

AGENUS INC  
Form 10-K  
March 16, 2015

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

Form 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2014

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number: 000-29089

Agenus Inc.

(exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

3 Forbes Road, Lexington, Massachusetts 02421

(Address of principal executive offices, including zip code)

Registrant's telephone number, including area code:

(781) 674-4400

Securities registered pursuant to Section 12(b) of the Act:

Common Stock, \$.01 Par Value

(Title of each class)

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulations S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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.

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

The aggregate market value of voting stock held by non-affiliates of the registrant as of June 30, 2014 was: \$147.3 million. There were 70,759,935 shares of the registrant's Common Stock outstanding as of February 24, 2015.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the definitive proxy statement for the registrant's 2015 Annual Meeting of Stockholders, which definitive proxy statement will be filed with the Securities and Exchange Commission not later than 120 days after the registrant's fiscal year end of December 31, 2014, are incorporated by reference into Part III of this Annual Report on Form 10-K.

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#### Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K and other written and oral statements the Company makes from time to time contain certain “forward-looking” statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. You can identify these forward-looking statements by the fact they use words such as “could,” “expect,” “anticipate,” “estimate,” “target,” “may,” “project,” “guidance,” “intend,” “plan,” “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 the current expectations of our management 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, our ability to successfully integrate the operations of our wholly-owned subsidiary, 4-Antibody AG, the timing of the introduction of products, the effect of new accounting pronouncements, uncertainty regarding our future operating results and our profitability, availability of additional capital as well as our plans, objectives, expectations, and intentions.

Although we believe we have been prudent in our 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.

We believe that the risks identified in this Annual Report on Form 10-K, including, without limitation, the risks set forth in Part I-item 1A. "Risk Factors," could cause actual results to differ materially from any forward-looking statement contained in this Annual Report on Form 10-K. We encourage you to read those descriptions carefully. We caution investors not to place significant reliance on forward-looking statements contained in this document; such statements need to be evaluated in light of all the information contained in this document. Furthermore, the statements speak only as of the date of this document, and we undertake no obligation to update or revise these statements. Oncophage<sup>®</sup>, Stimulon<sup>®</sup> and Retrocyte Display<sup>™</sup> are trademarks of Agenus Inc. and its subsidiaries.

## PART I

### Item 1. Business

#### Our Business

Agenus Inc. (including its subsidiaries, also referred to as “Agenus,” the “Company,” “we,” “us,” and “our”) is an immunotherapy company discovering and developing innovative treatments for patients with cancer and other diseases in which modulation of immune function could provide therapeutic benefit. Our approaches are driven by three platform technologies:

- our antibody platform, including our proprietary Retrocyte Display™ technology designed to produce quality human monoclonal antibodies, currently focused on advancing 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 (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™ platform is applied to the discovery and development of antibodies, including those targeting significant checkpoint targets. Through collaborative arrangements with our partners, Agenus has preclinical programs targeting GITR, OX40, CTLA-4, LAG-3, TIM-3 and PD-1.

In February 2015, Agenus entered into a broad, global alliance with Incyte Corporation (Incyte) 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 Sharpe & Dohme (Merck) 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.

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. We also reported positive results in June 2014 from a Phase 2 clinical trial with our HerpV vaccine candidate for genital herpes.

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 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 for its malaria vaccine using QS-21 Stimulon in October 2013. QS-21 Stimulon is also being used in a vaccine for Alzheimer’s disease in partnership with Janssen

Sciences Ireland UC, or Janssen.

Our business activities have included 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.

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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. Our common stock is currently listed on The Nasdaq Capital Market (“Nasdaq”) under the symbol “AGEN.”

#### Our Products and Technologies Under Development

Our research and development expenses for the years ended December 31, 2014, 2013, and 2012, were \$22.3 million, \$13.0 million, and \$10.6 million respectively. Set forth below are the details of our research and development programs.

#### Retrocyte Display™ and the Checkpoint Antibody Program

We acquired our Retrocyte Display™ platform in February 2014 when we acquired 4-Antibody AG (“4-AB”), a private European-based biopharmaceutical company. Retrocyte Display™ (Retroviral B Lymphocyte Display) is a proprietary antibody discovery platform designed for the rapid discovery and optimization of fully-human and humanized monoclonal antibodies against a wide array of molecular targets. The Retrocyte Display™ platform is designed to rapidly screen and generate quality therapeutic antibody drug candidates using a high-throughput approach incorporating human antibody libraries expressed in mammalian B-lymphocytes. This approach is intended to combine the speed and diversity of an in vitro discovery platform with the selectivity of an in vivo system yielding high affinity antibodies. We are applying this antibody platform to discover and optimize CPMs that regulate immune response to cancers and other diseases. In addition to the use of the Retrocyte Display™ platform to drive the discovery of future CPMs and potentially other antibody candidates, we may also employ a variety of techniques to discover and optimize our antibody candidates.

Checkpoints are processes that regulate immune response within the body. Checkpoints can:

- contribute to the rapid activation of the immune system when there is a threat of infection;
- help to prevent immune responses to false alarms;
- dampen on-going immune responses when a threat has been eliminated; and
- limit the extent of the immune response so that collateral damage to unimpaired tissues is minimized.

There are dozens of checkpoints as well as ligands that interact with these checkpoints, each of which are expressed on various cell types involved in immune responses. In most instances, these checkpoints and ligands work extremely well to control and shape our immune responses and promote our health. In the last decade, however we have begun to understand that these checkpoint processes can also intensify diseases, including cancer and auto-immune diseases. Understanding the roles that checkpoint processes can play in cancer has led to great advances in the treatment of many patients with advanced cancer. We have learned that, while cancer can be recognized by the immune system as “non-self” and trigger potential immune control, cancer can hijack checkpoint processes to protect itself from either immune detection or immune destruction. Advances in cancer treatment are rapidly emerging based on therapeutic monoclonal antibodies targeting checkpoint receptors or their ligands, facilitating immune response against cancers. Some of the CPM antibodies that have been developed to date include Bristol-Myers Squibb’s ipilimumab and nivolumab and Merck’s pembrolizumab. Agents like these have not only led to increased survival periods for many patients with certain forms of cancer, such as melanoma and lung cancer, they are leading to apparent cures in patients with advanced metastatic cancer.

We currently have pre-clinical programs exploring fully human and humanized monoclonal antibodies against six important checkpoint targets: GITR, OX40, CTLA-4, PD-1, TIM-3, and LAG-3. We are working to discover and develop monoclonal CPM antibodies to modulate the activity of these targets and selectively reactivate the immune system and thwart attempts by cancer to evade destruction. We believe these CPM antibodies will be beneficial in the treatment of cancer patients by allowing the immune system to more effectively recognize and destroy cancer cells. We have selected product candidates targeting GITR, OX40, CTLA-4 and PD-1 to advance into IND-enabling studies. In addition, we plan to identify development candidates for TIM-3 and LAG-3 during 2015. We also plan to file INDs for one or more of our previously identified product candidates in 2015 and for at least three product candidates in 2016. We anticipate initiating clinical trials with our first CPM product candidates in 2016.

#### Partnered Retrocyte Display and CPM Programs

In February 2015, Agenus entered into a broad, global alliance with Incyte to develop and commercialize novel immune-therapeutics using our Retrocyte Display™ platform. The collaboration is initially focused on four CPM

programs that target GITR, OX40, TIM-3 and LAG-3. Pursuant to the terms of the collaboration, Incyte made non-creditable, non-refundable upfront payments to Agenus totaling \$25.0 million. The parties will share all costs and profits for the GITR and OX40 antibody programs on a 50:50 basis. Incyte is obligated to reimburse our development costs that we incur in connection with LAG-3 and TIM-3 antibody programs, and Agenus is eligible to receive royalties for future product sales, if any. For each

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profit-share product, Agenus will be eligible to receive up to \$20.0 million in future contingent development milestones. For each royalty-bearing product, Agenus will be eligible to receive (i) up to \$155.0 million in future contingent development, regulatory, and commercialization milestones and (ii) tiered royalties on global net sales at rates generally ranging from 6%-12%. For each royalty-bearing product, Agenus will also have the right to elect to co-fund 30% of development costs incurred following initiation of pivotal clinical trials in return for increased royalties. In addition to the initial four antibody programs subject to the collaboration, Agenus and Incyte have the option to jointly nominate and pursue the development and commercialization of CPM programs that target additional checkpoint targets during a five-year discovery period. For each antibody arising from a program that the parties elect to bring into the collaboration, Agenus will have the option to designate that program as one in which the parties will share costs and profits, or one in which Incyte will fund developmental costs with Agenus eligible to receive milestones and royalties. Concurrent with the execution of the collaboration agreement, the parties entered into a Stock Purchase Agreement pursuant to which Incyte purchased approximately 7.76 million shares of Agenus' common stock for an aggregate purchase price of \$35.0 million, or approximately \$4.51 per share.

In addition, in April 2014, we entered into a collaboration and license agreement with Merck to discover and optimize fully-human antibodies against two undisclosed CPM targets. Under this agreement, Merck is responsible for the clinical development and commercialization of antibodies generated under the collaboration, and we are eligible to receive approximately \$100.0 million in potential payments associated with the completion of certain clinical, regulatory and commercial milestones, as well as royalty payments on any worldwide product sales.

We also continue to collaborate with Recepta SA on the development of antibodies targeting CTLA-4, and we expect to continue exploring additional future collaborations. Our strategy includes identifying opportunities to advance the emerging portfolio of CPMs as single agents and in optimized combinations, including potential combinations with Prophage and other agents.

#### The Heat Shock Protein-based Vaccine Platform

Our HSP-based vaccine platform includes our Prophage Series vaccine candidates for the treatment of cancer and our HerpV vaccine candidate for the treatment of genital herpes. HSPs are a group of proteins present at high levels in most mammalian cells. Their expression is increased when cells are exposed to elevated temperatures or other stresses. A potential role for HSPs in regulating immune responses was revealed when it was first discovered that HSP complexes purified from cancer cells produced immunity to cancer, whereas HSP complexes purified from normal tissue did not. This discovery led to the understanding that HSPs bind to and carry a broad sampling of the protein environment within cells, including mutant proteins that might arise from genetic mutations within cancer cells. It was further shown that immunization with HSP complexes purified from tumors interact with antigen-presenting cells that then express the HSP-associated antigenic peptides to generate a CD4+ and CD8+ T-cell immune response, which in turn targets the cancer cells of the tumor from which the HSP complexes were derived. Collectively, many years of research taught us the importance of targeting cancer with high specificity. In order to provide effective immunization in this manner, HSP complexes isolated from cancer cells are particularly effective. Since HSPs are expressed in all tumor cells, the approach of immunizing with the HSP complexes isolated from a particular tumor is broadly applicable to a variety of cancer types. We believe that we pioneered the use of the HSP, gp96, purified from a patient's own tumor tissue, as a way to make vaccines tailored to stimulating immune recognition and potential immune control of that specific patient's cancer.

Because cancer is a highly variable disease from one patient to another, due to extensive mutation of cancer cells, we believe that a patient-specific vaccination approach is optimal to generate a more robust and targeted immune response against the disease. For certain diseases, such as genital herpes, we do not believe that a personalized vaccination approach is required, since the pathogen does not vary as greatly from patient to patient as do cancer cells. For example, in our HerpV product candidate for the treatment of genital herpes, we complex, or bind, over thirty defined antigenic herpes peptides to an HSP, Hsc70, that we express by genetic engineering, creating HSP70-peptide complexes, or HSPPC. HSPPC, when injected into the body, is designed to elicit a cellular immune response to the synthetic peptides complexed with the HSP.

#### The Prophage Series Vaccine Candidates

Our Prophage Series cancer vaccine candidates are autologous therapies derived from cancer tissues that are surgically removed from each patient. As a result, Prophage Series vaccines contain a broad sampling of potentially antigenic mutant proteins from each patient's tumor, which is used to produce a tailored Prophage Series vaccine for each patient. Prophage Series vaccines are designed to program the body's immune system to target only the specific cells expressing these mutant antigens, thereby reducing the risk that the body's immune response against the tumor after vaccination will also affect healthy tissue and cause debilitating side effects often associated with chemotherapy and radiation therapy.

Since the first patient was enrolled in a clinical trial studying a Prophage Series vaccine in 1997, we have treated nearly 1,000 cancer patients with Prophage Series vaccines, covering a broad range of cancer types in many clinical trials, and no

serious immune-mediated side effects have been observed. The results of these trials have been published and/or presented at major conferences. These results indicate observable clinical and/or immunological activity across many types of cancer.

Our Prophage Series vaccines are currently being studied in two different settings of GBM: patients who have been newly diagnosed as well as those with recurrent disease. Glioblastoma is the most common primary malignant brain tumor and accounts for the majority of diagnoses of malignant cancers of the brain. Our Prophage Series vaccines are also currently being studied in stage III and IV metastatic melanoma.

Agenus or its partners have completed various clinical trials for HSP-based vaccines for cancer and infectious disease including the following recent Phase II trials: (1) Prophage autologous HSP-based vaccine in newly diagnosed GBM and (2) HerpV recombinant HSP70-synthetic peptide vaccine for the treatment of herpes simplex virus 2 (HSV2) infection, each with encouraging results.

#### Glioblastoma Multiforme

GBM is a cancer affecting the central nervous system arising from glial cells that become malignant. GBM, the most common primary malignant brain tumor, is currently a rapidly fatal disease. The American Cancer Society estimates that 22,850 new cases of the brain and other nervous system cancers will be diagnosed in the United States during 2015, and that 15,320 people in the United States will die from these tumors during 2015.

Prophage Series vaccine candidates are being studied in newly diagnosed and recurrent GBM, respectively. In June 2011, results from the Phase 2 trial in recurrent GBM were presented at the 47th Annual Meeting of the American Society of Clinical Oncology, or ASCO, showing, among other things, that measures of immune response post vaccination with Prophage Series vaccine demonstrated a significant tumor-specific CD8+ T-cell response as well as innate immune responses as marked by a significant increase in the levels of circulating NK cells. Subsequently, in December 2013, these Phase 2 results were published demonstrating that more than 90% of the patients treated with Prophage Series vaccine were alive at six months after surgery and 30% were alive at 12 months after surgery. Additionally, the median overall survival was approximately 11 months. This compares favorably to historical control data with expected median survival for recurrent GBM patients of three to nine months. The primary objective of this multi-center, single arm Phase 2 trial was to assess the survival rate at six months. The data was published in a manuscript in *Neuro-Oncology*, the official journal of the Society of Neuro-Oncology.

In July 2014, we announced final results from a single-arm, multiple-center, open-label Phase 2 clinical trial in 46 patients with newly diagnosed GBM treated with Prophage Series vaccine in combination with the current standard of care, radiation and temozolomide. These results showed that patients treated with Prophage had a median progression free survival, or PFS, of 18 months, with 33% of patients progression free at 24 months. These results indicate improvement when compared to historical data for patients treated with the standard of care, for which median progression free survival is 6.9 months. Median overall survival, or OS, the primary endpoint of the trial, was 23.8 months and remains durable in patients treated with Prophage. In this study, the 12 month survival rate was 85% with many surviving beyond the 24 month study period. For the standard of care alone, the historical median OS rate is approximately 16 months. Interestingly, positive results seemed to be more pronounced in patients with less expression of the checkpoint ligand PDL-1 on their white blood cells, which suggests a potential benefit from the combination of Prophage with CPMs like PD-1 antagonists.

In addition to the Phase 2 trial in patients with newly diagnosed GBM, the Alliance for Clinical Trials in Oncology, a cooperative group of the National Cancer Institute, or NCI, is supporting a randomized Phase 2 clinical trial of the Prophage Series vaccine in combination with bevacizumab in approximately 222 patients with surgically resectable, recurrent GBM. This trial is the largest vaccine trial ever funded by the NCI in brain tumors and the largest vaccine study ever conducted in combination with bevacizumab. The study is designed to compare efficacy of the Prophage Series vaccine administered with bevacizumab either concomitantly or at progression, as compared to treatment with bevacizumab alone. The primary endpoint of this study is overall survival. This study design is supported in part by previous research indicating a potential synergistic effect between the mechanisms of action behind both the Prophage Series vaccine and incorporated herein by reference. Although this trial is ongoing, it has been slow to recruit patients; additional U.S. sites have been added in response to this recruitment challenge, which may or may not increase enrollment rates.

Melanoma

In January 2014, we announced the initiation of an investigator-sponsored, randomized Phase 2 clinical trial of the Prophage Series vaccine in combination with ipilimumab in patients with stage III and IV metastatic melanoma. This investigator sponsored study conducted at the University of Texas Health Science Center in Houston, is designed to evaluate the safety, feasibility and immunogenicity of the combination of the Prophage Series vaccine and ipilimumab with or without low-dose cyclophosphamide in approximately 25 patients. Patient enrollment has not yet begun. In light of recent positive data arising from studies in which ipilimumab is combined with PD-1 agonists, the design of this study protocol was recently

modified to incorporate a non-randomized trial of the Prophage Series vaccine in combination with ipilimumab with a reference to prospective comparative patients treated with ipilimumab only.

#### Other Indications

In April 2008, the Russian Ministry of Public Health issued a registration certificate for the use of Prophage, referred to as Oncophage® for the treatment of kidney cancer patients at intermediate risk for disease recurrence. The Russian registration was our first product approval from a regulatory authority, and the first approval of a patient-specific therapeutic cancer vaccine in a major market. In December 2011, we out-licensed this program to NewVac LLC, a subsidiary of ChemRar Ventures LLC focused on the development of innovative technology for cancer immunotherapy. This arrangement expired in December 2014 and all activity under the agreement has ceased. To date, we have not been able to meaningfully launch Oncophage® sales in Russia.

Agenus has also completed numerous Phase 1 and 2 trials with Prophage across many different tumor types, including colorectal cancer, gastric cancer, glioma, lung cancer, melanoma, pancreatic cancer, renal cell carcinoma and lymphoma.

#### Manufacturing

Prophage Series vaccines are manufactured in our Lexington, Massachusetts facility. We estimate that this facility could support the production of up to 4,000 batches per year. On average, it takes approximately 10 hours of direct processing time to manufacture a patient batch of vaccine.

