options based on the simplified method because our common stock has not been publicly traded to date.

The risk-free interest rate assumption is based on the U.S. Treasury instruments whose term was consistent with the expected term of our stock options.

The expected dividend assumption is based on our history and expectation of dividend payouts.

For the years ended December 31, 2011 and 2012, stock-based compensation expense amounted to \$(57,000) and \$29,000, respectively.

At December 31, 2011 and 2012, the unamortized compensation expense related to unvested options was \$45,000 and \$26,000, respectively. The remaining unamortized compensation expense will be recognized over the next two years.

## 6. Commitments and Contingencies

Although we may be involved from time to time in litigation incidental to our business, we are not currently aware of any ongoing, pending or threatened litigation which would have a material adverse effect on our financial position, results of operations and cash flows. However, unforeseen litigation may be initiated by us or by third parties. Such litigation could adversely affect our business, financial position and results of operations and divert our attention and resources from other matters.

In 2009, we purchased certain computer equipment under a three-year capital lease. Total payments due under the capital lease are listed below.

In 2011, we entered into an agreement with its landlord to amend the terms of its existing facility lease in Monrovia, California. The new lease extends the term of the lease from January 2012 to April 2015 and provides for a new rent payment schedule. The new lease is a non-cancelable operating lease. We are responsible for other lease related costs such as personal property taxes, insurance, maintenance and utilities.

## **Notes to Financial Statements (Continued)**

## 6. Commitments and Contingencies (Continued)

Future minimum payments under the non-cancelable operating and capital leases consist of the following at December 31, 2012 (in thousands):

Years ending December 31,	Capital Equ Leas		erating eases
2013	\$	7	\$ 550
2014		8	620
2015		2	212
Thereafter		_	_
Total	\$	17	\$ 1,382

Net rent expense for the years ended December 31, 2011 and 2012 was \$689,000 and \$547,000, respectively.

#### Guarantees

In the normal course of business, we indemnify certain employees and other parties, such as collaboration partners and other parties that perform certain work on behalf of, or for the Company or take licenses to our technologies. hawse have agreed to hold these parties harmless against losses arising from our breach of representations or covenants, intellectual property infringement or other claims made against these parties in performance of their work with us.

These agreements typically limit the time within which the party may seek indemnification by us and the amount of the claim. It is not possible to prospectively determine the maximum potential amount of liability under these indemnification agreements since we have not had any prior indemnification claims on which to base the calculation. Further, each potential claim would be based on the unique facts and circumstances of the claim and the particular provisions of each agreement. We are not aware of any potential claims and did not record a liability as of December 31, 2011 and 2012.

## 7. 401(k) Plan

We have a 401(k) plan covering all full-time employees. Employees may make pre-tax contributions up to the maximum allowable by the Internal Revenue Code. Participants are immediately vested in their employee contributions and employer discretionary contributions, if any. No employer contributions were made for the years ended December 31, 2011 and 2012.

## 8. Subsequent Events

In June 2013, our Board of Directors and the requisite holders of the 2009 Notes and 2010 Notes and requisite preferred stockholders agreed to a series of transactions as follows:

- an exchange of the outstanding principal due on the 2009 Notes and 2010 Notes for shares of Series A-1 convertible preferred stock and cancellation of the accrued and unpaid interest thereon, pursuant to a Note Conversion Agreement;
- an exchange of the current outstanding shares of Preferred Series A E for Series A-1 convertible preferred stock pursuant to the operation of
  provisions in our certificate of incorporation which was amended and restated in connection with this series of transactions;

## **Notes to Financial Statements (Continued)**

#### 8. Subsequent Events (Continued)

- the sale of an additional \$7.6 million in Series A-1 convertible preferred stock to existing stockholders that closed in June 2013;
- the conversion of certain shares of Series A-1 convertible preferred stock into shares of Series A-2 convertible preferred stock at a conversion rate of 1 for 3, pursuant to a mandatory conversion provision in our amended and restated certificate of incorporation; and
- the sale of an additional \$2.4 million in Series A-1 convertible preferred stock to existing stockholders in an expected second closing in September 2013

The primary business purpose for this series of transactions was to raise an additional \$10 million of capital from the sale of shares of our Series A-1 convertible preferred stock (the financing). The exchange of Notes, cancellation of interest, restatement of our certificate of incorporation to effect the exchange of Preferred Series A – E for Series A-1 convertible preferred stock and the conversion of certain shares of Series A-1 convertible preferred stock for shares of Series A-2 convertible preferred stock were each negotiated aspects of, and conditions to, the financing. When considering the terms for the financing, our Board of Directors took these conditions into account and, ultimately, determined that the financing was in the best interests of the Company and our stockholders. Subsequent to approval of the financing by our Board of Directors, the requisite stockholders and holders of the Notes also approved this series of transactions.

Under the terms of the Note Conversion Agreement, the total outstanding principal due on the Notes as of June 13, 2013 was exchanged for 45,902,321 shares of Series A-1 convertible preferred stock, 5,303,597 of which were subsequently converted into 1,766,097 shares of Series A-2 convertible preferred stock. We determined that the per share fair value of the shares of Series A-1 convertible preferred stock issued was \$1.54 and the total fair value of the issued shares under the Note Conversion Agreement was \$70.7 million and we recognized a loss on the exchange of \$48.6 million for the difference in the fair value of the shares of Series A-1 convertible preferred stock and the carrying value of the Notes as of June 13, 2013.

After the exchange of the Notes, the outstanding shares of Preferred Series A – E were exchanged for 1,977,137 shares of Series A-1 convertible preferred stock, 257,409 of which were subsequently converted into 85,717 shares of Series A-2 convertible preferred stock. We determined the fair value of the shares of Series A-1 convertible preferred stock issued to be \$3.0 million and we recorded a deemed contribution to equity of \$140.6 million equal to the difference in the fair value of the shares issued and the carrying value of the existing shares of Preferred Series A – E. We record issuance costs related to our preferred stock sales as a reduction to paid-in capital at the time the preferred securities are issued and reflect the carrying value of the preferred stock at the aggregate issuance price. We record these issuances as a non-cash equity distribution at the date of redemption. The deemed contribution has been adjusted to reflects \$3.0 million of original issuance costs of the Preferred Series A – E.

We determined that the value of the Series A-2 convertible preferred stock to be \$0.58 per share. A total of 1,851,814 shares of Series A-2 convertible preferred stock with a fair value of \$1.1 million were issued in exchange for 5,561,006 shares of Series A-1 convertible preferred stock with the fair value of \$8.6 million. We recognized a deemed contribution of \$7.5 million for the difference in the fair value of the shares of Series A-2 convertible preferred stock issued in exchange for the shares of Series A-1 convertible preferred stock.

## **Notes to Financial Statements (Continued)**

## 8. Subsequent Events (Continued)

On June 26, 2013 we sold 5,586,510 shares of additional Series A-1 convertible preferred stock to existing stockholders at a purchase price of \$1.36 per share for aggregate proceeds of \$7.6 million. We expect to issue up to an additional \$2.4 million in additional shares of Series A-1 convertible preferred stock to existing stockholders at an additional closing in the third quarter of 2013. We determined that the fair value of the shares sold to be \$8.6 million and we recorded a deemed dividend of \$1.0 million for the difference in the sales price of the Series A-1 convertible preferred stock and the fair value of the shares. The \$40,000 of transaction costs related to the sale was recorded against additional paid in capital and the shares of Series A-1 convertible preferred stock issued were recorded at their fair value on our balance sheet as of June 30, 2013.

We determined that the fair value of the Series A-1 and Series A-2 convertible preferred stock as of June 26, 2013 to be \$1.54 and \$0.58, respectively. We used the probability-weighted expected return method (PWERM) to determine the fair value of the shares of the Series A-1 and Series A-2 convertible preferred stock. PWERM is a scenario-based analysis that estimates the 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.

On September 4, 2013, our Board of Directors authorized the forgiveness of the outstanding principal and interest of approximately \$166,000, under the promissory note from our Chief Executive Officer, effective and contingent upon the filing of a registration statement on Form S-1 for our initial public offering with the U.S. Securities and Exchange Commission.

We completed an evaluation of all subsequent events through September 11, 2013 to ensure that this filing includes appropriate disclosure of events both recognized in the December 31, 2012 financial statements and events which occurred but were not recognized in the financial statements.

## 9. Restatement of Financial Statements

We restated certain opening balances as of December 31, 2010 to eliminate officer notes in the amount of \$166,000 that are reflected in our adjusted paid-in capital accounts and related interest income of \$54,000 as the notes are accounted for as an in-substance common stock option grant and to record the related accumulated stock compensation expense of \$102,000 and to correct the ratable recognition of revenue related to the MorphoSys arrangement in the amount of \$79,000. These adjustments were immaterial individually and in the aggregate.

As of December 31, 2011, we recorded an adjustment to reduce revenue and increase deferred revenue by \$1.5 million to correct the initial estimate of the period of service from our agreement with Amgen and recorded an adjustment to eliminate \$166,000 in officer notes and related nominal interest income that are being accounted for as an in-substance common stock option grant in prior periods and to record an increase of \$115,000 in revenue and a decrease in deferred revenue related to our agreement with MorphoSys to correctly account for the period of service.

## **Notes to Financial Statements (Continued)**

## 9. Restatement of Financial Statements (Continued)

The effect of the adjustments described above are presented in the following table.

	December 31, 2011							
		previously reported		justments housands)	Restated			
Balance Sheet Data:								
Deferred revenue	\$	10,900	\$	1,277	\$ 12,177			
Additional paid in capital		1,077		(64)	1,013			
Accumulated deficit		(157,287)		(1,431)	(158,718)			
Statement of Operations Data:								
Revenue	\$	8,204	\$	(1,355)	\$ 6,849			
Net Loss		(9,848)		(1,355)	(11,203)			

During the second quarter of 2012, we had a change in estimate related to the timing of our recognition of revenue for our agreement with Amgen from 60 months to 72 months. We changed our estimated time to complete the services provide to Amgen based upon feedback received from our contract research organizations. This change in estimate resulted in a \$0.4 million decrease in revenue and increase in net loss and a \$5.07 increase in basic and diluted loss per share for the year ended December 31, 2012.

