

AGENUS INC
Form S-3
August 21, 2015
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As filed with the Securities and Exchange Commission on August 21, 2015

Registration No. 333-

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

FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

AGENUS INC.

(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

06-1562417
(I.R.S. Employer
Identification Number)

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3 Forbes Road

Lexington, MA 02421

(781) 674-4400

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

Garo H. Armen

Chief Executive Officer and Chairman of the Board

Agenus Inc.

3 Forbes Road

Lexington, MA 02421

(781) 674-4400

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

Copy to:

John R. Pitfield, Esq.

Choate, Hall & Stewart LLP

Two International Place

Boston, MA 02110

(617) 248-5000

Approximate date of commencement of proposed sale to the public: From time to time after this registration statement becomes effective.

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If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

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), other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

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

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

If this form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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

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

CALCULATION OF REGISTRATION FEE

Title of Each Class of	Amount to be	Proposed Maximum Offering Price	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Securities to be Registered	Registered(1)	Per Share(2)	Offering Price	Registration Fee
Common Stock, \$0.01 par value per share	1,400,000	\$7.22	\$10,108,000.00	\$1,174.55

(1) The Registrant is hereby registering for resale from time to time by the selling stockholder up to 1,400,000 shares of its common stock issuable upon exercise of five-year warrants that were initially issued pursuant to the terms

of the Amended and Restated Note Purchase Agreement dated as of February 20, 2015, as amended, by and among the Registrant and the purchasers named therein. Pursuant to Rule 416 under the Securities Act, this Registration Statement also covers such additional number of shares of common stock that may be issued as a result of stock splits, stock dividends or similar transactions.

- (2) Estimated solely for purposes of determining the registration fee pursuant to Rule 457(c) under the Securities Act, based on the average high and low prices per share of the common stock as reported on the Nasdaq Capital Market on August 14, 2015.

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

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The information contained in this prospectus is not complete and may be changed. The selling stockholders named in this prospectus may not sell these securities until the registration statement becomes effective. This prospectus is not an offer to sell these securities, and the selling stockholders named in this prospectus are not soliciting offers to buy these securities in any jurisdiction where the offer for sale is not permitted.

Subject To Completion, Dated August 21, 2015

PROSPECTUS

1,400,000 SHARES OF COMMON STOCK

We have prepared this prospectus at the request of the individuals named in this prospectus to enable those individuals, or their pledgees, donees, transferees, distributees, beneficiaries or other successors in interest, to sell from time to time in the future up to 1,400,000 shares of our common stock that are issuable upon the exercise of certain warrants held by those individuals. These warrants, which have an exercise price of \$5.10 per share, together with senior subordinated promissory notes in the aggregate principal amount of \$14.0 million, were issued to the individuals named in this prospectus pursuant to the terms of the Amended and Restated Note Purchase Agreement dated as of February 20, 2015, as amended, by and among Agenus Inc. and the individuals named in this prospectus. This prospectus also covers an indeterminate number of shares of common stock that may be issued as a result of stock splits, stock dividends or similar transactions described in the warrants.

We are entitled to receive cash proceeds from the exercise of the warrants, but we will not receive any proceeds from the sale of the shares of our common stock issuable upon exercise of the warrants. Any shares issued upon exercise of the warrants may be sold in public or private transactions at prevailing market prices, at prices related to prevailing market prices, or at privately negotiated prices, See Plan of Distribution on page 41 of this prospectus. Any individuals selling shares under this prospectus will bear all commissions and discounts, if any, attributable to those sales. We will bear all costs, expenses and fees in connection with the registration of the shares.

Our common stock is listed on The NASDAQ Capital Market and trades under the symbol AGEN. On August 18, 2015, the last sale price of our common stock as reported on the NASDAQ Capital Market was \$7.44 per share. You are urged to obtain current market quotations for our common stock.

Investing in our securities involves risks. See Risk Factors beginning on page 3 of this prospectus.

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

The date of this prospectus is _____, 2015.

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You should read this prospectus, including all documents incorporated herein by reference, together with additional information described under [Where You Can Find More Information](#).

You may obtain the information incorporated by reference without charge by following the instructions under [Where You Can Find More Information](#).

We have not authorized anyone to provide you with information different from that contained or incorporated by reference in this prospectus. The selling stockholders may offer to sell, and seek offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of common stock.

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PROSPECTUS SUMMARY

The following is a summary of selected information contained elsewhere or incorporated by reference in this prospectus. It does not contain all of the information that you should consider before investing in our securities. You should read this entire prospectus carefully, especially the sections entitled Risk Factors and the consolidated financial statements and the notes to the consolidated financial statements incorporated in this prospectus by reference. As used in this prospectus, Agenus, the Company, we, us, and our refer to Agenus Inc. and its consolidated subsidiaries.

Agenus Inc.

Our Business

We are an immunology company discovering and developing novel checkpoint modulators, vaccines and adjuvants to treat cancer and other diseases. Our approaches are driven by three platform technologies:

our antibody discovery platforms, including our proprietary Retrocyte Display and SECAN[®] technologies, and our antibody programs, including checkpoint modulators, or CPMs;

our heat shock protein (HSP)-based vaccines; and

our saponin-based vaccine adjuvants, principally our QS-21 Stimulon[®] adjuvant, or QS-21 Stimulon. We have a portfolio of programs in pre-clinical and clinical stages, including a series of CPMs in investigational new drug (IND)-enabling studies, our Prophage Series vaccine, a Phase 3 ready HSP-based autologous vaccine for glioblastoma multiforme, or GBM, a form of brain cancer, and a number of advanced QS-21 Stimulon-containing vaccine candidates in late stage development by our partner, GlaxoSmithKline plc (GSK).

For the treatment of cancer, our programs aim to stimulate the immune system to recognize and eradicate cancer cells and disable the mechanisms that cancer cells employ to evade detection and destruction by the immune system. Because of the breadth of our portfolio, we have the ability to combine our proprietary vaccines with a portfolio of checkpoint modulating antibodies against major checkpoint targets to explore and optimize cancer treatments. Our strategy is to develop these agents either alone or in combinations to yield best-in-class treatments. We assess the development, commercialization and/or partnering strategies with respect to each of our internal product candidates periodically based on several factors, including clinical trial results, competitive positioning and funding requirements and resources.

Agenus core technologies include Retrocyte Display, a powerful proprietary platform designed to effectively discover and optimize novel, fully human and humanized monoclonal antibodies against antigens of interest. Our Retrocyte Display technology is applied to the discovery and development of antibodies, including those targeting significant checkpoint targets. Agenus and its partners currently have pre-clinical programs targeting GITR, OX40, CTLA-4, LAG-3, TIM-3 and PD-1. In April 2015, we expanded our antibody discovery platform through the acquisition of key antibody assets from Celexion, LLC (Celexion). Among the assets we acquired from Celexion was the SECANT yeast display platform for the generation of novel monoclonal antibodies and efficient integration of drug targets such as CPMs. In July 2015, we entered into a license agreement with Diatheva S.r.l pursuant to which we acquired rights to

antibodies targeting CEACAM1, further expanding our antibody capabilities and CPM targets.

On January 9, 2015 and effective February 19, 2015, Agenus entered into a broad, global alliance with Incyte Corporation to pursue the discovery and development of CPMs, initially targeting GITR, OX40, TIM-3 and LAG-3 in the fields of hematology and oncology. Agenus also began collaborating with Merck Sharp & Dohme Corp in April 2014 to discover antibodies against two undisclosed CPM targets. We anticipate initiating clinical trials with the first of our CPM antibody candidates in 2016.

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Agenus has also been advancing a series of HSP-peptide based vaccines to treat cancer and infectious disease. In July 2014, we reported positive results from a Phase 2 clinical trial with our Prophage Series vaccine, which showed that patients with newly-diagnosed GBM who were treated with a combination of our Prophage Series vaccine and standard of care showed substantial improvement both in progression-free survival and median overall survival, as compared to historical control data. We are currently exploring options to advance our Prophage Series vaccine into a Phase 3 clinical trial for newly diagnosed GBM, either alone or through a strategic relationship with a third party. In 2014, we also reported positive results from a Phase 2 clinical trial with our HerpV vaccine candidate for genital herpes and while we do not expect to advance into a Phase 3 clinical trial for genital herpes, we are currently in the process of evaluating the broader application of our HSP peptide-based vaccines.

The Company's QS-21 Stimulon adjuvant is a key component in several of GSK's pre-clinical and clinical stage vaccine programs, which target prophylactic or therapeutic impact in a variety of infectious diseases and cancer. In December 2014, GSK reported that its Phase 3 clinical trial with shingles vaccine candidate HZ/su, using our QS-21 Stimulon adjuvant, met its primary endpoint, reducing the risk of shingles by 97.2% in adults aged 50 years and older compared to placebo. GSK also reported positive Phase 3 clinical trial results in October 2013 for its malaria vaccine candidate using QS-21 Stimulon, Mosquirix™ (RTS,S), which recently received a positive opinion from the Committee for Medicinal Products for Human Use of the European Medicines Agency. QS-21 Stimulon is also the subject of an out-license agreement with Janssen Sciences Ireland UC for use in a vaccine for Alzheimer's disease.

Our business activities include product research and development, intellectual property prosecution, manufacturing, regulatory and clinical affairs, corporate finance and development activities, and support of our collaborations. Our product candidates require clinical trials and approvals from regulatory agencies, as well as acceptance in the marketplace. Part of our strategy is to develop and commercialize some of our product candidates by continuing our existing arrangements with academic and corporate collaborators and licensees and by entering into new collaborations.

To date, we have financed our operations primarily through the sale of equity and debt securities. We believe that, based on our current plans and activities, our working capital resources at June 30, 2015 will be sufficient to satisfy our liquidity requirements into 2017. We may attempt to raise additional funds in advance of depleting our current funds. We may attempt to raise funds by: (1) pursuing Collaboration, out-licensing and/or partnering opportunities for our portfolio programs and product candidates with one or more third parties, (2) renegotiating third party agreements, (3) selling assets, (4) securing additional debt financing and/or (5) selling equity securities. Satisfying long-term liquidity needs may require the successful commercialization and/or substantial out-licensing or partnering arrangements for our antibody discovery platforms, CPM antibody programs, HSP-based vaccines, and vaccines containing QS-21 Stimulon under development by our licensees. Our long term success will also be dependent on the successful identification, development and commercialization of potential other product candidates, each of which will require additional capital with no certainty of timing or probability of success. If we incur operating losses for longer than we expect and/or we are unable to raise additional capital, we may become insolvent and be unable to continue our operations.

Corporate Information

Our principal executive office is located at 3 Forbes Road, Lexington, MA 02421, and our telephone number is (781) 674-4400. Our Internet website address is www.agenusbio.com. The contents of our website are not part of, or incorporated into, this prospectus.

Oncophage®, Stimulon®, Retrocyte Display and SECAN® are trademarks of Agenus Inc. and its subsidiaries. All rights reserved.

The Offering

Common Stock offered by the selling stockholders	1,400,000 shares
Use of Proceeds	We will not receive any proceeds from the sale of shares in this offering
Nasdaq Capital Market Symbol	AGEN

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RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below in addition to the other information included or incorporated by reference in this prospectus before purchasing our common stock. If any of the following risks actually occurs, our business, financial condition or results of operations would likely suffer, possibly materially. In that case, the trading price of our common stock could fall, and you may lose all or part of the money you paid to buy our common stock.

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Risks Related to our Business

If we incur operating losses for longer than we expect, or we are not able to raise additional capital, we may be unable to continue our operations, or we may become insolvent.

Our net losses for the years ended December 31, 2014, 2013, and 2012, were \$42.5 million, \$30.1 million, and \$11.3 million, respectively. During the six months ended June 30, 2015, we generated a net loss of \$59.2 million.

We expect to incur additional losses over the next several years as we continue research and clinical development of our technologies and pursue partnering opportunities, regulatory strategies, commercialization, and related activities. Furthermore, our ability to generate cash from operations is dependent on the success of our licensees and collaboration partners, as well as the likelihood and timing of new strategic licensing and partnering relationships and/or successful development and commercialization of CPM product candidates, including through our collaboration with Incyte, our HSP-based vaccines, and vaccines containing QS-21 Stimulon.

On June 30, 2015, we had \$139.6 million in cash, cash equivalents, and short-term investments. We believe that, based on our current plans and activities, our working capital resources at June 30, 2015, will be sufficient to satisfy our liquidity requirements into 2017. We expect to attempt to raise additional funds in advance of depleting our current funds although additional funding may not be available on favorable terms, or at all. For the six months ended June 30, 2015, our average monthly cash used in operating activities was approximately \$1.6 million. This average monthly cash used in operating activities primarily resulted from one-time upfront payments of \$25.0 million received under our Collaboration Agreement with Incyte in the first quarter of 2015 and therefore, our net cash used in operations for the six months ended June 30, 2015 is not indicative of future results.

To date, we have financed our operations primarily through the sale of equity and debt securities. In order to finance future operations going forward, we will be required to raise additional funds in the capital markets, through arrangements with collaboration partners, such as our global alliance with Incyte, or from other sources. Additional financing may not be available on favorable terms, or at all. If we are unable to raise additional funds when we need them or if we incur operating losses for longer than we expect, we may not be able to continue some or all of our operations, or we may become insolvent. We also may be forced to license or sell technologies to others under agreements that are on unfavorable terms or allocate to third parties substantial portions of the potential value of these technologies.

There are a number of factors that will influence our future capital requirements, including, without limitation, the following:

the number and characteristics of the product candidates we and our partners pursue;

our ability to successfully develop, manufacture, and commercialize CPM product candidates, including pursuant to our collaboration agreement with Incyte;

the scope, progress, results and costs of researching and developing our future product candidates, and conducting pre-clinical and clinical trials, including with respect to our GITR and OX40 antibody programs, for which we have agreed to share all costs and profits with Incyte on a 50:50 basis;

the timing of, and the costs involved in, obtaining regulatory approvals for our and our licensees' product candidates;

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the cost of manufacturing;

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

the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing our intellectual property rights;

the costs associated with any successful commercial operations; and

the timing, receipt and amount of sales of, or royalties on, our future products and those of our partners, if any, or our ability to monetize any potential royalty streams.

General economic conditions in the United States economy and abroad may have a material adverse effect on our liquidity and financial condition, particularly if our ability to raise additional funds is impaired. The ability of potential patients and/or health care payers to pay for our future products, if any, could also be adversely impacted, thereby limiting our potential revenue. In addition, any negative impacts from any deterioration in the credit markets on our collaboration partners could limit potential revenue from our product candidates.

We are dependent upon our collaboration with Incyte to further develop, manufacture and commercialize CPM antibodies against certain targets using our proprietary antibody discovery platforms. If we or Incyte fail to perform as expected, the potential for us to generate future revenues under the collaboration would be significantly reduced, the development and/or commercialization of these CPM antibodies may be terminated or substantially delayed, and our business would be severely harmed.