Each Prophage Series vaccine is manufactured using a patient's own tumor. After the patient undergoes surgery to remove cancerous tumor tissue, the tumor is shipped frozen in a specially designed kit provided by the Company to our Lexington, Massachusetts facility. Each Prophage Series vaccine is produced in approximately 10 hours, after which it undergoes extensive quality testing for approximately 2 weeks. The turnaround time from the date of surgery to delivery of vaccine is approximately 3 to 4 weeks, which generally fits well with the patient's recovery time from surgery. Once we release the vaccine, it is shipped frozen overnight to the hospital pharmacy or clinician. Prophage Series vaccines are given as a simple intradermal injection. Agenus has established, within a single facility, well-defined, cost efficient manufacturing under Good Manufacturing Practices, or GMPs.

After manufacturing, Prophage Series vaccines are tested and released by our quality systems staff. The quality control organization performs a series of release assays designed to ensure that the product meets all applicable specifications. Our quality assurance staff also reviews manufacturing and quality control records prior to batch release in an effort to assure conformance with current GMP, or cGMP, as mandated by the FDA and foreign regulatory agencies.

Our manufacturing staff is rigorously trained and routinely evaluated for conformance to manufacturing procedures and quality standards. This oversight is intended to ensure compliance with FDA and foreign regulations and to provide consistent vaccine output. Our quality control and quality assurance staff is similarly trained and evaluated as part of our effort to ensure consistency in the testing and release of the product, as well as consistency in materials, equipment and facilities.

#### HerpV

HerpV, formerly known as AG-707 plus QS-21 Stimulon, is an investigational therapeutic vaccine candidate directed at a virus that causes genital herpes, also known as herpes simplex virus-2 or HSV-2, and is the first potential recombinant, off-the-shelf application of our HSP technology. HerpV includes our proprietary QS-21 Stimulon adjuvant. HerpV consists of recombinant human HSP -70 associated with a total of 32 distinct 35-mer peptide antigens representative of the genital herpes virus proteome. Genital herpes is one of the most common ulcerating diseases of the genital mucosa. The World Health Organization currently estimates that in the United States, approximately 40 to 60 million people are infected with HSV-2, with an incidence of 1-2 million infections and 600,000 to 800,000 clinical cases per year with a prevalence in the 30-40 year old population of approximately 30%. In June 2014, we reported positive results from a randomized, Phase 2 study for HerpV, where the majority of patients showed an immune response to the HSV antigens after a series of vaccinations and a booster dose at six months. More than half of those vaccinated developed a robust anti-HSV cytotoxic T-cell immune response, and in those patients there was a statistically significant 75% reduction in viral load ( $P < 0.001$ ; CI: 46.2 - 88.6%). We believe this is the first demonstration of a correlation between immune responders and a statistically significant reduction in viral load with

HSV-2. A reduction in viral load is thought to be relevant in reduction of transmission and symptoms if such reduction is of sufficient magnitude. After the booster shot, HerpV demonstrated a durable reduction in viral shedding approximating 14% (RR=0.86 and CIs: 0.58-1.26) and remains consistent with the reduction in viral shedding observed during the initial treatment period. The protocol defined secondary analyses were viral load and viral shedding after the booster shot. Earlier published results of a Phase 1 study

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showed that HerpV administered with our QS-21 Stimulon adjuvant was associated with a significant induction of both CD4+ and CD8+ cellular immune responses.

While the HerpV Phase clinical 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. The study does, however, demonstrate that the HSP70-peptide-QS21 vaccine produces significant CD8 and CD4 positive T-cell responses to antigenic peptides and that the side effects are mild to moderate and tolerable. We believe that the HSP70-synthetic peptide platform will have applications for other viruses and potentially for cancer vaccines as well.

#### QS-21 Stimulon® Adjuvant

QS-21 Stimulon is a substance other than the antigens themselves added to a vaccine or other immunotherapy that is intended to enhance immune response to the target antigens. A natural product, QS-21 Stimulon is a triterpene glycoside, or saponin, purified from the bark of the Chilean soapbark tree, *Quillaja saponaria*. QS-21 Stimulon has the ability to stimulate antibody immune response and has also been shown to activate cellular immunity. QS-21 Stimulon is sufficiently characterized with a known molecular structure, thus distinguishing it from other adjuvant candidates, which are typically emulsions, polymers or biologicals of less defined composition, making it one of the most widely tested vaccine adjuvants currently in clinical development. Accordingly, QS-21 Stimulon has become a key component in the development of investigational preventive vaccine formulations across a wide variety of diseases. These studies have been carried out by academic institutions and pharmaceutical companies in the United States and internationally. A number of these studies have shown QS-21 Stimulon to be significantly more effective in stimulating antibody responses than aluminum hydroxide or aluminum phosphate, the adjuvants most commonly used in approved vaccines in the United States today.

The pipeline of product candidates containing QS-21 Stimulon is diverse, encompassing prophylactic as well as therapeutic vaccines for infectious diseases, multiple cancer types and Alzheimer's disease. There are several vaccine candidates containing QS-21 Stimulon in pre-clinical and clinical development by our licensees, including two vaccine candidates for the treatment of shingles and malaria which have successfully completed Phase 3 clinical trials with GSK, and one vaccine candidate for the treatment of Alzheimer's disease in Phase 2 trials with Janssen. In addition to our licensees' programs, our internally-developed vaccine candidate HerpV, which has completed a Phase 2 study for the treatment of genital herpes in Herpes Simplex Virus 2 (HSV2) positive subjects, contains QS-21 Stimulon. See "The Heat Shock Protein-based Vaccine Platform - HerpV" above.

#### Partnered QS-21 Stimulon Programs

A number of pharmaceutical and biotechnology companies have licensed QS-21 Stimulon from us for use in vaccines to treat a wide variety of human diseases. Companies with QS-21 Stimulon programs include GSK and Janssen. In return for rights to use QS-21 Stimulon, these companies have generally agreed to pay us license fees, manufacturing payments, milestone payments, and royalties on product sales for at least 10 years after commercial launch, with some exceptions. In addition to our corporate licensing arrangements, we have developed a number of academic collaborations to test new vaccine concepts and products containing QS-21 Stimulon.

GSK. In July 2006, we entered into a license agreement and a supply agreement with GSK for the use of QS-21 Stimulon (the "GSK License Agreement" and the "GSK Supply Agreement", respectively). In January 2009, we entered into an Amended and Restated Manufacturing Technology Transfer and Supply Agreement (the "Amended GSK Supply Agreement") under which GSK has the right to manufacture all of its requirements of commercial grade QS-21 Stimulon. GSK is obligated to supply us, or our affiliates, licensees, or customers, certain quantities of commercial grade QS-21 Stimulon for a stated period of time. In March 2012, we entered into a First Right to Negotiate and Amendment Agreement amending the GSK License Agreement and the Amended GSK Supply Agreement to clarify and include additional rights for the use of QS-21 Stimulon (the "GSK First Right to Negotiate Agreement"). In addition, we granted GSK the first right to negotiate for the purchase of the Company or certain of our assets, which right expires in March 2017. As consideration for entering into the GSK First Right to Negotiate Agreement, GSK paid us an upfront, non-refundable payment of \$9.0 million, \$2.5 million of which is creditable toward future royalty payments. We refer to the GSK License Agreement, the Amended GSK Supply Agreement and the GSK First Right to Negotiate Agreement collectively as the GSK Agreements. As of December 31, 2014, we have

received \$23.3 million of a potential \$24.3 million in upfront and milestone payments under the GSK Agreements. We are generally entitled to receive low single-digit royalties on net sales for a period of 7-10 years after the first commercial sale of a resulting GSK product, with some exceptions. The GSK License and Amended GSK Supply Agreements may be terminated by either party upon a material breach if the breach is not cured within the time specified in the respective agreement. The termination or expiration of the GSK License Agreement does not relieve either party from any obligation which accrued prior to the termination or expiration. Among other provisions, the milestone payment obligations survive termination or expiration of the GSK Agreements for any reason, and the license rights granted to GSK survive expiration of the GSK License Agreement. The



license rights and payment obligations of GSK under the Amended GSK Supply Agreement survive termination or expiration, except that GSK's license rights and future royalty obligations do not survive if we terminate due to GSK's material breach unless we elect otherwise.

We believe QS-21 Stimulon is a key component included in several of GSK's proprietary adjuvant systems and a number of GSK's vaccine candidates currently in development are formulated using adjuvant systems containing QS-21 Stimulon, including its shingles and malaria vaccine candidates which have successfully completed Phase 3 clinical trials. In December 2014, GSK reported that its ZOE-50 Phase 3 clinical trial evaluating the efficacy of its shingles vaccine candidate, HZ/su, met its primary endpoint. Analysis of the primary endpoint showed that HZ/su reduced the risk of shingles by 97.2% in adults aged 50 years and older compared to placebo. In addition, GSK has reported two positive Phase 3 clinical trials of its RTS,S malaria vaccine candidate containing QS-21 Stimulon, which was accepted by the EMA, for regulatory review in July 2014. In November 2013, Phase 3 data was reported that shows that RTS,S helps protect children and infants from clinical malaria up to 18 months post vaccination. In November 2012, The New England Journal of Medicine published results of a second Phase 3 trial for RTS,S. In this study, infants aged 6-12 weeks receiving the RTS,S vaccine candidate experienced one-third fewer episodes of both clinical and severe malaria and experienced similar reactions to the injection when compared to those who received the control meningococcal C conjugate vaccine. GSK met both of its co-primary endpoints in the large ongoing efficacy clinical trial. In October 2011, The New England Journal of Medicine published results of the first Phase 3 clinical trial of GSK's RTS,S malaria vaccine candidate containing QS-21 Stimulon. Results of the study, the largest malaria vaccine efficacy and safety clinical trial ever conducted, demonstrate that RTS,S provided African children with significant protection against clinical and severe malaria, reducing risk by 56% and 47%, respectively, for the 12-month period following vaccination. In contrast, GSK's MAGE-A3ii clinical trial in non-small cell lung cancer containing QS-21 was terminated in May 2014 after reporting in March 2014 that it did not meet its primary endpoint. GSK's DERMA study, a Phase 3 randomized, blinded, placebo-controlled MAGE-A3 clinical trial did not meet its first co-primary endpoint in melanoma patients. In an independent analysis, the study did not significantly extend the disease-free survival period when compared to placebo in the overall MAGE-A3 positive clinical trial population. In line with the Independent Data Monitoring Committee's unanimous recommendation, GSK will continue the study until the second co-primary endpoint is assessed. This co-primary endpoint is based on predefined criterion that was agreed upon by regulatory authorities. This analysis, which is based on gene signature, is designed to prospectively identify patients who may have the capability to be more immunologically responsive and therefore can potentially benefit from treatment. If further analysis shows that the predefined gene signature subset data are successful, there is the potential that a regulatory filing could be considered. GSK anticipates that these data will be available in 2015. Assuming regulatory approval, the first products containing QS-21 Stimulon are anticipated to be launched by GSK in 2016. If any of our partners' products containing QS-21 Stimulon successfully complete clinical development and receive approval for commercial sale, we are generally entitled to receive royalties for 10 years after commercial launch, with some exceptions. We do not incur clinical development costs for our partners' product candidates.

#### Manufacturing

Except in the cases of GSK and Janssen, we have retained worldwide manufacturing rights for QS-21 Stimulon, and we have the right to subcontract manufacturing for QS-21 Stimulon. In addition, under the terms of our agreement with GSK, upon request by us, GSK is committed to supply certain quantities of commercial grade QS-21 Stimulon to us and our licensees for a fixed period of time.

#### Intellectual Property Portfolio

We seek to protect our technologies through a combination of patents, trade secrets and know-how and currently have ownership of or exclusive rights to approximately 60 issued United States patents and approximately 100 issued foreign patents. We also have exclusive rights to approximately 9 pending United States patent applications and approximately 40 pending foreign patent applications. We may not have rights in all territories where we may pursue regulatory approval for Prophage Series vaccine candidates.

Through our acquisition of 4-AB, we also 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 4-AB's technology platforms. In particular, we own patents and patent applications relating to Retrocyte

Display™ technology platform. This patent family is projected to expire between 2029 and 2031. 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 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.

We may not have the rights in all territories where we may pursue regulatory approval for Prophage Series vaccine candidates. The issued patents that cover the Prophage Series vaccines expire at various dates between 2015 and 2024. The issued patents related to HerpV expire at various dates between 2015 and 2030.

Our issued patents include those that cover our core technologies, including HSP-based vaccines for the treatment of cancers and treatment/prevention of infectious diseases, and saponin adjuvants, in combination with other agents.

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.

Various patents and patent applications have been exclusively licensed to us by the following entities:

#### Ludwig Institute for Cancer Research

On December 5, 2014, 4-AB, entered into a license agreement with the Ludwig Institute for Cancer Research Ltd., or Ludwig, which replaced and superseded a prior agreement entered into between the parties in May 2011. Pursuant to the terms of the license agreement, Ludwig granted 4-AB an exclusive, worldwide license under certain intellectual property rights of Ludwig and Memorial Sloan Kettering Cancer Center arising from the prior agreement to further develop and commercialize GITR, OX40 and TIM-3 antibodies. Pursuant to the license agreement, 4-AB made an upfront payment of \$1.0 million to Ludwig. The license agreement also obligates 4-AB to make potential milestone payments of up to \$20.0 million for events prior to regulatory approval of licensed products, and potential milestone payments in excess of \$80.0 million if licensed products are approved in multiple jurisdictions, in more than one indication, and certain sales milestones are achieved. 4-AB will also be obligated to pay low to mid-single digit royalties on all net sales of licensed products during the royalty period, and to pay Ludwig a percentage of any sublicensing income, ranging from a low to mid-double digit percentage depending on various factors. The license agreement may be terminated as follows: (i) by either party if the other party commits a material, uncured breach; (ii) by either party if the other party initiates bankruptcy, liquidation or similar proceedings; or (iii) by 4-AB for convenience upon 90 days' prior written notice. The license agreement also contains customary representations and warranties, mutual indemnification, confidentiality and arbitration provisions.

#### Mount Sinai School of Medicine

In November 1994, we entered into a patent license agreement with the Mount Sinai School of Medicine (the "Mount Sinai Agreement"). Through the Mount Sinai Agreement, we obtained an exclusive, worldwide license to patent rights relating to the heat shock protein technology that resulted from the research and development performed by Dr. Pramod Srivastava, our founding scientist and a former member of our Board of Directors. We agreed to pay Mount Sinai a royalty on the net sales of products covered by the licensed patent rights and also provided Mount Sinai with a 0.45% equity interest in the Company, or approximately 10,300 shares, valued at approximately \$90,000 at the time of issuance. The term of the Mount Sinai Agreement ends when the last of the licensed patents expires in 2016 or becomes no longer valid. If we fail to pay royalties that are due under the agreement, Mount Sinai may issue written notice to us. If we continue to fail to pay royalties after 60 days from receipt of the written notice, or fulfill our due diligence requirements, Mount Sinai can terminate the agreement. The Mount Sinai Agreement does not contain any milestone payment provisions.

#### Fordham University

During 1995, Dr. Srivastava moved his research to Fordham University, or Fordham. We entered into a sponsored research and technology license agreement with Fordham in March 1995 (the "Fordham Agreement") relating to the continued development of the heat shock protein technology and agreed to make payments to Fordham to sponsor Dr. Srivastava's research. Through the Fordham Agreement, we obtained an exclusive, perpetual, worldwide license to all of the intellectual property, including all the patent rights, which resulted from the research and development performed by Dr. Srivastava at Fordham. We also agreed to pay Fordham a royalty on the net sales of products covered by the Fordham Agreement through the last expiration date on the patents under the agreement in 2018 or when the patents become no longer valid. The agreement does not contain any milestone payment provisions or any diligence provisions. Dr. Srivastava moved his research to the University of Connecticut Health Center, or UConn,

during 1997, and accordingly, the parts of the agreement related to payments for sponsored research at Fordham terminated in mid-1997. During the term of this agreement, we paid Fordham approximately \$2.4 million.  
University of Connecticut

In May 2001, we entered into a license agreement with UConn which was amended in March 2003 and June 2009. Through the license agreement, we obtained an exclusive, worldwide license to patent rights resulting from inventions

discovered under a research agreement that was effective from February 1998 until December 2006. The term of the license agreement ends when the last of the licensed patents expires in 2024 or becomes no longer valid. UConn may terminate the agreement: (1) if, after 30 days written notice for breach, we continue to fail to make any payments due under the license agreement, or (2) we cease to carry on our business related to the patent rights or if we initiate or conduct actions in order to declare bankruptcy. We may terminate the agreement upon 90 days written notice. We are required to make royalty payments on any obligations created prior to the effective date of termination of the license agreement. Upon expiration or termination of the license agreement due to breach, we have the right to continue to manufacture and sell products covered under the license agreement which are considered to be works in progress for a period of 6 months. The license agreement contains aggregate milestone payments of approximately \$1.2 million for each product we develop covered by the licensed patent rights. These milestone payments are contingent upon regulatory filings, regulatory approvals, and commercial sales of products. We have also agreed to pay UConn a royalty on the net sales of products covered by the license agreement as well as annual license maintenance fees beginning in May 2006. Royalties otherwise due on the net sales of products covered by the license agreement may be credited against the annual license maintenance fee obligations. Under the March 2003 amendment, we agreed to pay UConn an upfront payment and to make future payments for each patent or patent application with respect to which we exercised our option under the research agreement. As of December 31, 2014, we had paid approximately \$640,000 to UConn under the license agreement. The license agreement gives us complete discretion over the commercialization of products covered by the licensed patent rights but also requires us to use commercially reasonable diligent efforts to introduce commercial products within and outside the United States. If we fail to meet these diligence requirements, UConn may be able to terminate the license agreement.

#### Regulatory Compliance

Governmental authorities in the United States and other countries extensively regulate the preclinical and clinical testing, manufacturing, labeling, storage, record keeping, advertising, promotion, export, marketing and distribution, among other things, of our investigational product candidates. In the United States, the FDA under the Federal Food, Drug, and Cosmetic Act, the Public Health Service Act and other federal statutes and regulations, subject pharmaceutical products to rigorous review.