## 10. Stock Split Subsequent to the Balance Sheet Date

On November 1, 2013, the Company's board of directors and the requisite stockholders authorized the filing of a certificate of amendment to the Company's amended and restated certificate of incorporation for the purpose of effecting a 3.1-for-1 reverse split of the common stock. The certificate of amendment was filed on November 1, 2013 and the stock split became effective as of that date. Accordingly, all references to numbers of common shares, including the number of common shares on an as-if-converted basis, and per-share data in the accompanying financial statements have been adjusted to reflect the reverse stock split on a retroactive basis

## **Condensed Balance Sheet**

# (in thousands, except share and per share data)

Cash and cash equivalents   Section   Sectio			December 31, 2012		2012		tember 30, 2013 naudited)
Gash and cash equivalents         3,341         9,241           Accounts receivables         3,54         1,313           Prepaid expenses and other curent assets         2,839         10,75           Torquit cash gashes         3,331         3,515           Computers, software and equipment         3,374         3,515           Eurniture and fistures         3,001         3,001           Less accumulated depresention and amortization         2,003         3,003           Less accumulated depresention and amortization         8,609         3,001           Differ assets         3,600         9,015           Total assets         8,609         9,015           Total search and other intangible assets, net         8,609         9,015           Total collection assets         8,633         9,115           Total search and other intangible assets, net         8,633         9,115           Total collection assets         1,916         8,537         9,125           Total collection assets <td< th=""><th>Assets</th><th></th><th></th><th>(ui</th><th>iauuiteu)</th></td<>	Assets			(ui	iauuiteu)		
Account receivables   13.54   1.00	Current assets						
Propert and equipment   1378		\$		\$	9,621		
The content asset   19,000					4.422		
Property and equipment							
Gomptoers, software and equipment         3,374         8.18           Leas hold improvements         3,081         3,081           Leas sca commanded depreciation and amortization         6,083         3,081           Property and equipment, net         283         33           Diversal search and the property and equipment, net         8,460         9,013           Other assets         8,460         9,110           Other assets         8,537         9,111           Goal other assets         8,153         9,112           Incil assets         \$1,609         9,000           Accrounts payalie         \$1,315         8,336           Accrount payalie         \$1,315         8,360           Accrount portion of deferred revenue         \$1,266         78           Convertible promissory notes payable         25,27         8,62           Convertible promissory notes payable         25,29         8,62           Convertible promissory notes payable         25,30         8,62           Convertible promissory notes payable         25,40         8,62           Convertible promissory notes payable         25,40         8,62           Gereal revenue, labilities         25,40         8,62           Gereal revenue, labilities			2,839		10,754		
funition and fixtures         1007         8.8           Leasehold improvements         0,203         0,504           Property and equipment, net         0,203         0,504           Property and equipment, net         8,709         0,000           Determine consumers         8,709         0,000           Determine consumers         8,709         0,000           Coll collegate assets         8,509         0,000           Coll collegate assets         8,509         0,000           Coll collegate assets         8,509         0,000           Account assets         8,131         8,309           Account assets         1,135         8,305           Account assets         1,135         8,305           Account assets         1,135         8,709           Account assets         1,135         8,709           Converting profition of deferred revenue         1,135         8,709           Current portion of deptal tease obligations         2,000         9,700           Coll Labilities         2,500         9,700           Coll Labilities         3,15         8,500           Carrent portion of acpital tease obligations fees current portion         2,15         9,700           Coll			2.274		2.515		
Sease and deperied deperied and anomization							
Persor summlarted depreciation and amortization   6,279   3,33   33,							
Property and equipment, net   283   335					(6,346)		
Patents, Iteneses and other intangible assets, net   8, 60   9, 01				_			
Patents, licenses and other intangible assets, net Other assets			203		333		
Other assets         77         100           Otal assets         8,537         9,113           Iotal assets         \$1,059         9,2020           Labilities, mezzanine equity, and stockholders' deficit         31,155         \$1,350         \$20,200           Carcent liabilities         2         2,266         78         3,366<			8,460		9.013		
Statistics   Sta					100		
Statistics   Sta	Total other assets		8 537		9 113		
Sample   S		•		4	-, -		
Carcant labilities		φ	11,055	Ψ	20,200		
Accounts payable         \$1,315         \$3,336           Accounted peperse         1,286         7.88           Current portion of deferred revenue         1,248         4,470           Current portion of capital lease obligations         27         7           Convertible promissory notes payable         20,933         3           Convertible promissory notes payable         5,672         7,000           Coll Liabilities         5,672         7,000           Ceferred revenue, less current portion         5,672         7,000           Ceferred revenue, less current portion         3,563         7,000           Ceferred revenue, less current portion         3,161         15,632           Ceris B Convertible preferred stock, \$0.01 par value:         3,101         15,632           Series B Convertible preferred stock, \$0.01 par value:         3,550         5           Series B Convertible preferred stock, \$0.01 par value:         3,550         5           Series B Convertible preferred stock, \$0.01 par value:         3,550         5           Series Convertible preferred stock, \$0.01 par value:         3,550         5           Series Convertible preferred stock, \$0.01 par value:         3,550         5           Series Convertible preferred stock, \$0.01 par value:         3,550							
Accurated expenses		œ.	1 215	œ.	2.261		
Current portion of deferred revenue   1,948   4,470   4,470   7   7   7   7   7   7   7   7   7		Þ		Þ			
Convertible promissory notes payable   20,923			,				
Convertible promissory notes payable   20,923							
Solid current liabilities   25,479   8,627   2,000							
Deferred revenue, less current portion	* v * v	_			0.627		
Capital lease obligations, less current portion 31,161 5,634 Mezzanine Equity  Series A convertible preferred stock, \$0.01 par value:  857,797 authorized shares; 857,792 issued and outstanding shares (liquidation preference of \$3,551) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series B convertible preferred stock, \$0.01 par value:  1,328,946 authorized shares; 1,328,941 issued and outstanding shares (liquidation preference of \$12,399) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series C convertible preferred stock, \$0.01 par value:  2,416,284 authorized shares; 2,416,284 issued and outstanding shares (liquidation preference of \$50,017) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series D convertible preferred stock, \$0.01 par value:  7,966,667 authorized shares; 2,946,848 issued and outstanding shares (liquidation preference of \$20,000) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series E convertible preferred stock, \$0.01 par value:  25,253,000 authorized shares; 25,245,566 issued and outstanding shares (liquidation preference of \$8,047) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series A-1 convertible preferred stock; \$0.01 par value:  25,253,000 authorized shares; 25,245,566 issued and outstanding at September 30, 2013  Series A-2 convertible preferred stock; \$0.01 par value:  25,255,479 authorized shares; 49,671,392 issued and outstanding at Petember 31, 2012; no shares authorized or issued and outstanding at Petember 30, 2013  Series A-1 convertible preferred stock; so shares authorized or issued and outstanding at December 31, 2012; 13,963,785  authorized shares; 1,851,814 issued and outstanding at September 30, 2013  Total mezzanine equity  77,756,553 authorized shares and 72,302 shares issued and outstanding shares at December 31, 2012; 13,963,785  authorized shares							
Total liabilities  **Mezzanine Equity**  **Mezzanine Equity**  **Series A convertible preferred stock, \$0.01 par value:  **857,797 authorized shares; 1857,792 issued and outstanding shares (liquidation preference of \$3,551) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  **Series B convertible preferred stock, \$0.01 par value:  1,328,946 authorized shares; 1,328,941 issued and outstanding shares (liquidation preference of \$12,399) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series C convertible preferred stock, \$0.01 par value:  2,416,284 authorized shares; 2,416,281 issued and outstanding shares (liquidation preference of \$50,017) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series D convertible preferred stock, \$0.01 par value:  7,966,667 authorized shares; 7,936,483 issued and outstanding shares (liquidation preference of \$20,000) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series E convertible preferred stock, \$0.01 par value:  2,25,253,000 authorized shares; 5,255,566 issued and outstanding shares (liquidation preference of \$88,047) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series A-1 convertible preferred stock; \$0.01 par value; no shares authorized or issued and outstanding at September 30, 2013  Series A-2 convertible preferred stock; \$0.01 par value; no shares authorized or issued and outstanding at September 30, 2013  Series A-2 convertible preferred stock; \$0.01 par value; no shares authorized or issued and outstanding at September 30, 2013  Series A-2 convertible preferred stock; \$0.01 par value; no shares authorized or issued and outstanding at December 31, 2012; 13,963,785  authorized shares; 1,851,814 issued and outstanding (liquidation preference \$146,867) at September 30, 2013  Total mezzanine equity  70.756,553 authorized shares and 72,302 shares issued and out							
Mezzanine Equity Series A convertible preferred stock, \$0.01 par value: 857,797 authorized shares; 857,792 issued and outstanding shares (liquidation preference of \$3,551) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013 Series B convertible preferred stock, \$0.01 par value: 1,328,946 authorized shares; 1,328,941 issued and outstanding shares (liquidation preference of \$12,399) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013 Series C convertible preferred stock, \$0.01 par value: 2,416,284 authorized shares; 2,416,281 issued and outstanding shares (liquidation preference of \$50,017) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013 Series D convertible preferred stock, \$0.01 par value: 7,966,667 authorized shares; 7,936,483 issued and outstanding shares (liquidation preference of \$20,000) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013 Series E convertible preferred stock, \$0.01 par value: 25,253,000 authorized shares; 25,245,566 issued and outstanding shares (liquidation preference of \$88,047) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013 Series A convertible preferred stock; \$0.01 par value; no shares authorized or issued and outstanding at December 31, 2012; no shares authorized shares; 1,851,814 issued and outstanding (liquidation preference of \$88,047) at December 31, 2012; no shares authorized shares authorized or issued and outstanding at December 31, 2012; no shares authorized shares authorized or issued and outstanding at December 31, 2012; no shares authorized shares; 1,851,814 issued and outstanding (liquidation preference \$146,867) at September 30, 2013 Series A convertible preferred stock; no shares authorized or issued and outstanding at December 31, 2012; no shares authorized shares; 1,851,814 issued and outstanding liquidation preference \$140,867) at September 30, 2013 Total mezzanine e	1 0 , 1	_					
Series A convertible preferred stock, \$0.01 par value: 857,797 authorized shares; 857,792 issued and outstanding shares (liquidation preference of \$3,551) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series B convertible preferred stock, \$0.01 par value: 1,328,946 authorized shares; 1,328,941 issued and outstanding shares (liquidation preference of \$12,399) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series C convertible preferred stock, \$0.01 par value: 2,416,284 authorized shares; 2,416,281 issued and outstanding at September 30, 2013  Series D convertible preferred stock, \$0.01 par value: 7,966,667 authorized shares; 7,936,483 issued and outstanding shares (liquidation preference of \$20,000) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series E convertible preferred stock, \$0.01 par value: 25,253,000 authorized shares; 25,245,566 issued and outstanding shares (liquidation preference of \$88,047) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series A-1 convertible preferred stock, \$0.01 par value: 25,253,000 authorized shares; 25,245,566 issued and outstanding shares (liquidation preference of \$88,047) at December 31, 2012; no shares suthorized or issued and outstanding at September 30, 2013  Series A-2 convertible preferred stock; \$0.01 par value; no shares authorized or issued and outstanding at December 31, 2012; 55,255,479 authorized shares; 49,671,329 issued and outstanding (liquidation preference \$1,2012; 13,963,785 authorized shares; 1,851,814 issued and outstanding outstanding at December 31, 2012; 13,963,785 authorized shares; 1,851,814 issued and outstanding outstanding at December 31, 2012; 13,963,785 authorized shares; 1,851,814 issued and outstanding at September 30, 2013  10,755,555,555,555,555,555,555,555,555,55			31,161		15,634		
857,792 authorized shares; 857,792 issued and outstanding shares (liquidation preference of \$3,551) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series B convertible preferred stock, \$0.01 par value:  1,328,946 authorized shares; 1,328,941 issued and outstanding shares (liquidation preference of \$12,399) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series C convertible preferred stock, \$0.01 par value:  2,416,284 authorized shares; 2,416,281 issued and outstanding shares (liquidation preference of \$50,017) at December 31, 2012; no shares authorized or issued and outstanding shares (liquidation preference of \$50,017) at December 31, 2012; no shares authorized shares; 7,936,483 issued and outstanding shares (liquidation preference of \$20,000) at December 31, 2012; no shares authorized or issued and outstanding shares (liquidation preference of \$20,000) at December 31, 2012; no shares authorized or issued and outstanding shares (liquidation preference of \$80,000) at December 31, 2012; no shares authorized or issued and outstanding shares (liquidation preference of \$80,000) at December 31, 2012; no shares authorized or issued and outstanding shares (liquidation preference of \$80,000) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series A-1 convertible preferred stock; \$0.01 par value; no shares authorized or issued and outstanding at December 31, 2012; 55,255,479 authorized shares; 49,671,392 issued and outstanding (liquidation preference \$14,687) at September 30, 2013  Series A-2 convertible preferred stock; no shares authorized or issued and outstanding at December 31, 2012; 13,963,785 authorized shares; 1,851,814 issued and outstanding outstanding at December 31, 2012; 13,963,785 authorized shares; 1,851,814 issued and outstanding outstanding at September 30, 2013  Total mezzanine equity  Total mezzanine equity  Total mezzanine authorized shares and 72,302 issued and outstan							
Series B convertible preferred stock, \$0.01 par value:  1,328,946 authorized shares; 1,328,941 issued and outstanding shares (liquidation preference of \$12,399) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series C convertible preferred stock, \$0.01 par value:  2,416,284 authorized shares; 2,416,281 issued and outstanding shares (liquidation preference of \$50,017) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series D convertible preferred stock, \$0.01 par value:  7,966,667 authorized shares; 7,936,483 issued and outstanding shares (liquidation preference of \$20,000) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series E convertible preferred stock, \$0.01 par value:  25,253,000 authorized shares; 25,245,566 issued and outstanding shares (liquidation preference of \$80,047) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series A-1 convertible preferred stock, \$0.01 par value; no shares authorized or issued and outstanding at December 31, 2012; 55,255,479 authorized shares; 49,671,392 issued and outstanding (liquidation preference \$146,867) at September 30, 2013  Series A-2 convertible preferred stock; no shares authorized or issued and outstanding at December 31, 2012; 13,963,785 authorized shares; 1,851,814 issued and outstanding (liquidation preference \$5,475) at September 30, 2013  Total mezzanine equity  10,405  11,075  12,075  13,075  14,043  148,838  Accumulated deficit  14,043  148,838  Accumulated deficit  15,045  16,046  17,050	857,797 authorized shares; 857,792 issued and outstanding shares (liquidation preference of \$3,551) at December 31, 2012; no		3 550				