Under the terms of our Collaboration Agreement with Incyte, we and Incyte have created a joint steering committee that oversees and manages worldwide regulatory, development, manufacturing, and commercialization activities for our CPM antibody product candidates with equal representation from both parties. We anticipate that, for each program, Agenus will serve as the lead for pre-clinical development activities through the filing of an investigational new drug application, or IND, and Incyte will serve as the lead for clinical development activities. Accordingly, the timely and successful completion by Incyte of clinical development activities will significantly affect the timing and amount of any revenues we may receive under the collaboration agreement. Incyte's activities will be influenced by, among other things, the efforts and allocation of resources by Incyte, which we cannot control. If Incyte does not perform in the manner we expect or fulfill its responsibilities in a timely manner, or at all, the clinical development, manufacturing, regulatory approval, and commercialization efforts related to CPM antibodies under the collaboration could be delayed or terminated, and it could become necessary for us to assume the responsibilities for the clinical development, manufacturing, regulatory approval or commercialization of the CPM antibodies at our own expense. Accordingly, there can be no assurance that any of the development, regulatory or sales milestones will be achieved, that we will receive any future milestone or royalty payments under the collaboration agreement, or that we will share in any revenues under the Collaboration Agreement.

In addition, our collaboration with Incyte may be unsuccessful due to other factors, including, without limitation, the following:

After February 19, 2016, Incyte may terminate the agreement or any individual program for convenience upon 12 months notice;

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We may have disagreements with Incyte that are not settled amicably or in our favor, particularly on the joint steering committee where Incyte will under most circumstances have the deciding vote in the event of a disagreement;

Incyte may change the focus of its development and commercialization efforts or prioritize other programs more highly and, accordingly, reduce the efforts and resources allocated to our collaboration;

Incyte may choose not to develop and commercialize CPM products, if any, in all relevant markets or for one or more indications, if at all; and

If Incyte is acquired during the term of our collaboration, the acquirer may have competing programs or different strategic priorities that could cause it to reduce its commitment to our collaboration.

If Incyte terminates our Collaboration Agreement, we would need to raise additional capital and may need to identify and come to agreement with another collaboration partner to advance our CPM programs. Even if we are able to find another partner, this effort could cause delays in our timelines and/or additional expenses, which could adversely affect our business prospects and the future of our CPM antibody product candidates.

Our CPM programs are in pre-clinical development, and there is no guarantee that they will be successful or produce any revenues from CPM antibody product candidates, if any.

Our CPM programs are currently in pre-clinical development. Even if our pre-clinical studies produce positive results, they may not necessarily be predictive of the results of future clinical trials in humans. Many companies in the pharmaceutical, biopharmaceutical and biotechnology industries have suffered significant setbacks in clinical trials after achieving positive results in pre-clinical development, and we cannot be certain that we will not face similar setbacks. These setbacks have been caused by, among other things, pre-clinical findings made while clinical trials were underway or safety or efficacy observations made in clinical trials, including adverse events. Moreover, pre-clinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that believed their product candidates performed satisfactorily in pre-clinical studies and clinical trials nonetheless failed to obtain regulatory approval. If we fail to produce positive results in future clinical trials of CPM antibodies, our business and financial prospects would be materially adversely affected.

We are undergoing significant growth, and we may encounter difficulties in managing this growth, which could disrupt our operations.

From January 1, 2014 to June 30, 2015 we increased our employee headcount from 68 to 162, 57 of whom are employees of our wholly-owned subsidiary 4-Antibody AG (4-AB), which we acquired in February 2014. In addition, through 4-AB, we also expanded our research and development activities internationally to Switzerland and Germany. In April 2015, we further expanded our antibody discovery platform through the acquisition of antibody platform assets from Celexion, LLC. We expect to continue increasing our headcount as we continue to build our research and development capabilities and integrate our acquired technology platforms. To manage this anticipated growth and expansion, we must continue to implement and improve our managerial, operational and financial systems and continue to recruit, train and retain qualified personnel. If our management is unable to effectively manage our growth, our expenses may increase more than expected, our ability to generate revenue could be reduced, and we may not be able to implement our business strategy.

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We may not receive anticipated QS-21 Stimulon revenues from our licensees or otherwise be able to monetize this asset.

We currently rely upon and expect to continue to rely upon third party licensees, particularly GSK, to develop, test, market and manufacture vaccines that utilize our QS-21 Stimulon adjuvant.

As each licensee controls its own product development process, we cannot predict our licensees' requirements for QS-21 Stimulon in the future or to what extent, if any, they will develop vaccines that use QS-21 Stimulon as an adjuvant. Our licensees may initiate or terminate programs containing QS-21 Stimulon at any time. In addition, clinical trials being conducted by our licensees may not be successful. For example, in April 2014, GSK announced the termination of a Phase 3 trial of its MAGE-A3 cancer immunotherapeutic (a vaccine containing QS-21 Stimulon) in non-small cell lung cancer, and in 2013, GSK announced the Phase 3 trial of their MAGE-A3 cancer immunotherapeutic in melanoma missed its first co-primary endpoint and that the study would continue until completion of its second co-primary endpoint, which is expected to occur in 2015. The results of these trials and other trials conducted by our licensees, as well as other factors, may cause our licensees to terminate additional programs containing QS-21 Stimulon, which could materially diminish future potential revenue from QS-21 Stimulon. In addition, even if our licensees successfully complete clinical trials with vaccine candidates using QS-21 Stimulon or these vaccine candidates receive positive decisions from regulatory bodies, there is no guarantee that these products will ultimately obtain regulatory approval or, if so approved, will generate any future milestones or royalty payments.

We are currently exploring the possibility of monetizing all or part of the potential royalties we are entitled to receive from our QS-21 partners, but there is no guarantee that we will be able to do so at all, or on favorable terms.

Any inability to receive anticipated revenues, or a reduction in revenues, generated from QS-21 Stimulon, or otherwise monetize this asset could have a material adverse effect on our business, financial condition and results of operations.

Our HSP peptide-based platform for infectious diseases is in early stage development, and there is no guarantee that a product candidate will progress from this platform.

In June 2014, we reported positive results from a Phase 2 trial with our HerpV vaccine candidate for genital herpes, which includes QS-21 Stimulon. While the HerpV Phase 2 trial met its formal endpoints, it is unclear that the magnitude of the effect on viral load would be sufficient to significantly reduce the incidence, severity, or duration of herpetic lesions or reduce the risk of viral transmission. Although we would consider potential partnering relationships for the further development of our HerpV program, we are not currently engaged in any discussions with any such potential partners, and we do not currently expect to advance this program into a Phase 3 trial. We are currently in the process of evaluating the broader application of our HSP peptide-based vaccines beyond genital herpes, but there is no guarantee that a product candidate will progress from this platform. Furthermore, it is possible that research and discoveries by others will render any product candidate obsolete or noncompetitive.

We may not be able to advance clinical development or commercialize Prophage Series vaccines or realize any benefits from this program without a partner or alternative means of financing.

The probability of future clinical development efforts leading to marketing approval and commercialization of Prophage Series vaccines is highly uncertain. Prophage Series vaccines have been in clinical development for over 15 years, including multiple Phase 1 and 2 trials in eight different tumor types as well as randomized Phase 3

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trials in metastatic melanoma and adjuvant renal cell carcinoma. To date, none of our clinical trials with Prophage Series vaccines has resulted in a marketing approval, except in Russia where commercialization of the approved product was unsuccessful. Although we hope to initiate a Phase 3 clinical trial in newly diagnosed GBM in 2015, due to our limited resources and our corporate priorities, we do not expect to support on-going clinical studies with Prophage Series vaccines or perform additional studies without the help of a partner or alternative means of financing.

We do not currently sponsor any of the on-going clinical trials with Prophage Series vaccines and therefore we lack the ability to control trial design, timelines, and data availability. Current and future studies may eventually be terminated due to, among other things, slow enrollment, lack of probability that they will yield useful translational and/or efficacy data, lengthy timelines, or the unlikelihood that results will support timely or successful regulatory filings. Currently, the only actively enrolling Prophage Series vaccine clinical trial is a Phase 2 trial of Prophage Series vaccine in combination with bevacizumab in patients with surgically resectable recurrent glioma. This trial is being conducted under the sponsorship of the Alliance for Clinical Trials in Oncology, a cooperative group of the National Cancer Institute (NCI). While the NCI Alliance has confirmed a commitment to completion of the trial, to date, clinical site activation and patient enrollment have not met expectations, which could curtail the viability of sustaining the trial. Furthermore, potential changes in clinical practices trending away from the administration of bevacizumab for the treatment of recurrent glioma could exacerbate enrollment issues and/or render the trial design impractical. In January 2014, we initiated a randomized Phase 2 trial with Prophage Series vaccine and Bristol-Myers Squibb's ipilimumab, for the treatment of Stage III and IV metastatic melanoma. This study is being sponsored by an investigator at the University of Texas and, although the investigator-held IND was activated to allow initiation of the trial, patient enrollment has not yet begun. The design of this study protocol was recently modified to incorporate a non-randomized trial of Prophage Series vaccine in combination with ipilimumab with a reference to prospective comparative patients treated with ipilimumab only. This redesign may enable us to more quickly evaluate safety and immunologic correlates of responders in patients with metastatic melanoma. While we believe the combination of Prophage Series vaccines and ipilimumab has the potential to trigger a more effective immune response against the tumor than ipilimumab alone, there is no guarantee that this trial will be completed or that it will yield useful translational and/or efficacy data.

Changes in our manufacturing strategies, manufacturing problems, or increased demand may cause delays, unanticipated costs, or loss of revenue streams within or across our programs.

Our CPM antibody programs, including those partnered with Incyte, will require substantial manufacturing development and investment to progress. Our CPM antibody programs are pre-clinical, and we have only recently initiated the development of the reagents, cell lines, and systems required to manufacture our antibody candidates. If these development-stage efforts are delayed or do not produce the desired outcomes, this will cause delays in development timelines and increased costs, which may cause us to limit the size and scope of our efforts and studies. We rely on contract manufacturing organizations (CMOs) and contract research organizations (CROs), to support our CPM antibody programs. Our dependence on external CMOs for the manufacture of our antibodies results in intrinsic risks to our performance, timelines, and costs of our accelerated development plans. In the future, we may need to secure additional manufacturing capacity with our current or additional CMOs. Such an effort could divert resources away from our CPM antibody programs and lead to delays in the development of product candidates. We may also need to develop or secure later phase and/or commercial manufacturing capabilities, all of which would cause us to incur additional costs and risk. In the event that our CPM antibody programs require progressively larger production capabilities, our options for qualified CMOs may become more limited. In addition, while we currently have our own cGMP manufacturing facility in Lexington, MA, our facility is not currently configured or equipped to adequately support manufacturing of the required cell lines or the downstream production of cGMP antibody product candidates.

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We currently manufacture our Prophage Series vaccines in our Lexington, MA facility. Manufacturing of the Prophage Series vaccines is complex, and various factors could cause delays or an inability to supply the vaccine. Deviations in the processes controlling manufacture could result in production failures. Furthermore, we have limited financial, personnel, and manufacturing resources and there is no assurance that we will be able to allocate resources necessary for the continued manufacturing of Prophage Series vaccines in light of competing corporate priorities. In addition, regulatory bodies may require us to make our manufacturing facility a single product facility. In such an instance, we would no longer have the ability to manufacture Prophage Series vaccines in addition to other product candidates in our current facility.

We have given our corporate QS-21 Stimulon licensees, GSK and Janssen Sciences Ireland Uc, manufacturing rights for QS-21 Stimulon for use in their product programs. If they or their third party CMOs encounter problems with QS-21 Stimulon manufacturing, any of their programs containing QS-21 Stimulon could be delayed or terminated, and this could have an adverse effect on our potential license fees, milestone payments and royalties that we may otherwise receive from these programs. We have retained the right to manufacture QS-21 for ourselves and third parties, although no other such programs are anticipated to bring us substantial revenues in the near future, if ever.

Our ability to efficiently manufacture our products is contingent upon a CMO's ability to ramp up production in a timely manner without the benefit of years of experience and familiarity with the processes, which we may not be able to adequately transfer. We currently rely upon and expect to continue to rely upon third parties, potentially including our collaborators or licensees, to produce materials required to support our product candidates, pre-clinical studies, clinical trials, and any future commercial efforts. A number of factors could cause production interruptions at either our manufacturing facility or the facilities of our CMOs or suppliers, including equipment malfunctions, labor or employment retention problems, natural disasters, power outages, terrorist activities, or disruptions in the operations of our suppliers. Alternatively, there is the possibility we may have excess manufacturing capacity if product candidates do not progress as planned.

Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured products ourselves, including reliance on the third party for regulatory compliance, the possibility of breach of the manufacturing agreement by the third party because of factors beyond our control, and the possibility of termination or non-renewal of the agreement by the third party, based on its own business priorities, at a time that is costly or inconvenient for us.

Biopharmaceutical manufacturing is also subject to extensive government regulation. Components of a finished therapeutic product approved for commercial sale or used in late-stage clinical trials must be manufactured in accordance with cGMP. These regulations govern manufacturing processes and procedures (including record keeping) and the implementation and operation of quality systems to control and assure the quality of investigational products and products approved for sale. Our facilities and quality systems and the facilities and quality systems of some or all of our third party contractors must pass a pre-approval inspection for compliance with the applicable regulations as a condition of regulatory approval of a product candidate. In addition, facilities are subject to on-going inspections, and minor changes in manufacturing processes may require additional regulatory approvals, either of which could cause us to incur significant additional costs and lose revenue.

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Risks associated with doing business internationally could negatively affect our business.

We have research and development operations in Switzerland and Germany. We have in the past, and may continue to pursue pathways to develop and commercialize our product candidates in non-U.S. jurisdictions. Various risks associated with foreign operations may impact our success. Possible risks of foreign operations include fluctuations in the value of foreign and domestic currencies, disruptions in the import, export, and transportation of patient tumors and our products or product candidates, the product and service needs of foreign customers, difficulties in building and managing foreign relationships, the performance of our licensees or collaborators, geopolitical instability, unexpected regulatory, economic, or political changes in foreign markets and limitations on the flexibility of our operations and costs imposed by local labor laws. For example, in 2008 our Oncophage[®] vaccine was approved for sale in Russia, but we have never received, and do not expect to receive, any revenues from sales in Russia. See Risk Factors- Even if we receive marketing approval for our product candidates, such product approvals could be subject to restrictions or withdrawals. Regulatory requirements are subject to change. Further, even if we receive marketing approval, we may not receive sufficient coverage and adequate reimbursement for our products.

Our competitors may have superior products, manufacturing capability, selling and marketing expertise and/or financial and other resources.

Our product candidates and the product candidates in development by our collaboration partners may fail because of competition from major pharmaceutical companies and specialized biotechnology companies that market products, or that are engaged in the development of product candidates, directed at cancer, infectious diseases and degenerative disorders. Many of our competitors, including large pharmaceutical companies, have greater financial and human resources and more experience than we do. Our competitors may:

develop safer or more effective therapeutic drugs or preventive vaccines and other therapeutic products;

establish superior intellectual property positions;

discover technologies that may result in medical insights or breakthroughs, which render our drugs or vaccines obsolete, possibly before they generate any revenue, if ever;

adversely affect our ability to recruit patients for our clinical trials;

solidify partnerships or strategic acquisitions that may increase the competitive landscape;

commercialize their product candidates sooner than we commercialize our own, if ever; or

implement more effective approaches to sales and marketing and capture some of our potential market share. There is no guarantee that our product candidates will be able to compete with potential future products being developed by our competitors.