In order to obtain approval of a new product from the FDA, we must, among other requirements, submit proof of safety and efficacy as well as detailed information on the manufacture and composition of the product. In most cases, this proof entails extensive preclinical, clinical, and laboratory tests. Before approving a new drug or marketing application, the FDA may also conduct pre-licensing inspections of the company, its contract research organizations and/or its clinical trial sites to ensure that clinical, safety, quality control, and other regulated activities are compliant with Good Clinical Practices, or GCP, or Good Laboratory Practices, or GLP, for specific non-clinical toxicology studies. The FDA may also require confirmatory trials, post-marketing testing, and extra surveillance to monitor the effects of approved products, or place conditions on any approvals that could restrict the commercial applications of these products. Once approved, the labeling, advertising, promotion, marketing, and distribution of a drug or biologic product must be in compliance with FDA regulatory requirements.

In Phase 1 clinical trials, the sponsor tests the product in a small number of patients or healthy volunteers, primarily for safety at one or more doses. Phase 1 trials in cancer are often conducted with patients who have end-stage or metastatic cancer. In Phase 2, in addition to safety, the sponsor evaluates the efficacy of the product in a patient population somewhat larger than Phase 1 trials. Phase 3 trials typically involve additional testing for safety and clinical efficacy in an expanded population at geographically dispersed test sites. The FDA may order the temporary or permanent discontinuation of a clinical trial at any time.

The sponsor must submit to the FDA the results of preclinical and clinical testing, together with, among other things, detailed information on the manufacture and composition of the product, in the form of a new drug application, or NDA, or in the case of biologics, like the Prophage Series vaccines, a biologics license application, or BLA. In a process that can take a year or more, the FDA reviews this application and, when and if it decides that adequate data are available to show that the new compound is both safe and effective for a particular indication and that other applicable requirements have been met, approves the drug or biologic for marketing.

Whether or not we have obtained FDA approval, we must generally obtain approval of a product by comparable regulatory authorities of international jurisdictions prior to the commencement of marketing the product in those jurisdictions. We are also subject to cGMP, GCP, and GLP compliance obligations and are subject to inspection by international regulatory authorities. International requirements may in some circumstances be more rigorous than U.S. requirements and may require additional investment in manufacturing process development, non-clinical studies, clinical studies, and record keeping that are not required for U.S. regulatory compliance or approval. The time required to obtain this approval may be longer or shorter than that required for FDA approval and can also require significant resources in time, money and labor.

Under the laws of the United States, the countries of the European Union and other nations, we and the institutions where we sponsor research are subject to obligations to ensure the protection of personal information of human subjects participating in our clinical trials. We have instituted procedures that we believe will enable us to comply with these requirements and the contractual requirements of our data sources. The laws and regulations in this area are evolving, and further regulation, if adopted, could affect the timing and the cost of future clinical development activities.

We are also subject to regulation under the Occupational Safety and Health Act, the Toxic Substances Control Act, the Resource Conservation and Recovery Act, and other current and potential future federal, state, or local regulations. Our research and development activities involve the controlled use of hazardous materials, chemicals, biological materials, various radioactive compounds, and for some experiments we use recombinant DNA. We believe that our procedures comply with the standards prescribed by local, state, and federal regulations; however, the risk of injury or accidental contamination cannot be completely eliminated. We conduct our activities in compliance with the National Institutes of Health Guidelines for Recombinant DNA Research.

Additionally, the U.S. Foreign Corrupt Practices Act, or FCPA, prohibits U.S. corporations and their representatives from offering, promising, authorizing or making payments to any foreign government official, government staff member, political party or political candidate in an attempt to obtain or retain business abroad. The scope of the FCPA includes interactions with certain healthcare professionals in many countries. Other countries have enacted similar anti-corruption laws and/or regulations.

#### Competition

Competition in the pharmaceutical and biotechnology industries is intense. Many pharmaceutical or biotechnology companies have products on the market and are actively engaged in the research and development of products for the treatment of cancer and infectious diseases.

Many competitors have substantially greater financial, manufacturing, marketing, sales, distribution, and technical resources, and more experience in research and development, clinical trials, and regulatory matters, than we do. Competing companies developing or acquiring rights to more efficacious therapeutic products for the same diseases we are targeting, or which offer significantly lower costs of treatment, could render our products noncompetitive or obsolete. See Part I-Item 1A. "Risk Factors-Risks Related to our Business-Our competitors in the biotechnology and pharmaceutical industries may have superior products, manufacturing capability, selling and marketing expertise and/or financial and other resources."

Academic institutions, governmental agencies, and other public and private research institutions conduct significant amounts of research in biotechnology, medicinal chemistry and pharmacology. These entities have become increasingly active in seeking patent protection and licensing revenues for their research results. They also compete with us in recruiting and retaining skilled scientific talent.

We have CPM antibody programs currently in preclinical 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, which has an anti-PD1 antibody in development and also markets ipilimumab, an anti-CTLA-4 antibody, (2) Merck, which has an approved anti-PD1 antibody in the United States, (3) Ono Pharmaceuticals, which has an approved anti-PD1 antibody in Japan, (4) Medimmune, which has anti-CTLA-4, OX40 and PD1 antibodies in development, (5) Curetech, which has an anti-PDI antibody in development, and (6) Pfizer, which has an anti-CTLA-4 antibody in development. Tesaro also has antibody programs targeting PD-1, TIM-3 and LAG-3 and these include both monospecific and dual reactive antibody drug candidates.

With respect to competition with our Prophage Series cancer vaccines, some of our competitors are developing cancer vaccines produced from a patient's own cells or tissue. Others are focusing on developing HSP products. In recent years, it has become possible to cost-effectively obtain DNA sequence information from tumor samples, allowing the potential prediction of the mutations within a particular tumor that might be recognized by the immune system as abnormal and could trigger a useful anti-cancer immune response in the patient with that tumor. Prior to regulatory approval, we 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. In

addition, we compete for funding, access to licenses, personnel and third-party collaborations.

Several companies have products that utilize similar technologies and/or patient-specific medicine techniques that compete with our HSP based vaccines. For treatment of recurrent glioma, Roche markets bevacizumab and Eisai and Arbor Pharmaceuticals market carmustine. Schering Corporation, a subsidiary of Merck, markets temozolmide for treatment of patients with newly diagnosed glioblastoma and refractory astrocytoma. Other companies are developing vaccines for the

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treatment of patients with newly diagnosed glioma, such as Innocell Corp (Immuncell-LC), ImmunoCellular Therapeutics (ICT-107), Northwest Biotherapeutics (DC-Vax), Immatics (IMA-950), Activartis Biotech (GBM-Vax) and Celldex (rindopepimut). Celldex's Rindopepimut received FDA Breakthrough Therapy Designation for the treatment of adult patients with ECFRvIII-positive glioblastoma.

Valaciclovir, marketed by GSK, and famciclovir, marketed by Novartis, are small molecule drugs marketed for treatment of genital herpes. Other companies are engaged in research and/or clinical development for vaccines for treatment of genital herpes include Genocea, Vical and AiCuris GmbH.

We are aware of compounds that claim to be comparable to QS-21 Stimulon that are being used in clinical trials. 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, oligonucleotides (Pfizer, Idera, Colby, and Dynavax0, Novartis, Intercell, and GSK. In the past, the Company has 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 for our ability to execute future partnering and licensing deals with 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 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 this technology, either alone or with a third party.

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 and infectious disease therapies continue to accelerate.

#### Employees

As of February 23, 2015, we had approximately 131 employees, of whom 38 were Ph.D.s and 2 were MDs. None of our employees are subject to a collective bargaining agreement. We believe that we have good relations with our employees.

#### Corporate History

Antigenics L.L.C. was formed as a Delaware limited liability company in 1994 and was converted to Antigenics Inc., a Delaware corporation, in February 2000 in conjunction with our initial public offering of common stock. On January 6, 2011, we changed our name from Antigenics Inc. to Agenus Inc.

#### Availability of Periodic SEC Reports

Our Internet website address is [www.agenusbio.com](http://www.agenusbio.com). We make available free of charge through our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended ("Exchange Act"), as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the Securities and Exchange Commission (the "SEC"). The contents of our website are not part of, or incorporated into, this document. In addition, we regularly use our website to post information regarding our business, product development programs and governance, and we encourage investors to use our website, particularly the information in the sections entitled "Financial" and "News," as sources of information about us.

The public may read and copy any materials filed by Agenus with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Room 1580, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC at [www.sec.gov](http://www.sec.gov).

The contents of the websites referred to above are not incorporated into this filing. Further, our references to the URLs for these websites are intended to be inactive textual references only.

Item 1A. Risk Factors

Our future operating results could differ materially from the results described in this Annual Report on Form 10-K due to the risks and uncertainties described below. You should consider carefully the following information about risks below in

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evaluating our business. If any of the following risks actually occur, our business, financial conditions, results of operations and future growth prospects would likely be materially and adversely affected. In these circumstances, the market price of our common stock would likely decline.

We cannot assure investors that our assumptions and expectations will prove to be correct. Important factors could cause our actual results to differ materially from those indicated or implied by forward-looking statements. See “Note Regarding Forward-Looking Statements” in this Annual Report on Form 10-K. Factors that could cause or contribute to such differences include those factors discussed below.

#### 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. 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 collaborative 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 Prophage Series vaccines, and vaccines containing QS-21 Stimulon. From our inception through December 31, 2014, we have incurred net losses totaling \$691.3 million. On December 31, 2014, we had \$40.2 million in cash and cash equivalents and short-term investments. We believe that, based on our current plans and activities, our working capital resources at December 31, 2014 together with aggregate proceeds of \$60.0 million received in February 2015 from our global alliance with, and related equity investment by, Incyte as well as an aggregate of \$9.0 million of new proceeds generated from our issuance of senior subordinated promissory notes, will be sufficient to satisfy, our liquidity requirements through the first half of 2016. 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 year ended December 31, 2014, our average monthly cash used in operating activities was approximately \$3.2 million. We anticipate capital expenditures during 2015 will be approximately \$3.5 million.

To date, we have financed our operations primarily through the sale of equity and debt securities. In order to finance future operations, we will be required to raise additional funds in the capital markets, through arrangements with collaborative 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 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 preclinical 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;
- the cost of manufacturing;

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

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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.

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 products could also be adversely impacted, thereby limiting our potential revenue. In addition, any negative impacts from any deterioration in the credit markets on our collaborative partners could limit potential revenue from our product candidates.

Certain of our outstanding debt instruments contain significant restrictive and affirmative covenants and we may not be able to make interest or principal payments when due or otherwise remain in compliance with their terms.

On April 15, 2013, we entered into a Securities Exchange Agreement with the holders of our 2006 Notes whereby we exchanged all of the 2006 Notes, including accrued and unpaid interest, for \$10.0 million in cash, 2,500,000 shares of our common stock, and a contractual right to the proceeds of 20% of our revenue interests from certain QS-21 Stimulon partnered programs and a 0.5% royalty on net sales of HerpV. To finance the cash portion of this exchange we entered into two new debt arrangements. We concurrently entered into a Loan and Security Agreement with Silicon Valley Bank for senior secured debt in the aggregate principal amount of \$5.0 million (the "SVB Loan"). The SVB Loan bears interest at a rate of 6.75% per annum, payable in cash on the first day of each month with principal payments beginning November 2013 and ending with the final principal payment in April 2015. We also entered into a Note Purchase Agreement with various investors for senior subordinated notes (the "2013 Subordinated Notes") in the aggregate principal amount of \$5.0 million due in April 2015. The 2013 Subordinated Notes bear interest at a rate of 10% per annum, payable in cash on the first day of each month in arrears. We also issued the holders of the 2013 Subordinated Notes four year warrants to purchase 500,000 unregistered shares of our common stock at an exercise price of \$4.41 per share. In February 2015, we exchanged the 2013 Subordinated Notes for new senior subordinated notes in the aggregate principal amount of \$5.0 million with annual interest at 8% and also issued an additional \$9.0 million principal amount of such notes (the "2015 Subordinated Notes"). The SVB Loan is payable in equal monthly installments of approximately \$278,000 until April 2015. The 2015 Subordinated Notes are due February 2018. The SVB Loan is secured by a lien against substantially all of our assets and contains, among other things, a number of restrictions and covenants that limit our ability to:

- incur certain additional indebtedness;
- make certain investments;
- pay dividends other than dividends required pursuant to pre-existing commitments;
- make payments on subordinated indebtedness other than regularly scheduled payments of interest;
- create certain liens;
- consolidate, merge, sell or otherwise dispose of our assets; and/or
- change our line of business.

The SVB Loan also specifies a number of events of default (some of which are subject to applicable cure periods), including, among other things:

- covenant defaults;
- other non-payment defaults;
- bankruptcy;
- certain penalties and judgments from a governmental authority;
- cross-defaults in respect of indebtedness over \$50,000; and
- insolvency defaults.

Additionally, any material adverse change with respect to us or Antigenics Inc., constitutes an event of default. Upon the occurrence of an event of default under the SVB Loan, subject to cure periods in certain circumstances, the lender

may declare all amounts outstanding to be immediately due and payable and may foreclose upon our assets that secure the SVB Loan. During the continuance of an event of default which does not accelerate the maturity of the SVB Loan, interest will accrue at a

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default rate equal to the otherwise applicable rate plus 5%. We may prepay the SVB Loan at any time, in full, subject to certain notice requirement and a prepayment premium equal to 4% of the outstanding principal amount of the SVB Loan.

The 2015 Subordinated Notes also include default provisions which 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 SVB Loan or the 2015 Subordinated Notes and the repayment of such indebtedness is accelerated, our liquidity will 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;
- refinance or restructure all or a portion of our indebtedness;
- sell, out-license, or otherwise dispose of assets; and/or
- reduce or delay planned expenditures on research and development and/or commercialization activities.

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

We are dependent upon our collaborative relationship with Incyte to further develop, manufacture and commercialize CPM antibodies against certain targets using our proprietary Retrocyte Display™ platform. 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. Agenus leads preclinical development activities until the filing of an investigational new drug application, or IND for a particular CPM antibody, and Incyte leads all 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 the following:

• After the first anniversary of the effective date of the collaboration agreement, Incyte may terminate the agreement or any individual program for convenience upon 12 months’ notice;

• 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 still 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 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 FDA or EMA 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.

We increased our employee headcount from 68 to 132 in 2014, 38 of whom were new hires made in connection with the acquisition of 4-AB in February 2014. In addition, through 4-AB, we also expanded our research and development activities internationally to Switzerland and Germany. We expect to continue increasing our headcount as we continue to build our research and development capabilities. 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.

We may not receive anticipated QS-21 Stimulon revenues from our licensees.

We currently rely upon and expect to continue to rely upon third party licensees, particularly GlaxoSmithKline, or 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. Clinical trials being conducted by our licensees, including those being conducted by GSK and Janssen, 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 there is no guarantee that these products will obtain regulatory approval or, if so approved, will generate any future milestones or royalty payments.

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

Our HerpV therapeutic vaccine candidate is in early stage development, and it may not warrant further internal investment or be sufficiently compelling to generate partnering interest.

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 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. In addition, 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. In addition, even if we or a potential licensee were to proceed with further HerpV development, there is no guarantee that future clinical trials will be successful, that a reduction in viral shedding will translate into clinical benefit, or that the safety profile will be considered acceptable. Furthermore, it is possible that research and discoveries by others will render our 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 an 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 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. 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 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 study 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 NCI. 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 investigational new drug application (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 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. The CPM antibody programs are preclinical, 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. In addition, our staff has limited experience in the manufacture and development of the CPM antibody programs and we have recruited or are recruiting additional staff with expertise in these areas. We also currently utilize consultants and advisors to assist advancing these operations. We rely on contract manufacturing organizations, or CMOs, and contract research organizations, or CROs to support our CPM antibody programs. 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 the 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.

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, manufacturing rights for QS-21 Stimulon for use in their product programs. If they or their third party contract manufacturers encounter problems with QS-21 Stimulon

manufacturing, their programs containing QS-21 Stimulon could be delayed or terminated, and this could have an adverse effect on our 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, preclinical studies, clinical trials, and 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 product candidates. In addition, facilities are subject to ongoing 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.

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, our Oncophage<sup>®</sup> vaccine is approved for sale in Russia, but we have not 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."

Our competitors in the biotechnology and pharmaceutical industries 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 collaborative 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:

- commercialize their product candidates sooner than we commercialize our own;
- develop safer or more effective therapeutic drugs or preventive vaccines and other therapeutic products;

- implement more effective approaches to sales and marketing and capture some of our potential market share;
- 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; or
- adversely affect our ability to recruit patients for our clinical trials.

There is no guarantee that our products or 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, which markets ipilimumab, an anti-CTLA-4 antibody, and also has an anti-PD1 antibody in development, (2) Merck, which has an approved anti-PD1 antibody in the United States, (3) Ono Pharmaceuticals, which has an approved anti-PD1 antibody in Japan, (4) Medimmune, which has anti-CTLA-4, OX-40 and PD1 antibodies in development, (5) Curetech, which has an anti-PDI antibody in development, and (6) Pfizer, which has an anti-CTLA-4 antibody in development. Tesaro also has antibody programs targeting PD-1, TIM-3 and LAG-3 and these include both monospecific and dual reactive antibody drug candidates. There is no guarantee that our antibody product candidates will be able to compete with those under development by our competitors.

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, oligonucleotides, under development by Pfizer, Idera, Colby, and Dynavax, MF59, under development by Novartis, IC31, under development by Intercell, and MPL, under development by GSK. In the past, the Company has 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 for our ability to execute future partnering and licensing arrangements with 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 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 this technology, either alone or with a third party.

Competitive products in our HerpV program include valaciclovir (GSK) and famciclovir (Novartis), which are small molecule drugs marketed for treatment of genital herpes. Other companies are engaged in research and/or clinical development for vaccines for treatment of genital herpes including Genocea and Vical. AiCuris GmbH is engaged in clinical research of a small molecule drug for treatment of genital herpes and has completed a Phase 2 trial.