1,328,946 authorized shares; 1,328,941 issued and outstanding shares (liquidation preference of \$12,399) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series C convertible preferred stock, \$0.01 par value:  2,416,284 authorized shares; 2,416,281 issued and outstanding shares (liquidation preference of \$50,017) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series D convertible preferred stock, \$0.01 par value:  7,966,667 authorized shares; 7,936,483 issued and outstanding shares (liquidation preference of \$20,000) at December 31, 2012; no shares authorized or issued and outstanding shares (liquidation preference of \$88,047) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series A-1 convertible preferred stock, \$0.01 par value; no shares authorized or issued and outstanding at September 30, 2013  Series A-2 convertible preferred stock: \$0.01 par value; no shares authorized or issued and outstanding at December 31, 2012; 55,255,479 authorized shares; 49,671,392 issued and outstanding (liquidation preference \$146,867) at September 30, 2013  Series A-2 convertible preferred stock; no shares authorized or issued and outstanding at December 31, 2012; 13,963,785 authorized shares; 1,851,814 issued and outstanding (liquidation preference \$5,475) at September 30, 2013  Series A-2 convertible preferred stock; no shares authorized or issued and outstanding at December 31, 2012; 13,963,785 authorized shares; 1,851,814 issued and outstanding (liquidation preference \$5,475) at September 30, 2013  Series A-2 convertible preferred stock; no shares authorized or issued and outstanding at December 31, 2012; 13,963,785 authorized shares; 1,851,814 issued and outstanding (liquidation preference \$5,475) at September 30, 2013  Total mezzanine equity  Common stock; \$0.01 par value: 57,225,000 authorized shares and 72,302 issued and outstanding shares at December 31, 2012; 77,756,553 authorized shares;			3,330				
no shares authorized or issued and outstanding at September 30, 2013  Series C convertible preferred stock, \$0.01 par value:  2,416,284 authorized shares; 2,416,281 issued and outstanding shares (liquidation preference of \$50,017) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series D convertible preferred stock, \$0.01 par value:  7,966,667 authorized shares; 7,936,483 issued and outstanding shares (liquidation preference of \$20,000) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series E convertible preferred stock, \$0.01 par value:  25,253,000 authorized shares; 25,245,566 issued and outstanding shares (liquidation preference of \$88,047) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series A-1 convertible preferred stock; 50.01 par value; no shares authorized or issued and outstanding (liquidation preference \$146,867) at September 30, 2013  Series A-2 convertible preferred stock; no shares authorized or issued and outstanding at December 31, 2012; 13,963,785 authorized shares; 1,851,814 issued and outstanding (liquidation preference \$146,867) at September 30, 2013  Total mezzanine equity  10tal mezzanine equity  11tal distributional paid-in capital  Accumulated deficit  11 Additional paid-in capital  Accumulated deficit  11 Additional paid-in capital  Accumulated deficit  11 Additional paid-in capital							
Series C convertible preferred stock, \$0.01 par value: 2,416,284 authorized shares; 2,416,281 issued and outstanding shares (liquidation preference of \$50,017) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series D convertible preferred stock, \$0.01 par value: 7,966,667 authorized shares; 7,936,483 issued and outstanding shares (liquidation preference of \$20,000) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series E convertible preferred stock, \$0.01 par value: 25,253,000 authorized shares; 25,245,566 issued and outstanding shares (liquidation preference of \$88,047) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series A-1 convertible preferred stock so.0.01 par value; no shares authorized or issued and outstanding at December 31, 2012; 55,255,479 authorized shares; 49,671,392 issued and outstanding (liquidation preference \$146,867) at September 30, 2013  Series A-2 convertible preferred stock; no shares authorized or issued and outstanding at December 31, 2012; 13,963,785 authorized shares; 1,851,814 issued and outstanding (liquidation preference \$5,475) at September 30, 2013  Total mezzanine equity  10,075  Total mezzanine equity  11,075  Total mezzanine equity  12,077,756,553 authorized shares and 72,302 issued and outstanding shares at December 31, 2012; 13,963,785  Total mezzanine equity  14,77,756,553 authorized shares and 72,302 shares issued and outstanding shares at December 31, 2012; 13,063,785  Total mezzanine equity  14,77,756,553 authorized shares and 72,302 shares issued and outstanding shares at December 31, 2012; 13,063,785  Total mezzanine equity  15,075  Total mezzanine equity  16,075  Total mezzanine equity  17,756,553 authorized shares and 72,302 shares issued and outstanding shares at December 31, 2012; 13,063,785  Total mezzanine equity  16,076  Total mezzanine equity  17,756,553 authorized shares and 72,302 shares issued and outstanding shares at Decemb			12.375		_		
no shares authorized or issued and outstanding at September 30, 2013  Series D convertible preferred stock, \$0.01 par value: 7,966,667 authorized shares; 7,936,483 issued and outstanding shares (liquidation preference of \$20,000) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series E convertible preferred stock, \$0.01 par value: 25,253,000 authorized shares; 25,245,566 issued and outstanding shares (liquidation preference of \$88,047) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series A-1 convertible preferred stock; 50.01 par value; no shares authorized or issued and outstanding at December 31, 2012; 55,255,479 authorized shares; 49,671,392 issued and outstanding (liquidation preference \$146,867) at September 30, 2013  Series A-2 convertible preferred stock; no shares authorized or issued and outstanding at December 31, 2012; 13,963,785 authorized shares; 1,851,814 issued and outstanding (liquidation preference \$5,475) at September 30, 2013  Total mezzanine equity  Stockholders' deficit  Common stock; \$0.01 par value: 57,225,000 authorized shares and 72,302 issued and outstanding shares at December 31, 2012; 77,756,553 authorized shares and 72,302 shares issued and outstanding shares at December 31, 2012; 77,756,553 authorized shares and 72,302 shares issued and outstanding shares at December 31, 2012; 77,756,553 authorized shares and 72,302 shares issued and outstanding shares at December 31, 2012; 77,756,553 authorized shares and 72,302 shares issued and outstanding at September 30, 2013  Additional paid-in capital  Accumulated deficit  (167,312)  (223,866,675,025,000)			,				
Series D convertible preferred stock, \$0.01 par value: 7,966,667 authorized shares; 7,936,483 issued and outstanding shares (liquidation preference of \$20,000) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series E convertible preferred stock, \$0.01 par value: 25,253,000 authorized shares; 25,245,566 issued and outstanding shares (liquidation preference of \$88,047) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series A-1 convertible preferred stock; \$0.01 par value; no shares authorized or issued and outstanding at December 31, 2012; 13,963,785  Series A-2 convertible preferred stock; no shares authorized or issued and outstanding at December 31, 2012; 13,963,785  authorized shares; 1,851,814 issued and outstanding (liquidation preference \$146,867) at September 30, 2013  Total mezzanine equity Stockholders' deficit  Common stock; \$0.01 par value: 57,225,000 authorized shares and 72,302 issued and outstanding shares at December 31, 2012; 77,756,553 authorized shares and 72,302 shares issued and outstanding shares at December 31, 2012; Additional paid-in capital  Accumulated deficit  Cotal stockholders' deficit  Cotal stockholders' deficit	2,416,284 authorized shares; 2,416,281 issued and outstanding shares (liquidation preference of \$50,017) at December 31, 2012;						
7,966,667 authorized shares; 7,936,483 issued and outstanding shares (liquidation preference of \$20,000) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series E convertible preferred stock; \$0.01 par value:  25,253,000 authorized shares; 25,245,566 issued and outstanding shares (liquidation preference of \$88,047) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series A-1 convertible preferred stock: \$0.01 par value; no shares authorized or issued and outstanding at December 31, 2012; 55,255,479 authorized shares; 49,671,392 issued and outstanding (liquidation preference \$146,867) at September 30, 2013  Series A-2 convertible preferred stock; no shares authorized or issued and outstanding at December 31, 2012; 13,963,785 authorized shares; 1,851,814 issued and outstanding (liquidation preference \$5,475) at September 30, 2013  Total mezzanine equity  146,766  79,601  Stockholders' deficit  Common stock; \$0.01 par value: 57,225,000 authorized shares and 72,302 issued and outstanding shares at December 31, 2012; 77,756,553 authorized shares and 72,302 shares issued and outstanding at September 30, 2013  Accumulated deficit  (167,312)  (223,866)  Total stockholders' deficit	no shares authorized or issued and outstanding at September 30, 2013		50,000		_		
no shares authorized or issued and outstanding at September 30, 2013  Series E convertible preferred stock, \$0.01 par value: 25,253,000 authorized shares; 25,245,566 issued and outstanding shares (liquidation preference of \$88,047) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series A-1 convertible preferred stock; \$0.01 par value; no shares authorized or issued and outstanding at December 31, 2012; 55,255,479 authorized shares; 49,671,392 issued and outstanding (liquidation preference \$146,867) at September 30, 2013  Series A-2 convertible preferred stock; so shares authorized or issued and outstanding at December 31, 2012; 13,963,785 authorized shares; 1,851,814 issued and outstanding (liquidation preference \$5,475) at September 30, 2013  Total mezzanine equity  Stockholders' deficit  Common stock; \$0.01 par value: 57,225,000 authorized shares and 72,302 issued and outstanding shares at December 31, 2012; 77,756,553 authorized shares and 72,302 shares issued and outstanding shares at December 31, 2012; 13,963,785  Additional paid-in capital  Accumulated deficit  Coloration of the							
Series E convertible preferred stock, \$0.01 par value: 25,253,000 authorized shares; 25,245,566 issued and outstanding shares (liquidation preference of \$88,047) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series A-1 convertible preferred stock: 50.01 par value; no shares authorized or issued and outstanding at December 31, 2012; 55,255,479 authorized shares; 49,671,392 issued and outstanding (liquidation preference \$146,867) at September 30, 2013  Series A-2 convertible preferred stock; no shares authorized or issued and outstanding at December 31, 2012; 13,963,785 authorized shares; 1,851,814 issued and outstanding (liquidation preference \$5,475) at September 30, 2013  Total mezzanine equity  Stockholders' deficit  Common stock; \$0.01 par value: 57,225,000 authorized shares and 72,302 issued and outstanding shares at December 31, 2012; 77,756,553 authorized shares and 72,302 shares issued and outstanding at September 30, 2013  Additional paid-in capital  Accumulated deficit  (167,312)  (223,866)  (75,025)							
25,253,000 authorized shares; 25,245,566 issued and outstanding shares (liquidation preference of \$88,047) at December 31, 2012; no shares authorized or issued and outstanding at September 30, 2013  Series A-1 convertible preferred stock: \$0.01 par value; no shares authorized or issued and outstanding at December 31, 2012; 55,255,479 authorized shares; 49,671,392 issued and outstanding (liquidation preference \$146,867) at September 30, 2013  Series A-2 convertible preferred stock; no shares authorized or issued and outstanding at December 31, 2012; 13,963,785 authorized shares; 1,851,814 issued and outstanding (liquidation preference \$5,475) at September 30, 2013  Total mezzanine equity  Stockholders' deficit  Common stock; \$0.01 par value: 57,225,000 authorized shares and 72,302 issued and outstanding shares at December 31, 2012; 77,756,553 authorized shares and 72,302 shares issued and outstanding at September 30, 2013  Additional paid-in capital  Accumulated deficit  Cotal stockholders' deficit  (167,312)  (223,866)  (75,025)			20,000		_		
2012; no shares authorized or issued and outstanding at September 30, 2013  Series A-1 convertible preferred stock: \$0.01 par value; no shares authorized or issued and outstanding at December 31, 2012; 55,255,479 authorized shares; 49,671,392 issued and outstanding (liquidation preference \$146,867) at September 30, 2013  Series A-2 convertible preferred stock; no shares authorized or issued and outstanding at December 31, 2012; 13,963,785 authorized shares; 1,851,814 issued and outstanding (liquidation preference \$5,475) at September 30, 2013  Total mezzanine equity  Stockholders' deficit  Common stock; \$0.01 par value: 57,225,000 authorized shares and 72,302 issued and outstanding shares at December 31, 2012; 77,756,553 authorized shares and 72,302 shares issued and outstanding shares at December 31, 2012; 13,963,765,777,756,553 authorized shares and 72,302 issued and outstanding shares at December 31, 2012; 13,963,765,777,756,553 authorized shares and 72,302 shares issued and outstanding shares at December 31, 2012; 13,963,765,777,756,553 authorized shares and 72,302 issued and outstanding shares at December 31, 2012; 13,963,765,777,756,553 authorized shares and 72,302 shares issued and outstanding shares at December 31, 2012; 13,963,765,777,756,553 authorized shares and 72,302 issued and outstanding shares at December 31, 2012; 13,963,765,777,756,553 authorized shares and 72,302 issued and outstanding shares at December 31, 2012; 13,963,776,7756,7756,7756,7756,7756,7756,775							
Series A-1 convertible preferred stock: \$0.01 par value; no shares authorized or issued and outstanding at December 31, 2012; 55,255,479 authorized shares; 49,671,392 issued and outstanding (liquidation preference \$146,867) at September 30, 2013 — 78,526 authorized shares; 1,851,814 issued and outstanding (liquidation preference \$5,475) at September 30, 2013 — 1,075 authorized shares; 1,851,814 issued and outstanding (liquidation preference \$5,475) at September 30, 2013 — 146,766 — 79,601 authorized shares; 1,851,814 issued and outstanding (liquidation preference \$5,475) at September 30, 2013 — 146,766 — 79,601 authorized shares and 72,302 issued and outstanding shares at December 31, 2012; 77,756,553 authorized shares and 72,302 shares issued and outstanding shares at December 31, 2012; 77,756,553 authorized shares and 72,302 shares issued and outstanding at September 30, 2013 — 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			00.044				
55,255,479 authorized shares; 49,671,392 issued and outstanding (liquidation preference \$146,867) at September 30, 2013  Series A-2 convertible preferred stock; no shares authorized or issued and outstanding at December 31, 2012; 13,963,785 authorized shares; 1,851,814 issued and outstanding (liquidation preference \$5,475) at September 30, 2013  Total mezzanine equity Stockholders' deficit Common stock; \$0.01 par value: 57,225,000 authorized shares and 72,302 issued and outstanding shares at December 31, 2012; 77,756,553 authorized shares and 72,302 shares issued and outstanding at September 30, 2013  Accumulated deficit  Total mezzanine equity  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			60,841		_		
authorized shares; 1,851,814 issued and outstanding (liquidation preference \$5,475) at September 30, 2013       —       1,075         Total mezzanine equity       146,766       79,601         Stockholders' deficit       —       1         Common stock; \$0.01 par value: 57,225,000 authorized shares and 72,302 issued and outstanding shares at December 31, 2012;       1       1         77,756,553 authorized shares and 72,302 shares issued and outstanding at September 30, 2013       1       1       1         Additional paid-in capital       1,043       148,838         Accumulated deficit       (167,312)       (223,868         Total stockholders' deficit       (166,268)       (75,025			_		78,526		
Total mezzanine equity         146,766         79,601           Stockholders' deficit         7,765,657         1         1           Common stock; \$0.01 par value: 57,225,000 authorized shares and 72,302 issued and outstanding shares at December 31, 2012;         1         1           Additional paid-in capital         1,043         148,838           Accumulated deficit         (167,312)         (223,868           Total stockholders' deficit         (166,268)         (75,025	Series A-2 convertible preferred stock; no shares authorized or issued and outstanding at December 31, 2012; 13,963,785						
Stockholders' deficit Common stock; \$0.01 par value: 57,225,000 authorized shares and 72,302 issued and outstanding shares at December 31, 2012; 77,756,553 authorized shares and 72,302 shares issued and outstanding at September 30, 2013 Additional paid-in capital Accumulated deficit (167,312) (223,868) Total stockholders' deficit	authorized shares; 1,851,814 issued and outstanding (liquidation preference \$5,475) at September 30, 2013		_		1,075		
Stockholders' deficit  Common stock; \$0.01 par value: 57,225,000 authorized shares and 72,302 issued and outstanding shares at December 31, 2012;  77,756,553 authorized shares and 72,302 shares issued and outstanding at September 30, 2013  Additional paid-in capital  Accumulated deficit  (167,312)  (223,868)  Total stockholders' deficit	Total mezzanine equity		146,766		79,601		
77,756,553 authorized shares and 72,302 shares issued and outstanding at September 30, 2013       1       1         Additional paid-in capital       1,043       148,838         Accumulated deficit       (167,312)       (223,868         Total stockholders' deficit       (166,268)       (75,025	Stockholders' deficit						
Additional paid-in capital       1,043       148,838         Accumulated deficit       (167,312)       (223,868         Fotal stockholders' deficit       (166,268)       (75,025	Common stock; \$0.01 par value: 57,225,000 authorized shares and 72,302 issued and outstanding shares at December 31, 2012;						
Accumulated deficit         (167,312)         (223,868           Fotal stockholders' deficit         (166,268)         (75,025					1		
Total stockholders' deficit (166,268) (75,029			,		148,838		
	Accumulated deficit		(167,312)		(223,868)		
Total liabilities, mezzanine equity and stockholders' deficit	Total stockholders' deficit		(166, 268)		(75,029)		
	Total liabilities, mezzanine equity and stockholders' deficit	\$	11,659	\$	20,206		