We have CPM antibody programs currently in pre-clinical development targeting GITR, OX40, CTLA-4, LAG-3, TIM-3 and PD-1. We are aware of many companies that have antibody-based products on the market or in clinical development that are directed to the same biological target as some of our programs, including, without limitation, the following: (1) Bristol-Myers Squibb markets ipilimumab, an anti-CTLA-4 antibody, and nivolumab, an anti-PD1 antibody, and is developing an anti-LAG-3 antibody and agonist to OX-40 (2) Merck has an approved

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anti-PD1 antibody in the United States, (3) Ono Pharmaceuticals has an approved anti-PD1 antibody in Japan, (4) Medimmune has anti-CTLA-4, OX-40 and PD1 antibodies in development, (5) Curetech has an anti-PDI antibody in development, (6) Pfizer has an anti-CTLA-4 antibody in development, (7) Tesaro has antibody programs targeting PD-1, TIM-3 and LAG-3, which include both monospecific and dual reactive antibody drug candidates, (8) Novartis has anti-PD-1, anti-LAG-3 and anti-TIM-3 antibodies in discovery, and (9) Enumeral has anti-PD-1 and anti-TIM-3 antibodies in discovery. There is no guarantee that our antibody product candidates will be able to compete with our competitors' antibody products and product candidates.

We are aware of compounds that claim to be comparable to QS-21 Stimulon that are being used in clinical trials. Several other vaccine adjuvants are in development and could compete with QS-21 Stimulon for inclusion in vaccines in development. These adjuvants include, but are not limited to, (1) oligonucleotides, under development by Pfizer, Idera, Colby, and Dynavax, (2) MF59, under development by Novartis, (3) IC31, under development by Intercell, and (4) MPL, under development by GSK. In the past, we have provided QS-21 Stimulon to other entities under materials transfer arrangements. In at least one instance, it is possible that this material was used unlawfully to develop synthetic formulations and/or derivatives of QS-21. In addition, companies such as Adjuvance Technologies, Inc., CSL Limited, and Novavax, Inc., as well as academic institutions and manufacturers of saponin extracts, are developing saponin adjuvants, including derivatives and synthetic formulations. These sources may be competitive to our ability to execute future partnering and licensing arrangements involving QS-21 Stimulon. The existence of products developed by these and other competitors, or other products of which we are not aware or which other companies may develop in the future, may adversely affect the marketability of products we and our partners develop.

We are also aware of a third party that manufactures pre-clinical material purporting to be comparable to QS-21 Stimulon. The claims being made by this third party may create marketplace confusion and have an adverse effect on the goodwill generated by us and our partners with respect to QS-21 Stimulon. Any diminution of this goodwill may have an adverse effect on our ability to commercialize future products, if any, incorporating this technology, either alone or with a third party.

In competition with our Prophage Series product candidates, Genentech markets bevacizumab, and Eisai and Arbor Pharmaceuticals market carmustine. In addition, TVAX Biomedical and Stemline Therapeutics are developing immunotherapy candidates TVI-Brain-1 and SL-701, respectively, for recurrent glioma. Other companies are developing vaccine candidates for the treatment of patients with newly diagnosed glioma, such as ImmunoCellular Therapeutics (ICT-107), Northwest Biotherapeutics (DC-Vax), Immatics (IMA-950), Activartis Biotech (GBM-Vax), Annias Immunotherapeutics (CMV Vaccine) and Celldex (CDX-110). Other companies may begin development programs as well.

If any of our Prophage Services vaccines are developed in other indications or in combination with other product candidates, such as with CPMs, they could face additional competition in those indications or in those combinations. In addition, and prior to regulatory approval, if ever, our Prophage Series vaccines and all of our other product candidates may compete for access to patients with other products in clinical development, with products approved for use in the indications we are studying, or with off-label use of products in the indications we are studying. We anticipate that we will face increased competition in the future as new companies enter markets we seek to address and scientific developments surrounding immunotherapy and other traditional cancer therapies continue to accelerate.

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Our future growth depends on our ability to successfully identify, develop, acquire or in-license technologies, products and product candidates; otherwise, we may have limited growth opportunities.

An important part of our business strategy is to continue to develop a pipeline of product candidates by developing, acquiring or in-licensing products, businesses or technologies that we believe are a strategic fit with our existing business, such as our acquisition of rights to Carcinoembryonic Antigen Cell Adhesion Molecule 1 (CEACAM1) from Diatheva s.r.l. in July 2015. However, these business activities may entail numerous operational and financial risks, including:

difficulty or inability to secure financing to fund development activities for such development, acquisition or in-licensed products or technologies;

incurrence of substantial debt or dilutive issuances of securities to pay for development, acquisition or in-licensing of new technologies, products or product candidates;

disruption of our business and diversion of our management's time and attention;

higher than expected development, acquisition or in-license and integration costs;

exposure to unknown liabilities;

difficulty and cost in combining the technologies, operations and personnel of any acquired businesses with our technologies, operations and personnel;

inability to retain key employees of any acquired businesses;

difficulty in managing multiple product development programs; and

inability to successfully develop new products or clinical failure.

We have limited resources to identify and execute the development, acquisition or in-licensing of products, businesses and technologies and to integrate them into our current infrastructure. We may compete with larger pharmaceutical companies and other competitors in our efforts to establish new collaborations, and/or acquire, in-license, and/or advance new product candidates. These competitors likely will have access to greater financial resources than us and may have greater expertise in identifying and evaluating new opportunities. Moreover, we may devote resources to potential development, acquisitions or in-licensing opportunities that are never completed, or we may fail to realize the anticipated benefits of such efforts.

Failure to enter into and/or maintain significant licensing, distribution and/or collaboration agreements on favorable terms to us may hinder or cause us to cease our efforts to develop and commercialize our product candidates, increase our development timelines, and/or increase our need to rely on partnering or financing mechanisms, such as sales of debt or equity securities, to fund our operations and continue our current and anticipated programs.

As previously noted, our ability to advance our CPM programs depends in part on collaboration agreements such as our collaboration with Incyte. See Risk Factors Risks Related to Our Business We are dependent upon our collaboration with Incyte to further develop, manufacture and commercialize CPM antibodies against certain targets using our proprietary antibody discovery platforms. If we or Incyte fail to perform as expected, the potential for us to generate future revenues under the collaboration would be significantly reduced, the development and/or commercialization of these CPM antibodies may be terminated or substantially delayed, and our business would be

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severely harmed. In addition, from time to time we engage in efforts to enter into licensing, distribution and/or collaboration agreements with one or more pharmaceutical or biotechnology companies to assist us with development and/or commercialization of our other product candidates. If we are successful in entering into such agreements, we may not be able to negotiate agreements with economic terms similar to those negotiated by other companies. We may not, for example, obtain significant upfront payments, substantial royalty rates or milestones. If we fail to enter into any such agreements, our efforts to develop and/or commercialize our product candidates may be undermined. In addition, if we do not raise funds through any such agreements, we will need to rely on other financing mechanisms, such as sales of debt or equity securities, to fund our operations. Such financing mechanisms, if available, may not be sufficient or timely enough to advance our programs forward in a meaningful way in the short-term.

While we have been pursuing these business development efforts for several years for our Prophage Series vaccine, we have not entered into a substantial agreement other than the agreement with NewVac to sell Oncophage in Russia, which was unsuccessful and expired in 2014. In addition, other companies may not be interested in pursuing patient-specific vaccines like our Prophage Series vaccines, and many other companies have been and may continue to be unwilling to commit to an agreement prior to receipt of additional clinical data, if at all.

Because we rely on collaborators and licensees for the development and commercialization of most of our product candidate programs, these programs may not prove successful, and/or we may not receive significant payments from such parties.

Part of our strategy is to develop and commercialize a majority of our product candidates by continuing or entering into arrangements with academic, government, or corporate collaborators and licensees. Our success depends on our ability to negotiate such agreements on favorable terms and on the success of the other parties in performing research, pre-clinical and clinical testing, completing regulatory applications, and commercializing product candidates. Our research, development, and commercialization efforts with respect to antibody candidates from the Retrocyte Display and SECANT technology platforms are, in part, contingent upon the participation of institutional and corporate collaborators. For example, 4-AB has or has had collaboration arrangements with Ludwig Cancer Research, or LCR, and Brazil-based Recepta Biopharma SA, or Recepta, among others. In December 2014, we entered into a new license agreement with LCR, which replaced the prior agreement for some of our target programs. We are in continued discussions with LCR and Recepta with respect to certain of our other target programs. If we are not able to come to agreement on terms or maintain and optimize these arrangements, as well as advance other current or potential collaborations on terms favorable to us, this could have a negative impact on our operations. In February 2015 we began a broad collaboration with Incyte to pursue the discovery and development of CPMs. See Risk Factors-Risks Related to our Business-We are dependent upon our collaboration with Incyte to further develop, manufacture and commercialize CPM antibodies against certain targets using our proprietary antibody discovery platforms. If we or Incyte fail to perform as expected, the potential for us to generate future revenues under the collaboration would be significantly reduced, the development and/or commercialization of these CPM antibodies may be terminated or substantially delayed, and our business would be severely harmed.

In addition, substantially all product candidates containing QS-21 Stimulon depend on the success of our collaboration partners or licensees, and our relationships with these third parties. Such product candidates depend on our collaborators and licensees successfully enrolling patients and completing clinical trials, being committed to dedicating the resources necessary to advance these product candidates, obtaining regulatory approvals, and successfully manufacturing and commercializing product candidates.

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To date, the development of Prophage Series vaccine for the treatment of patients with glioma is dependent, in large part, on the efforts of the Alliance for Clinical Trials in Oncology, a NCI cooperative group, which is sponsoring a Phase 2 clinical trial of this product candidate in this indication. When our licensees or third party collaborators sponsor clinical trials using our product candidates, we cannot control the timing of enrollment, data readout, or quality of such trials or related activities. In addition, substantially all product candidates containing QS-21 Stimulon depend on the success of our collaboration partners or licensees, and our relationships with these third parties. Such product candidates depend on our collaborators and licensees successfully enrolling patients and completing clinical trials, being committed to dedicating the resources to advance these product candidates, obtaining regulatory approvals, and successfully manufacturing and commercializing product candidates. We previously granted NewVac an exclusive license to manufacture, market and sell Oncophage in the Russian Federation and certain other CIS countries, but the relationship was unsuccessful and expired in 2014 with no benefit to us.

Development activities for our collaboration programs may fail to produce marketable products due to unsuccessful results or abandonment of these programs, failure to enter into future collaborations or license agreements, or the inability to manufacture product supply requirements for our collaborators and licensees. Several of our agreements also require us to transfer important rights and regulatory compliance responsibilities to our collaborators and licensees. As a result of these collaboration agreements, we will not control the nature, timing, or cost of bringing these product candidates to market. Our collaborators and licensees could choose not to, or be unable to, devote resources to these arrangements or adhere to required timelines, or, under certain circumstances, may terminate these arrangements early. They may cease pursuing product candidates or elect to collaborate with different companies. In addition, these collaborators and licensees, outside of their arrangements with us, may develop technologies or products that are competitive with those that we are developing. From time to time, we may also become involved in disputes with our collaborators or licensees. Such disputes could result in the incurrence of significant expense, or the termination of collaborations. We may be unable to fulfill all of our obligations to our collaborators, which may result in the termination of collaborations. As a result of these factors, our strategic collaborations may not yield revenue. Furthermore, we may not be able to enter into new collaborations on favorable terms or at all. Failure to generate significant revenue from collaborations could increase our need to fund our operations through sales of debt or equity securities and would negatively affect our business prospects.

If we default on certain of our outstanding debt instruments and the repayment of such indebtedness is accelerated, our liquidity could be materially and adversely affected.

In February 2015, we exchanged the senior subordinated promissory notes that we issued in 2013 for new senior subordinated promissory notes in the aggregate principal amount of \$5.0 million with annual interest at 8%, and we issued an additional \$9.0 million principal amount of such notes, or the 2015 Subordinated Notes. The 2015 Subordinated Notes are due February 2018 and include default provisions that allow for the acceleration of the principal payment of the 2015 Subordinated Notes in the event we become involved in certain bankruptcy proceedings, become insolvent, fail to make a payment of principal or (after a grace period) interest on the 2015 Subordinated Notes, default on other indebtedness with an aggregate principal balance of \$13.5 million or more if such default has the effect of accelerating the maturity of such indebtedness, or become subject to a legal judgment or similar order for the payment of money in an amount greater than \$13.5 million if such amount will not be covered by third-party insurance. If we default on the 2015 Subordinated Notes and the repayment of such indebtedness is accelerated, our liquidity could be materially and adversely affected.

Our ability to satisfy our obligations under this indebtedness will depend upon our future performance, which is subject to many factors, including the factors identified in this Risk Factors section and other factors beyond our control. If we do not have sufficient cash on hand to service our indebtedness, we may be required, among other things, to:

seek additional financing in the debt or equity markets, (ii) refinance or restructure all or a portion of our indebtedness;

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sell, out-license, or otherwise dispose of assets; and/or

reduce or delay planned expenditures on research and development and/or future commercialization activities.

Such measures might not be sufficient to enable us to make timely principal and interest payments, if at all. In addition, any such financing, refinancing, or sale of assets might not be available on favorable terms, if at all.

Our ability to use net operating loss carryforwards to reduce future tax payments may be limited or restricted.

We have generated significant net operating loss carryforwards, or NOLs, as a result of our incurrence of losses since inception. We generally are able to carry NOLs forward to reduce taxable income in future years. However, our ability to utilize the NOLs is subject to the rules of Section 382 of the Internal Revenue Code of 1986, as amended.

Section 382 generally restricts the use of NOLs after an ownership change. An ownership change occurs if, among other things, the stockholders (or specified groups of stockholders) who own or have owned, directly or indirectly, 5% or more of a corporation's common stock or are otherwise treated as 5% stockholders under Section 382 and the United States Treasury Department regulations promulgated thereunder increase their aggregate percentage ownership of that corporation's stock by more than 50 percentage points over the lowest percentage of the stock owned by these stockholders over the applicable testing period. In the event of an ownership change, Section 382 imposes an annual limitation on the amount of taxable income a corporation may offset with NOL carry forwards. This annual limitation is generally equal to the product of the value of the corporation's stock on the date of the ownership change, multiplied by the long-term tax-exempt rate published monthly by the Internal Revenue Service. Any unused annual limitation may be carried over to later years until the applicable expiration date for the respective NOL carry forwards. We may have experienced an ownership change within the meaning of Section 382 in the past and there can be no assurance that we have not experienced additional ownership changes. As a result, our NOLs may be subject to limitations and we may be required to pay taxes earlier and in larger amounts than would be the case if our NOLs were freely usable. Any such limitation could have a material adverse effect on our results of operations in future years. We have not completed a study to assess whether an ownership change for purposes of Section 382 has occurred, or whether there have been multiple ownership changes since our inception, due to the significant costs and complexities associated with such a study.

Our internal computer systems, or those of our third-party clinical research organizations, licensees, collaborators or other contractors or consultants, may fail or suffer security breaches, which could result in a material disruption in our business and operations.