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. Schering Corporation, a subsidiary of Merck, markets temozolomide for treatment of patients with newly diagnosed glioma. Other companies are developing vaccine candidates for the treatment of patients with newly diagnosed glioma, such as Innocell Corp (Immuncell-LC), ImmunoCellular Therapeutics (ICT-107), Northwest Biotherapeutics (DC-Vax), Immatics (IMA-950), Activartis Biotech (GBM-Vax) and Celldex (CDX-110). Celldex recently received approval for its vaccine candidate for patients with recurrent glioma who have the mutant EGF receptor variant 3. Other companies may begin development programs as well.

If vaccines from our Prophage Series vaccines are developed in other indications, they could face additional competition in those indications. In addition, and prior to regulatory approval, 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.

Our future growth depends on our ability to successfully identify, develop, acquire or in-license 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. However, these business activities may entail numerous operational and financial risks, including:

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- 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 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 operations and personnel of any acquired businesses with our 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 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 collaborative agreements such as our global alliance with Incyte. See "Risk Factor - We are dependent on our collaborative relationship with Incyte to further develop, manufacture and commercialize CPM antibodies against certain targets using our proprietary Retrocyte Display™ platform. 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, we have been engaged in efforts to enter into licensing, distribution and/or collaborative 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 products or 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 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,

preclinical 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™ technology platform are, in part, contingent upon the participation of institutional and corporate collaborators. For example, 4-AB has or has had collaborative arrangements with Ludwig Cancer Research (“LCR”) and Brazil-based Recepta Biopharma SA (“Recepta”), among others. In

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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 global alliance with Incyte to pursue the discovery and development of CPMs. See “Risk Factors-Risks Related to our Business-We are dependent upon our collaborative relationship with Incyte to further develop, manufacture and commercialize CPM antibodies against certain targets using our proprietary Retrocyte Display™ platform. 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, other than HerpV, depend on the success of our collaborative 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 commercializing product candidates.

The development of Prophage Series vaccine for the treatment of patients with recurrent glioma is dependent, in large part, on the efforts of the Alliance for Clinical Trials in Oncology, a National Cancer Institute 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, other than HerpV, depend on the success of our collaborative 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 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 collaborative 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 collaborative 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 be unable to enter into new collaborations or enter into new collaborations on favorable terms. 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.

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 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 clinical research organizations 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, ongoing 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 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.

Garo H. Armen, Ph.D., the Chairman of our Board of Directors and our Chief Executive Officer, co-founded the Company in 1994, and has been, and continues to be, integral to building our company and developing our technology. If Dr. Armen is unable or unwilling to continue his relationship with Agenus, our business may be adversely impacted.

Effective December 1, 2005, we entered into an employment agreement with Dr. Armen. Subject to the earlier termination as provided in 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 ninety days prior to the expiration of the original or any extension term. Dr. Armen plays an important role in our day-to-day activities. We do not carry key employee insurance policies for Dr. Armen 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.

Reduction in expenses and resulting changes to our compensation and benefit programs have reduced the competitiveness of these programs and thereby increased employee retention risk. 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.

Risks Related to Regulation of the Biopharmaceutical Industry

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

Clinical development, including preclinical testing and the process of obtaining and maintaining regulatory approvals for new therapeutic products, is lengthy, expensive, and uncertain. As of December 31, 2014, we have spent approximately 20 years and \$309.7 million on our research and development program in heat shock proteins for cancer. It also can vary substantially based on the type, complexity, and novelty of the product. We must provide regulatory authorities with manufacturing, product characterization, and preclinical 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 preclinical 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 preclinical 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. Preclinical and clinical data can be interpreted in different ways, which could delay, limit, or prevent regulatory approval. Negative or inconclusive results from a preclinical 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 preclinical 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.

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.

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, 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, or our licensees or collaborators, 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 and increase industry rebates for drugs covered under Medicaid programs 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.

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.

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 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.

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.

Our strategy depends on our ability to identify and seek patent protection for our discoveries. This process is expensive and time consuming, and we 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. 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.

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

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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™, as well as in relation to development and commercialization of 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 100 issued foreign patents. We also have ownership of or exclusive rights to approximately 9 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 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 acquisition of 4-AB, we also 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 4-AB's 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. 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. The issued patents related to HerpV expire at various dates between 2015 and 2030. 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.

The patent position of 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 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.

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

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:

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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 preclinical CPM antibody programs and therapeutic antibodies is crowded.

Patents that we own may ultimately be found to infringe could be issued to third parties. 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

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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 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.

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 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.

#### Risks Related to Litigation

We may face litigation 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 failures to comply with FDA regulations, to provide accurate information to the FDA, to comply with manufacturing standards we have established, to comply with federal and state health-care fraud and abuse 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. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements.

Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. 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.

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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 sell Oncophage® in Russia or our other product candidates 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:

- decreased demand for our product candidates;
- regulatory investigations;
- injury to our reputation;
- withdrawal of clinical trial volunteers;
- costs of related litigation; and
- substantial monetary awards to plaintiffs.

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 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

Our stock may be delisted from The Nasdaq Capital Market, which could affect its market price and liquidity.

Our common stock is currently listed on The Nasdaq Capital Market (“Nasdaq”) under the symbol “AGEN.” In the event that we fail to maintain compliance with the applicable listing requirements, our common stock could become subject to delisting from Nasdaq. Although we are currently in compliance with all of the listing standards for listing on Nasdaq, we

cannot provide any assurance that we will continue to be in compliance in the future. We have been non-compliant with the minimum bid price requirement set forth in Nasdaq Marketplace Rule 5550(a)(2) three times since our move to The Nasdaq Capital Market in April 2009.

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 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.

Between our initial public offering on February 4, 2000 and December 31, 2014, and for the year ended December 31, 2014, 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 \$2.41 and \$5.10 per share, respectively. The average daily trading volume for the year ended December 31, 2014 was approximately 728,000 shares. 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 to incur over the next several years as we continue our development activities;

- announcements of decisions made by public officials;
- results of our preclinical studies and clinical trials;
- announcements of new collaboration agreements with strategic partners or developments by our existing collaborative partners;
- 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 the acquisition of 4-AB;
- 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 biotechnology and biopharmaceutical industries;
- 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 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.

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 December 31, 2014, we had 62,720,065 shares of common stock outstanding. 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 December 31, 2014, 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 8,274,000 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 December 31, 2014, an aggregate of approximately 21.8 million of these shares remain available for sale. Contingent milestone payments, payable in cash or shares of our common stock at our option, will be due to the former shareholders of 4-AB 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.

As of December 31, 2014, warrants to purchase approximately 2,951,450 shares of our common stock with a weighted average exercise price per share of \$10.87 were outstanding.

As of December 31, 2014, options to purchase 6,525,724 shares of our common stock with a weighted average exercise price per share of \$4.40 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 December 31, 2014 we have 78,828 nonvested shares outstanding.

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.

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.

Item 1B. Unresolved Staff Comments  
None

Item 2. Properties

We maintain our manufacturing, research and development, and corporate offices in Lexington, Massachusetts. During April 2011, we executed a Fifth Amendment of Lease reducing our occupied space in this facility from approximately 162,000 square feet to approximately 82,000 square feet. This lease agreement terminates in August 2023 with an option to renew for one additional ten-year period. We have sublet portions of this facility under a lease that expire in June 2016.

During December 2012 we entered into a commercial lease for approximately 5,600 square feet of office space in New York, New York for use as corporate offices that terminates in May 2020.

We also have facilities in Jena, Germany and Basel, Switzerland both under leases that expire in June 2016.

We believe substantially all of our property and equipment is in good condition and that we have sufficient capacity to meet our current operational needs. We do not anticipate experiencing significant difficulty in retaining occupancy of any of our manufacturing or office facilities and will do so through lease renewals prior to expiration or through replacing them with equivalent facilities.

Item 3. Legal Proceedings

We are not party to any material legal proceedings.

Item 4. Mine Safety Disclosures

Not applicable

Executive Officers of the Registrant

Set forth below is certain information regarding our current executive officers, including their age, as of March 1, 2015:

Name	Age	Title
Garo H. Armen, PhD	62	Chairman of the Board and Chief Executive Officer
Christine M. Klaskin	49	Vice President, Finance
Ozer Baysal	59	Chief Business Officer
Robert Stein, MD PhD	64	Chief Scientific Officer
Karen H. Valentine	43	Vice President and General Counsel

Garo H. Armen, PhD—Dr. Armen has been Chairman and CEO since the Company's founding in 1994. From mid-2002 through 2004, he was Chairman of the Board of Directors for the biopharmaceutical company Elan Corporation, plc, which he helped restructure. Dr. Armen is also the founder and Chairman of the Children of Armenia Fund, a philanthropic organization established in 2000 that is dedicated to the positive development of the children and youth of rural Armenia. He holds a PhD degree in physical organic chemistry from the City University of New York.

Christine M. Klaskin—Christine M. Klaskin has been Vice President, Finance since October 2006. Since joining Agenus Inc. in 1996 as finance manager, Ms. Klaskin has held various positions within the finance department and has been involved in all equity and debt offerings of the Company including its IPO. Ms. Klaskin is currently a member of the board of directors of American DG Energy Inc. Prior to joining Agenus, Ms. Klaskin was employed by Arthur Andersen as an audit manager. Ms. Klaskin received her Bachelor of Accountancy from The George Washington University.

Ozer Baysal - Ozer Baysal has been Chief Business Officer since January 2013. His principal role is to lead Agenus' efforts in establishing commercial capability and accelerating Agenus' transition to becoming a fully integrated biopharmaceutical company. Prior to joining Agenus Mr. Baysal spent more than 30 years with Pfizer in a broad number of functional and geographic areas, most recently serving as President of Europe, Emerging Markets Region. While at Pfizer, he held key leadership positions in Marketing, Sales, and Manufacturing, and was actively involved with numerous licensing and M&A activities. Mr. Baysal holds a bachelor's degree from Bosphorus University in Industrial Engineering and has completed the Programs for Leadership and Management Development at Harvard Business School.

Robert Stein, MD, PhD - Bob Stein has been Chief Scientific Officer since February 2014. Dr. Stein leads our Research, Preclinical Development and Translational Medicine functions and helps shape our clinical development strategy for the Prophage Series vaccines and HerpV. In addition, he is leading the integration of 4-Antibody into our business. Dr. Stein brings over 30 years of experience and accomplishments in the pharmaceutical and biotech industry to the Agenus leadership team. Over the course of his career Dr. Stein has played a pivotal role in bringing eight drugs to the market including Sustiva®, Fablyn®, Viviant®, PanRetin®, TargRetin®, Promacta®, & Eliquis®. Prior to joining Agenus he held a number of senior management positions including Chief Scientific Officer & Senior Vice President of Research for Ligand Pharmaceuticals, Executive Vice President of Research & Preclinical

Development for Dupont Merck, President and Chief Scientific Officer for Incyte Pharmaceuticals, President of Roche Palo Alto and CEO of KineMed. Dr. Stein spent the early part of his career at Merck, Sharp and Dohme Research Laboratories. He holds an MD and a PhD in Physiology & Pharmacology from Duke

University. Dr. Stein filed a personal voluntary bankruptcy petition under Chapter 7 in August of 2012 and the bankruptcy was discharged in May 2013.

Karen H. Valentine—Karen Higgins Valentine has been Vice President and General Counsel since January 2008 and also has served as Secretary since 2007 and Chief Compliance Officer of the Company since 2008. Prior to joining Agenus Inc. in 2004, Ms. Valentine was an associate in the biotechnology practice of Palmer & Dodge LLP (now Locke Lorde Edwards LLP). Ms. Valentine is currently a member of the board of directors of the Northeast Chapter of the Association of Corporate Counsel. Ms. Valentine graduated cum laude with a bachelor's degree in neuroscience from Colgate University, and received her law degree, magna cum laude, from Boston University School of Law.

## PART II

## Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Our common stock is currently listed on The Nasdaq Capital Market under the symbol "AGEN."

The following table sets forth, for the periods indicated, the high and low sale prices per share of our common stock.

	High	Low
2013		
First Quarter	\$4.95	\$3.71
Second Quarter	5.40	3.55
Third Quarter	4.13	2.45
Fourth Quarter	3.49	2.40
2014		
First Quarter	5.10	2.72
Second Quarter	3.61	2.41
Third Quarter	3.95	2.81
Fourth Quarter	4.13	2.61

As of February 23, 2015, there were approximately 1,259 holders of record and approximately 19,417 beneficial holders of our common stock.

We have never paid cash dividends on our common stock, and we do not anticipate paying any cash dividends in the foreseeable future. We currently intend to retain future earnings, if any, for the future operation and expansion of our business. Any future payment of dividends on our common stock will be at the discretion of our Board of Directors and will depend upon, among other things, our earnings, financial condition, capital requirements, level of indebtedness, and other factors that our Board of Directors deems relevant.

## Stock Performance

The following graph shows the cumulative total stockholder return on our common stock over the period from December 31, 2009 to December 31, 2014, as compared with that of the Nasdaq Stock Market (U.S. Companies) Index and the Nasdaq Biotechnology Index, based on an initial investment of \$100 in each on December 31, 2009. Total stockholder return is measured by dividing share price change plus dividends, if any, for each period by the share price at the beginning of the respective period, and assumes reinvestment of dividends.

This stock performance graph shall not be deemed "filed" with the SEC or subject to Section 18 of the Exchange Act, nor shall it be deemed incorporated by reference in any of our filings under the Securities Act of 1933, as amended (the "Securities Act").



COMPARISON OF CUMULATIVE TOTAL RETURN OF AGENUS INC.,  
 NASDAQ STOCK MARKET (U.S. COMPANIES) INDEX  
 AND NASDAQ BIOTECHNOLOGY INDEX

	12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014
Agenus Inc.	100.00	158.00	52.14	106.89	68.41	102.62
NASDAQ Stock Market (U.S. Companies) Index	100.00	117.00	114.66	133.01	183.55	207.41
NASDAQ Biotechnology Index	100.00	115.00	128.80	170.02	282.23	372.54
Recent Sales of Unregistered Securities						

On February 19, 2015, we issued 7,763,968 shares of our common stock to Incyte Corporation pursuant to a Stock Purchase Agreement dated January 9, 2015. The issuance of these shares of our common stock was not registered under the Securities Act in reliance upon the exemptions from registration afforded by Section 4(2) of the Securities Act of 1933, as amended, and Rule 506 of Regulation D promulgated thereunder. Incyte is an “accredited investor” within the meaning of Regulation D.

On February 20, 2015, the Company, certain existing investors and certain additional investors entered into an Amended and Restated Note Purchase Agreement, pursuant to which we (i) canceled the 2013 Subordinated Notes in exchange for 2015 Subordinated Notes in the aggregate principal amount of \$5.0 million, (ii) issued additional 2015 Subordinated Notes in the aggregate principal amount of \$9.0 million and (iii) issued five year warrants to purchase 1,400,000 shares of our common stock at an exercise price of \$5.10 per share.

Information concerning our equity compensation plans is set forth in our Definitive Proxy Statement with respect to our 2015 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission no later than 120 days after the end of the fiscal year under the heading “Equity Plans,” which is incorporated herein by reference.

#### Item 6. Selected Financial Data

We have derived the condensed consolidated balance sheet data set forth below as of December 31, 2014 and 2013, and the condensed consolidated statement of operations data for each of the years in the three-year period ended December 31, 2014, from our audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

You should read the selected condensed consolidated financial data in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” our consolidated financial statements, and the notes to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

Changes in cash, cash equivalents, and short-term investments, total current assets, total assets, and stockholders’ equity (deficit) in the periods presented below include the effects of the receipt of net proceeds from our debt offerings, equity offerings, the exercise of stock options, and employee stock purchases that totaled approximately \$57.0 million, \$36.6 million, \$10.5 million, \$8.1 million, and \$11.6 million in the years ended December 31, 2014, 2013, 2012, 2011, and 2010, respectively.

	For the Year Ended December 31,				
	2014	2013	2012	2011	2010
	(In thousands, except per share data)				
Condensed Consolidated Statement of Operations Data:					
Revenue	\$6,977	\$3,045	\$15,961	\$2,756	\$3,360
Operating expenses:					
Cost of goods sold	—	(536)	(672)	—	(123)
Research and development	(22,349)	(13,005)	(10,564)	(11,023)	(12,878)
General and administrative	(21,250)	(14,484)	(11,465)	(10,820)	(12,112)
Contingent Consideration	(6,699)	—	—	—	—
Loss from operations	(43,321)	(24,980)	(6,740)	(19,087)	(21,753)
Non-operating income (expense)	2,096	(2,673)	110	2	4,680
Interest expense, net	(1,261)	(2,420)	(4,695)	(4,191)	(4,834)
Net loss (1)	(42,486)	(30,073)	(11,325)	(23,276)	(21,907)
Dividends on convertible preferred stock	(204)	(3,159)	(792)	(790)	(790)
Net loss attributable to common stockholders	\$(42,690)	\$(33,232)	\$(12,117)	\$(24,066)	\$(22,697)
Net loss attributable to common stockholders per common share, basic and diluted	\$(0.71)	\$(1.12)	\$(0.51)	\$(1.21)	\$(1.41)
Weighted average number of shares outstanding, basic and diluted	59,754	29,766	23,629	19,899	16,108

	December 31,				
	2014	2013	2012	2011	2010
	(In thousands)				
Condensed Consolidated Balance Sheet Data:					
Cash, cash equivalents, and short-term investments	\$40,224	\$27,352	\$21,468	\$10,748	\$19,782
Total current assets	42,670	28,175	22,615	12,004	20,854
Total assets	74,527	34,835	29,093	19,808	30,907
Total current liabilities	9,229	10,296	4,813	4,754	5,416
Long-term debt, less current portion	4,769	5,348	35,714	32,726	34,050
Stockholders' equity (deficit)	23,018	(4,481	) (17,600	) (20,831	) (14,707

Given our history of incurring operating losses, no income tax benefit has been recognized in our consolidated (1) statements of operations because of the loss before income taxes, and the need to recognize a valuation allowance on the portion of our deferred tax assets which will not be offset by the reversal of deferred tax liabilities.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations  
Overview

We are an immunotherapy company discovering and developing innovative treatments for patients with cancer and other diseases in which modulation of immune function could provide therapeutic benefit. Our approaches are driven by three platform technologies:

- our antibody platform, including our proprietary Retrocyte Display™ technology designed to produce quality human monoclonal antibodies, currently focused on advancing checkpoint modulators or CPMs;
- our heat shock protein (HSP)-based vaccines, either autologous or recombinant; 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, 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 (GSK). 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.