## **Condensed Statements of Operations**

# (unaudited)

# (in thousands, except share and per share data)

				s Ended er 30,
		2012		2013
Revenues:				
Collaborations, licenses and milestones	\$	7,099	\$	8,428
Total revenues		7,099		8,428
Operating expenses:				
Research and development		8,725		12,857
General and administrative		2,081		2,381
Total operating expenses		10,806		15,238
Loss from operations	_	(3,707)		(6,810)
Other income (expenses)				
Interest income		11		7
Interest expense		(1,811)		(1,212)
Other income (expense)		24		15
Loss on settlement of notes		_		(48,556)
Total other income (expense), net		(1,776)		(49,746)
Net loss	\$	(5,483)	\$	(56,556)
Net deemed contribution on exchange and sale of preferred stock		_		144,765
Net income (loss) attributable to common stockholders	\$	(5,483)	\$	88,209
Net income (loss) per share attributable to common stockholders:	=		_	
Basic:	\$	(75.83)	\$	1,220.01
Diluted:	\$	(75.83)	\$	(4.10)
Weighted average shares of common stock used in computing net income (loss) per share attributable to common stockholders				
Basic		72,302		72,302
Diluted		72,302		13,794,138

# Statements of Mezzanine Equity and Stockholders' Deficit

# (unaudited)

# (in thousands, except share data)

	Serie		Serie		Series		Series		Series		Series		Series A	
	Conve		Conver		Conver		Conver		Convert		Conver		Converti	
<del>.</del>	Preferre		Preferred		Preferred	11	Preferred		Preferred		Preferred		Preferred S	
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares A	mount
Balance, December 31, 2012	857,792 5	\$ 3,550	1,328,941	\$ 12,375	2,416,281	\$ 50,000	7,936,483	\$ 20,000	25,245,566	\$ 60,841	_	\$ —	—\$	_
Series A-1 shares issued in exchange of convertible notes	_	_	_	_	_	_	_	_	_	_	45,902,321	70,689	_	_
Exchange of Series A – E Preferred for Series A-1	(057, 702)	(2.550)	(1.220.0.41)	(12.275)	(2.416.201)	(50,000)	(7,026,402)	(20,000)	(25.245.500)			ŕ		
preferred Exchange of Series A-1 preferred for Series A-2	(857,792)	(3,550)	(1,328,941)	(12,3/5)	(2,416,281)	(50,000)	(7,936,483)	(20,000)	(25,245,566)	(60,841)	1,9//,13/	3,045	_	_
preferred	_	_	_	_	_	_	_	_	_	_	(5,561,006)	(8,563)	1,851,814 \$	1,075
Sale of Series A-1 preferred	_	_	_	_	_	_	_	_	_	_	7,352,940	13,355	_	_
Net loss														_
Stock-based compensation			_		<u> </u>				<u> </u>				<u> </u>	_
Balance, September 30, 2013		<u> </u>		<u> </u>		<u> </u>		<u> </u>		<u>s                                    </u>	49,671,392	\$ 78,526	1,851,814 \$	1,075

Stockholders' Deficit	Commo	on Stoo		 lditional Paid -Capital	 cumulated Deficit	 Total ckholders' Deficit
Balance, December 31, 2012	72,302	\$	1	\$ 1,043	\$ (167,312)	\$ (166,268)
Deemed contribution on exchange of Series A – E Preferred Stock for Series A-1	_		_	143,681		143,681
Deemed contribution on exchange of Series A-1 preferred for Series A-2 preferred	_		_	7,489	_	7,489
Deemed dividend on sale of Series A-1 preferred	_		_	(3,429)	_	(3,429)
Net loss	_		_		(56,556)	(56,556)
Stock-based compensation	_		_	54	_	54
Balance, September 30, 2013	72,302	\$	1	\$ 148,838	\$ (223,868)	\$ (75,029)