Despite the implementation of security measures, our internal computer systems and those of our current and future CROs, CMOs, licensees, collaborators and other contractors and consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. While we are not aware of any such material system failure, accident or security breach to date, if such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our development programs and our business operations. For example, the loss of clinical trial data from completed, on-going

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or future clinical trials could result in delays in our regulatory approval efforts and significant costs to recover or reproduce the data. Likewise, we rely on third parties to manufacture our drug candidates and conduct clinical trials, and similar events relating to their computer systems could also have a material adverse effect on our business. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liabilities and the further development and commercialization of our product candidates could be delayed.

We are highly reliant on our Chief Executive Officer, Chief Scientific Officer and other members of our management team. In addition, we have limited internal resources and if we fail to recruit and/or retain the services of key employees and external consultants as needed, we may not be able to achieve our strategic and operational objectives.

Both Garo H. Armen, Ph.D., the Chairman of our Board of Directors and our Chief Executive Officer who co-founded the Company in 1994, and Dr. Robert Stein, our Chief Scientific Officer who joined the Company in February 2014, are integral to building our company and developing our technology. If either Dr. Armen or Dr. Stein is unable or unwilling to continue his relationship with Agenus, our business may be adversely impacted.

Effective December 31, 2005, we entered into an employment agreement with Dr. Armen. Subject to the early termination of the agreement, the agreement had an original term of one year and is automatically extended thereafter for successive terms of one year each, unless either party provides notice to the other at least 90 days prior to the expiration of the original or any extension term. Effective June 30, 2015, we entered into an employment agreement with Dr. Stein. Subject to the early termination of the agreement, the agreement has an original term of one year and is automatically extended thereafter for successive terms of one year each, unless either party provides notice to the other at least 120 days prior to the expiration of the original or any extension term. Dr. Armen and Dr. Stein play important roles in our day-to-day activities. We do not carry key employee insurance policies for Dr. Armen, Dr. Stein or any other employee.

Our future growth success depends to a significant extent on the skills, experience and efforts of our executive officers and key members of our clinical and scientific staff. We face intense competition for qualified individuals from other pharmaceutical, biopharmaceutical and biotechnology companies, as well as academic and other research institutions. We may be unable to retain our current personnel or attract or assimilate other highly qualified management and clinical personnel in the future on acceptable terms. The loss of any or all of these individuals could harm our business and could impair our ability to support our collaboration with Incyte or to support our expected growth. If our management is unable to effectively manage our growth, our expenses may increase more than expected, our ability to generate revenue could be reduced and we may not be able to implement our business strategy.

We rely on a small staff of highly trained and experienced senior management and scientific, administrative and operations personnel and consultants to conduct our business in certain key areas of our organization.

The competition for qualified personnel in the biotechnology field is intense, and if we are not able to continue to attract and retain qualified personnel and/or maintain positive relationships with our outside consultants, we may not be able to achieve our strategic and operational objectives.

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Risks Related to Regulation of the Biopharmaceutical Industry

The drug development and approval process is uncertain, time-consuming, and expensive.

Clinical development, including pre-clinical testing and the process of obtaining and maintaining regulatory approvals for new therapeutic products, is lengthy, expensive, and uncertain. For example, as of June 30, 2015, we have spent approximately 20 years and \$312 million on our research and development program in heat shock proteins for cancer. The development and regulatory approval process also can vary substantially based on the type, complexity, and novelty of the product. We must provide regulatory authorities with manufacturing, product characterization, and pre-clinical and clinical data demonstrating that our product candidates are safe and effective before they can be approved for commercial sale. It may take us many years to complete our testing, and failure can occur at any stage of testing. Interim results of pre-clinical studies or clinical trials do not necessarily predict their final results, and acceptable results in early studies might not be seen in later studies. Any pre-clinical or clinical test may fail to produce results satisfactory to regulatory authorities for many reasons, including but not limited to insufficient product characterization, poor study structure conduct or statistical analysis planning, failure to enroll a sufficient number of patients or failure to prospectively identify the most appropriate patient eligibility criteria, and collectability of data. Pre-clinical and clinical data can be interpreted in different ways, which could delay, limit, or prevent regulatory approval. Negative or inconclusive results from a pre-clinical study or clinical trial, adverse medical events during a clinical trial, or safety issues resulting from products of the same class of drug could require a pre-clinical study or clinical trial to be repeated or cause a program to be terminated, even if other studies or trials relating to the program are successful. We or the FDA, other regulatory agencies, or an institutional review board may suspend or terminate human clinical trials at any time on various grounds.

The timing and success of a clinical trial is dependent on obtaining and maintaining sufficient cash resources, successful production of clinical trial material, enrolling sufficient patients in a timely manner, avoiding serious or significant adverse patient reactions, and demonstrating efficacy of the product candidate in order to support a favorable risk versus benefit profile, among other considerations. The timing and success of our clinical trials, in particular, are also dependent on clinical sites and regulatory authorities accepting each trial's protocol, statistical analysis plan, product characterization tests, and clinical data. In addition, regulatory authorities may request additional information or data that is not readily available. Delays in our ability to respond to such requests would delay, and failure to adequately address concerns would prevent, our commercialization efforts. We have encountered in the past, and may encounter in the future, delays in initiating trial sites and enrolling patients into our clinical trials. Future enrollment delays will postpone the dates by which we expect to complete the impacted trials and the potential receipt of regulatory approval. There is no guarantee we will successfully initiate and/or complete our clinical trials.

Delays or difficulties in obtaining regulatory approvals or clearances for our product candidates may:

adversely affect the marketing of any products we or our licensees or collaborators develop;

impose significant additional costs on us or our licensees or collaborators;

diminish any competitive advantages that we or our licensees or collaborators may attain;

limit our ability to receive royalties and generate revenue and profits; and

adversely affect our business prospects and ability to obtain financing.

Delays or failures in our receiving regulatory approval for our product candidates in a timely manner may result in us having to incur additional development expense and subject us to having to secure additional financing. As a result, we may not be able to commercialize them in the time frame anticipated, and our business will suffer.

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Even if we receive marketing approval for our product candidates, such product approvals could be subject to restrictions or withdrawals. Regulatory requirements are subject to change. Further, even if we receive marketing approval, we may not receive sufficient coverage and adequate reimbursement for our products.

Regulatory authorities generally approve products for particular indications. If an approval is for a limited indication, this limitation reduces the size of the potential market for that product. Product approvals, once granted, are subject to continual review and periodic inspections by regulatory authorities. Our operations and practices are subject to regulation and scrutiny by the United States government, as well as governments of any other countries in which we do business or conduct activities. Later discovery of previously unknown problems or safety issues, and/or failure to comply with domestic or foreign laws, knowingly or unknowingly, can result in various adverse consequences, including, among other things, possible delay in approval or refusal to approve a product, warning letters, fines, injunctions, civil penalties, recalls or seizures of products, total or partial suspension of production, refusal of the government to renew marketing applications, complete withdrawal of a marketing application, corrective action requirements, and/or criminal prosecution, withdrawal of an approved product from the market, and/or exclusion from government health care programs. Such regulatory enforcement could have a direct and negative impact on the product for which approval is granted, but also could have a negative impact on the approval of any pending applications for marketing approval of new drugs or supplements to approved applications.

Because we are a company operating in a highly regulated industry, regulatory authorities could take enforcement action against us in connection with our licensees or collaborators, and/or our business and marketing activities for various reasons. For example, the Foreign Corrupt Practices Act prohibits U.S. companies and their representatives from offering, promising, authorizing, or making payments to foreign governmental officials for the purpose of obtaining or retaining business abroad.

From time to time, new legislation is passed into law that could significantly change the statutory provisions governing the approval, manufacturing, and marketing of products regulated by the FDA and other foreign health authorities. Additionally, regulations and guidance are often revised or reinterpreted by health agencies in ways that may significantly affect our business and our products. It is impossible to predict whether further legislative changes will be enacted, or whether regulations, guidance, or interpretations will change, and what the impact of such changes, if any, may be. For example, the Patient Protection and Affordable Care Act and the Health Care and Education Affordability Reconciliation Act of 2010, collectively, the ACA, enacted in March 2010, substantially changed the way healthcare is financed by both governmental and private insurers, and significantly impacted the pharmaceutical industry. With regard to pharmaceutical products, among other things, ACA is expected to expand, increase, and change the methodology regarding industry rebates for drugs covered under Medicaid programs; impose an annual, nondeductible fee on any entity that manufactures or imports specific branded prescription drugs and biologic agents, apportioned among those entities according to market share in certain government healthcare programs; expand eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to certain individuals with income at or below 133% of the federal poverty level; expand the entities eligible for discounts under the Public Health Service pharmaceutical pricing program; create a new Patient Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; and make changes to the coverage requirements under the Medicare D program.

We expect both government and private health plans to continue to require healthcare providers, including healthcare providers that may one day purchase our products, to contain costs and demonstrate the value of the therapies they provide. Even if our product candidates are approved, the commercial success of our products will

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depend substantially on the extent to which they are covered by third-party payors, including government health authorities and private health insurers. In the United States, no uniform policy of coverage and reimbursement for products exists among third-party payors, and coverage and reimbursement for products can differ significantly from payor to payor. If coverage and reimbursement are not available, or reimbursement is available only to limited levels, we or our collaborators may not be able to successfully commercialize our product candidates.

New data from our research and development activities, and/or resource considerations could modify our strategy and result in the need to adjust our projections of timelines and costs of programs.

Because we are focused on novel technologies, our research and development activities, including our nonclinical studies and clinical trials, involve the ongoing discovery of new facts and the generation of new data, based on which we determine next steps for a relevant program. These developments can occur with varying frequency and constitute the basis on which our business is conducted. We make determinations on an ongoing basis as to which of these facts or data will influence timelines and costs of programs. We may not always be able to make such judgments accurately, which may increase the costs we incur attempting to commercialize our product candidates. We monitor the likelihood of success of our initiatives and we may need to discontinue funding of such activities if they do not prove to be commercially feasible, due to our limited resources.

We may need to successfully address a number of technological challenges in order to complete development of our product candidates. Moreover, these product candidates may not be effective in treating any disease or may prove to have undesirable or unintended side effects, toxicities, or other characteristics that may preclude our obtaining regulatory approvals or prevent or limit commercial use.

Risks Related to Intellectual Property Rights

If we are unable to obtain and enforce patent protection for our product candidates and related technology, our business could be materially harmed.

We rely upon a combination of patents, trade secret protection and confidentiality agreements to protect the intellectual property related to our product candidates and technology. Any disclosure to or misappropriation by third parties of our confidential proprietary information could enable competitors to duplicate or surpass our technological achievements, eroding our competitive position in the market. Our patent applications may not result in issued patents, and, even if issued, the patents may be challenged and invalidated. Moreover, our patents and patent applications may not be sufficiently broad to prevent others from practicing our technologies or developing competing products. We also face the risk that others may independently develop similar or alternative technologies or may design around our proprietary property.

Issued patents may be challenged, narrowed, invalidated or circumvented. In addition, court decisions may introduce uncertainty in the enforceability or scope of patents owned by biotechnology companies. The legal systems of certain countries do not favor the aggressive enforcement of patents, and the laws of foreign countries may not allow us to protect our inventions with patents to the same extent as the laws of the United States. Because patent applications in the United States and many foreign jurisdictions are typically not published until 18 months after filing, or in some cases not at all, and because publications of discoveries in scientific literature lag behind actual discoveries, we cannot be certain that we were the first to make the inventions claimed in our issued patents or pending patent applications, or that we were the first to file for protection of the inventions set forth in our patents or patent applications. As a result, we may not be able to obtain or maintain protection for certain inventions. Therefore, the enforceability and scope of our patents in the United States and in foreign countries cannot be

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predicted with certainty and, as a result, any patents that we own or license may not provide sufficient protection against competitors. We may not be able to obtain or maintain patent protection from our pending patent applications, from those we may file in the future, or from those we may license from third parties. Moreover, even if we are able to obtain patent protection, such patent protection may be of insufficient scope to achieve our business objectives.

Patent term may be inadequate to protect our competitive position on our product candidates for an adequate amount of time. Patents have a limited lifespan. In the United States, the natural expiration of a patent is generally 20 years after its effective filing date. Various extensions may be available; however the life of a patent, and the protection it affords, is limited. Without patent protection for our product candidates, we may be open to competition from generic versions of our product candidates. Furthermore, the product development timeline for biotechnology products is lengthy and it is possible that our issued patents covering our product candidates in the United States and other jurisdictions may expire prior to commercial launch. For example, if we encounter delays in our development efforts, including our clinical trials, the period of time during which we could market our product candidates under patent protection could be reduced.

Our strategy depends on our ability to identify and seek patent protection for our discoveries. This process is expensive and time consuming, and we and our current or future licensors may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner or in all jurisdictions where protection may be commercially advantageous. It is also possible that we or our current licensors, or any future licensors or licensees, may not identify patentable aspects of inventions made in the course of development and commercialization activities in time to obtain patent protection on them. Therefore, these and any of our patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business. Defects of form in the preparation or filing of our patents or patent applications may exist, or may arise in the future, for example with respect to proper priority claims, inventorship, etc. If we or our current licensors, or any future licensors or licensees, fail to establish, maintain or protect such patents and other intellectual property rights, such rights may be reduced or eliminated. If our current licensors, or any future licensors or licensees, are not fully cooperative or disagree with us as to the prosecution, maintenance or enforcement of any patent rights, such patent rights could be compromised. If there are material defects in the form or preparation of our patents or patent applications, such patents or applications may be invalid and unenforceable. Despite our efforts to protect our proprietary rights, unauthorized parties may be able to obtain and use information that we regard as proprietary. The issuance of a patent does not ensure that it is valid or enforceable, so even if we obtain patents, they may not be valid or enforceable against third parties. In addition, the issuance of a patent does not give us the right to practice the patented invention. Third parties may have blocking patents that could prevent us from marketing our own patented product and practicing our own patented technology. Any of these outcomes could impair our ability to prevent competition from third parties, which may have an adverse impact on our business.

The patent landscape in the field of therapeutic antibody development, manufacture and commercialization is crowded. For example, we are aware of third party patents directed to methods for identifying and producing therapeutic antibodies. We are also aware of third party patents directed to antibodies to numerous targets for which we also seek to identify, develop, and commercialize antibodies, including without limitation CTLA-4, PD-1, GITR, OX40, TIM-3, and LAG-3. For example, some patents claim antibodies based on competitive binding with existing antibodies, some claim antibodies based on specifying sequence or other structural information, and some claim various methods of discovery, production, or use of such antibodies.

These or other third party patents could impact our freedom to operate in relation to our technology platforms, including Retrocyte Display and SECANT, as well as in relation to development and commercialization of

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antibodies identified by us as therapeutic candidates. As we discover and develop our candidate antibodies, we will continue to conduct analyses of these third party patents to determine whether we believe we might infringe them, and if so, whether they would be likely to be deemed valid and enforceable if challenged. If we determine that a license for a given patent or family of patents is necessary or desirable, there can be no guarantee that a license would be available on favorable terms, or at all. Inability to obtain a license on favorable terms, should such a license be determined to be necessary or desirable, could, without limitation, result in increased costs to design around the third party patents, delay product launch, or result in cancellation of the affected program or cessation of use of the affected technology.