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.

Our Retrocyte Display™ platform has been applied to the discovery and development of CPMs targeting significant checkpoint targets. Through collaborative arrangements with our partners, Agenus has preclinical programs targeting GITR, OX40, CTLA-4, LAG-3, TIM-3 and PD-1.

In February 2015, we announced a broad, global alliance with Incyte to pursue the discovery and development of CPMs that initially target GITR, OX40, TIM-3 and LAG-3, and potentially other antibodies for the treatment of patients with cancer. Agenus also began collaborating with Merck Sharpe & Dohme (Merck) in April 2014 to discover antibodies against two undisclosed checkpoint targets. We anticipate initiating clinical trials with the first of our CPM antibody candidates in 2016.

Our research and development expenses for the years ended December 31, 2014, 2013, and 2012, were \$22.3 million, \$13.0 million, and \$10.6 million, respectively. We have incurred significant losses since our inception. As of December 31, 2014, we had an accumulated deficit of \$691.3 million.

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 December 31, 2014, together with subsequently received aggregate proceeds of \$25.0 million from the global alliance with Incyte Corporation, \$35.0 million received from the sale of our common stock, and an aggregate of \$9.0 million of new proceeds generated from our 2015 Subordinated Notes, will be sufficient to satisfy our liquidity requirements through the first half of 2016. We expect to attempt to raise additional funds in advance of depleting our current funds. We may attempt to raise funds by: (1) pursuing collaborative, 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 Retrocyte Display™ technology platform, CPM antibody programs, HerpV and the Prophage Series 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.

Our common stock is currently listed on The Nasdaq Capital Market under the symbol "AGEN".

## Historical Results of Operations

### Year Ended December 31, 2014 Compared to the Year Ended December 31, 2013

Revenue: We generated revenue of \$7.0 million and \$3.0 million during the years ended December 31, 2014 and 2013, respectively. Revenue primarily includes license fees earned, in 2014, grant revenue, and in 2013, service revenue. The increase in revenue for the year ended December 31, 2014 is primarily attributable to (i) the amortization of deferred revenue associated with the acquisition of 4-AB and (ii) a milestone payment received. During the years ended December 31, 2014 and 2013, we recorded revenue of \$3.5 million and \$1.6 million, respectively, from the amortization of deferred revenue.

Research and Development: Research and development expenses include the costs associated with our internal research and development activities, including compensation and benefits, occupancy costs, clinical manufacturing costs, costs of consultants, and administrative costs. Research and development expense increased 72% to \$22.3 million for the year ended December 31, 2014 from \$13.0 million for the year ended December 31, 2013. Increased expenses in 2014 primarily relate to the increased research and development costs of the CPM antibody program and compensation expense related to our increased headcount, in each case as a result of the acquisition of 4-AB.

General and Administrative: General and administrative expenses consist primarily of personnel costs, facility expenses, and professional fees. General and administrative expenses increased 47% to \$21.2 million for the year ended December 31, 2014 from \$14.5 million for the year ended December 31, 2013. Increased expenses in 2014 primarily related to increased professional fees related to our corporate activities and expenses of 4-AB as a result of the acquisition.

Contingent purchase price consideration fair value adjustment: Contingent purchase price consideration fair value adjustment represents the increase in the fair value of our purchase price consideration in connection with our acquisition of 4-AB during the year ended December 31, 2014. The fair value of our contingent purchase price consideration is based on estimates from a Monte Carlo simulation of our market capitalization and has increased primarily due to an increase in our market capitalization since the initial valuation during February 2014.

Non-operating income (expense): Non-operating income for the year ended December 31, 2014 represents primarily the decrease in the fair value of our contingent royalty obligation due to the termination of GSK's Phase 3 MAGE-A3 trial in non-small cell lung cancer, which occurred during the first quarter of 2014. For the year ended December 31, 2013, the non-operating expense resulted primarily from the loss on extinguishment of our convertible notes of approximately \$3.3 million.

Interest Expense, net: Interest expense decreased to \$1.3 million for the year ended December 31, 2014 from \$2.4 million for the year ended December 31, 2013 due to the extinguishment of our convertible notes during 2013.

Dividends on Series A and A-1 convertible preferred stock: Dividends decreased to approximately \$204,000 for the year ended December 31, 2014 from approximately \$3.2 million for the year ended December 31, 2013 due to the deemed dividend of 666,666 shares of our common stock issued during the exchange of the Series A for Series A-1 convertible preferred stock during the quarter ended March 31, 2013 and the related reduced dividend obligation subsequent to that exchange.

### Year Ended December 31, 2013 Compared to the Year Ended December 31, 2012

Revenue: We generated revenue of \$3.0 million and \$16.0 million during the years ended December 31, 2013 and December 31, 2012, respectively. Revenue includes license fees and service revenue, and in 2012, royalties earned. For the year ended December 31, 2012, we recognized revenue of \$6.5 million through an expanded license agreement with GSK, which provided GSK with additional license rights in an undisclosed indication, and \$6.25 million through a license of non-core technologies with an existing licensee that resulted in a buy-out of the current royalty stream related to the license. During the years ended December 31, 2013 and 2012, we recorded revenue of \$1.6 million and \$1.5 million, respectively, from the amortization of deferred revenue. Our revenue for the year ended December 31, 2012 primarily resulted from one-time payments received under amended license agreements and therefore is not indicative of future results.

Research and Development: Research and development expense increased 23% to \$13.0 million for the year ended December 31, 2013 from \$10.6 million for the year ended December 31, 2012. Increased expenses related to the

increased activity in our HerpV program as well as increased compensation expense related to bonuses for research and development personnel partially offset by decreased amortization expense.

General and Administrative: General and administrative expenses increased 26% to \$14.5 million for the year ended December 31, 2013 from \$11.5 million for the year ended December 31, 2012. Increased expenses related to increased

compensation expense in connection with bonuses for general and administrative personnel and increased professional fees related to our corporate activities, partially offset by decreased amortization expense.

Non-operating (expense) income: Non-operating expense for the year ended December 31, 2013 consists primarily of a loss on the extinguishment of our convertible notes partially offset by the decrease in the fair value of our contingent royalty obligation and the gain on the sale of an equity investment.

Interest Expense, net: Interest expense decreased to \$2.4 million for the year ended December 31, 2013 from \$4.7 million for the year ended December 31, 2012 due to the extinguishment of our 2006 Notes during 2013.

Dividends on Series A and A-1 convertible preferred stock: Dividends increased to \$3.2 million for the year ended December 31, 2013 from approximately \$792,000 for the year ended December 31, 2012 due to the deemed dividend issued to the Series A convertible preferred stock holder during the quarter ended March 31, 2013 in exchange for a reduced dividend obligation.

#### Inflation

We believe that inflation has not had a material adverse effect on our business, results of operations, or financial condition to date.

#### Research and Development Programs

Prior to 2002, we did not track costs on a per project basis, and therefore have estimated the allocation of our total research and development costs to our largest research and development programs for that time period. During 2014, these research and development programs consisted largely of our Prophage Series vaccines, HerpV and CPM antibody programs as indicated in the following table (in thousands).

Research and Development Program	Product	Year Ended December 31,			Prior to 2012	Total
		2014	2013	2012		
Heat shock proteins for cancer	Prophage Series Vaccines	\$6,153	\$5,882	\$5,613	\$292,033	\$309,681
Heat shock proteins for infectious diseases	HerpV	2,443	6,358	4,862	19,088	32,751
Vaccine adjuvant *	QS-21 Stimulon	321	753	85	12,498	13,657
Checkpoint modulator program**		13,422	—	—	—	13,422
Other research and development programs		10	12	4	33,540	33,566
Total research and development expenses		\$22,349	\$13,005	\$10,564	\$357,159	\$403,077

\* Prior to 2000, costs were incurred by Aquila Biopharmaceuticals, Inc., a company we acquired in November 2000.

\*\* Prior to 2014, costs were incurred by 4-AB which we acquired in February 2014.

Research and development program costs include compensation and other direct costs plus an allocation of indirect costs, based on certain assumptions and our review of the status of each program. Our product candidates are in various stages of development and significant additional expenditures will be required if we start new clinical trials, encounter delays in our programs, apply for regulatory approvals, continue development of our technologies, expand our operations, and/or bring our product candidates to market. The total cost of any particular clinical trial is dependent on a number of factors such as trial design, length of the trial, number of clinical sites, number of patients, and trial sponsorship. The process of obtaining and maintaining regulatory approvals for new therapeutic products is lengthy, expensive, and uncertain. Because our CPM antibody programs are preclinical, and because further development of HerpV and Prophage are dependent on successful partnering or funding efforts, among other factors, we are unable to reliably estimate the cost of completing our research and development programs or, the timing for



bringing such programs to various markets, or substantial partnering or out-licensing arrangements, and, therefore, when, if ever, material cash inflows are likely to commence. Programs involving QS-21 Stimulon, other than our HerpV program, depend on our collaborative partners or licensees successfully completing clinical trials, successfully

manufacturing QS-21 Stimulon to meet demand, obtaining regulatory approvals and successfully commercializing product candidates containing QS-21 Stimulon.

Product Development Portfolio

Retrocyte Display™ and the Checkpoint Antibody Program

We acquired our Retrocyte Display™ platform in February 2014 when we acquired 4-AB. Our acquisition of 4-AB provided us with the Retrocyte Display™ (Retroviral B Lymphocyte Display) platform, a proprietary antibody discovery platform designed for the rapid discovery and optimization of fully-human and humanized monoclonal antibodies against a wide array of molecular targets. We are applying this antibody platform to discover and optimize CPMs that regulate immune response to cancers and other diseases. In addition to the use of our Retrocyte Display™ platform to drive the discovery of future CPMs and potentially other antibody candidates, we may also employ a variety of techniques to discover and optimize our antibody candidates.

We have pre-clinical programs exploring fully human or humanized monoclonal antibodies against six important checkpoint targets: GITR, OX40, CTLA-4, PD-1, TIM-3, and LAG-3. We have selected product candidates targeting GITR, OX40, CTLA-4 and PD-1 to advance into IND-enabling studies, and we plan to identify development candidates for TIM-3 and LAG-3 during 2015. We plan to file INDs for one or more of our previously identified product candidates in 2015 and for at least three product candidates in 2016. We anticipate initiating clinical trials with the first our CPM product candidates in 2016. For additional information regarding our Retrocyte Display™ and checkpoint antibody program, please read Part I-Item 1. “Business” of this Annual Report on Form 10-K.

Prophage Series Vaccines

Since the first patient was enrolled in a clinical trial studying a Prophage Series vaccine in 1997, we have treated nearly 1,000 cancer patients with a Prophage Series vaccine, covering a broad range of cancer types in many clinical trials. The results of these trials have been published and/or presented at major conferences. These results indicate observable clinical and/or immunological activity across many types of cancer.

Because Prophage Series vaccines are novel therapeutic vaccines that are patient-specific, meaning derived from the patient’s own tumor, they are experiencing a long development process and high development costs, either of which could delay or prevent our commercialization efforts. For additional information regarding regulatory risks and uncertainties, please read the risks identified under Part I-Item 1A. “Risk Factors” of this Annual Report on Form 10-K.

Our Prophage Series vaccines are currently being studied in two different settings of GBM: patients who have been newly diagnosed as well as those with recurrent disease. Through the support of the Alliance for Clinical Trials in Oncology, a cooperative group of the National Cancer Institute (NCI), the NCI opened patient enrollment in 2013 for a 222-patient, multi-center, randomized Phase 2 trial of Prophage Series vaccine in combination with bevacizumab in patients with surgically resectable recurrent glioma. Glioblastoma is the most common primary malignant brain tumor and accounts for the majority of diagnoses of malignant cancers of the brain. Our Prophage Series vaccines are also currently being studied in stage III and IV metastatic melanoma. For additional information regarding our Prophage Series vaccines, please read Part I-Item 1. “Business” of this Annual Report on Form 10-K.

HerpV

HerpV, formerly known as AG-707 plus QS-21 Stimulon, is an investigational therapeutic vaccine candidate directed at a virus that causes genital herpes, also known as herpes simplex virus-2 or HSV-2, and is the first potential recombinant, off-the-shelf application of our HSP technology. HerpV includes our proprietary QS-21 Stimulon adjuvant. HerpV consists of recombinant human HSP -70 associated with a total of 32 distinct 35-mer peptide antigens representative of the genital herpes virus proteome.

In June 2014, we reported positive results from a randomized, Phase 2 study for HerpV, where the majority of patients showed an immune response to the HSV antigens after a series of vaccinations and a booster dose at six months. More than half of those vaccinated developed a robust anti-HSV cytotoxic T-cell immune response, and in those patients there was a statistically significant 75% reduction in viral load (P<0.001; CI: 46.2 - 88.6%). We believe this is the first demonstration of a correlation between immune responders and a statistically significant reduction in viral load with

HSV-2. A reduction in viral load is thought to be relevant in reduction of transmission and symptoms if of sufficient magnitude. After the booster shot, HerpV demonstrated a durable reduction in viral shedding approximating 14% (RR=0.86 and CIs: 0.58-1.26) and remains consistent with the reduction in viral shedding observed during the initial treatment period. The protocol defined secondary analyses were viral load and viral shedding after the booster shot. The primary endpoint of the study was reported in

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November 2013. Earlier published results of a Phase 1 study showed that HerpV administered with our QS-21 Stimulon adjuvant was associated with a significant induction of both CD4+ and CD8+ cellular immune responses. For additional information regarding HerpV, please read Part I-Item 1. "Business" of this Annual Report on Form 10-K.

#### QS-21 Stimulon

QS-21 Stimulon is an adjuvant, or a substance added to a vaccine or other immunotherapy, that is intended to enhance immune response. The corporate licensees of QS-21 Stimulon are GSK and Janssen. There are several vaccines containing QS-21 Stimulon in clinical development, including two that have successfully completed Phase 3 testing by GSK for malaria and shingles, and one in Phase 2 clinical trials with Janssen for the treatment of Alzheimer's disease. Assuming regulatory approval, the first products containing QS-21 Stimulon are anticipated to be launched in 2016, and we are generally entitled to royalties for at least 10 years after commercial launch, with some exceptions. However, there is no guarantee that we will be able to collect royalties in the future. We do not incur clinical development costs for these products of our licensees. For additional information regarding QS-21 Stimulon, please read Part I-Item 1. "Business" of this Annual Report on Form 10-K.

#### Liquidity and Capital Resources

We have incurred annual operating losses since inception, and we had an accumulated deficit of \$691.3 million as of December 31, 2014. We expect to incur significant losses over the next several years as we continue clinical trials, manage our regulatory processes, prepare for potential commercialization of products, and continue development of our technologies. We have financed our operations primarily through the sale of equity and debt, and interest income earned on cash, cash equivalents, and short-term investment balances. From our inception through December 31, 2014, we have raised aggregate net proceeds of \$618.6 million through the sale of common and preferred stock, the exercise of stock options and warrants, proceeds from our employee stock purchase plan, and the issuance of convertible and other notes. During February 2015, we raised aggregate proceeds of \$60.0 million through our global alliance with Incyte Corporation and issued \$9.0 million in subordinated notes.

In January 2015, we achieved the first contingent milestone pursuant to the terms of our Share Exchange Agreement with the former shareholders of 4-AB and accordingly are obligated to pay \$20.0 million to such shareholders of 4-AB.

In October 2014, we filed a Registration Statement on Form S-3 (SEC file no. 333-100255), declared effective by the Securities and Exchange Commission on October 23, 2014 (the "Shelf Registration Statement"), covering the offering of up to \$150.0 million of common stock, preferred stock, warrants, debt securities and units. The Shelf Registration Statement included a prospectus covering the offering, issuance and sale of up to ten million shares of our common stock from time to time in "at the market offerings" pursuant to an At Market Sales Issuance Agreement (the "Sales Agreement") entered into with MLV & Co. LLC (the "Sales Agent") on October 10, 2014. Pursuant to the Sales Agreement, sales will be made only upon instructions by us to the Sales Agent, and we cannot provide any assurances that we will issue any shares pursuant to the Sales Agreement.

Also in October 2014, we exercised our right under that certain Amended and Restated At Market Issuance Sales Agreement by and between us and MLV & Co. LLC dated as of December 21, 2012 (the "Prior Sales Agreement") to terminate the Prior Sales Agreement upon effectiveness of the Shelf Registration Statement.

As of December 31, 2014, we had debt outstanding of \$6.3 million in principal. On April 15, 2013, we entered into a Securities Exchange Agreement with the holders of our 2006 Notes whereby we exchanged all of the 2006 Notes, including accrued and unpaid interest, for \$10.0 million in cash, 2,500,000 shares of our common stock, and a contractual right to the proceeds of 20% of our revenue interests from certain QS-21 Stimulon partnered programs and a 0.5% royalty on net sales of HerpV. To finance the cash portion of this exchange we entered into two new debt arrangements. We concurrently entered into a Loan and Security Agreement with Silicon Valley Bank for senior secured debt in the aggregate principal amount of \$5.0 million (the "SVB Loan"). The SVB Loan bears interest at a rate of 6.75% per annum, payable in cash on the first day of each month with principal payments beginning November 2013 and ending with the final principal payment in April 2015. We also entered into a Note Purchase Agreement with various investors for senior subordinated notes (the "2013 Notes") in the aggregate principal amount of \$5.0 million due in April 2015. The 2013 Notes bear interest at a rate of 10% per annum, payable in cash on the first day of each month in arrears. We also issued to the holders of the 2013 Notes four year warrants to purchase 500,000

unregistered shares of our common stock at an exercise price of \$4.41 per share. In February 2015, we exchanged the 2013 Notes for new senior subordinated notes in the aggregate principal amount of \$5.0 million with annual interest at 8% and also issued an additional \$9.0 million principal amount of such notes due February 2018 (the "2015 Subordinated Notes"). In addition, we also issued to the holders of the 2015 Subordinated Notes, five year warrants to purchase 1.4 million unregistered shares of our common stock at an exercise price of \$5.10 per share.