## Xencor

## **Condensed Statements of Cash Flows**

# (unaudited)

# (in thousands)

	Nine Montl Septemb	
	2012	2013
Cash flows from operating activities:	d (= 100)	* (=0 ==0)
Net loss	\$ (5,483)	\$ (56,556)
Adjustments to reconcile net loss to net cash used in operating activities:		400
Depreciation and amortization	416	433
Stock-based compensation	22	54
Gain on disposal of assets	(23)	(16)
Abandonment of capitalized intangible assets	235	241
Loss on exchange of notes for preferred stock		48,556
Accrued interest on notes converted to preferred stock	1,810	1,211
Changes in operating assets and liabilities:		0= 4
Accounts receivable	29	354
Deferred revenue	(3,763)	3,850
Prepaid expenses and other current assets	(8)	(960)
Accounts payable	(298)	2,046
Other assets	16	(21)
Accrued expenses	(96)	(497)
Net cash used in operating activities	(7,143)	(1,305)
Cash flows from investing activities:		
Purchase of intangible assets	(886)	(1,147)
Purchase of property and equipment	(37)	(136)
Proceeds from sale of assets	33	16
Net cash used in investing activities	(890)	(1,267)
Cash flows from financing activities:		
Preferred stock issuance costs	<del>_</del>	(116)
Payments on capital lease obligations	(12)	(3)
Proceeds from sale of Series A-1 preferred stock	_	10,000
Net cash (used in) provided by financing activities	(12)	9,881
Net increase (decrease) in cash and cash equivalents	(8,045)	7,309
Cash and cash equivalents at beginning of period	14,537	2,312
Cash and cash equivalents at end of period	\$ 6,492	\$ 9,621
Supplemental schedule of noncash investing activities:		
Equipment acquired under capital lease	\$ 22	_
•	<del></del> -	

## **Notes to Financial Statements**

#### 1. Basis of Presentation

The accompanying balance sheet as of September 30, 2013, and the statements of operations and cash flows for the nine months ended September 30, 2013 and 2012 and statements of mezzanine equity and stockholders' deficit are unaudited. The unaudited interim financial statements have been prepared on the same basis as the annual financial statements and, in the opinion of management, reflect all adjustments which include only normal reoccurring adjustments, necessary to present fairly our financial position as of September 30, 2013, and the statements of operations and cash flows for the nine months ended September 30, 2013 and 2012 and statements of mezzanine equity and stockholders' deficit for the nine months ended September 30, 2013. The financial data and other information disclosed in these notes to the financial statements related to the nine-month periods are unaudited. The results for the nine months ended September 30, 2013 are not necessarily indicative of the results to be expected for the year ended December 31, 2013 or for any other interim period or for any other future year. These financial statements should be read in conjunction with our audited financial statements included elsewhere in this prospectus.

## 2. Capital Structure

## **Authorized Capital Stock**

We are authorized to issue 77,765,553 shares of common stock and 69,219,264 shares of convertible preferred stock, of which 55,255,479 are shares of Series A-1 convertible preferred stock (Series A-1) and 13,963,785 are shares of Series A-2 convertible preferred stock (Series A-2).

## Rights of Convertible Preferred Stock

Anti-Dilution

In the event we sell or issue additional shares of preferred or common stock at a price less than the original conversion price of the convertible preferred stock of \$1.36 per share, the conversion price shall be reduced pursuant to a weighted-average anti-dilution adjustment set forth in our amended and restated certificate of incorporation.

#### Conversion

Each 3.1 shares of convertible preferred stock is convertible, at the stockholder's option, into one share of common stock. Additionally, each share of convertible preferred stock will be automatically converted into common stock, at the then-effective conversion rate, upon (i) written consent of 70% of the holders of the then outstanding shares of all convertible preferred stock voting together, (ii) in the event of a public offering of our equity securities resulting in gross proceeds to us of \$25.0 million or more and (iii) upon the effective date of any registration statement filed with the SEC under the Securities Act or Exchange Act.

## Liquidation

In the event of any liquidation, dissolution or winding up of the Company, either voluntary or involuntary, including any merger, consolidation or similar transaction:

• the holders of Series A-1 are entitled to receive preference to Series A-2 and common stockholders to any distribution of any assets of the Company in an amount per share equal to the sum of (a) \$150,000,000, which amount shall increase by 6% per year from the date of the

# Notes to Financial Statements (Continued)

## 2. Capital Structure (Continued)

filing of our amended and restated certificate of incorporation, compounded annually, divided by the aggregate number of shares of preferred stock outstanding following the final closing of the Series A-1 financing, plus (b) accrued and unpaid dividends (such per share amount referred to as the Series Preferred Liquidation Preference);

- the holders of Series A-2 are entitled to receive preference to common stockholders to any distribution of any assets of the Company in an amount per share equal to the Series Preferred Liquidation Preference; and
- the liquidation preference for the Series A-1 and A-2 Preferred Stock at September 30, 2013 was \$146.8 million and \$5.5 million, respectively.

After full payment of the Series A-1 and Series A-2 liquidation preference amounts, the remaining assets are distributed ratably to the holders of shares of common stock and convertible preferred stock on an as-converted to common stock basis.

The convertible preferred stock is classified as mezzanine equity outside stockholders' equity because each series of preferred stock is subject to a deemed liquidation clause that could potentially require redemption of the preferred shares for cash as a result of events outside the control of the Company.

We have not adjusted the carrying values of the convertible preferred stock to the liquidation preferences of such shares because it is uncertain whether or when an event would occur that would obligate us to pay the liquidation preferences to holders of shares of convertible preferred stock. Subsequent adjustments to increase the carrying values to the liquidation preferences will be made if and when it becomes probable that an event would occur that would obligate us to pay the liquidation preferences to holders of shares of convertible preferred stock.

Dividends

The holders of outstanding shares of convertible preferred stock are entitled to receive, when and if declared by our Board of Directors, a noncumulative dividend at an annual rate of 6% of the original issue price of \$1.36 per share. Such dividend is payable in preference to any dividends payable to holders of shares of common stock declared by our Board of Directors. No dividends have been declared to date.

Voting

Each share of convertible preferred stock carries one vote for each share of common stock into which such shares of convertible preferred stock may be converted.

Redemption

The convertible preferred stock has no date-specific mandatory redemption feature.

# Notes to Financial Statements (Continued)

#### 3. Series A-1 Preferred Stock Financing and Note Conversion Agreement

In 2009 and 2010, we sold a total of \$15.1 million of convertible promissory notes (the Notes) to our existing preferred stockholders. In June 2013, our Board of Directors and the requisite holders of the Notes and requisite preferred stockholders agreed to a series of transactions as follows:

- an exchange of the outstanding principal due on the Notes for shares of Series A-1 convertible preferred stock and cancellation of the accrued and unpaid interest thereon, pursuant to a Note Conversion Agreement;
- an exchange of the then-outstanding shares of preferred stock (Preferred Series A E) for Series A-1 convertible preferred stock pursuant to the operation of provisions in our certificate of incorporation which was amended and restated in connection with this series of transactions;
- the sale of an additional \$7.6 million in Series A-1 convertible preferred stock to existing stockholders that closed in June 2013;
- the conversion of certain shares of Series A-1 convertible preferred stock into shares of Series A-2 convertible preferred stock at a conversion rate of 1 for 3, pursuant to a mandatory conversion provision in our amended and restated certificate of incorporation; and
- the sale of an additional \$2.4 million in Series A-1 convertible preferred stock to existing stockholders that closed in September 2013.

The primary business purpose for this series of transactions was to raise an additional \$10 million of capital from the sale of shares of our Series A-1 convertible preferred stock (the financing). The exchange of Notes, cancellation of interest, restatement of our certificate of incorporation to effect the exchange of Preferred Series A – E for Series A-1 convertible preferred stock and the conversion of certain shares of Series A-1 convertible preferred stock for shares of Series A-2 convertible preferred stock were each negotiated aspects of, and conditions to, the financing. When considering the terms for the financing, our Board of Directors took these conditions into account and, ultimately, determined that the financing was in the best interests of the Company and our stockholders. Subsequent to approval of the financing by our Board of Directors, the requisite stockholders and holders of the Notes also approved this series of transactions.

Under the terms of the Note Conversion Agreement, the total outstanding principal due on the Notes as of June 13, 2013 was exchanged for 45,902,321 shares of Series A-1 convertible preferred stock effective as of June 13, 2013, 5,303,597 of which were subsequently converted into 1,766,097 shares of Series A-2 convertible preferred stock. Since the exchange of the Notes was not a conversion into preferred shares under the original terms of the Notes, the exchange was an extinguishment of debt for accounting purposes, and we recognized a loss for the difference in the fair value of the shares issued and the carrying value of the Notes.

We determined that the per share fair value of the shares of Series A-1 convertible preferred stock issued under the Note Conversion Agreement was \$1.54 and the total fair value of shares of Series A-1 convertible preferred stock was \$70.7 million, and we recognized a loss on the exchange of \$48.6 million for the difference in the fair value of the shares of Series A-1 convertible preferred stock and the carrying value of the Notes as of June 13, 2013. The \$48.6 million loss is reported on our Statement of Operations as a Loss on Settlement of Notes as an Other Expense for the nine months

# Notes to Financial Statements (Continued)

#### 3. Series A-1 Preferred Stock Financing and Note Conversion Agreement (Continued)

ended September 30, 2013. Associated transaction costs of \$41,000 related to the exchange were expensed.

After the exchange of the Notes, all of the outstanding shares of Preferred Series A – E were exchanged for an aggregate of 1,977,137 shares of Series A-1 convertible preferred stock, 257,409 of which were subsequently converted into 85,717 shares of Series A-2 convertible preferred stock. We determined the fair value of the shares of Series A-1 convertible preferred stock issued to be \$3.0 million and we recorded a deemed contribution to equity of \$140.6 million equal to the difference in the fair value of the shares issued and the carrying value of the existing shares of Preferred Series A – E. We record issuance costs related to our preferred stock sales as a reduction to paid-in capital at the time the securities are issued. The deemed contribution has been reduced by \$3.0 million of issuance costs.

We determined that the value of the Series A-2 convertible preferred stock to be \$0.58 per share. A total of 1,851,814 shares of Series A-2 convertible preferred stock with a fair value of \$1.1 million were issued in exchange for 5,561,006 shares of Series A-1 convertible preferred stock with the fair value of \$8.6 million. We recognized a deemed contribution of \$7.5 million for the difference in the fair value of the shares of Series A-2 convertible preferred stock issued in exchange for the shares of Series A-1 convertible preferred stock.

On June 26, 2013, we sold 5,586,510 shares of Series A-1 convertible preferred stock to existing stockholders at a purchase price of \$1.36 per share, for an aggregate purchase price of \$7.6 million. We determined that the fair value of the shares sold in June 2013 to be \$8.6 million and we recorded a deemed dividend of \$1.0 million for the difference in the sales price of the Series A-1 convertible preferred stock and the fair value of the shares. The \$40,000 of transaction costs related to the sale was recorded against Additional Paid in Capital and the shares of Series A-1 convertible preferred stock issued were recorded at their fair value on our balance sheet as of September 30, 2013.

We determined that the fair value of the Series A-1 and Series A-2 convertible preferred stock as of June 26, 2013 to be \$1.54 and \$0.58, respectively. We used the probability-weighted expected return method (PWERM) to determine the fair value of the shares of the Series A-1 and Series A-2 convertible preferred stock. PWERM is a scenario-based analysis that estimates the 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.

On September 23, 2013 we sold 1,766,430 additional shares of Series A-1 convertible preferred stock for gross proceeds of \$2.4 million at a purchase price of \$1.36 per share. We determined the fair value of the shares of Series A-1 convertible preferred stock sold to be \$4.7 million, based on a per share fair value of \$2.69, determined by estimating the enterprise value of the Company based on a projected offering price in an initial public offering, and we recorded a deemed dividend of \$2.3 million for the difference in the sales price of the Series A-1 convertible preferred stock and the fair value of the shares. Transaction costs of \$34,000 related to the sale were recorded against Additional Paid in Capital and the shares of Series A-1 convertible preferred stock were recorded at their fair value on our balance sheet as of September 30, 2013.