Third parties may also seek to market biosimilar versions of any approved products. Alternatively, third parties may seek approval to market their own products similar to or otherwise competitive with our products. In these circumstances, we may need to defend and/or assert our patents, including by filing lawsuits alleging patent infringement. In any of these types of proceedings, a court or agency with jurisdiction may find our patents invalid and/or unenforceable. Even if we have valid and enforceable patents, these patents still may not provide protection against competing products or processes sufficient to achieve our business objectives.

We have ownership of or exclusive rights to approximately 60 issued United States patents and approximately 120 issued foreign patents. We also have ownership of or exclusive rights to approximately 20 pending United States patent applications and approximately 40 pending foreign patent applications. However, our patents may not protect us against our competitors. Our patent positions, and those of other biopharmaceutical, pharmaceutical and biotechnology companies, are generally uncertain and involve complex legal, scientific, and factual questions. The standards which the United States Patent and Trademark Office, or USPTO, uses to grant patents, and the standards which courts use to interpret patents, are not always applied predictably or uniformly and can change, particularly as new technologies develop. Consequently, the level of protection, if any, that will be provided by our patents if we attempt to enforce them, and they are challenged, is uncertain. In addition, the type and extent of patent claims that will be issued to us in the future is uncertain. Any patents that are issued may not contain claims that permit us to stop competitors from using similar technology.

Through our acquisitions of 4-AB and certain assets of Celexion, LLC, we own a number of patents and patent applications directed to various methods and compositions, including methods for identifying therapeutic antibodies and product candidates arising out of such entities' technology platforms. In particular, we own patents and patent applications relating to Retrocyte Display technology platform, a high throughput antibody expression platform for the identification of fully-human and humanized monoclonal antibodies. This patent family is projected to expire between 2029 and 2031. We also own patents and patent applications relating to the SECANT platform, a platform used for the generation of novel monoclonal antibodies and efficient integration of drug targets such as CPMs. This patent family is projected to expire between 2028 and 2029. In addition, as we advance our research and development efforts with our institutional and corporate collaborators, we intend to seek patent protection for newly identified therapeutic antibodies and product candidates. We can provide no assurance that any of our patents, including the patents that were acquired along with 4-AB, will have commercial value, or that any of our existing or future patent applications, including the patent applications that were acquired with 4-AB, will result in the issuance of valid and enforceable patents.

The issued patents that cover the Prophage Series vaccines expire at various dates between 2015 and 2024. Our QS-21 Stimulon composition of matter patent family expired in 2008. Additional protection for QS-21 Stimulon in combination with other agents is provided by our other issued patents which expire between 2017 and 2022. We continue to explore means of extending the life cycle of our patent portfolio.

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The patent position of biopharmaceutical, pharmaceutical or biotechnology companies, including ours, is generally uncertain and involves complex legal and factual considerations. The standards which the USPTO and its foreign counterparts use to grant patents are not always applied predictably or uniformly and can change. There is also no uniform, worldwide policy regarding the subject matter and scope of claims granted or allowable in biopharmaceutical, pharmaceutical or biotechnology patents. The laws of some foreign countries do not protect proprietary information to the same extent as the laws of the United States, and many companies have encountered significant problems and costs in protecting their proprietary information in these foreign countries. Outside the United States, patent protection must be sought in individual jurisdictions, further adding to the cost and uncertainty of obtaining adequate patent protection outside of the United States. Accordingly, we cannot predict whether additional patents protecting our technology will issue in the United States or in foreign jurisdictions, or whether any patents that do issue will have claims of adequate scope to provide competitive advantage. Moreover, we cannot predict whether third parties will be able to successfully obtain claims or the breadth of such claims. The allowance of broader claims may increase the incidence and cost of patent interference proceedings, opposition proceedings, post-grant review, inter partes review, and/or reexamination proceedings, the risk of infringement litigation, and the vulnerability of the claims to challenge. On the other hand, the allowance of narrower claims does not eliminate the potential for adversarial proceedings, and may fail to provide a competitive advantage. Our issued patents may not contain claims sufficiently broad to protect us against third parties with similar technologies or products, or provide us with any competitive advantage.

Our patent on QS-21 Stimulon composition of matter has expired and we rely primarily on unpatented technology and know-how to protect our rights to QS-21 Stimulon.

Our QS-21 Stimulon composition of matter patent family has expired, and our patent rights are limited to protecting certain combinations of QS-21 Stimulon with other adjuvants or formulations of QS-21 Stimulon with other agents, such as excipients that improve performance of the compound. However, there is no guarantee that a third party would necessarily choose to use QS-21 Stimulon in combination with such adjuvants or formulate it with the other agents covered by our patents. We are aware of other companies that claim to produce material comparable to QS-21 Stimulon. At least one other party has also developed derivatives of QS-21 that have shown biological activity. Although our licenses also rely on unpatented technology, know-how, and confidential information, these intellectual property rights may not be enforceable in certain jurisdictions, and we may not be able to collect anticipated revenue from our licensees. Any such inability would have a material adverse effect on our business, financial condition and results of operations.

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

Third parties may infringe or misappropriate our intellectual property, including our existing patents, patents that may issue to us in the future, or the patents of our licensors to which we have a license. As a result, we may be required to file infringement claims to stop third-party infringement or unauthorized use. Further, we may not be able to prevent, alone or with our licensors, misappropriation of our intellectual property rights, particularly in countries where the laws may not protect those rights as fully as in the United States.

If we or one of our licensors were to initiate legal proceedings against a third party to enforce a patent covering our product candidates, the defendant could counterclaim that the patent covering our product candidates is invalid and/or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity and/or unenforceability are commonplace, and there are numerous grounds upon which a third party can assert invalidity or unenforceability of a patent.

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In addition, within and outside of the United States, there has been a substantial amount of litigation and administrative proceedings, including interference and reexamination proceedings before the USPTO or oppositions and other comparable proceedings in various foreign jurisdictions, regarding patent and other intellectual property rights in the biopharmaceutical industry. Recently, the AIA introduced new procedures, including inter partes review and post grant review. These procedures may be used by competitors to challenge the scope and/or validity of our patents, including those that patents perceived by our competitors as blocking entry into the market for their products, and the outcome of such challenges.

Even after they have been issued, our patents and any patents which we license may be challenged, narrowed, invalidated or circumvented. If our patents are invalidated or otherwise limited or will expire prior to the commercialization of our product candidates, other companies may be better able to develop products that compete with ours, which could adversely affect our competitive business position, business prospects and financial condition.

The following are examples of litigation and other adversarial proceedings or disputes that we could become a party to involving our patents or patents licensed to us:

we or our collaborators may initiate litigation or other proceedings against third parties to enforce our patent rights;

third parties may initiate litigation or other proceedings seeking to invalidate patents owned by or licensed to us or to obtain a declaratory judgment that their product or technology does not infringe our patents or patents licensed to us;

third parties may initiate opposition proceedings, post-grant review, inter partes review, or reexamination proceedings challenging the validity or scope of our patent rights, requiring us or our collaborators and/or licensors to participate in such proceedings to defend the validity and scope of our patents;

there may be a challenge or dispute regarding inventorship or ownership of patents currently identified as being owned by or licensed to us;

the USPTO may initiate an interference or derivation proceeding between patents or patent applications owned by or licensed to us and those of our competitors, requiring us or our collaborators and/or licensors to participate in an interference or derivation proceeding to determine the priority of invention, which could jeopardize our patent rights; or

third parties may seek approval to market biosimilar versions of our future approved products prior to expiration of relevant patents owned by or licensed to us, requiring us to defend our patents, including by filing lawsuits alleging patent infringement.

These lawsuits and proceedings would be costly and could affect our results of operations and divert the attention of our managerial and scientific personnel. There is a risk that a court or administrative body could decide that our

patents are invalid or not infringed by a third party's activities, or that the scope of certain issued claims must be further limited. An adverse outcome in a litigation or proceeding involving our own patents could limit our ability to assert our patents against these or other competitors, affect our ability to receive royalties or other licensing consideration from our licensees, and may curtail or preclude our ability to exclude third parties from making, using and selling similar or competitive products. An adverse outcome may also put our pending patent applications at risk

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of not issuing, or issuing with limited and potentially inadequate scope to cover our product candidates. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. Additionally, it is also possible that prior art of which we are aware, but which we do not believe affects the validity or enforceability of a claim, may, nonetheless, ultimately be found by a court of law or an administrative panel to affect the validity or enforceability of a claim, for example, if a priority claim is found to be improper. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, we could lose at least part, and perhaps all, of the patent protection on our relevant product candidates. Such a loss of patent protection could have a material adverse impact on our business.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation or administrative proceedings, there is a risk that some of our confidential information could be compromised by disclosure. In addition, during the course of litigation or administrative proceedings, there could be public announcements of the results of hearings, motions or other interim proceedings or developments or public access to related documents. If investors perceive these results to be negative, the market price for our common stock could be significantly harmed.

Any of these occurrences could adversely affect our competitive business position, business prospects, and financial condition.

Intellectual property rights do not necessarily address all potential threats to our competitive advantage. The degree of future protection for our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. For example:

others may be able to develop a platform that is similar to, or better than, ours in a way that is not covered by the claims of our patents;

others may be able to make compounds that are similar to our product candidates but that are not covered by the claims of our patents;

we might not have been the first to make the inventions covered by patents or pending patent applications;

we might not have been the first to file patent applications for these inventions;

any patents that we obtain may not provide us with any competitive advantages or may ultimately be found invalid or unenforceable; or

we may not develop additional proprietary technologies that are patentable.

Our commercial success depends significantly on our ability to operate without infringing the patents and other proprietary rights of third parties.

Our success will depend in part on our ability to operate without infringing the proprietary rights of third parties. Other entities may have or obtain patents or proprietary rights that could limit our ability to make, use, sell, offer for sale or import our future approved products or impair our competitive position. In particular the patent landscape around the discovery, development, manufacture and commercial use of our six pre-clinical CPM antibody programs and therapeutic antibodies is crowded.

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Third parties may have or obtain valid and enforceable patents or proprietary rights that could block us from developing product candidates using our technology. Our failure to obtain a license to any technology that we require may materially harm our business, financial condition and results of operations. Moreover, our failure to maintain a license to any technology that we require may also materially harm our business, financial condition, and results of operations. Furthermore, we would be exposed to a threat of litigation.

In the biopharmaceutical industry, significant litigation and other proceedings regarding patents, patent applications, trademarks and other intellectual property rights have become commonplace. The types of situations in which we may become a party to such litigation or proceedings include:

we or our collaborators may initiate litigation or other proceedings against third parties seeking to invalidate the patents held by those third parties or to obtain a judgment that our products or processes do not infringe those third parties' patents;

if our competitors file patent applications that claim technology also claimed by us or our licensors, we or our licensors may be required to participate in interference, derivation or other proceedings to determine the priority of invention, which could jeopardize our patent rights and potentially provide a third party with a dominant patent position;

if third parties initiate litigation claiming that our processes or products infringe their patent or other intellectual property rights, we and our collaborators will need to defend against such proceedings; and

if a license to necessary technology is terminated, the licensor may initiate litigation claiming that our processes or products infringe or misappropriate their patent or other intellectual property rights and/or that we breached our obligations under the license agreement, and we and our collaborators would need to defend against such proceedings.

These lawsuits would be costly and could affect our results of operations and divert the attention of our management and scientific personnel. There is a risk that a court would decide that we or our collaborators are infringing the third party's patents and would order us or our collaborators to stop the activities covered by the patents. In that event, we or our collaborators may not have a viable alternative to the technology protected by the patent and may need to halt work on the affected product candidate or cease commercialization of an approved product. In addition, there is a risk that a court will order us or our collaborators to pay the other party damages. An adverse outcome in any litigation or other proceeding could subject us to significant liabilities to third parties and require us to cease using the technology that is at issue or to license the technology from third parties. We may not be able to obtain any required licenses on commercially acceptable terms or at all. Any of these outcomes could have a material adverse effect on our business.

The biopharmaceutical industry has produced a significant number of patents, and it may not always be clear to industry participants, including us, which patents cover various types of products or methods of use. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform or predictable. 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. If we are unable to avoid infringing the patent rights

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of others, we may be required to seek a license, defend an infringement action or challenge the validity of the patents in court. Patent litigation is costly and time consuming. We may not have sufficient resources to bring these actions to a successful conclusion. In addition, if we do not obtain a license, develop or obtain non-infringing technology, fail to defend an infringement action successfully or have infringed patents declared invalid, we may incur substantial monetary damages, encounter significant delays in bringing our product candidates to market and be precluded from manufacturing or selling our product candidates.

The cost of any patent litigation or other proceeding, even if resolved in our favor, could be substantial. Some of our competitors may be able to sustain the cost of such litigation and proceedings more effectively than we can because of their substantially greater resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace. Patent litigation and other proceedings may also absorb significant management time.

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

We are currently party to various intellectual property license agreements. These license agreements impose, and we expect that future license agreements may impose, various diligence, milestone payment, royalty, insurance and other obligations on us. These licenses typically include an obligation to pay an upfront payment, yearly maintenance payments and royalties on sales. If we fail to comply with our obligations under the licenses, the licensors may have the right to terminate their respective license agreements, in which event we might not be able to market any product that is covered by the agreements. Termination of the license agreements or reduction or elimination of our licensed rights may result in our having to negotiate new or reinstated licenses with less favorable terms, which could adversely affect our competitive business position and harm our business.

If we are unable to protect the confidentiality of our proprietary information, the value of our technology and products could be adversely affected.

In addition to patent protection, we also rely on other proprietary rights, including protection of trade secrets, and other proprietary information. To maintain the confidentiality of trade secrets and proprietary information, we enter into confidentiality agreements with our employees, consultants, collaborators and others upon the commencement of their relationships with us. These agreements require that all confidential information developed by the individual or made known to the individual by us during the course of the individual's relationship with us be kept confidential and not disclosed to third parties. Our agreements with employees and our personnel policies also provide that any inventions conceived by the individual in the course of rendering services to us shall be our exclusive property. However, we may not obtain these agreements in all circumstances, and individuals with whom we have these agreements may not comply with their terms. Thus, despite such agreement, such inventions may become assigned to third parties. In the event of unauthorized use or disclosure of our trade secrets or proprietary information, these agreements, even if obtained, may not provide meaningful protection, particularly for our trade secrets or other confidential information. To the extent that our employees, consultants or contractors use technology or know-how owned by third parties in their work for us, disputes may arise between us and those third parties as to the rights in related inventions. To the extent that an individual who is not obligated to assign rights in intellectual property to us is rightfully an inventor of intellectual property, we may need to obtain an assignment or a license to that intellectual property from that individual, or a third party or from that individual's assignee. Such assignment or license may not be available on commercially reasonable terms or at all.

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Adequate remedies may not exist in the event of unauthorized use or disclosure of our proprietary information. The disclosure of our trade secrets would impair our competitive position and may materially harm our business, financial condition and results of operations. Costly and time consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to maintain trade secret protection could adversely affect our competitive business position. In addition, others may independently discover or develop our trade secrets and proprietary information, and the existence of our own trade secrets affords no protection against such independent discovery.