Our cash, cash equivalents and short-term investments at December 31, 2014 were \$40.2 million, an increase of \$12.9 million from December 31, 2013. We believe that, based on our current plans and activities, our cash, cash equivalents and short-term investments balance of \$40.2 million as of December 31, 2014, plus aggregate proceeds of \$60.0 million received from Incyte in February 2015 and \$9.0 million from the 2015 Subordinated Notes, will be sufficient to satisfy our liquidity

requirements through the first half of 2016. We continue to monitor the likelihood of success of our key initiatives and are prepared to discontinue funding of such activities if they do not prove to be feasible, restrict capital expenditures and/or reduce the scale of our operations.

We expect to attempt to raise additional funds in advance of depleting our current funds. We may attempt to raise funds by: (1) pursuing collaborative, 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 Retrocyte Display™ technology platform, CPM antibody programs, HerpV and the Prophage Series 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.

Our future cash requirements include, but are not limited to, supporting our pre-clinical programs, clinical trial and regulatory efforts and continuing other research and development programs. Since inception, we have entered into various agreements with clinical trial sites and clinical research organizations to conduct and monitor our clinical studies. Under these agreements, subject to the enrollment of patients and performance by the applicable institution of certain services, we have estimated our total payments to be \$53.5 million over the term of the studies. Through December 31, 2014, we have expensed \$51.4 million as research and development expenses and \$51.1 million has been paid related to these clinical studies. The timing of expense recognition and future payments related to these agreements is subject to the enrollment of patients and performance by the applicable institution of certain services. We have also entered into sponsored research agreements related to our product candidates that required payments of \$6.6 million, all of which have been paid as of December 31, 2014. We plan to enter into additional sponsored research and/or joint collaboration agreements, and we anticipate significant additional expenditures will be required to advance our clinical trials, apply for regulatory approvals, continue development of our technologies, and bring our product candidates to market. Part of our strategy is to develop and commercialize some of our product candidates by continuing our existing collaborative arrangements with academic and collaborative partners and licensees and by entering into new collaborations. As a result of our collaborative agreements, we will not completely control the efforts to attempt to bring those product candidates to market. For example, we have various agreements with collaborative partners and/or licensees that allow the use of our QS-21 Stimulon adjuvant in numerous vaccines. These agreements grant exclusive, worldwide rights in some fields of use and co-exclusive or non-exclusive rights in others. These agreements generally call for royalties to be paid to us on future sales of licensed vaccines that include QS-21 Stimulon, which may or may not be achieved. Significant investment in manufacturing capacity could be required if we were to retain our manufacturing and supply rights.

Net cash used in operating activities for the years ended December 31, 2014 and 2013 was \$38.2 million and \$19.5 million, respectively. This increase primarily resulted from increased costs related to our CPM program, increased personnel costs, costs related to the acquisition of 4-AB, as well as reduced service revenue period to period. We continue to support and develop our QS-21 Stimulon partnering collaborations. If applications for marketing approval of vaccines that are submitted by our licensees are approved, the first products containing QS-21 Stimulon are anticipated to be launched in 2016. We are generally entitled to royalties on sales by our licensees of vaccines using QS-21 Stimulon for at least 10 years after commercial launch, with some exceptions. Our future ability to generate cash from operations will depend on achieving regulatory approval of our product candidates, and market acceptance of our product candidates, achieving benchmarks as defined in existing collaborative agreements, and our ability to enter into new collaborations. Under our global alliance and collaboration agreement Incyte, we are required under the G1TR and OX40 antibody programs to split costs with Incyte on a 50:50 basis and there is a potential for these costs to be high and the budgets for the development of these antibody projects may not be in our control. Please see the “Note Regarding Forward-Looking Statements” of this Annual Report on Form 10-K and the risks highlighted under

Part I-Item 1A. "Risk Factors" of this Annual Report on Form 10-K.

The table below summarizes our contractual obligations as of December 31, 2014 (in thousands).

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	Total	Payments Due by Period			
		Less than 1 Year	1 – 3 Years	3 – 5 Years	More than 5 Years
Long-term debt (1)	\$6,471	\$1,257	\$5,214	\$—	\$—
Operating leases (2)	13,734	1,924	3,276	3,248	5,286
Total (3)	\$20,205	\$3,181	\$8,490	\$3,248	\$5,286

(1) Includes fixed interest payments.

(2) Effective May 2013, we sublet part of our Lexington facility to ImmuneXcite, Inc. whose lease expires in June 2016. Our Lexington facility and New York office leases expire August 2023 and May 2020, respectively.

(3) Excluded from our contractual obligations table is our required contributions of \$104,000 in 2015 to our multiple employer benefit plan; our required contributions for the years beyond 2015 to our multiple employer benefit plan are unknown at this time and cannot be reasonably estimated.

#### Off-Balance Sheet Arrangements

At December 31, 2014, we had no off-balance sheet arrangements.

#### Critical Accounting Policies and Estimates

The SEC defines “critical accounting policies” as those that require the application of management’s most difficult, subjective, or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain and may change in subsequent periods.

The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. We base those estimates on historical experience and on various assumptions that are believed to be reasonable under the circumstances. Actual results could differ from those estimates.

The following listing is not intended to be a comprehensive list of all of our accounting policies. Our significant accounting policies are described in Note 2 of the notes to our consolidated financial statements contained elsewhere in this Annual Report on Form 10-K. In many cases, the accounting treatment of a particular transaction is dictated by U.S. generally accepted accounting principles, with no need for our judgment in its application. There are also areas in which our judgment in selecting an available alternative would not produce a materially different result. We have identified the following as our critical accounting policies.

#### Share-Based Compensation

In accordance with the fair value recognition provisions of the Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) 718, Compensation—Stock Compensation, we recognize share-based compensation expense net of an estimated forfeiture rate and only recognize compensation expense for those share-based awards expected to vest. Compensation expense is recognized on a straight-line basis over the requisite service period of the award.

Stock options granted to certain non-employees have been accounted for based on the fair value method of accounting in accordance with ASC 505-50, Equity- Equity-Based Payments to Non-Employees. As a result, the noncash charge to operations for non-employee options with vesting or other performance criteria is affected each reporting period by changes in the fair value of our common stock. Under the provisions of ASC 505-50, the change in fair value of vested options issued to non-employees is reflected in the statement of operations each reporting period, until the options are exercised or expire.

Determining the appropriate fair value model and calculating the fair value of share-based awards requires the use of highly subjective assumptions, including the expected life of the share-based awards and stock price volatility. The assumptions used in calculating the fair value of share-based awards represent management’s best estimates, but these estimates involve inherent uncertainties and the application of management judgment. As a result, if factors change and we use different assumptions, our share-based compensation expense could be materially different in the future. In addition, if our actual forfeiture rate is materially different from our estimate, the share-based compensation expense could be significantly different from what we have recorded in the current period. See Note 10 of the notes to our



consolidated financial statements contained elsewhere in this Annual Report on Form 10-K for a further discussion on share-based compensation.

### Revenue Recognition

Revenue for services under research and development contracts are recognized as the services are performed, or as clinical trial materials are provided. Non-refundable milestone payments that represent the completion of a separate earnings process are recognized as revenue when earned. License fees and royalties are recognized as they are earned. Revenue recognized from collaborative agreements is based upon the provisions of ASC 605-25, Revenue Recognition—Multiple Element Arrangements, as amended by Accounting Standards Update 2009-13.

### Fair Value Measurements

In accordance with ASC 820, Fair Value Measurements and Disclosures, we measure fair value based on a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that observable inputs be used when available. The fair value hierarchy is broken down into three levels based on the source of inputs.

We measure our contingent royalty obligation and contingent purchase price consideration at fair value in accordance with ASC 825, Financial Instruments. The fair value of our contingent royalty obligation and contingent purchase price consideration are based on significant inputs not observable in the market, which require them to be reported as a Level 3 liability within the fair value hierarchy. The valuation of these liabilities uses assumptions we believe would be made by a market participant. In particular, the valuation analysis for the contingent royalty obligation used the income approach based on the sum of the economic income that an asset is anticipated to produce in the future. In this case that asset is the potential royalty income to be paid to us as a result of certain license agreements for QS-21 Stimulon and the potential net sales generated from HerpV. The fair value of the contingent royalty obligation is estimated by applying a risk adjusted discount rate to the probability adjusted royalty revenue stream based on expected approval dates. These fair value estimates are most sensitive to changes in the probability of regulatory approvals. The discounted cash flow method of the income approach was chosen as the method best suited to valuing the contingent royalty obligation.

The fair value of our contingent purchase price consideration is based on estimates from a Monte Carlo simulation of our market capitalization. Market capitalization was evolved using a geometric brownian motion, calculated daily for the life of the contingent purchase price consideration.

### Business Combinations

In February 2014, we acquired all of the outstanding capital stock of 4-AB in a business combination transaction. The acquisition method of accounting requires that the assets acquired and liabilities assumed be recorded as of the date of the merger or acquisition at their respective fair values with limited exceptions. Assets acquired and liabilities assumed in a business combination that arise from contingencies are recognized at fair value if fair value can reasonably be estimated. If the acquisition date fair value of an asset acquired or liability assumed that arises from a contingency cannot be determined, the asset or liability is recognized if probable and reasonably estimable; if these criteria are not met, no asset or liability is recognized. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Accordingly, we may be required to value assets at fair value measures that do not reflect our intended use of those assets. Any excess of the purchase price (consideration transferred) over the estimated fair values of net assets acquired is recorded as goodwill. The operating results of the acquired business are reflected in our consolidated financial statements after the date of the merger or acquisition. If we determine the assets acquired do not meet the definition of a business under the acquisition method of accounting, the transaction will be accounted for as an acquisition of assets rather than a business combination and, therefore, no goodwill will be recorded. The fair values of intangible assets, including acquired in-process research and development ("IPR&D"), are determined utilizing information available near the merger or acquisition date based on expectations and assumptions that are deemed reasonable by management. The judgments made in determining estimated fair values assigned to assets acquired and liabilities assumed in a business combination, as well as asset lives, can materially affect the Company's results of operations.

Acquired Intangible Assets, including IPR&D

IPR&D acquired in a business combination represents the fair value assigned to research and development assets that have not reached technological feasibility. The value assigned to acquired IPR&D is determined by estimating the costs to develop the acquired technology into commercially viable products, estimating the resulting revenue from the projects, and discounting the net cash flows to present value. The revenue and costs projections used to value acquired IPR&D are, as applicable, reduced based on the probability of success of developing a new drug. Additionally, the projections consider the relevant market sizes and growth factors, expected trends in technology, and the nature and expected timing of new product

introductions by us and our competitors. The rates utilized to discount the net cash flows to their present value are commensurate with the stage of development of the projects and uncertainties in the economic estimates used in the projections. Upon the acquisition of IPR&D, we complete an assessment of whether our acquisition constitutes the purchase of a single asset or a group of assets. We consider multiple factors in this assessment, including the nature of the technology acquired, the presence or absence of separate cash flows, the development process and stage of completion, quantitative significance and our rationale for entering into the transaction.

We review amounts capitalized as acquired IPR&D for impairment at least annually, as of October 31, and whenever events or changes in circumstances indicate that the carrying value of the assets might not be recoverable. When performing our impairment assessment, we have the option to first assess qualitative factors to determine whether it is necessary to recalculate the fair value of our acquired IPR&D. If we elect this option and believe, as a result of the qualitative assessment, that it is more-likely-than-not that the fair value of our acquired IPR&D is less than its carrying amount, we calculate the fair value using the same methodology as described above. If the carrying value of our acquired IPR&D exceeds its fair value, then the intangible asset is written-down to its fair value. Alternatively, we may elect to not first assess qualitative factors and immediately recalculate the fair value of our acquired IPR&D.

#### Goodwill

Goodwill was \$17.9 million at December 31, 2014 of which approximately \$15.3 million was acquired as a result of our acquisition of 4-AB. Goodwill is tested at least annually for impairment on a reporting unit basis. We have concluded we consist of a single operating segment and one reporting. We assess goodwill for impairment by performing a quantitative analysis to determine whether the fair value of our single reporting unit exceeds its carrying value. We perform our annual impairment test as of October 31 of each year and the first step of our impairment analysis compares the fair value to our net book value to determine if there is an indicator of impairment. Fair value is based on the quoted market price of our common stock to derive the market capitalization as of the date of the impairment test.

#### Recent Accounting Pronouncements

In July 2013, the FASB issued Accounting Standards Update No. 2013-11, "Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists", ("ASU 2013-11"). ASU 2013-11 amends ASC 740, "Income Taxes", by providing guidance on the financial statement presentation of an unrecognized benefit when a net operating loss carryforward, a similar tax loss, or a tax credit carryforward exists. ASU 2013-11 does not affect the recognition or measurement of uncertain tax positions under ASC 740. ASU 2013-11 is effective for interim and annual periods beginning after December 15, 2013, with early adoption permitted. The adoption of ASU 2013-11 did not have an impact on our consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers, ("ASU 2014-09"). ASU 2014-09 amends revenue recognition principles and provides a single set of criteria for revenue recognition among all industries. This new standard provides a five step framework whereby revenue is recognized when promised goods or services are transferred to a customer at an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The standard also requires enhanced disclosures pertaining to revenue recognition in both interim and annual periods. ASU 2014-09 is effective for interim and annual periods beginning after December 15, 2016. We are currently evaluating the potential impact that ASU 2014-09 may have on our financial position and results of operations.

In August 2014, the FASB issued ASU No. 2014-15, Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern, ("ASU 2014-15"). ASU 2014-15 describes how an entity should assess its ability to meet obligations and sets rules for how this information should be disclosed in the financial statements. The standard provides accounting that will be used along with existing auditing standards. ASU 2014-15 applies to all entities and is effective for the annual period ending after December 15, 2016, and for annual and interim periods thereafter with early adoption permitted. We are currently evaluating the potential impact that ASU 2014-15 may have on our consolidated financial statements and related disclosures.



Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Our primary market risk exposure is foreign currency exchange rate risk. International revenues and expenses are generally transacted by our foreign subsidiary and are denominated in local currency. Approximately 22% and 0% of our operating expenses for the years ended December 31, 2014 and 2013, respectively, were from a foreign subsidiary. Additionally, in the normal course of business, we are exposed to fluctuations in interest rates as we seek debt financing and invest excess cash. We are also exposed to foreign currency exchange rate fluctuation risk related to our transactions denominated in foreign currencies. We do not currently employ specific strategies, such as the use of derivative instruments or hedging, to manage these exposures. Our currency exposures vary, but are primarily concentrated in the Euro and Swiss Franc, in large part due to our wholly-owned subsidiary, 4-AB, a company with operations in Switzerland and Germany. During the year ended December 31, 2014, there has been no material change with respect to our approach toward those exposures.

We had cash, cash equivalents and short-term investments at December 31, 2014 of \$40.2 million, which are exposed to the impact of interest and foreign currency exchange rate changes, and our interest income fluctuates as interest rates change. Due to the short-term nature of our investments in money market funds and US Treasury Securities, our carrying value approximates the fair value of these investments at December 31, 2014, however, we are subject to investment risk.

We invest our cash and cash equivalents in accordance with our investment policy. The primary objectives of our investment policy are to preserve principal, maintain proper liquidity to meet operating needs, and maximize yields. We review our investment policy annually and amend it as deemed necessary. Currently, the investment policy prohibits investing in any structured investment vehicles and asset-backed commercial paper. Although our investments are subject to credit risk, our investment policy specifies credit quality standards for our investments and limits the amount of credit exposure from any single issue, issuer, or type of investment. We do not invest in derivative financial instruments. Accordingly, we do not believe that there is currently any material market risk exposure with respect to derivatives or other financial instruments that would require disclosure under this item

Item 8. Financial Statements and Supplementary Data

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Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders

Agenus Inc.:

We have audited the accompanying consolidated balance sheets of Agenus Inc. and subsidiaries (the Company) as of December 31, 2014 and 2013, and the related consolidated statements of operations and comprehensive loss, stockholders' equity (deficit), and cash flows for each of the years in the three-year period ended December 31, 2014. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Agenus Inc. and subsidiaries as of December 31, 2014 and 2013, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2014, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Agenus Inc. and subsidiaries' internal control over financial reporting as of December 31, 2014, based on criteria established in Internal Control-Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated March 16, 2015 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Our report dated March 16, 2015, on the effectiveness of internal control over financial reporting as of December 31, 2014, contains an explanatory paragraph that states 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 the Company's consolidated financial statements as of and for the year ended December 31, 2014. Our audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of 4-Antibody AG.