# Notes to Financial Statements (Continued)

## 4. Fair Value of Financial Instruments

We determine the fair value of financial and nonfinancial assets and liabilities using the fair value hierarchy, which describes three levels of inputs that may be used to measure fair value, as follows:

Level 1— Quoted prices in active markets for identical assets or liabilities:

Level 2— Observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; and,

Level 3— Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

Our Level 1 assets consist of highly liquid money market funds. The fair value of Level 1 assets has been determined using quoted prices in active markets for identical assets. There were no transfers between Level 1, Level 2 or Level 3 securities during the periods presented.

The assets we recorded at fair value at December 31, 2012 and September 30, 2013 are classified within the hierarchy as follows for the years reported (in millions):

	De	cember 31,	2012		S	eptember 30,	2013		
	Total Fa	air Value	Le	vel 1	Total	Fair Value	Le	vel 1	
Money Market Funds	\$	2.3	\$	2.3	\$	6.9	\$	6.9	

## 5. Net (Loss) Income Per Share of Common Stock

Basic net loss per common share is computed by dividing the net loss by the weighted-average number of shares of common stock outstanding during the period. Potentially dilutive securities consisting of stock options and convertible preferred stock were not included in the diluted net loss per common share calculation because the inclusion of such shares would have had an antidilutive effect.

For the nine months ended September 30, 2012, the following securities were excluded from the calculation of diluted net loss per share as the effect would have been antidilutive (in thousands):

	September 30, 2012
Convertible preferred stock	12,188
Convertible promissory notes	2,713
Options to purchase common stock	1,305
	16,206

The loss for the period ended September 30, 2013 was adjusted, for purposes of the diluted net income per share calculation, to reflect the deemed contribution from the exchange of convertible preferred stock of \$148.1 million. The loss was also adjusted to reflect the deemed dividends recorded for the sales of Series A-1 convertible preferred stock in June and September 2013. We determined that there was a deemed dividend of \$1.0 million for the difference between the fair value of the shares of Series A-1 convertible preferred stock and the price at which additional shares were sold in the initial closing of the Series A-1 preferred stock financing. We determined that there was an additional

# Notes to Financial Statements (Continued)

## 5. Net (Loss) Income Per Share of Common Stock (Continued)

deemed dividend of \$2.35 million for the difference between the fair value of the shares of series A-1 convertible preferred stock and the price at which additional shares were sold in the subsequent Series A-1 closing in September 2013.

The unaudited diluted (loss) income per share calculation assumes the conversion of outstanding shares of convertible preferred stock into common stock using the as-if converted method (following table in thousands, except share and per share data):

	Nine Months Ended September 30,				
	2012		2013		
Basic:					
Numerator:					
Net Loss	\$ (5,483)	\$	(56,556)		
Deemed contribution, net of deemed dividends	_		144,765		
Net (loss) income attributable to common stockholders for basic income per share	\$ (5,483)	\$	88,209		
Denominator:					
Weighted-average common shares outstanding	72,302		72,302		
Basic net (loss) income per common share	\$ (75.83)	\$	1,220.01		
Diluted:					
Numerator:					
Net (loss) income attributable to common stockholders for basic net loss per share	\$ (5,483)	\$	88,209		
Deemed contribution, net of deemed dividends	_		(144,765)		
Net loss attributable to common stockholders for diluted net loss per share	\$ (5,483)	\$	(56,556)		
Denominator:					
Weighted average number of common shares outstanding used in computing basic net (loss)					
income per common share	72,302		72,302		
Dilutive effect of conversion of convertible Preferred stock	_		13,721,836		
Weighted average number of common shares outstanding used in computing net loss per common					
share	72,302		13,794,138		
Diluted net loss per common share	\$ (75.83)	\$	(4.10)		

The convertible preferred stock and options were not included in the computation of diluted loss per share for 2012 as the effect of doing so would have been antidilutive.

The convertible promissory notes were not included because the contingency was not met and, even had the contingency been satisfied under the if-converted method, inclusion would have been antidilutive.

# Notes to Financial Statements (Continued)

## 6. Equity Incentive Plans

The following summarizes option activity under our stock plans:

	Number of Options Available for Grant	Options Outstanding	Weighted-Average Exercise price	
Balances at December 31, 2012	753,692	1,304,848	\$ 0.59	
Increase in shares available	625,916	_	_	
2013 forfeitures	3,225	(3,225)	0.59	
2013 option grants	(502,062)	502,062	4.25	
Balances at September 30, 2013	880,771	1,803,685	\$ 1.61	

## Stock Based Compensation

Employee stock-based compensation expense recognized was calculated based on awards ultimately expected to vest and has been reduced for estimated forfeitures. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Total stock-based compensation expense recognized was as follows (in thousands):

		Nine Months Ended September 30,		
	- 2	2012	- 2	2013
Research and development	\$	8.0	\$	28.1
General and administrative		14.2		26.3
Total	\$	22.2	\$	54.4

Information with respect to stock options outstanding is as follows:

	Se	ptember 30, 2013	
Exercisable options		1,189,206	
Weighted average price per share of exercisable options	\$	0.59	
Weighted average grant date fair value per share of options granted during the nine months ended			
September 30, 2013	\$	4.77	
Options available for future grants		880,771	
Weighted average remaining contractual life		7.86	
	_		

We estimated the fair value of employee and non-employee awards using the Black-Scholes valuation model. The fair value of employee stock options is being amortized on a straight-line basis over the requisite service period of the awards.

For the options granted in the nine-month period ended September 30, 2013 we used an estimated fair value per share of \$4.25, originally determined by our Board of Directors as of the grant date. We used the PWERM to determine fair value with the following key assumptions: junior nature of the common stock to outstanding convertible preferred stock and convertible promissory notes, conversion dilution, minority status and the illiquid nature of our common stock.

# Notes to Financial Statements (Continued)

#### 6. Equity Incentive Plans (Continued)

The fair value of employee and non-employee stock options was estimated using the following weighted average assumptions for the nine months ended September 30, 2013.

Common Stock fair value per share	\$ 4.25
Volatility	56.8%
Risk-free interest rate	1.96%
Dividend yield	%
Expected term (in years)	5.4

The expected term of stock options represents the average period of stock options are expected to remain outstanding. The expected stock price volatility for our stock options for the nine months ended September 30, 2013 was determined by examining the historical volatilities for industry peers and adjusting for differences in the life cycle and financing leverage. Industry peers consist of several public companies in the biopharmaceutical industry.

We determined the average expected life of stock options based on the simplified method because our common stock has not been publicly traded to date.

The risk-free interest rate is based on the U.S. Treasury instruments whose term was consistent with the expected term of our stock options.

The expected dividend assumption is based on our history and expectation of dividend payments.

For the nine months ended September 30, 2013, stock-based compensation expense amounted to \$54,400.

At September 30, 2013 unamortized compensation expense related to unvested options was \$1.9 million. The remaining unamortized expense will be recognized over the next four years.

## 7. Collaborative Research and Licensing Agreements

## MorphoSys Ag

In June 2010, we entered into a Collaboration and License Agreement with MorphoSys AG (MorphoSys), which we subsequently amended in March 2012. The agreement provided us an upfront payment in exchange for an exclusive worldwide license to our patents and know-how to research, develop and commercialize our XmAb5574 product candidate with the right to sublicense under certain conditions and we are eligible to receive future milestones upon further development by MorphoSys of the compound and royalties. Under the agreement, we agreed to collaborate with MorphoSys to develop and commercialize XmAb5574. We determined that the arrangement was one with multiple deliverables and we identified the multiple elements in the agreement as the license of XmAb5574/MOR208 and the research and development services provided by us for the initial Phase 1 clinical trial. We determined that the future milestone payments were substantive and contingent and we did not allocate any of the upfront consideration to these. In April and May 2013, MorphoSys initiated two Phase 2 clinical trials and we received a milestone payment of \$3.0 million. We have recognized the payment under the milestone method and recorded it into income during the period that the milestone event occurred.

#### Xencor, Inc.

# Notes to Financial Statements (Continued)

#### 7. Collaborative Research and Licensing Agreements (Continued)

#### Alexion Pharmaceuticals, Inc.

In January 2013, we entered into an Option and License Agreement with Alexion Pharmaceuticals, Inc. (Alexion). Under the terms of the agreement, we provided Alexion with an exclusive research license to one of our technologies over a five-year period and the rights for Alexion to take an exclusive commercial option to one or more compounds. We determined that the future milestones and related payments were substantive and contingent and we did not allocate any of the upfront consideration to the milestones. In 2013, we received an upfront payment of \$3.0 million and will receive annual license fees during the license term. Upon exercise of an option to take a commercial license we are eligible to receive future licensing and option fees.

We evaluated the proper accounting treatment for this agreement and determined that the deliverables under the agreement were the research license and the option. Since the option payment is substantive and contingent and there is no assurance we will receive it, we determined that it should not be considered a deliverable at inception and the full upfront payment should be allocated to the research license. We determined that the future milestones and related payments were substantive and contingent and we did not allocate any of the upfront consideration to milestones. Accordingly, we concluded that the arrangement should be accounted for as a single unit of accounting and that the arrangement consideration including the upfront payment should be recognized over the research term of the agreement which is five years.

Total revenue recognized under this agreement was \$0.7 million for the nine months ended September 30, 2013. As of September 30, 2013 we have deferred revenue related to this agreement of \$2.3 million.

#### CSL Limited

In March 2013, we entered into a License Agreement with CSL Limited (CSL). Under the terms of the agreement, we provided CSL with a non-exclusive commercial license to apply our technology to one of their compounds. The agreement provided for upfront payment of \$0.5 million and we are eligible to receive future milestones as CSL advances the compound into clinical development.

We determined that the deliverables under this agreement were the non-exclusive commercial license. We determined that the future milestones and related payments were substantive and contingent and we did not allocate any of the upfront consideration to the milestones. We recognized \$0.5 million in revenue under this arrangement for the nine months ended September 30, 2013.

In May 2013, we entered into an amendment to a February 2009 Research License and Commercialization Agreement with CSL, which amendment eliminated a contingent milestone and reduced the royalty rate on net sales for the licensed product CSL362. The amendment provided for a payment upon signing of \$2.5 million. We determined that the amendment was a material modification to the original agreement and evaluated the remaining deliverables at the date of the amendment. We determined that the remaining deliverables were the research license which expires in February 2014 and four additional options to take commercial licenses through the term of the research period. The options are considered to be substantive and contingent and we did not allocate any of the proceeds received in the amendment to the options. The amendment proceeds are being recognized into income

#### Xencor, Inc.

# Notes to Financial Statements (Continued)

#### 7. Collaborative Research and Licensing Agreements (Continued)

over the remaining research term. We recognized \$1.3 million in income for the nine months ended September 30, 2013 and we have deferred revenue related to this agreement of \$1.3 million.

#### Merck

In July 2013, we entered into a License Agreement with Merck Sharp Dohme Corp (Merck). Under the terms of the agreement, we provided Merck with a non-exclusive commercial license to certain patent rights to our Fc domains to apply to one of their compounds. We also provided Merck with contingent options to take additional non-exclusive commercial licenses. The contingent options provide Merck an opportunity to take non-exclusive commercial licenses at an amount less than the amount paid for the original license. The agreement provided for an upfront payment of \$1.0 million and annual maintenance fees totaling \$0.5 million. We are also eligible to receive future milestones and royalties as Merck advances the compound into clinical development.

We determined that the deliverables under this agreement were the non-exclusive commercial license and the options. The options are considered substantive and contingent and no amount of the upfront payment was allocated to these options. We also determined that the future milestones and related payments were substantive and contingent and did not allocate any of the upfront payment to the milestones.