As is common in the biopharmaceutical industry, we employ individuals who were previously or concurrently employed at research institutions and/or other biopharmaceutical, biotechnology or pharmaceutical companies, including our competitors or potential competitors. We may be subject to claims that these employees, or we, have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers, or that patents and applications we have filed to protect inventions of these employees, even those related to one or more of our product candidates, are rightfully owned by their former or concurrent employer. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

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

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and/or applications will be due to the USPTO and various foreign patent offices at various points over the lifetime of our patents and/or applications. We have systems in place to remind us to pay these fees, and we rely on our outside counsel or service providers to pay these fees when due. Additionally, the USPTO and various foreign patent offices require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. We employ reputable law firms and other professionals to help us comply, and in many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with rules applicable to the particular jurisdiction. However, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. If such an event were to occur, it could have a material adverse effect on our business. In addition, we are responsible for the payment of patent fees for patent rights that we have licensed from other parties. If any licensor of these patents does not itself elect to make these payments, and we fail to do so, we may be liable to the licensor for any costs and consequences of any resulting loss of patent rights.

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

Obtaining and enforcing patents in the biopharmaceutical industry involves both technological and legal complexity, and therefore, is costly, time-consuming and inherently uncertain. In addition, the United States has recently enacted and is currently implementing wide-ranging patent reform legislation. Further, recent U.S. Supreme Court rulings have either narrowed the scope of patent protection available in certain circumstances or weakened the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained.

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For our U.S. patent applications containing a claim not entitled to priority before March 16, 2013, there is a greater level of uncertainty in the patent law. In September 2011, the Leahy-Smith America Invents Act, or the American Invents Act, or AIA, was signed into law. The AIA includes a number of significant changes to U.S. patent law, including provisions that affect the way patent applications will be prosecuted and may also affect patent litigation. The USPTO is currently developing regulations and procedures to govern administration of the AIA, and many of the substantive changes to patent law associated with the AIA. It is not clear what other, if any, impact the AIA will have on the operation of our business. Moreover, the AIA and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business and financial condition.

An important change introduced by the AIA is that, as of March 16, 2013, the United States transitioned to a first-to-file system for deciding which party should be granted a patent when two or more patent applications are filed by different parties claiming the same invention. A third party that files a patent application in the USPTO after that date but before us could therefore be awarded a patent covering an invention of ours even if we had made the invention before it was made by the third party. This will require us to be cognizant going forward of the time from invention to filing of a patent application. Furthermore, our ability to obtain and maintain valid and enforceable patents depends on whether the differences between our technology and the prior art allow our technology to be patentable over the prior art. Since patent applications in the United States and most other countries are confidential for a period of time after filing, we cannot be certain that we were the first to either (i) file any patent application related to our product candidates or (ii) invent any of the inventions claimed in our patents or patent applications.

Among some of the other changes introduced by the AIA are changes that limit where a patentee may file a patent infringement suit and providing opportunities for third parties to challenge any issued patent in the USPTO. This applies to all of our U.S. patents, even those issued before March 16, 2013. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in United States federal court necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action. Accordingly, a third party may attempt to use the USPTO procedures to invalidate our patent claims that would not have been invalidated if first challenged by the third party as a defendant in a district court action.

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

We may have received confidential and proprietary information from third parties. In addition, we employ individuals who were previously employed at other biopharmaceutical, biotechnology or pharmaceutical companies. We may be subject to claims that we or our employees, consultants or independent contractors have inadvertently or otherwise improperly used or disclosed confidential information of these third parties or our employees' former employers. Further, we may be subject to ownership disputes in the future arising, for example, from conflicting obligations of consultants or others who are involved in developing our product candidates. We may also be subject to claims that former employees, consultants, independent contractors, collaborators or other third parties have an ownership interest in our patents or other intellectual property. Litigation may be necessary to defend against these and other claims challenging our right to and use of confidential and proprietary information. If we fail in defending any such claims, in addition to paying monetary damages, we may lose our rights therein. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against these claims, litigation could result in substantial cost and be a distraction to our management and employees.

Table of Contents***We may not be able to protect our intellectual property rights throughout the world.***

Filing, prosecuting and defending patents on our product candidates in all countries throughout the world would be prohibitively expensive. The requirements for patentability may differ in certain countries, particularly developing countries. For example, China has a heightened requirement for patentability, and specifically requires a detailed description of medical uses of a claimed drug. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as laws in the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection, but enforcement on infringing activities is inadequate. These products may compete with our product candidates, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biopharmaceuticals, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our proprietary rights generally. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing, and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. In addition, certain countries in Europe and certain developing countries, including India and China, have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In those countries, we may have limited remedies if our patents are infringed or if we are compelled to grant a license to our patents to a third party, which could materially diminish the value of those patents. This could limit our potential revenue opportunities. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we own or license. Finally, our ability to protect and enforce our intellectual property rights may be adversely affected by unforeseen changes in foreign intellectual property laws.

Risks Related to Litigation***We may face litigation or regulatory investigations that could result in substantial damages and may divert management's time and attention from our business.***

From time to time we may become a party to legal proceedings, claims and investigations that arise in the ordinary course of business such as, but not limited to, patent, employment, commercial and environmental matters. While we currently believe that the ultimate outcome of any of these proceedings will not have a material adverse effect on our financial position, results of operations, or liquidity, litigation is subject to inherent uncertainty. Furthermore, litigation consumes both cash and management attention.

We maintain property and general commercial insurance coverage as well as errors and omissions and directors and officers insurance policies. This insurance coverage may not be sufficient to cover us for future claims.

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

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FDA, to comply with manufacturing standards we have established, to comply with federal and state health care fraud and abuse, transparency, and/or data privacy and security laws and regulations, to report financial information or data accurately or to disclose unauthorized activities to us. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, kickbacks, self-dealing and other abusive practices; to promote transparency; and to protect the privacy and security of patient data. 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.

While we have adopted a corporate compliance program, we may not be able to protect against all potential issues of noncompliance. Efforts to ensure that our business complies with all applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations, or case law involving applicable laws and regulations.

Employee misconduct could also involve the improper use or disclosure of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. In addition, during the course of our operations, our directors, executives and employees may have access to material, nonpublic information regarding our business, our results of operations or potential transactions we are considering. We may not be able to prevent a director, executive or employee from trading in our common stock on the basis of, or while having access to, material, nonpublic information. If a director, executive or employee was to be investigated, or an action was to be brought against a director, executive or employee for insider trading, it could have a negative impact on our reputation and our stock price. Such a claim, with or without merit, could also result in substantial expenditures of time and money, and divert attention of our management team.

Product liability and other claims against us may reduce demand for our products and/or result in substantial damages.

We face an inherent risk of product liability exposure related to testing our product candidates in human clinical trials and may face even greater risks if we ever sell products commercially. An individual may bring a product liability claim against us if one of our product candidates causes, or merely appears to have caused, an injury. Product liability claims may result in:

regulatory investigations;

injury to our reputation;

withdrawal of clinical trial volunteers;

costs of related litigation; and

substantial monetary awards to plaintiffs; and

decreased demand for any future products.

We manufacture the Prophage Series vaccines from a patient's cancer cells, and medical professionals must inject the vaccines into the same patient from which they were manufactured. A patient may sue us if a hospital, a shipping company, or we fail to receive the removed cancer tissue or deliver that patient's vaccine. We anticipate that the logistics of shipping will become more complex if the number of patients we treat increases and that

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shipments of tumor and/or vaccines may be lost, delayed, or damaged. Additionally, complexities unique to the logistics of commercial products may delay shipments and limit our ability to move commercial product in an efficient manner without incident. We do not have any other insurance that covers loss of or damage to the Prophage Series vaccines or tumor material, and we do not know whether such insurance will be available to us at a reasonable price or at all. We have limited product liability coverage for use of our product candidates. Our product liability policy provides \$10.0 million aggregate coverage and \$10.0 million per occurrence coverage. This limited insurance coverage may be insufficient to fully cover us for future claims.

We are also subject to laws generally applicable to businesses, including but not limited to, federal, state and local wage and hour, employee classification, mandatory healthcare benefits, unlawful workplace discrimination and whistle-blowing. Any actual or alleged failure to comply with any regulation applicable to our business or any whistle-blowing claim, even if without merit, could result in costly litigation, regulatory action or otherwise harm our business, results of operations, financial condition, cash flow and future prospects.

If we do not comply with environmental laws and regulations, we may incur significant costs and potential disruption to our business.

We use or may use hazardous, infectious, and radioactive materials, and recombinant DNA in our operations, which have the potential of being harmful to human health and safety or the environment. We store these hazardous (flammable, corrosive, toxic), infectious, and radioactive materials, and various wastes resulting from their use, at our facilities pending use and ultimate disposal. We are subject to a variety of federal, state, and local laws and regulations governing use, generation, storage, handling, and disposal of these materials. We may incur significant costs complying with both current and future environmental health and safety laws and regulations. In particular, we are subject to regulation by the Occupational Safety and Health Administration, the Environmental Protection Agency, the Drug Enforcement Agency, the Department of Transportation, the Centers for Disease Control and Prevention, the National Institutes of Health, the International Air Transportation Association, and various state and local agencies. At any time, one or more of the aforementioned agencies could adopt regulations that may affect our operations. We are also subject to regulation under the Toxic Substances Control Act and the Resource Conservation Development programs.

Although we believe that our current procedures and programs for handling, storage, and disposal of these materials comply with federal, state, and local laws and regulations, we cannot eliminate the risk of accidents involving contamination from these materials. Although we have a workers' compensation liability policy, we could be held liable for resulting damages in the event of an accident or accidental release, and such damages could be substantially in excess of any available insurance coverage and could substantially disrupt our business.

Risks Related to our Common Stock

Provisions in our organizational documents could prevent or frustrate attempts by stockholders to replace our current management.

Our certificate of incorporation and bylaws contain provisions that could make it more difficult for a third party to acquire us without the consent of our Board of Directors. Our certificate of incorporation provides for a staggered board and removal of directors only for cause. Accordingly, stockholders may elect only a minority of our Board at any annual meeting, which may have the effect of delaying or preventing changes in management. In addition, under our certificate of incorporation, our Board of Directors may issue additional shares of preferred stock and determine the terms of those shares of stock without any further action by our stockholders. Our issuance of

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additional preferred stock could make it more difficult for a third party to acquire a majority of our outstanding voting stock and thereby effect a change in the composition of our Board of Directors. Our certificate of incorporation also provides that our stockholders may not take action by written consent. Our bylaws require advance notice of stockholder proposals and director nominations and permit only our president or a majority of the Board of Directors to call a special stockholder meeting. These provisions may have the effect of preventing or hindering attempts by our stockholders to replace our current management. In addition, Delaware law prohibits a corporation from engaging in a business combination with any holder of 15% or more of its capital stock until the holder has held the stock for three years unless, among other possibilities, the board of directors approves the transaction. Our Board of Directors may use this provision to prevent changes in our management. Also, under applicable Delaware law, our Board of Directors may adopt additional anti-takeover measures in the future.

The first right to negotiate provision contained in our agreement with one of our licensees could hinder or delay a change of control of our company or the sale of certain of our assets.

We have entered into a First Right to Negotiate and Amendment Agreement with GSK that affords GSK, one of our licensees, a first right to negotiate with us in the event we determine to initiate a process to effect a change of control of our company with, or to sell certain of our assets to, an unaffiliated third party or in the event that a third party commences an unsolicited tender offer seeking a change of control of our company. In such event, we must provide GSK a period of time to determine whether it wishes to negotiate the terms of such a transaction with us. If GSK affirmatively so elects, we are required to negotiate with GSK in good faith towards effecting a transaction of that nature for a specified period. During the negotiation period, we are obligated not to enter into a definitive agreement with a third party that would preclude us from negotiating and/or executing a definitive agreement with GSK. If GSK determines not to negotiate with us or we are unable to come to an agreement with GSK during this period, we may enter into the specified change of control or sale transaction within the following 12 months, provided that such a transaction is not on terms in the aggregate that are materially less favorable to us and our stockholders (as determined by our Board of Directors, in its reasonable discretion) than terms last offered to us by GSK in a binding written proposal during the negotiation period. The first right to negotiate terminates on March 2, 2017. Although GSK's first right to negotiate does not compel us to enter into a transaction with GSK nor prevent us from negotiating with or entering into a transaction with a third party, the first right to negotiate could inhibit a third party from engaging in discussions with us concerning such a transaction or delay our ability to effect such a transaction with a third party.

Our stock has historically had low trading volume, and its public trading price has been volatile.

For the period from our initial public offering on February 4, 2000 to June 30, 2015, and for the six months ended June 30, 2015, the closing price of our common stock has fluctuated between \$1.80 (or \$0.30 pre-reverse stock split) and \$315.78 (or \$52.63 pre-reverse stock split) per share and \$3.91 and \$9.78 per share, respectively. The average daily trading volume for the six months ended June 30, 2015 was approximately 2,043,324 shares while the average daily trading volume for the year ended December 31, 2014 was approximately 728,000. The market may experience significant price and volume fluctuations that are often unrelated to the operating performance of individual companies. In addition to general market volatility, many factors may have a significant adverse effect on the market price of our stock, including:

continuing operating losses, which we expect over the next several years as we continue our development activities;

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announcements of decisions made by public officials or delays in any such announcements;

results of our pre-clinical studies and clinical trials or delays in anticipated timing;

delays in our regulatory filings or those of our partners, such as our planned IND filings for CPM product candidates;

announcements of new collaboration agreements with strategic partners or developments by our existing collaboration partners;

announcements of acquisitions;

announcements of technological innovations, new commercial products, failures of products, or progress toward commercialization by our competitors or peers;

failure to realize the anticipated benefits of acquisitions;

developments concerning proprietary rights, including patent and litigation matters;

publicity regarding actual or potential results with respect to product candidates under development;

quarterly fluctuations in our financial results;

variations in the level of expenses related to any of our product candidates or clinical development programs;

additions or departures of key management or scientific personnel;

conditions or trends in the biopharmaceutical, biotechnology and pharmaceutical industries generally;

other events or factors, including those resulting from war, incidents of terrorism, natural disasters or responses to these events;

changes in accounting principles;

general economic and market conditions and other factors that may be unrelated to our operating performance or the operating performance of our competitors, including changes in market valuations of similar companies; and

sales of common stock by us or our stockholders in the future, as well as the overall trading volume of our common stock.

In the past, securities class action litigation has often been brought against a company following a significant decline in the market price of its securities. This risk is especially relevant for us because biopharmaceutical, biotechnology and pharmaceutical companies generally experience significant stock price volatility.

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us or our business. If one or more of the analysts who covers us downgrades our stock, or publishes inaccurate or unfavorable research about our business, our stock price would likely decline. If one or more of these analysts ceases coverage of us or fails to publish reports on us regularly, demand for our stock could decrease, which could cause our stock price and trading volume to decline.