/s/ KPMG LLP

Boston, Massachusetts

March 16, 2015



AGENUS INC. AND SUBSIDIARIES  
CONSOLIDATED BALANCE SHEETS

	December 31, 2014	December 31, 2013
<b>ASSETS</b>		
Cash and cash equivalents	\$25,714,519	\$27,351,969
Short-term investments	14,509,570	—
Inventories	95,700	—
Accounts receivable	—	1,200
Prepaid expenses	1,247,548	658,412
Other current assets	1,102,964	162,997
Total current assets	42,670,301	28,174,578
Plant and equipment, net of accumulated amortization and depreciation of \$28,369,982 and \$27,637,443 at December 31, 2014 and 2013, respectively	5,996,687	2,784,845
Goodwill	17,869,023	2,572,203
Acquired intangible assets, net of accumulated amortization of \$462,248 at December 31, 2014	6,773,722	—
Other long-term assets	1,216,795	1,303,855
Total assets	\$74,526,528	\$34,835,481
<b>LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)</b>		
Current portion, long-term debt	\$1,257,178	\$3,518,550
Current portion, deferred revenue	184,421	1,660,679
Accounts payable	1,710,946	834,740
Accrued liabilities	5,501,527	4,215,221
Other current liabilities	575,351	66,683
Total current liabilities	9,229,423	10,295,873
Long-term debt	4,769,359	5,347,690
Deferred revenue	3,009,568	3,193,809
Contingent royalty obligation	15,279,000	18,799,141
Contingent purchase price consideration	16,420,300	—
Other long-term liabilities	2,800,491	1,679,671
Commitments and contingencies (Notes 13 and 16)		
<b>STOCKHOLDERS' EQUITY (DEFICIT)</b>		
Preferred stock, par value \$0.01 per share; 5,000,000 authorized at December 31, 2014 and 2013:		
Series A-1 convertible preferred stock; 31,620 shares designated, issued, and outstanding at December 31, 2014 and 2013, respectively; liquidation value of \$32,012,472 at December 31, 2014	316	316
Series B2 convertible preferred stock; 0 and 3,105 shares designated, issued, and outstanding at December 31, 2014 and 2013, respectively	—	31
Common stock, par value \$0.01 per share; 140,000,000 and 70,000,000 shares authorized December 31, 2014 and 2013 respectively; 62,720,065 and 36,391,191 shares issued at December 31, 2014 and 2013, respectively	627,201	363,912
Additional paid-in capital	715,667,633	644,571,866
Treasury stock, at cost; 0 and 43,490 shares at December 31, 2014 and 2013, respectively	—	(324,792 )
Accumulated other comprehensive loss	(1,970,420 )	—

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Accumulated deficit	(691,306,343	) (649,092,036	)
Total stockholders' equity (deficit)	23,018,387	(4,480,703	)
Total liabilities and stockholders' equity	\$74,526,528	\$34,835,481	

See accompanying notes to consolidated financial statements.

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AGENUS INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS  
For the Years Ended December 31, 2014, 2013, and 2012

	2014	2013	2012
Revenue:			
Grant revenue	\$504,228	\$—	\$—
Service revenue	—	1,417,864	1,489,821
Research and development revenue	6,473,227	1,627,343	14,470,895
Total revenues	6,977,455	3,045,207	15,960,716
Operating expenses:			
Cost of service revenue	—	(536,118 )	(671,972 )
Research and development	(22,349,327 )	(13,005,366 )	(10,564,195 )
General and administrative	(21,249,710 )	(14,483,835 )	(11,465,092 )
Contingent purchase price consideration fair value adjustment	(6,699,300 )	—	—
Operating loss	(43,320,882 )	(24,980,112 )	(6,740,543 )
Other income (expense):			
Non-operating income (expense)	2,096,334	(2,672,759 )	110,473
Interest expense, net	(1,261,626 )	(2,419,798 )	(4,694,701 )
Net loss	(42,486,174 )	(30,072,669 )	(11,324,771 )
Dividends on Series A and A-1 convertible preferred stock	(203,832 )	(3,159,782 )	(791,735 )
Net loss attributable to common stockholders	\$(42,690,006 )	\$(33,232,451 )	\$(12,116,506 )
Per common share data, basic and diluted:			
Net loss attributable to common stockholders	\$(0.71 )	\$(1.12 )	\$(0.51 )
Weighted average number of common shares outstanding, basic and diluted	59,753,552	29,765,547	23,628,903
Other comprehensive loss:			
Foreign currency translation adjustments	\$(1,778,184 )	\$—	\$—
Unrealized gain on investments	1,764	—	—
Pension liability	(194,000 )	—	—
Other comprehensive loss	(1,970,420 )	—	—
Comprehensive loss	\$(44,660,426 )	\$(33,232,451 )	\$(12,116,506 )

See accompanying notes to consolidated financial statements.

AGENUS INC. AND SUBSIDIARIES  
 CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)  
 For the Years Ended December 31, 2014, 2013, and 2012

	Series A Convertible Preferred Stock		Series B Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Treasury Stock		Accumulated Deficit Other Comprehensive Loss	No In	
	Number of Shares	Par Value	Number of Shares	Par Value	Number of Shares	Par Value		Number of Shares	Amount			
Balance at December 31, 2011	31,620	\$316	—	3,105	\$31	21,535,037	\$215,350	\$581,392,602	43,490	\$(324,792)	\$(607,694,596)	\$5
Net loss	—	—	—	—	—	—	—	—	—	—	(11,324,771)	—
Shares sold at the market	—	—	—	—	—	2,469,870	24,699	10,439,504	—	—	—	—
Share-based compensation	—	—	—	—	—	—	—	4,074,814	—	—	—	—
Reclassification of liability classified option grants	—	—	—	—	—	—	—	(31,945)	—	—	—	—
Vesting of nonvested shares	—	—	—	—	—	523,210	5,232	(5,232)	—	—	—	—
Shares issued to CEO in lieu of cash compensation	—	—	—	—	—	39,231	392	158,008	—	—	—	—
Shares issued to consultants for services	—	—	—	—	—	5,000	50	22,400	—	—	—	—
Exercise of stock options	—	—	—	—	—	6,825	68	26,313	—	—	—	—
Employee share purchases	—	—	—	—	—	28,859	289	51,904	—	—	—	—
Shares issued to director for services	—	—	—	—	—	3,601	36	9,214	—	—	—	—
Issuance of director deferred shares	—	—	—	—	—	33,479	335	174,748	—	—	—	—
Dividends on series A convertible preferred stock (\$12.50 per share)	—	—	—	—	—	—	—	(395,250)	—	—	—	—

Balance at

December 31, 2012 31,620 \$316 ~~-\$3,105~~ \$31 24,645,112 246,451 \$595,917,080 43,490 \$(324,792) ~~-\$~~(619,019,367) \$5

See accompanying notes to consolidated financial statements.

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AGENUS INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)  
(Continued)

For the Years Ended December 31, 2014, 2013, and 2012

	Series A Convertible Preferred Stock		Series A-1 Convertible Preferred Stock		Series B2 Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Treasury Stock		Accumulated Other Comprehensive Deficit Loss
	Number of Shares	Par Value	Number of Shares	Par Value	Number of Shares	Par Value	Number of Shares	Par Value		Number of Shares	Amount	
Net loss	—	—	—	—	—	—	—	—	—	—	—	—(30,072,6
Shares sold at the market	—	—	—	—	—	—	4,831,132	48,312	16,942,004	—	—	—
Common stock issued to preferred shareholder	(31,620)	(316)	1,620	316	—	—	666,666	6,667	(6,667)	—	—	—
Extinguishment of debt	—	—	—	—	—	—	2,500,000	25,000	17,971,813	—	—	—
Shares sold in registered direct offering	—	—	—	—	—	—	3,333,333	33,333	9,439,161	—	—	—
Share-based compensation	—	—	—	—	—	—	—	—	4,054,561	—	—	—
Reclassification of liability classified option grants	—	—	—	—	—	—	—	—	(4,347)	—	—	—
Vesting of nonvested shares	—	—	—	—	—	—	339,800	3,398	(3,398)	—	—	—
Shares issued to CEO in lieu of cash compensation	—	—	—	—	—	—	43,887	439	157,961	—	—	—
Exercise of stock options	—	—	—	—	—	—	4,503	45	15,085	—	—	—
Employee share purchases	—	—	—	—	—	—	26,758	267	88,613	—	—	—
Balance at December 31, 2013	—	\$—	\$31,620	\$316	3,105	\$31	36,391,191	\$363,912	\$644,571,866	43,490	\$(324,792)	\$(649,09

See accompanying notes to consolidated financial statements.

AGENUS INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)  
(Continued)

For the Years Ended December 31, 2014, 2013, and 2012

	Series A-1 Convertible Preferred Stock	Series A-1 Convertible Preferred Stock	Series B2 Convertible Preferred Stock	Common Stock	Common Stock	Additional Paid-In Capital	Treasury Stock	Accumulated Other Comprehensive Loss Amount	Accumulated Deficit
	Number of Shares	Par Value	Number of Shares	Number of Shares	Par Value		Number of Shares		
Net loss	—	—	—	—	—	—	—	—	(42,486,174)
Other comprehensive loss	—	—	—	—	—	—	—	(1,970,420 )	—
Shares sold at the market	—	—	—	215,489	2,155	598,504	—	—	—
Shares sold in registered direct offering	—	—	—	22,236,000	222,360	55,969,233	—	—	—
Share-based compensation	—	—	—	—	—	4,604,713	—	—	—
Reclassification of liability classified option grants	—	—	—	—	—	(487,227 )	—	—	—
Vesting of nonvested shares	—	—	—	48,239	483	(483 )	—	—	—
Issuance of stock for acquisition	—	—	—	3,334,079	33,341	10,068,918	—	—	—
Shares issued to CEO in lieu of cash compensation	—	—	—	25,989	260	78,940	—	—	—
Shares issued for acquisition liability	—	—	—	35,124	351	119,423	—	—	—
Retirement of treasury shares	—	—	—	(43,490 )	(435 )	(596,224 )	(43,490 )	324,792	271,867
Retirement of preferred shares	—	—	(3,105 )	(31)	—	31	—	—	—
Shares issued to settle convertible notes	—	—	—	383,038	3,830	949,935	—	—	—

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Exercise of stock options	_____	—	—	—	48,381	484	144,830	—	_____	—	
Employee share purchases	_____	—	—	—	46,025	460	106,137	—	_____	—	
Dividends on series A convertible preferred stock (\$14.58 per share)	_____	—	—	—	—	—	(460,963	)	—	—	
Balance at December 31, 2014	<del>\$ 31,620</del>	\$316	—	\$—	62,720,065	\$627,201	\$715,667,633	—	<del>\$—</del>	\$(1,970,420)	\$(691,306,34

See accompanying notes to consolidated financial statements.



AGENUS INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF CASH FLOWS  
For the Years Ended December 31, 2014, 2013, and 2012

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	2014	2013	2012
Cash flows from operating activities:			
Net loss	\$(42,486,174 )	\$(30,072,669 )	\$(11,324,771 )
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:			
Depreciation and amortization	1,583,960	586,343	1,622,736
Share-based compensation	4,672,256	4,127,786	4,303,961
Non-cash interest expense	619,846	1,820,787	3,141,475
Change in fair value of contingent liabilities	3,579,159	—	—
Change in fair value of convertible notes	(201,092 )	—	—
Loss on extinguishment of debt	—	3,322,657	—
Gain on sale of investment	—	(355,500 )	—
Change in fair value of derivative liability	—	(291,517 )	—
Loss on disposal of assets	4,583	59,110	11,026
Changes in operating assets and liabilities:			
Accounts receivable	1,200	551,134	(552,334 )
Inventories	(95,700 )	16,022	4,050
Prepaid expenses	(254,045 )	(112,505 )	(9,637 )
Accounts payable	(45,902 )	189,638	(181,848 )
Deferred revenue	(3,610,811 )	(1,474,171 )	2,707,613
Accrued liabilities and other current liabilities	(1,316,169 )	1,916,467	542,349
Other operating assets and liabilities	(685,696 )	183,473	747,982
Net cash (used in) provided by operating activities	(38,234,585 )	(19,532,945 )	1,012,602
Cash flows from investing activities:			
Cash acquired in acquisition	514,470	—	—
Purchases of available-for-sale securities	(14,507,806 )	—	—
Proceeds from sale of investment	—	450,000	—
Purchases of plant and equipment	(2,819,764 )	(813,520 )	(103,442 )
Net cash used in investing activities	(16,813,100 )	(363,520 )	(103,442 )
Cash flows from financing activities:			
Net proceeds from sales of equity	56,792,252	26,462,810	10,464,203
Proceeds from employee stock purchases and option exercises	251,911	104,010	78,574
Financing of property and equipment	(39,156 )	(53,297 )	(38,744 )
Payments of series A convertible preferred stock dividends	(460,963 )	—	(592,875 )
Payments of contingent royalty obligation	(400,000 )	—	—
Payments of long-term debt	(3,333,334 )	(555,556 )	(100,000 )
Debt issuance costs	—	(177,802 )	—
Proceeds from issuance of long-term debt	—	10,000,000	—
Payments of convertible notes	—	(10,000,000 )	—
Net cash provided by financing activities	52,810,710	25,780,165	9,811,158
Effect of exchange rate changes on cash	599,525	—	—
Net (decrease) increase in cash and cash equivalents	(1,637,450 )	5,883,700	10,720,318
Cash and cash equivalents, beginning of year	27,351,969	21,468,269	10,747,951
Cash and cash equivalents, end of year	\$25,714,519	\$27,351,969	\$21,468,269
Supplemental cash flow information:			
Cash paid for interest	\$675,391	\$579,650	\$1,573,554

## Non-cash investing and financing activities:

Issuance of senior secured convertible notes as payment in-kind for interest	\$—	\$—	\$1,499,981
Deemed dividend on Series A convertible preferred stock	—	2,906,664	—
Issuance of common stock, \$0.01 par value, for acquisition of 4-Antibody AG	10,102,259	—	—
Contingent purchase price consideration issued in connection with the acquisition of 4-Antibody AG	9,721,000	—	—
Issuance of common stock, \$0.01 par value, as payment of long-term debt including accrued and unpaid interest	953,765	11,275,000	—
Contingent royalty obligation	—	19,090,658	—
Elimination of non-controlling interest	—	5,580,124	—

See accompanying notes to consolidated financial statements.

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AGENUS INC. AND SUBSIDIARIES  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(1) Description of Business

AgenuS Inc. (including its subsidiaries, also referred to as “AgenuS,” the “Company,” “we,” “us,” and “our”) is an immunotherapy company discovering and developing innovative treatments for patients with cancer and other diseases in which modulation of immune function could provide therapeutic benefit. Our approaches are driven by three platform technologies:

- our antibody platform, including our proprietary Retrocyte Display™ technology designed to produce quality human monoclonal antibodies, currently focused on advancing checkpoint modulators, or CPMs;
- our heat shock protein (HSP)-based vaccines, either autologous or recombinant; 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 a form of brain cancer and a number of advanced QS-21 Stimulon-containing vaccine candidates in late stage development by our licensee.

Our 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. For the last several years, our Retrocyte Display™ platform has been applied to the discovery and development of CPMs targeting significant checkpoint targets. Through collaborative arrangements with our partners, we have preclinical programs targeting GITR, OX40, CTLA-4, LAG-3, TIM-3 and PD-1. We have completed the following Phase 2 trials for HSP-based vaccines for cancer and infectious disease: (1) Prophage autologous HSP-based vaccine in newly diagnosed glioblastoma multiforme (GBM) and (2) HerpV recombinant HSP70-synthetic peptide vaccine for the treatment of herpes simplex virus 2 (HSV2) infection. Our QS-21 Stimulon adjuvant platform is extensively partnered with GlaxoSmithKline (GSK).

Our business activities have included 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.

We have incurred significant losses since our inception. As of December 31, 2014, we had an accumulated deficit of \$691.3 million. Since our inception, we have financed our operations primarily through the sale of equity and convertible and other notes, and interest income earned on cash, cash equivalents, and short-term investment balances. We believe that, based on our current plans and activities, our cash, cash equivalents and short-term investments balance of \$40.2 million as of December 31, 2014, plus proceeds of \$60.0 million received in February 2015 from our global alliance with, and related equity investment by, Incyte and \$9.0 million received in February 2015 from our issuance of senior subordinated promissory notes (see Note 20), will be sufficient to satisfy our liquidity requirements through the first half of 2016. We continue to monitor the likelihood of success of our key initiatives and are prepared to discontinue funding of such activities if they do not prove to be feasible, restrict capital expenditures and/or reduce the scale of our operations.

Research and development program costs include compensation and other direct costs plus an allocation of indirect costs, based on certain assumptions, and our review of the status of each program. Our product candidates are in various stages of development and significant additional expenditures will be required if we start new trials, encounter

delays in our programs, apply for regulatory approvals, continue development of our technologies, expand our operations, and/or bring our product candidates to market. The eventual total cost of each clinical trial is dependent on a number of factors such as trial design, length of the trial, number of clinical sites, and number of patients. The process of obtaining and maintaining regulatory approvals for new therapeutic products is lengthy, expensive, and uncertain. Because our CPM antibody programs are pre-clinical and because further development of HerpV and our Prophage Series vaccines are dependent on successful partnering or funding efforts, among other factors, we are unable to reliably estimate the cost of completing research and development programs, the timing of bringing such programs to various markets, or substantial partnering or out-licensing arrangements, and, therefore, are unable to determine when, if ever, material cash inflows from operating activities are likely to commence. We will continue to adjust our spending as needed in order to preserve liquidity.

(2) Summary of Significant Accounting Policies

(a) Basis of Presentation and Principles of Consolidation

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The consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles and include the accounts of Agenus and our wholly-owned subsidiaries. All significant intercompany transactions and accounts have been eliminated in consolidation.

(b) Segment Information

We are managed and operated as one business. The entire business is managed by a single executive operating committee that reports to the chief executive officer. We do not operate separate lines of business with respect to any of our product candidates. Accordingly, we do not prepare discrete financial information with respect to separate product areas or by location and do not have separately reportable segments as defined by Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 280, Segment Reporting.

(c) Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. We base those estimates on historical experience and on various assumptions that are believed to be reasonable under the circumstances. Actual results could differ from those estimates.

(d) Cash and Cash Equivalents

We consider all highly liquid investments purchased with maturities at acquisition of three months or less to be cash equivalents. Cash equivalents consist primarily of money market funds.

(e) Investments

We classify investments in marketable securities at the time of purchase. At December 31, 2014, all marketable securities are classified as available for sale and as such, the investments are recorded at fair value. Gains and losses on the sale of marketable securities are recognized in operations based on the specific identification method. At December 31, 2014, our investments consisted of institutional money market funds and U.S. treasury bills.

(f) Concentrations of Credit Risk

Financial instruments that potentially subject us to concentrations of credit risk are primarily cash equivalents, investments, and accounts receivable. We invest our cash, cash equivalents and short-term investments in accordance with our investment policy, which specifies high credit quality standards and limits the amount of credit exposure from any single issue, issuer, or type of investment. We carry balances in excess of federally insured levels, however, we have not experienced any losses to date from this practice.