We recognized \$1.0 million in revenue under this arrangement for the nine months ended September 30, 2013.

As of September 30, 2013, the Company may be eligible to receive the following maximum payments from its collaborative partners and licensees based upon contractual terms in the agreements assuming all options are exercised and all milestones are achieved:

	Potential Milestones (in millions)					
Partner	Develop	ment-based	Regulatory-based	Sales-l	ased	Total ilestones
MorphoSys(2)	\$	62.0	\$ 187.0	\$	50.0	\$ 299.0
Amgen(1)		62.0	150.0	:	225.0	437.0
Alexion(2)		51.0	168.0		180.0	399.0
BI(2)		9.0	6.0		12.0	27.0
CSL 2009(2)		38.0	20.0		31.0	89.0
CSL 2013(2)		8.0	4.0		24.5	36.5
Janssen(2)		6.0	_		4.0	10.0
Merck(2)		4.0	6.0		_	10.0
Total	\$	240.0	\$ 541.0	\$	526.5	\$ 1,307.5

- (1) These potential milestones include milestones that were determined to be substantive because they require the company to devote substantial effort to perform services for the benefit of the counterparty prior to achievement of the milestone and the payments due upon achievement of the milestone are reasonable in connection with the services provided and the remainder of the milestones in the arrangement.
- (2) The payments are solely dependent upon activities of the collaborative partner or licensee.

#### Xencor, Inc.

# Notes to Financial Statements (Continued)

## 8. Subsequent Events

The Company evaluates subsequent events in accordance with ASC 855, *Subsequent Events*. The Company evaluated subsequent events through October 25, 2013, which is when these financial statements were available to be issued.

## 9. Stock Split Subsequent to the Balance Sheet Date

On November 1, 2013, the Company's board of directors and the requisite stockholders authorized the filing of a certificate of amendment to the Company's amended and restated certificate of incorporation for the purpose of effecting a 3.1-for-1 reverse split of the common stock. The certificate of amendment was filed on November 1, 2013 and the stock split became effective as of that date. Accordingly, all references to numbers of common shares, including the number of common shares on an as-if-converted basis, and per-share data in the accompanying financial statements have been adjusted to reflect the reverse stock split on a retroactive



# PART II INFORMATION NOT REQUIRED IN PROSPECTUS

#### Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth all costs and expenses, other than underwriting discounts and commissions, payable by Xencor, Inc. (the Registrant or we) in connection with the sale of the common stock being registered. All amounts shown are estimates except for the Securities and Exchange Commission (SEC) registration fee, the FINRA filing fee and the NASDAQ Global Market filing fee.

		Amount
SEC registration fee	\$	11,850
FINRA filing fee		14,300
NASDAQ Global Market listing fee		125,000
Blue-sky qualification fees and expenses		35,000
Printing and engraving expenses		450,000
Legal fees and expenses		1,200,000
Accounting fees and expenses		500,000
Transfer agent and registrar fees and expenses		20,000
Miscellaneous expenses		143,850
Total	\$ 2	2,500,000

#### Item 14. Indemnification of Directors and Officers.

The Registrant is incorporated under the laws of the State of Delaware. Section 145 of the Delaware General Corporation Law provides that a Delaware corporation may indemnify any persons who were, are, or are threatened to be made, parties to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person is or was an officer, director, employee or agent of such corporation, or is or was serving at the request of such corporation as an officer, director, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided that such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his or her conduct was illegal. A Delaware corporation may indemnify any persons who were, are, or are threatened to be made, a party to any threatened, pending or completed action or suit by or in the right of the corporation by reason of the fact that such person is or was a director, officer, employee or agent of such corporation, or is or was serving at the request of such corporation by reason of the fact that such person is or was a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees) actually and reasonably believed to be in or not opposed to the corporation's best interests, except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any ac

The Registrant's amended and restated certificate of incorporation and amended and restated bylaws, each of which will become effective upon the closing of this offering, provide for the indemnification of its directors and officers to the fullest extent permitted under the Delaware General Corporation Law.

Section 102(b)(7) of the Delaware General Corporation Law permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duties as a director, except for liability for any:

- transaction from which the director derives an improper personal benefit;
- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or redemption of shares; or
- breach of a director's duty of loyalty to the corporation or its stockholders.

The Registrant's amended and restated certificate of incorporation includes such a provision. Expenses incurred by any officer or director in defending any such action, suit or proceeding in advance of its final disposition shall be paid by the Registrant upon delivery to it of an undertaking, by or on behalf of such director or officer, to repay all amounts so advanced if it shall ultimately be determined that such director or officer is not entitled to be indemnified by the Registrant.

Section 174 of the Delaware General Corporation Law provides, among other things, that a director who willfully or negligently approves of an unlawful payment of dividends or an unlawful stock purchase or redemption, may be held liable for such actions. A director who was either absent when the unlawful actions were approved or dissented at the time may avoid liability by causing his or her dissent to such actions to be entered in the books containing minutes of the meetings of the board of directors at the time such action occurred or immediately after such absent director receives notice of the unlawful acts.

As permitted by the Delaware General Corporation Law, the Registrant has entered into indemnity agreements with each of its directors and executive officers, that require the Registrant to indemnify such persons against any and all costs and expenses (including attorneys', witness or other professional fees) actually and reasonably incurred by such persons in connection with any action, suit or proceeding (including derivative actions), whether actual or threatened, to which any such person may be made a party by reason of the fact that such person is or was a director or officer or is or was acting or serving as an officer, director, employee or agent of the Registrant or any of its affiliated enterprises. Under these agreements, the Registrant is not required to provided indemnification for certain matters, including:

- indemnification beyond that permitted by the Delaware General Corporation Law;
- indemnification for any proceeding with respect to the unlawful payment of remuneration to the director or officer;
- indemnification for certain proceedings involving a final judgment that the director or officer is required to disgorge profits from the purchase or sale of the Registrant's stock;
- indemnification for proceedings involving a final judgment that the director's or officer's conduct was in bad faith, knowingly fraudulent or deliberately dishonest or constituted willful misconduct or a breach of his or her duty of loyalty, but only to the extent of such specific determination;
- indemnification for proceedings or claims brought by an officer or director against us or any of the Registrant's directors, officers, employees or agents, except for claims to establish a right of indemnification or proceedings or claims approved by the Registrant's board of directors or required by law;
- · indemnification for settlements the director or officer enters into without the Registrant's consent; or

• indemnification in violation of any undertaking required by the Securities Act or in any registration statement filed by the Registrant.

The indemnification agreements also set forth certain procedures that will apply in the event of a claim for indemnification thereunder.

Except as otherwise disclosed under the heading "Legal Proceedings" in the "Business" section of this registration statement, there is at present no pending litigation or proceeding involving any of the Registrant's directors or executive officers as to which indemnification is required or permitted, and the Registrant is not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

The Registrant has an insurance policy in place that covers its officers and directors with respect to certain liabilities, including liabilities arising under the Securities Act of 1933, as amended (the Securities Act) or otherwise.

The Registrant plans to enter into an underwriting agreement which provides that the underwriters are obligated, under some circumstances, to indemnify the Registrant's directors, officers and controlling persons against specified liabilities, including liabilities under the Securities Act.

### Item 15. Recent sales of unregistered securities.

Set forth below is information regarding securities issued and options granted by us since January 1, 2010 that were not registered under the Securities Act. Also included is the consideration, if any, received by us for such securities and options and information relating to the Securities Act section, or rule of the SEC, under which exemption from registration was claimed.

- (1) In December 2010, we issued convertible promissory notes in an aggregate principal amount of \$7,500,000 to accredited investors pursuant to a note purchase agreement. These notes converted into 22,727,279 shares of Series A-1 convertible preferred stock in June 2013.
- (2) In June 2013 and September 2013, pursuant to the Series A-1 Purchase Agreement, we issued and sold an aggregate of 7,352,940 shares of Series A-1 convertible preferred stock to accredited investors at a purchase price of \$1.36 per share, for an aggregate purchase price of \$9,999,998.
- (3) From January 1, 2010 to date, we granted stock options under our 2010 Plan to purchase an aggregate of 1,367,207 shares of common stock at an exercise price of \$0.59 per share and an aggregate of 502,062 shares of common stock at an exercise price of \$4.25 per share to certain directors, officers, employees and consultants.
- (4) In July 2010, our Board of Directors approved an option re-pricing program pursuant to which holders of existing stock options with exercise prices above \$0.59 per share were offered the ability to exchange those stock options for new stock options with an exercise price of \$0.59 per share.

The offers, sales and issuances of the securities described in paragraphs (1) and (2) were deemed to be exempt from registration under the Securities Act in reliance on Section 4(2) (or Regulation D promulgated thereunder), in that the issuance of securities to the accredited investors did not involve a public offering. The recipients of securities in each of these transactions acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the securities issued in these transactions. Each of the recipients of securities in these transactions was an accredited investor under Rule 501 of Regulation D. No underwriters were involved in these transactions.

The offers, sales and issuances of the securities described in paragraphs (3) and (4) were deemed to be exempt from registration under the Securities Act in reliance on Rule 701 in that the transactions were under compensatory benefit plans and contracts relating to compensation as provided under

Rule 701. The recipients of such securities were our employees, directors or bona fide consultants and received the securities under our 2010 Equity Plan.

# Item 16. Exhibits and financial statement schedules.

## (a) Exhibits.

Exhibit number	Description of document
1.1#	Form of Underwriting Agreement.
3.1#	Sixth Amended and Restated Certificate of Incorporation, as amended on November 1, 2013, as currently in effect.
3.2#	Form of Amended and Restated Certificate of Incorporation to become effective upon the closing of this offering.
3.3#	Bylaws, as currently in effect.
3.4#	Form of Amended and Restated Bylaws to become effective upon the closing of this offering.
4.1#	Form of Common Stock Certificate of the Registrant.
4.2#	Third Amended and Restated Investor Rights Agreement, dated June 26, 2013, among the Registrant and certain of its
	stockholders.
5.1	Opinion of Cooley LLP.
	Form of Indemnity Agreement by and between the Registrant and its directors and officers.
10.2+#	Xencor, Inc. 2010 Equity Incentive Plan and Forms of Option Agreement, Notice of Exercise and Stock Option Grant
	Notice thereunder.
10.3+#	Xencor, Inc. 2013 Equity Incentive Plan and Forms of Stock Option Agreement, Notice of Exercise and Stock Option
	Grant Notice thereunder.
	Xencor, Inc. 2013 Employee Stock Purchase Plan.
	Xencor, Inc. Non-Employee Director Compensation Policy.
10.6+#	Second Amended and Restated Executive Employment Agreement, dated January 1, 2007, by and between the
	Registrant and Dr. Bassil I. Dahiyat.
	Offer Letter, dated January 12, 2010, by and between the Registrant and Dr. Edgardo Baracchini, Jr.
	Offer Letter, dated September 28, 2009, by and between the Registrant and Dr. Bruce Carter.
	Amendment to Offer Letter, dated November 18, 2010, by and between the Registrant and Dr. Bruce Carter.
10.10+#	Amended Consulting Agreement, dated January 1, 2011, by and between the Registrant and Development and Strategic
10 11 . #	Consulting Associates, LLC.
	Offer Letter, dated August 1, 2012, by and between the Registrant and Dr. Paul Foster.
10.12+#	Amended and Restated Executive Employment Agreement, dated September 4, 2013, by and between the Registrant and Dr. Bassil I. Dahiyat.
10.13+#	Offer Letter, dated September 5, 2013, by and between the Registrant and Dr. Edgardo Baracchini, Jr.