Table of Contents***The sale of a significant number of shares could cause the market price of our stock to decline.***

The sale by us or the resale by stockholders of a significant number of shares of our common stock could cause the market price of our common stock to decline. As of June 30, 2015, we had 84,257,543 shares of common stock outstanding including our sale of 12,650,000 shares of our common stock in our underwritten public offering completed in May 2015. All of these shares are eligible for sale on NASDAQ, although certain of the shares are subject to sales volume and other limitations. As of June 30, 2015, we had filed registration statements to permit the sale of approximately 12,200,000 shares of common stock under our equity incentive plans. We have also filed registration statements to permit the sale of approximately 167,000 shares of common stock under our employee stock purchase plan, to permit the sale of 225,000 shares of common stock under our Directors' Deferred Compensation Plan, to permit the sale of approximately 8,848,000 shares of common stock pursuant to various private placement agreements and to permit the sale of approximately 10,000,000 shares of our common stock pursuant to our At Market Issuance Sales Agreement. As of June 30, 2015, an aggregate of approximately 22.0 million of these shares remain available for sale. We also intend to file one or more registration statements to register an additional 4,000,000 shares for issuance under our equity incentive plan and an additional 100,000 shares for issuance under our Directors' Deferred Compensation Plan, both of which were approved by our stockholders at our annual stockholder meeting on June 24, 2015. In connection with our acquisition of 4-AB in February 2014, we are obligated to make contingent milestone payments to the former shareholders of 4-AB, payable in cash or shares of our common stock at our option, as follows (i) \$10 million upon our market capitalization exceeding \$750 million for 30 consecutive trading days prior to the earliest of (a) the tenth anniversary of the Closing Date (b) the sale of 4-AB or (c) the sale of Agenus and (ii) \$10 million upon our market capitalization exceeding \$1.0 billion for 30 consecutive trading days prior to the earliest of (a) the tenth anniversary of the Closing Date, (b) the sale of 4-AB or (c) the sale of Agenus. In addition, as additional consideration for assets that we purchased from Celexion, we agreed to pay to Celexion \$4.0 million on each of the 12-month and 24-month anniversaries of the Closing Date payable at our discretion in cash, shares of our common stock, or any combination thereof. We intend to file one or more registration statements covering the resale of shares of our common stock held by certain of our stockholders or investors in 2015. We are also obligated to file registration statements covering any additional shares that may be issued to Celexion in the future pursuant to the terms of our agreement with Celexion.

As of June 30, 2015, warrants to purchase approximately 4,351,450 shares of our common stock with a weighted average exercise price per share of \$9.01 were outstanding.

As of June 30, 2015, options to purchase 7,908,570 shares of our common stock with a weighted average exercise price per share of \$4.65 were outstanding. These options are subject to vesting that occurs over a period of up to four years following the date of grant. As of June 30, 2015 we had 46,705 nonvested shares outstanding.

As of June 30, 2015, our outstanding shares of Series A-1 Convertible Preferred Stock were convertible into 333,333 shares of our common stock.

We may issue additional common stock, preferred stock, restricted stock units, or securities convertible into or exchangeable for our common stock. Furthermore, substantially all shares of common stock for which our outstanding stock options or warrants are exercisable are, once they have been purchased, eligible for immediate sale in the public market. The issuance of additional common stock, preferred stock, restricted stock units, or securities convertible into or exchangeable for our common stock or the exercise of stock options or warrants would dilute existing investors and could adversely affect the price of our securities. In addition, such securities may have rights senior to the rights of securities held by existing investors.

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

We have never declared or paid any cash dividend on our common stock and do not intend to do so in the foreseeable future. We currently anticipate that we will retain future earnings for the development, operation and expansion of our business. Therefore, the success of an investment in shares of our common stock will depend upon any future appreciation in their value. There is no guarantee that shares of our common stock will appreciate in value or maintain their current value.

Failure to maintain effective internal controls in accordance with Section 404 of the Sarbanes-Oxley Act of 2002 and to comply with changing regulation of corporate governance and public disclosure could have a material adverse effect on our operating results and the price of our common stock.

The Sarbanes-Oxley Act of 2002 and rules adopted by the SEC and NASDAQ have resulted in significant costs to us. In particular, our efforts to comply with Section 404 of the Sarbanes-Oxley Act of 2002 and related regulations regarding the required assessment of our internal control over financial reporting, and our independent registered public accounting firm's audit of internal control over financial reporting, have required commitments of significant management time. We expect these commitments to continue.

Our internal control over financial reporting (as defined in Rules 13a-15 of the Exchange Act) is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our consolidated financial statements for external purposes in accordance with U.S. GAAP. Because of its inherent limitations, internal control over financial reporting may not prevent or detect all deficiencies or weaknesses in our financial reporting. While our management has concluded that there were no material weaknesses in our internal control over financial reporting as of December 31, 2014, our procedures are subject to the risk that our controls may become inadequate because of changes in conditions or as a result of a deterioration in compliance with such procedures. No assurance is given that our procedures and processes for detecting weaknesses in our internal control over financial reporting will be effective.

We anticipate additional commitments of management time to ensure that our internal control over financial reporting of the operations of 4-AB complies with Section 404 of the Sarbanes-Oxley Act of 2002. Prior to the acquisition, 4-AB was a privately held company organized under the laws of Switzerland and, as such, it had not been subject to financial reporting requirements applicable to public companies and was not required to prepare and publish audited financial statements in accordance with U.S. GAAP. Accordingly, our on-going efforts to ensure that our internal control over the financial reporting of the operations of 4-AB will cause us to incur significant additional costs.

Changing laws, regulations and standards relating to corporate governance and public disclosure, are creating uncertainty for companies. Laws, regulations and standards are subject to varying interpretations in some cases due to their lack of specificity, and as a result, their application in practice may evolve over time as new guidance is provided, which could result in continuing uncertainty regarding compliance matters and higher costs caused by ongoing revisions to disclosure and governance practices. If we fail to comply with these laws, regulations and standards, our reputation may be harmed and we might be subject to sanctions or investigation by regulatory authorities, such as the SEC. Any such action could adversely affect our operating results and the market price of our common stock.

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DESCRIPTION OF FINANCING TRANSACTION AND WARRANTS

On April 15, 2013, we entered into a Note Purchase Agreement with certain investors (the Existing Investors), pursuant to which we issued to the Existing Investors (i) senior subordinated promissory notes in the aggregate principal amount of \$5.0 million that were scheduled to mature on April 14, 2015 (the 2013 Notes) and (ii) four-year warrants to purchase 500,000 shares of our common stock.

On February 20, 2015, we entered into an Amended and Restated Note Purchase Agreement with the Existing Investors and certain additional investors, pursuant to which we (i) cancelled the 2013 Notes in exchange for new senior subordinated promissory notes (the 2015 Notes) in the aggregate principal amount of \$5.0 million, (ii) issued additional 2015 Notes in the aggregate principal amount of \$9.0 million and (iii) issued new five-year warrants to purchase 1,400,000 shares of our common stock (the Warrants).

The Warrants have an exercise price of \$5.10 per share and are exercisable at any time on or before February 20, 2020. The number of shares of our common stock into which the Warrants are exercisable and the exercise price will be adjusted to reflect any stock splits, reverse stock splits, payment of stock dividends, recapitalizations, reclassifications or other similar adjustments in the number of outstanding shares of our common stock. The exercise price may also be adjusted to reflect certain dividends or other distributions, including distributions of stock or other securities, property or options by way of a dividend, reorganization, reclassification, consolidation, merger or similar transaction. As of the date of this prospectus, none of the Warrants have been exercised by the selling stockholders.

DESCRIPTION OF CAPITAL STOCK

Agenus is authorized to issue up to 140,000,000 shares of common stock, par value \$0.01 per share, with 84,257,543 issued and outstanding as of June 30, 2015. Agenus is also authorized to issue up to 5,000,000 shares of preferred stock, par value \$0.01 per share, with 31,620 shares of Series A-1 convertible preferred stock issued and outstanding as of June 30, 2015.

The material terms and provisions of our common stock, our preferred stock and each other class of our securities that qualifies or limits our common stock, are described in our Registration Statement on Form 8-A filed January 24, 2000, which is incorporated by reference in this prospectus. For the complete terms of our common stock, preferred stock and preferred stock purchase rights, please refer to our certificate of incorporation and by-laws that we have filed with the Securities and Exchange Commission. The terms of these securities may also be affected by the General Corporation Law of the State of Delaware.

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USE OF PROCEEDS

We are registering these shares pursuant to registration rights granted to the selling stockholders in the Amended and Restated Note Purchase Agreement. We are not selling any securities under this prospectus and will not receive any proceeds from the sale or other disposition of the shares covered hereby. We have agreed to pay all costs, expenses and fees relating to registering the shares of our common stock referenced in this prospectus. The selling stockholders will pay any brokerage commissions and/or similar charges incurred in connection with the sale or other disposition by them of the shares covered hereby.

The selling stockholders are not obligated to exercise their Warrants, and we cannot predict whether selling stockholders will choose to exercise all or any of their Warrants. At the time this registration statement was filed, none of the selling stockholders had exercised their warrants. However, if all of the Warrants were exercised for cash, we would receive gross proceeds of approximately \$7.1 million. Any funds received from the exercise of the Warrants will be used by us for general corporate purposes.

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SELLING STOCKHOLDERS

We have prepared this prospectus to allow the selling stockholders or their pledgees, donees, transferees or other successors in interest, to sell or otherwise dispose of, from time to time, up to an aggregate amount of 1,400,000 shares of common stock issuable upon the exercise of the Warrants plus an indeterminate number of shares of common stock that may be issued as a result of stock splits, stock dividends or similar transactions as described in the Warrants. The table below presents information regarding the selling stockholders, the shares of common stock beneficially owned by each of them prior to the issuance of the Warrants, the shares of common stock that they may sell or otherwise dispose of from time to time under this prospectus and the number and percentage of our common stock each of the selling stockholders will own assuming all of the shares covered by this prospectus are sold by the selling stockholders.

We do not know when or in what amounts the selling stockholders may sell or otherwise dispose of the shares of common stock covered hereby. The selling stockholders might not sell or dispose of any or all of the shares covered by this prospectus or may sell or dispose of some or all of the shares other than pursuant to this prospectus. Because the selling stockholders may not sell or otherwise dispose of some or all of the shares covered by this prospectus and because there are currently no agreements, arrangements or understandings with respect to the sale or other disposition of any of the shares, we cannot estimate the number of the shares that will be held by the selling stockholders after completion of the offering. However, for purposes of this table, we have assumed that all of the Warrants covered by this prospectus will be exercised by the selling stockholders, all of the shares of common stock covered by this prospectus will be sold by the selling stockholders and that any other shares of our common stock beneficially owned by these selling stockholders will continue to be beneficially owned.

The information in the table is based on 84,257,543 shares outstanding as of June 30, 2015 and was prepared based on information supplied to us by the selling stockholders. Beneficial ownership is determined in accordance with Section 13(d) of the Exchange Act and generally includes voting or investment power with respect to securities and including any securities that grant the selling stockholder the right to acquire shares of common stock within 60 days of June 30, 2015. Other than the transactions referred to herein and in documents filed by us with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, the selling stockholders have not within the past three years had any position, office or other material relationship with us or any of our subsidiaries other than as a holder of our securities.

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Name of Selling Stockholder	Beneficial Ownership of Common Stock Prior to the Offering		Common Stock that May Be Offered Pursuant to This Prospectus(1)	Beneficial Ownership of Common Stock After the Offering	
	Number of Shares	Percent of Class (%)	Number of Shares(2)	Number of Shares(2)	Percent of Class (%)
Mark and Nicole Berg	1,612,833(3)	1.9	400,000	462,833(11)	*
Alice Saraydarian	151,200(4)	*	100,000	51,200	*
Khajak Keledjian	100,000(5)	*	50,000	50,000	*
Nicky V LLC	450,000(6)	*	450,000		*
MSB Research Inc.	150,000(7)	*	150,000		*
Khalil Barrage	230,000(8)	*	50,000	180,000	*
E*TRADE Clearing LLC, Custodian FBO: Mark Berg IRA	152,833(9)	*	150,000	2,833	*
Jaymon Investments, LLC	50,000(10)	*	50,000		*

* Less than one percent.

- (1) Represents shares of our common stock issuable upon exercise of warrants. The number of shares of our common stock issuable upon exercise of warrants is subject to adjustment as a result of stock splits, dividends or similar transactions as set forth in the Warrants. As a result, the number of shares issuable upon exercise of the warrants may increase or decrease in the future. Only the shares issuable upon exercise of the Warrants are being offered hereby.
- (2) Assumes that all the shares of the selling stockholders covered by this prospectus are sold, and that the selling stockholders do not acquire any additional shares of common stock before the completion of this offering. However, as each selling stockholder can offer all, some, or none of its common stock, no definitive estimate can be given as to the number of shares that any selling stockholder will ultimately offer or sell under this prospectus.
- (3) Shares beneficially owned by Mark and Nicole Berg include (i) shares underlying warrants issued to Mark and Nicole Berg to purchase up to 400,000 shares of our common stock that may be exercised in whole or in part at any time or from time to time on or before February 20, 2020, (ii) shares underlying warrants issued to Mark and Nicole Berg to purchase up to 400,000 shares of our common stock that may be exercised in whole or in part at any time or from time to time on or before April 15, 2017, (iii) shares underlying warrants issued to Nicky V LLC to purchase up to 450,000 shares of our common stock that may be exercised in whole or in part at any time or from time to time on or before February 20, 2020, which Nicole Berg has sole voting and dispositive control over, (iv) shares underlying warrants issued to MSB Research Inc. to purchase up to 150,000 shares of our common stock that may be exercised in whole or in part at any time or from time to time on or before February 20, 2020, which Mark Berg has sole voting and dispositive control over, (v) shares underlying warrants issued to E*TRADE Clearing LLC, Custodian FBO: Mark Berg IRA to purchase up to 150,000 shares of our common stock that may be exercised in whole or in part at any time or from time to time on or before February 24, 2020, which Mark Berg has sole voting and dispositive control over, (vi) 60,000 shares of our common stock owned by Mark Berg individually and (vii) 2,833 shares of our common stock held in the name of E*TRADE Clearing LLC, Custodian FBO: Mark Berg IRA, which Mark Berg has sole voting and dispositive control over.
- (4) Shares beneficially owned by Alice Saraydarian include (i) shares underlying warrants to purchase up to 100,000 shares of our common stock that may be exercised in whole or in part at any time or from time to time on or before February 20, 2020, (ii) shares underlying warrants to purchase up to 50,000 shares of our common stock that may be exercised in whole or in part at any time or from time to time on or before April 15, 2017 and (iii)

- 1,200 shares of our common stock owned by Alice Saraydarian.
- (5) Shares beneficially owned by Khajak Keledjian include (i) shares underlying warrants to purchase up to 50,000 shares of our common stock that may be exercised in whole or in part at any time or from time to time on or before February 20, 2020 and (ii) shares underlying warrants to purchase up to 50,000 shares of our common stock that may be exercised in whole or in part at any time or from time to time on or before April 15, 2017.
 - (6) Shares beneficially owned by Nicky V LLC include shares underlying warrants to purchase up to 450,000 shares of our common stock that may be exercised in whole or in part at any time or from time to time on or before February 20, 2020.
 - (7) Shares beneficially owned by MSB Research Inc. include shares underlying warrants to purchase up to 150,000 shares of our common stock that may be exercised in whole or in part at any time or from time to time on or before February 20, 2020.
 - (8) Shares beneficially owned by Khalil Barrage include (i) 180,000 shares of our common stock and (ii) shares underlying warrants to purchase up to 50,000 shares of our common stock that may be exercised in whole or in part at any time or from time to time on or before February 20, 2020.