Exhibit	
number	Description of document
10.14+#	Amended and Restated Severance Agreement, dated September 5, 2013, by and between the Registrant and Dr. John R.
	Desjarlais.
10.15+#	Amended and Restated Change in Control Agreement, dated September 5, 2013, by and between the Registrant and
	John J. Kuch.
10.16+#	Offer Letter, dated August 12, 2013, by and between the Registrant and Dr. Paul Foster.
10.17*#	GPEx®-Derived Cell Line Sale Agreement, dated December 21, 2011, by and between the Registrant and Catalent
	Pharma Solutions, LLC.
10.18*#	Development and Manufacturing Services Agreement, dated September 15, 2005, by and between the Registrant and
	Catalent Pharma Solutions (formerly Cardinal Health PTS, LLC).
10.19*#	Collaboration and License Agreement, dated June 27, 2010, by and between the Registrant and MorphoSys AG.
10.20*#	First Amendment to the Collaboration and License Agreement, dated March 23, 2012, by and between the Registrant
	and MorphoSys AG.
	Collaboration and Option Agreement, dated December 22, 2010, by and between the Registrant and Amgen, Inc.
10.22*#	Clinical Supply Agreement, dated October 1, 2012, by and between the Registrant and Cook Pharmica LLC.
10.23*#	Option and License Agreement, dated January 28, 2013, by and between the Registrant and Alexion
	Pharmaceuticals, Inc.
10.24*#	Collaboration Agreement, dated February 10, 2012, by and between the Registrant and Boehringer Ingelheim
	International GmbH.
10.25#	Office Building Lease, dated May 12, 2000, by and between the Registrant and BF Monrovia, LLC, as amended on
	November 1, 2011.
	Cross-License Agreement, dated December 19, 2012, by and between the Registrant and MedImmune, LLC.
21.1#	Subsidiaries of the Registrant.
23.1	Consent of BDO USA, LLP, an Independent Registered Public Accounting Firm.
23.2	Consent of Cooley LLP. Reference is made to Exhibit 5.1.
24.1#	Power of Attorney.

- Indicates management contract or compensatory plan.
- \* Confidential treatment has been requested with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.
- # Previously filed.

## (b) Financial statement schedules.

No financial statement schedules are provided because the information called for is not required or is shown either in the financial statements or the notes thereto.

#### 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 Registrant hereby undertakes that:

- (a) 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.
- (b) 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.
- (c) For the purpose of determining liability under the Securities Act to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

## **SIGNATURES**

Pursuant to the requirements of the Securities Act, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Monrovia, State of California, on the 2<sup>nd</sup> day of December, 2013.

## XENCOR, INC.

By:	/s/ BASSIL I. DAHIYAT, PH.D.
	Bassil I. Dahiyat, Ph.D.
	President and Chief Executive Officer

Pursuant to the requirements of the Securities Act, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	<u>Title</u>	<u>Date</u>	
/s/ BASSIL I. DAHIYAT, PH.D.	President, Chief Executive Officer and Member of the Board of Directors (Principal Executive Officer)	December 2, 2013	
Bassil I. Dahiyat, Ph.D.			
/s/ JOHN J. KUCH	Vice President, Finance (Principal Financial and Accounting Officer)	December 2, 2013	
John J. Kuch			
/s/ BRUCE L.A. CARTER, PH.D.*	Chairman of the Board of Directors	December 2, 2013	
Bruce L.A. Carter, Ph.D.			
/s/ ROBERT F. BALTERA, JR.*			
Robert F. Baltera, Jr.	Member of the Board of Directors	December 2, 2013	
/s/ JONATHAN FLEMING*			
Jonathan Fleming	Member of the Board of Directors	December 2, 2013	

Signature	<u>Title</u>	<u>Date</u>
/s/ ATUL SARAN*		
Atul Saran	Member of the Board of Directors	December 2, 2013
/s/ JOHN S. STAFFORD III*		
John S. Stafford III	Member of the Board of Directors	December 2, 2013
/s/ HAROLD R. WERNER*		
Harold R. Werner	Member of the Board of Directors	December 2, 2013
*Pursuant to power of attorney		
By: /s/ BASSIL I. DAHIYAT, PH.D.		
Bassil I. Dahiyat, Ph.D.		

# EXHIBIT INDEX

Exhibit	
number 1.1#	Form of Underwriting Agreement.
3.1#	Sixth Amended and Restated Certificate of Incorporation, as amended on November 1, 2013, as currently in effect.
3.2#	Form of Amended and Restated Certificate of Incorporation to become effective upon the closing of this offering.
3.3#	Bylaws, as currently in effect.
3.4#	Form of Amended and Restated Bylaws to become effective upon the closing of this offering.
4.1#	Form of Common Stock Certificate of the Registrant.
4.2#	Third Amended and Restated Investor Rights Agreement, dated June 26, 2013, among the Registrant and certain of its stockholders.
5.1	Opinion of Cooley LLP.
10.1+#	Form of Indemnity Agreement by and between the Registrant and its directors and officers.
10.2+#	Xencor, Inc. 2010 Equity Incentive Plan and Forms of Option Agreement, Notice of Exercise and Stock Option Grant Notice thereunder.
10.3+#	Xencor, Inc. 2013 Equity Incentive Plan and Forms of Stock Option Agreement, Notice of Exercise and Stock Option Grant Notice thereunder.
10.4+#	Xencor, Inc. 2013 Employee Stock Purchase Plan.
10.5+#	Xencor, Inc. Non-Employee Director Compensation Policy.
10.6+#	Second Amended and Restated Executive Employment Agreement, dated January 1, 2007, by and between the Registrant and Dr. Bassil I. Dahiyat.
10.7+#	Offer Letter, dated January 12, 2010, by and between the Registrant and Dr. Edgardo Baracchini, Jr.
10.8+#	Offer Letter, dated September 28, 2009, by and between the Registrant and Dr. Bruce Carter.
10.9+#	Amendment to Offer Letter, dated November 18, 2010, by and between the Registrant and Dr. Bruce Carter.
10.10+#	$Amended\ Consulting\ Agreement,\ dated\ January\ 1,\ 2011,\ by\ and\ between\ the\ Registrant\ and\ Development\ and\ Strategic\ Consulting\ Associates,\ LLC.$
10.11+#	Offer Letter, dated August 1, 2012, by and between the Registrant and Dr. Paul Foster.
10.12+#	Amended and Restated Executive Employment Agreement, dated September 4, 2013, by and between the Registrant and Dr. Bassil I. Dahiyat.
10.13+#	Offer Letter, dated September 5, 2013, by and between the Registrant and Dr. Edgardo Baracchini, Jr.
10.14+#	Amended and Restated Severance Agreement, dated September 5, 2013, by and between the Registrant and Dr. John R. Desjarlais.
10.15+#	Amended and Restated Change in Control Agreement, dated September 5, 2013, by and between the Registrant and John J. Kuch.
10.16+#	Offer Letter, dated August 12, 2013, by and between the Registrant and Dr. Paul Foster.

Exhibit number	Description of document
10.17*#	GPEx®-Derived Cell Line Sale Agreement, dated December 21, 2011, by and between the Registrant and Catalent Pharma Solutions, LLC.
10.18*#	Development and Manufacturing Services Agreement, dated September 15, 2005, by and between the Registrant and Catalent Pharma Solutions (formerly Cardinal Health PTS, LLC).
10.19*#	Collaboration and License Agreement, dated June 27, 2010, by and between the Registrant and MorphoSys AG.
10.20*#	First Amendment to the Collaboration and License Agreement, dated March 23, 2012, by and between the Registrant and MorphoSys AG.
10.21*#	Collaboration and Option Agreement, dated December 22, 2010, by and between the Registrant and Amgen, Inc.
10.22*#	Clinical Supply Agreement, dated October 1, 2012, by and between the Registrant and Cook Pharmica LLC.
10.23*#	Option and License Agreement, dated January 28, 2013, by and between the Registrant and Alexion Pharmaceuticals, Inc.
10.24*#	Collaboration Agreement, dated February 10, 2012, by and between the Registrant and Boehringer Ingelheim International GmbH.
10.25#	Office Building Lease, dated May 12, 2000, by and between the Registrant and BF Monrovia, LLC, as amended on November 1, 2011.
10.26*#	Cross-License Agreement, dated December 19, 2012, by and between the Registrant and MedImmune, LLC.
21.1#	Subsidiaries of the Registrant.
23.1	Consent of BDO USA, LLP, an Independent Registered Public Accounting Firm.
23.2	Consent of Cooley LLP. Reference is made to Exhibit 5.1.
24.1#	Power of Attorney.

<sup>+</sup> Indicates management contract or compensatory plan.

<sup>\*</sup> Confidential treatment has been requested with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.

<sup>#</sup> Previously filed.



Kenneth J. Rollins T: +1 858 550 6136 krollins@cooley.com

December 2, 2013

Xencor, Inc. 111 West Lemon Avenue, 2<sup>nd</sup> Floor Monrovia, CA 91016

Ladies and Gentlemen:

We represent Xencor, Inc., a Delaware corporation (the "Company"), and you have requested our opinion with respect to certain matters in connection with the filing by the Company, of a Registration Statement (No. 333-191689) on Form S-1 (the "Registration Statement") with the Securities and Exchange Commission, including a related prospectus filed with the Registration Statement (the "Prospectus"), covering an underwritten public offering of up to 14,639,500 shares (the "Shares") of the Company's common stock, par value \$0.01, which includes up to 12,730,000 Shares to be sold by the Company (the "Company Shares") and up to 1,909,500 Shares of common stock of the Company that may be sold by the Company pursuant to the exercise of an of an over-allotment option granted to the underwriters (the "Overallotment Shares").

In connection with this opinion, we have examined and relied upon (a) the Registration Statement and related Prospectus, (b) the Company's Sixth Amended and Restated Certificate of Incorporation, and Bylaws, as amended, as currently in effect, (c) the Company's Amended and Restated Certificate of Incorporation, filed as Exhibit 3.2 to the Registration Statement and the Company's Amended and Restated Bylaws, filed as Exhibit 3.4 to the Registration Statement, each of which is to be in effect upon the closing of the offering contemplated by the Registration Statement, and (d) the originals or copies certified to our satisfaction of such records, documents, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness and authenticity of all documents submitted to us as originals and the conformity to originals of all documents submitted to us as copies. As to certain factual matters, we have relied upon a certificate of officers of the Company and have not sought independently to verify such matters. Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware. We express no opinion as to whether the laws of any particular jurisdiction are applicable to the subject matter hereof. We are not rendering any opinion as to compliance with any federal or state antifraud law, rule or regulation relating to securities, or to the sale or issuance thereof.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Company Shares and the Overallotment Shares, when sold and issued against payment therefor as described in the Registration Statement and the related Prospectus, will be validly issued, fully paid and non-assessable.

4401 EASTGATE MALL, SAN DIEGO, CA 92121 T: (858) 550-6000 F: (858) 550-6420 WWW.COOLEY.COM

We consent to the reference to our firm under the caption "Legal Matters" in the Prospectus included in the Registration Statement and to the filing of this opinion as an exhibit to the Registration Statement.

Sincerely,

Cooley LLP

By: /s/ Kenneth J. Rollins

Kenneth J. Rollins

## Consent of Independent Registered Public Accounting Firm

Xencor, Inc. Monrovia, California

We hereby consent to the use in the Prospectus constituting a part of this Registration Statement of our report dated September 11, 2013, except for note 10, which is as of November 3, 2013, relating to the financial statements of Xencor, Inc., which is contained in that Prospectus. Our report contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

We also consent to the reference to us under the caption "Experts" in the Prospectus.

/s/ BDO USA, LLP

BDO USA, LLP Los Angeles, California

December 1, 2013