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- (9) Shares beneficially owned by E*TRADE Clearing LLC, Custodian FBO: Mark Berg IRA include (i) shares underlying warrants to purchase up to 150,000 shares of our common stock that may be exercised in whole or in part at any time or from time to time on or before February 24, 2020 and (ii) 2,833 shares of our common stock.
- (10) Shares beneficially owned by Jaymon Investments, LLC include shares underlying warrants to purchase up to 50,000 shares of our common stock that may be exercised in whole or in part at any time or from time to time on or before February 25, 2020.
- (11) Assumes that all of the shares covered by this prospectus and beneficially owned by Mark and Nicole Berg are sold by Mark and Nicole Berg and each of the following selling stockholders: (i) Nicky V LLC, (ii) MSB Research Inc., and (iii) E*TRADE Clearing LLC, Custodian FBO: Mark Berg IRA.

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PLAN OF DISTRIBUTION

The selling stockholders, including their pledgees, donees, transferees, distributees, beneficiaries or other successors in interest, may from time to time offer some or all of the shares of common stock covered by this prospectus. We will not receive any of the proceeds from the sale of the shares of common stock covered by this prospectus by the selling stockholders. We will bear all fees and expenses incident to our obligation to register the shares of our common stock covered by this prospectus.

The selling stockholders may sell all or a portion of the shares of common stock beneficially owned by them and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. If the shares of common stock are sold through underwriters or broker-dealers, the selling stockholders will be responsible for underwriting discounts or commissions or agent's commissions. The shares of common stock may be sold on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale, in the over-the-counter market or in transactions otherwise than on these exchanges or systems or in the over-the-counter market and in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or at privately negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;

block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;

purchases by a broker-dealer as principal and resale by the broker-dealer for its account;

an over-the-counter distribution;

an exchange distribution in accordance with the rules of the applicable exchange;

privately negotiated transactions;

short sales effected after the effective date of the registration statement of which this prospectus is a part;

through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;

broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;

a combination of any such methods of sale; or

any other method permitted pursuant to applicable law.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of the selling stockholder(s) to include the pledgee, transferee, or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

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In connection with the sale of shares of our common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

Broker-dealers engaged by a selling stockholder may arrange for other broker-dealers to participate in sales. If a selling stockholder effects certain transactions by selling shares of common stock to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling stockholder or commissions from purchasers of the shares of common stock for whom they may act as agent or to whom they may sell as principal. Such commissions will be in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction will not be in excess of a customary brokerage commission in compliance with applicable FINRA rules; and in the case of a principal transaction a markup or markdown in compliance with applicable FINRA rules.

The aggregate proceeds to a selling stockholder from the sale of the common stock offered by it will be the purchase price of the common stock less discounts or commissions, if any. Each selling stockholder reserves the right to accept and, together with its agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering.

The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, provided that they meet the criteria and conform to the requirements of that rule.

Each selling stockholder and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be deemed to be underwriters within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. The selling stockholders are subject to the prospectus delivery requirements of the Securities Act.

To the extent required pursuant to Rule 424(b) under the Securities Act, the shares of our common stock to be sold, the name of each selling stockholder, the purchase price and public offering price, the names of any agents, dealer or underwriter, and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

Each selling stockholder and any other person participating in a sale of the common stock registered under this prospectus will be subject to applicable provisions of the Securities Exchange Act of 1934, as amended (the Exchange Act), and the rules and regulations thereunder, including, without limitation, to the extent applicable, Regulation M of the Securities Exchange Act, which may limit the timing of purchases and sales of any of the shares of common stock

by the selling stockholders and any other participating person. All of the foregoing may affect the marketability of the shares of common stock and the ability of any person or entity to engage in market-making activities with respect to the shares of common stock. In addition, we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purposes of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

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We have agreed with the selling stockholders to keep the registration statement, of which this prospectus constitutes a part, effective unless the continued use of this registration statement would require us to disclose information so that this registration statement would not be materially misleading and we have a business justification for not disclosing that information publicly at that time.

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LEGAL MATTERS

The validity of the securities that may be offered hereby will be passed upon for us by Choate, Hall & Stewart LLP.

EXPERTS

The consolidated financial statements of Agenus Inc., as of December 31, 2014 and 2013, and for each of the years in the three-year period ended December 31, 2014, and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2014 have been incorporated by reference herein and in the registration statement in reliance upon the reports of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing. The audit report on the effectiveness of internal control over financial reporting as of December 31, 2014 contains an explanatory paragraph that states Agenus Inc. acquired 4-Antibody AG during 2014, and management excluded from its assessment of the effectiveness of Agenus Inc. and subsidiaries' internal control over financial reporting as of December 31, 2014 4-Antibody AG's internal control over financial reporting associated with total assets of approximately \$4.2 million and revenue of \$1.5 million that was included in Agenus Inc.'s consolidated financial statements as of and for the year ended December 31, 2014. The audit of internal control over financial reporting of Agenus Inc. and subsidiaries also excluded an evaluation of the internal control over financial reporting of 4-Antibody AG.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the information requirements of the Exchange Act, and files annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any materials we file with the SEC at the Public Reference Room of the SEC at Room 1580, 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. In addition, we file many of our documents electronically with the SEC, and you may access those documents over the Internet. The SEC maintains a web site that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. The address of the SEC's website is <http://www.sec.gov>. Documents we have filed with the SEC are also available on our website through the investor link at www.agenusbio.com. The contents of our website are not part of, or incorporated into, this prospectus. In addition, we regularly use our website to post information regarding our business, product development programs and governance that may be important to investors, and we encourage investors to use our website, particularly the information in the sections entitled "Financial and News," as sources of information about us.

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INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference in this prospectus the information we file with the SEC. This helps us disclose certain important information to you by referring you to the documents we file. The information we incorporate by reference is an important part of this prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded. We incorporate by reference each of the documents listed below (File No. 000-29089).

our Annual Report on Form 10-K for the year ended December 31, 2014;

our Quarterly Reports on Form 10-Q for the quarters ended June 30, 2015 and March 31, 2015;

our Current Reports on Form 8-K filed on July 24, 2015, July 20, 2015, June 30, 2015, June 17, 2015, June 3, 2015, June 1, 2015, May 27, 2015, May 21, 2015, May 14, 2015, April 28, 2015, April 24, 2015, April 8, 2015, February 26, 2015, February 19, 2015 and January 9, 2015 (except, with respect to each of the foregoing, for portions of such reports which were deemed to be furnished and not filed);

our Proxy Statement on Schedule 14A filed on April 30, 2015; and

the description of our common stock contained in our registration statement on Form 8-A filed under the Securities Exchange Act of 1934, as amended (the Exchange Act) on January 24, 2000, including any amendment or reports filed for the purpose of updating such descriptions.

We also incorporate by reference into this prospectus additional documents that we may file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the completion or termination of the offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information deemed furnished and not filed with the SEC. Any statements contained in a previously filed document incorporated by reference into this prospectus is deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, or in a subsequently filed document also incorporated by reference herein, modifies or supersedes that statement.

This prospectus may contain information that updates, modifies or is contrary to information in one or more of the documents incorporated by reference in this prospectus. You should rely only on the information incorporated by reference or provided in this prospectus. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus is accurate as of any date other than the date of this prospectus or the date of the documents incorporated by reference in this prospectus.

We will provide to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request, at no cost to the requester, a copy of any and all of the information that is incorporated by reference in

this prospectus.

Requests for such documents should be directed to:

Agenus Inc.

3 Forbes Road

Lexington, MA 02421

Attention: Legal Department

Telephone: (781) 674-4400

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CAUTIONARY NOTE ABOUT FORWARD-LOOKING STATEMENTS

This prospectus, any prospectus supplement, and any information incorporated by reference into this prospectus or prospectus supplement may contain certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Exchange Act. You can identify these forward-looking statements by the fact they use words such as could, expect, anticipate, estimate, target, may, project, guidance, intention, will, potential, opportunity, future and other words and terms of similar meaning and expression in connection with any discussion of future operating or financial performance. You can also identify forward-looking statements by the fact that they do not relate strictly to historical or current facts. Such forward-looking statements are based on current expectations and involve inherent risks and uncertainties, including factors that could delay, divert or change any of them, and could cause actual outcomes to differ materially from current expectations. These statements are likely to relate to, among other things, our business strategy, our research and development, our product development efforts, our ability to commercialize our product candidates, the activities of our licensees, our prospects for initiating partnerships or collaborations, the timing of the introduction of products, the effect of new accounting pronouncements, uncertainty regarding our future operating results and our profitability, anticipated sources of funds as well as our plans, objectives, expectations and intentions.

Although we believe we have been prudent in its plans and assumptions, no assurance can be given that any goal or plan set forth in forward-looking statements can be achieved and readers are cautioned not to place undue reliance on such statements, which speak only as of the date made. We undertake no obligation to release publicly any revisions to forward-looking statements as a result of new information, future events or otherwise.

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, 2015

PROSPECTUS

1,400,000 Shares of Common Stock

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The following table sets forth the various expenses in connection with the registration of the securities offered hereby. Agenus Inc. will bear all of these expenses. All amounts are estimated except for the SEC registration fee:

Item	Amount
SEC registration fee	\$ 1,174.55
Legal fees and expenses	15,000*
Accounting fees and expenses	8,500*
Printing and related expenses	5,500*
Miscellaneous	1,000*
Total	\$ 31,174.55

* Estimated

Item 15. *Indemnification of Directors and Officers*

Section 145 of the Delaware General Corporation Law permits, in general, a Delaware corporation to indemnify any person who was or is a party to any proceeding (other than an action by, or in the right of, the corporation) by reason of the fact that he or she is or was a director or officer of the corporation, or served another business enterprise in any capacity at the request of the corporation, against liability incurred in connection with such proceeding, including the expenses (including attorney's fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such proceeding, if such person acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation and, in criminal actions or proceedings, additionally had no reasonable cause to believe that his or her conduct was unlawful. A Delaware corporation's power to indemnify applies to actions brought by or in the right of the corporation as well, but only to the extent of expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of the action or suit, provided that no indemnification shall be provided in such actions in the event of any adjudication of negligence or misconduct in the performance of such person's duties to the corporation, unless a court believes that in light of all the circumstances indemnification should apply. Section 145 of the Delaware General Corporation Law also permits, in general, a Delaware corporation to purchase and maintain insurance on behalf of any person who is or was a director or officer of the corporation, or served another entity in any capacity at the request of the corporation, against liability incurred by such person in such capacity, whether or not the corporation would have the power to indemnify such person against such liability.

We have entered into indemnification agreements with each of our directors and certain executive officers and have obtained insurance covering our directors and officers against losses and insuring us against certain of our obligations to indemnify our directors and officers.

Our Fifth Amended and Restated By-Laws provide that we shall indemnify each of our directors and officers, to the maximum extent permitted from time to time by law, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by reason of the fact that he or she is a director or officer.

This right of indemnification conferred in our Fifth Amended and Restated By-Laws is not exclusive of any other right.

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In addition, as permitted by Section 102 of the Delaware General Corporation Law, our Amended and Restated Certificate of Incorporation includes a provision that eliminates the personal liability of our directors for monetary damages for breach of their fiduciary duty as directors except for liability (i) for any breach of the director's duty of loyalty to the Company or its stockholders, (ii) for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the Delaware General Corporation Law, or (iv) for any transaction from which the director derived an improper personal benefit.

These indemnification provisions may be sufficiently broad to permit indemnification of our directors and officers for liabilities (including reimbursement of expenses incurred) arising under the Securities Act.

Item 16. Exhibits

The following Exhibits are incorporated herein by reference:

- 4.1 Form of Common Stock Certificate. Filed as Exhibit 4.1 to our Current Report on Form 8-K (File No. 000-29089) filed on January 6, 2011 and incorporated herein by reference.
- 4.2 Amended and Restated Note Purchase Agreement dated as of February 20, 2015, as amended, by and among Agenus Inc. and the Purchasers listed on Schedule 1.1 thereto. Filed as Exhibit 4.2 to our Quarterly Report on Form 10-Q to our Quarterly Report on Form 10-Q (File No. 000-2089) filed on May 1, 2015 and incorporated herein by reference.
- 4.3 Form of Warrant under Amended and Restated Note Purchase Agreement, dated February 20, 2015, as amended, by and among Agenus Inc. and the Purchasers listed on Schedule 1.1 thereto. Filed as Exhibit 4.4 to our Quarterly Report on Form 10-Q (File No. 000-2089) filed on May 1, 2015 and incorporated herein by reference.
- 5.1 Opinion of Choate, Hall & Stewart LLP.
- 23.1 Consent of Choate, Hall & Stewart LLP (included in Exhibit 5.1).
- 23.2 Consent of KPMG LLP, an independent registered public accounting firm.
- 24.1 Power of Attorney (included in the signature page to this Registration Statement).

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Item 17. Undertakings

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the Calculation of Registration Fee table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in this registration statement;

Provided, however, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) of this section do not apply if the registration statement is on Form S-3 or Form F-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

- (i) If the registrant is relying on Rule 430B:
 - (A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415 (a)(1)(i), (vii) or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and

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any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

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 effective date, 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 effective date.

- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) The undersigned registrant hereby further undertakes that, for the purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (c) The undersigned registrant hereby undertakes to deliver or cause to be delivered with the prospectus, to each person to whom the prospectus is sent or given, the latest annual report to security holders that is incorporated by

reference in the prospectus and furnished pursuant to and meeting the requirements of Rule 14a-3 or Rule 14c-3 under the Securities Exchange Act of 1934; and, where interim financial information required to be presented by Article 3 of Regulation S-X is not set forth in the prospectus, to deliver, or cause to be delivered to each person to whom the prospectus is sent or given, the last quarterly report that is specifically incorporated by reference in the prospectus to provide such interim financial information.

- (d) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the Town of Lexington, Commonwealth of Massachusetts, on this 21st day of August, 2015.

AGENUS INC.

By: /s/ Garo H. Armen
Garo H. Armen

Chief Executive Officer and Chairman of
the Board

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KNOW ALL PERSONS BY THESE PRESENTS, that each individual whose signature appears below hereby constitutes and appoints Garo H. Armen, Karen H. Valentine, C. Evan Ballantyne and Christine M. Klaskin, jointly and severally, his or her true and lawful attorneys-in-fact and agents with full powers of substitution, for him and in his name, place and stead, in any and all capacities, to sign any and all supplements amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below on the dates indicated by the following persons in the capacities indicated.

SIGNATURE	TITLE	DATE
/s/ Garo H. Armen Garo H. Armen	Chief Executive Officer and Chairman of the Board of Directors (Principal Executive Officer)	August 21, 2015
/s/ C. Evan Ballantyne C. Evan Ballantyne	Chief Financial Officer (Principal Financial Officer)	August 21, 2015
/s/ Christine M. Klaskin Christine M. Klaskin	Vice President, Finance (Principal Accounting Officer)	August 21, 2015
/s/ Brian Corvese Brian Corvese	Director	August 21, 2015
/s/ Tom Dechaene Tom Dechaene	Director	August 21, 2015
/s/ Wadih Jordan Wadih Jordan	Director	August 21, 2015
/s/ Shahzad Malik Shahzad Malik	Director	August 21, 2015
/s/ Shalini Sharp Shalini Sharp	Director	August 21, 2015

/s/ Timothy R. Wright

Director

August 21, 2015

Timothy R. Wright

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INDEX TO EXHIBITS

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