(g) Inventories

Inventories are stated at the lower of cost or market. Cost has been determined using standard costs that approximate the first-in, first-out method. Inventory as of December 31, 2014 consisted solely of finished goods.

(h) Plant and Equipment

Plant and equipment, including software developed for internal use, are carried at cost. Depreciation is computed using the straight-line method over the estimated useful lives of the assets. Amortization of leasehold improvements is computed over the shorter of the lease term or estimated useful life of the asset. Additions and improvements are capitalized, while repairs and maintenance are charged to expense as incurred. Amortization and depreciation of plant and equipment was \$1.1 million, \$586,000, and \$1.6 million, for the years ended December 31, 2014, 2013, and 2012, respectively.

(i) Fair Value of Financial Instruments

The estimated fair values of all of our financial instruments, excluding debt, approximate their carrying amounts in the consolidated balance sheets. The fair value of our outstanding debt is based on a present value methodology. The outstanding principal amount of our debt, including the current portion, was \$6.3 million and \$9.6 million at December 31, 2014 and 2013, respectively.

(j) Revenue Recognition

Revenue for services under research and development contracts are recognized as the services are performed, or as clinical trial materials are provided. Non-refundable milestone payments that represent the completion of a separate earnings process are recognized as revenue when earned. License fees and royalties are recognized as they are earned.

Grant revenue is recognized when the associate expense is recorded. Revenue recognized from collaborative agreements is based upon the

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provisions of ASC 605-25, Revenue Recognition – Multiple-Element Arrangements, as amended by Accounting Standards Update 2009-13. For the years ended December 31, 2014, 2013, and 2012, 48%, 44%, and 49%, respectively, of our revenue was earned from one research partner. In addition, 40% of our revenue for the year December 31, 2012, was earned from one of our licensees and 47% and 9%, of our revenue for the years ended December 31, 2013 and 2012, respectively, was earned from one service customer. The revenues from the licensee did not continue past 2012 and the revenue from the service customer did not continue past 2013.

(k) Foreign Currency Transactions

Gains and losses from our foreign currency based accounts and transactions, such as those resulting from the translation and settlement of receivables and payables denominated in foreign currencies, are included in the consolidated statements of operations within other income (expense). We do not currently use derivative financial instruments to manage the risks associated with foreign currency fluctuations. We recorded foreign currency losses of \$773,000, \$9,000, and \$11,000, for the years ended December 31, 2014, 2013, and 2012, respectively.

(l) Research and Development

Research and development expenses include the costs associated with our internal research and development activities, including salaries and benefits, share-based compensation, occupancy costs, clinical manufacturing costs, related administrative costs, and research and development conducted for us by outside advisors, such as sponsored university-based research partners and clinical study partners. We account for our clinical study costs by estimating the total cost to treat a patient in each clinical trial and recognizing this cost based on estimates of when the patient receives treatment, beginning when the patient enrolls in the trial. Research and development expenses also include the cost of clinical trial materials shipped to our research partners. Research and development costs are expensed as incurred.

(m) Share-Based Compensation

We account for share-based compensation in accordance with the provisions of ASC 718, Compensation—Stock Compensation and ASC 505-50, Equity-Based Payments to Non-Employees. Share-based compensation expense is recognized based on the estimated grant date fair value, and is recognized net of an estimated forfeiture rate such that we recognize compensation cost for those shares expected to vest. Compensation cost is recognized on a straight-line basis over the requisite service period of the award. The non-cash charge to operations for non-employee options with vesting or other performance criteria is affected each reporting period by changes in the fair value of our common stock. Under the provisions of ASC 505-50, the change in fair value of vested options issued to non-employees is reflected in the statement of operations each reporting period, until the options are exercised or expire. See Note 10 for a further discussion on share-based compensation.

(n) Income Taxes

Income taxes are accounted for under the asset and liability method with deferred tax assets and liabilities recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis and net operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which such items are expected to be reversed or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the consolidated statement of operations in the period that includes the enactment date. Deferred tax assets are recorded when they more likely than not are expected to be realized.

(o) Net Loss Per Share

Basic income and loss per common share is calculated by dividing the net loss attributable to common stockholders by the weighted average number of common shares outstanding (including common shares issuable under our Directors' Deferred Compensation Plan). Diluted income per common share is calculated by dividing net income attributable to common stockholders by the weighted average number of common shares outstanding (including common shares issuable under our Directors' Deferred Compensation Plan) plus the dilutive effect of outstanding instruments such as warrants, stock options, nonvested shares, convertible preferred stock, and convertible notes. Because we reported a net loss attributable to common stockholders for all periods presented, diluted loss per common share is the same as basic loss per common share, as the effect of utilizing the fully diluted share count would have reduced the net loss per common share. Therefore, the following potentially dilutive securities have been excluded from the computation

of diluted weighted average shares outstanding as of December 31, 2014, 2013, and 2012, as they would be anti-dilutive:

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	At December 31,		
	2014	2013	2012
Warrants	2,951,450	3,280,396	3,309,378
Stock options	6,525,724	4,163,100	2,748,883
Nonvested shares	78,828	147,274	249,968
Convertible preferred stock	333,333	333,333	333,333

(p) Goodwill

Goodwill represents the excess of cost over the fair value of net assets of businesses acquired. Goodwill is not amortized, but instead tested for impairment at least annually. Annually we assess whether there is an indication that goodwill is impaired, or more frequently if events and circumstances indicate that the asset might be impaired during the year. We perform our annual impairment test as of October 31 of each year. The first step of our impairment analysis compares our fair value to our net book value to determine if there is an indicator of impairment. We operate as a single operating segment and single reporting unit and our fair value is based on our quoted market price of our common stock to derive the market capitalization as of the date of the impairment test. ASC 350, Intangibles, Goodwill and Other states that if the carrying value of the reporting unit is negative, the second step of the impairment test shall be performed to measure the amount of impairment loss, if any, if qualitative factors indicate that it is more likely than not that a goodwill impairment exists. No goodwill impairment has been recognized for the periods presented.

(q) In-process Research and Development

Acquired in-process research and development ("IPR&D") represents the fair value assigned to research and development assets that have not reached technological feasibility. The value assigned to acquired IPR&D is determined by estimating the costs to develop the acquired technology into commercially viable products, estimating the resulting revenue from the projects, and discounting the net cash flows to present value. The revenue and costs projections used to value acquired IPR&D are, as applicable, reduced based on the probability of success of developing a new drug. Additionally, the projections consider the relevant market sizes and growth factors, expected trends in technology, and the nature and expected timing of new product introductions by us and our competitors. The rates utilized to discount the net cash flows to their present value are commensurate with the stage of development of the projects and uncertainties in the economic estimates used in the projections. Upon the acquisition of IPR&D, we complete an assessment of whether our acquisition constitutes the purchase of a single asset or a group of assets. We consider multiple factors in this assessment, including the nature of the technology acquired, the presence or absence of separate cash flows, the development process and stage of completion, quantitative significance and our rationale for entering into the transaction.

If we acquire an asset or group of assets that do not meet the definition of a business under applicable accounting standards, then the acquired IPR&D is expensed on its acquisition date. Future costs to develop these assets are recorded to research and development expense as they are incurred.

We review amounts capitalized as acquired IPR&D for impairment at least annually, as of October 31, and whenever events or changes in circumstances indicate that the carrying value of the assets might not be recoverable. When performing our impairment assessment, we have the option to first assess qualitative factors to determine whether it is necessary to recalculate the fair value of our acquired IPR&D. If we elect this option and believe, as a result of the qualitative assessment, that it is more-likely-than-not that the fair value of our acquired IPR&D is less than its carrying amount, we calculate the fair value using the same methodology as described above. If the carrying value of our acquired IPR&D exceeds its fair value, then the intangible asset is written-down to its fair value. Alternatively, we may elect to not first assess qualitative factors and immediately recalculate the fair value of our acquired IPR&D. No IPR&D impairments were recognized for the years presented.

(r) Accounting for Asset Retirement Obligations

We record the fair value of an asset retirement obligation as a liability in the period in which we incur a legal obligation associated with the retirement of tangible long-lived assets that result from the acquisition, construction, development, and/or normal use of the assets. A legal obligation is a liability that a party is required to settle as a

result of an existing or enacted law, statute, ordinance, or contract. We are also required to record a corresponding asset that is depreciated over the life of the asset. Subsequent to the initial measurement of the asset retirement obligation, the obligation will be adjusted at the end of each period to reflect the passage of time (accretion) and changes in the estimated future cash flows underlying the obligation. Changes in the liability due to accretion are charged to the consolidated statement of operations, whereas changes due to the timing or amount of cash flows are an adjustment to the carrying amount of the related asset. Our asset retirement obligations primarily relate to the expiration of our facility lease and anticipated costs to be incurred based on our lease terms.

## (s) Long-lived Assets

If required based on certain events and circumstances, recoverability of assets to be held and used, other than goodwill and intangible assets not being amortized, is measured by a comparison of the carrying amount of an asset to the undiscounted future net cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future undiscounted cash flows, an impairment charge is recognized for the amount by which the carrying amount of the asset exceeds the fair value of the asset. Authoritative guidance requires companies to separately report discontinued operations and extends that reporting to a component of an entity that either has been disposed of (by sale, abandonment, or in a distribution to owners) or is classified as held for sale. Assets to be disposed of are reported at the lower of the carrying amount or fair value less costs to sell.

## (t) Recent Accounting Pronouncements

In July 2013, the FASB issued Accounting Standards Update No. 2013-11, "Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists", ("ASU 2013-11"). ASU 2013-11 amends ASC 740, "Income Taxes", by providing guidance on the financial statement presentation of an unrecognized benefit when a net operating loss carryforward, a similar tax loss, or a tax credit carryforward exists. ASU 2013-11 does not affect the recognition or measurement of uncertain tax positions under ASC 740. ASU 2013-11 is effective for interim and annual periods beginning after December 15, 2013, with early adoption permitted. The adoption of ASU 2013-11 did not have an impact on our consolidated financial statements. In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers, ("ASU 2014-09"). ASU 2014-09 amends revenue recognition principles and provides a single set of criteria for revenue recognition among all industries. This new standard provides a five step framework whereby revenue is recognized when promised goods or services are transferred to a customer at an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The standard also requires enhanced disclosures pertaining to revenue recognition in both interim and annual periods. ASU 2014-09 is effective for interim and annual periods beginning after December 15, 2016. We are currently evaluating the potential impact that ASU 2014-09 may have on our consolidated financial statements and related disclosures.

In August 2014, the FASB issued ASU No. 2014-15, Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern, ("ASU 2014-15"). ASU 2014-15 describes how an entity should assess its ability to meet obligations and sets rules for how this information should be disclosed in the financial statements. The standard provides guidance that will be used along with existing auditing standards. ASU 2014-15 applies to all entities and is effective for the annual period ending after December 15, 2016, and for annual and interim periods thereafter with early adoption permitted. We are currently evaluating the potential impact that ASU 2014-15 may have on our consolidated financial statements and related disclosures.

## (3) 4-Antibody Acquisition

On January 10, 2014, we entered into a Share Exchange Agreement (the "Share Exchange Agreement") providing for our acquisition of all of the outstanding capital stock of 4-Antibody AG ("4-AB"), from the shareholders of 4-AB (the "4-AB Shareholders"). The transaction closed on February 12, 2014 (the "Closing Date"). In exchange for their shares, the 4-AB Shareholders received an aggregate of 3,334,079 shares of our common stock paid upon closing and valued at \$10.1 million. Contingent milestone payments of up to \$40 million (the "contingent purchase price consideration"), payable in cash or shares of our common stock at our option, will be due to the 4-AB Shareholders as follows: (i) \$20 million upon our market capitalization exceeding \$300 million for 10 consecutive trading days prior to the earliest of (a) the fifth anniversary of the Closing Date (b) the sale of the 4-AB or (c) the sale of Agenus; (ii) \$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 (iii) \$10 million upon our market capitalization exceeding \$1 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. We assigned an acquisition date fair value of \$9.7 million to the contingent purchase price consideration as of the acquisition date. During January 2015, the first milestone noted above was achieved, see Note 20 for further detail. This acquisition provided us with the Retrocyte Display™ technology platform for the rapid discovery and optimization of fully-human and humanized monoclonal

antibodies against a wide array of molecular targets and a portfolio of CPM antibodies.

The acquisition of 4-AB was accounted for under the acquisition method of accounting. The purchase price of approximately \$19.8 million has been allocated to the tangible and intangible assets acquired and liabilities assumed.

The following table summarizes the purchase price of the 4-AB acquisition, the identified assets acquired and liabilities assumed at the acquisition date (in thousands):

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Assets acquired:	
Cash	\$514
Other current assets	600
Plant and equipment	1,340
In-process research and development	2,100
Patented technology	5,700
Other finite-lived intangible asset	190
Goodwill	16,891
Total assets	27,335
Liabilities assumed:	
Accounts Payable	649
Other current liabilities	2,889
Convertible notes	1,142
Deferred revenue	1,890
Deferred tax liability	420
Other long-term liabilities	522
Total liabilities	7,512
Total purchase price	\$19,823

The fair value of the IPR&D and patented technology was determined using the income approach and the relief from royalty rate method, respectively, using significant inputs, including an 18% discount rate, that are not observable. We consider the fair value of the IPR&D and patented technology to be Level 3 due to the significant estimates and assumptions used by management in establishing the estimated fair values.

All of the convertible notes assumed by us in the acquisition were converted into approximately 383,000 shares of our common stock on May 8, 2014.

The following table summarizes the supplemental statements of operations information on an unaudited pro forma basis as if the 4-AB acquisition had occurred on January 1, 2013 (in thousands except per share data):

	2014	2013
Pro forma revenues	\$7,183	\$6,949
Pro forma net loss attributable to common stockholders	(43,282	) (39,065
Basic and diluted pro forma net loss attributable to common stockholders per share	\$(0.72	) \$(1.18

The pro forma results presented above are for illustrative purposes only for the periods presented and do not purport to be indicative of the actual results which would have occurred had the transaction been completed as of the beginning of the period, nor are they indicative of results of operations which may occur in the future. For the year ended December 31, 2014, revenues and net loss related to 4-AB of \$3.3 million and \$7.9 million, respectively, are included in our consolidated statement of operations and comprehensive loss.

#### (4) Goodwill and Acquired Intangible Assets

The following table sets forth the changes in the carrying amount of goodwill for year ended December 31, 2014 (in thousands):

Balance December 31, 2013	\$2,572
Goodwill from 4-AB acquisition	16,891
Foreign currency translation adjustments	(1,594
Balance December 31, 2014	\$17,869

Acquired intangible assets consisted of the following at December 31, 2014 (in thousands):

	Amortization Period (Years)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Intellectual Property	15 years	\$4,348	\$(254	) \$4,094
Trademarks	4.5 years	815	(158	) 657
Other	4 years	172	(50	) 122
In-process research and development	Indefinite	1,901	—	1,901
Total		\$7,236	\$(462	) \$6,774

The weighted average amortization period of our finite-lived intangible assets is 13 years. Amortization expense related to acquired intangibles is estimated at \$528,000 for each of the years ending 2015 and 2016, \$478,000 for the year ending 2017, \$402,000 for the year ending 2018, and \$290,000 for each of the years 2019-2028, and \$37,000 for the year ending 2029.

The acquired IPR&D asset relates to the six pre-clinical CPM antibody programs acquired in the 4-AB transaction. IPR&D acquired in a business combination is capitalized at fair value until the underlying project is completed and is subject to impairment testing. Once the project is completed, the carrying value of IPR&D is amortized over the estimated useful life of the asset. Post-acquisition research and development expenses related to the acquired IPR&D are expensed as incurred.

#### (5) Investments

##### Cash Equivalents and Short-term Investments

Cash equivalents and short-term investments consisted of the following as of December 31, 2014 and 2013:

	2014		2013	
	Cost	Estimated Fair Value	Cost	Estimated Fair Value
Institutional Money Market Funds	\$25,149	\$25,149	\$27,291	\$27,291
U.S. Treasury Bills	14,508	14,510	—	—
	\$39,657	\$39,659	\$27,291	\$27,291

We did not receive proceeds from maturities of available-for-sale securities for the years ended December 31, 2014, 2013 or 2012. No available-for-sale securities were sold before their maturity in 2014. As a result of the short-term nature of our investments, there were minimal unrealized holding gains or losses as of December 31, 2014, and none as of December 31, 2013 and 2012.

Of the investments listed above, \$25.1 million and \$27.3 million have been classified as cash equivalents on our consolidated balance sheet as of December 31, 2014 and 2013, respectively. Approximately \$14.5 million was classified as short-term investments as of December 31, 2014.

#### (6) Plant and Equipment

Plant and equipment as of December 31, 2014 and 2013 consists of the following (in thousands):

	2014	2013	Estimated Depreciable Lives
Furniture, fixtures, and other	\$1,930	\$1,698	3 to 10 years
Laboratory and manufacturing equipment	7,917	4,532	4 to 10 years
Leasehold improvements	18,455	18,412	2 to 12 years
Software and computer equipment	6,065	5,780	3 years
	34,367	30,422	
Less accumulated depreciation and amortization	(28,370	) (27,637	)
	\$5,997	\$2,785	

#### (7) Income Taxes



We are subject to taxation in the U.S. and various state, local, and foreign jurisdictions. We remain subject to examination by U.S. Federal, state, local, and foreign tax authorities for tax years 2011 through 2014. With a few exceptions, we are no

longer subject to U.S. Federal, state, local, and foreign examinations by tax authorities for the tax year 2010 and prior. However, net operating losses from the tax year 2010 and prior would be subject to examination if and when used in a future tax return to offset taxable income. Our policy is to recognize income tax related penalties and interest, if any, in our provision for income taxes and, to the extent applicable, in the corresponding income tax assets and liabilities, including any amounts for uncertain tax positions.

As of December 31, 2014, we have available net operating loss carryforwards of \$555.5 million and \$63.9 million for Federal and state income tax purposes, respectively, which are available to offset future Federal and state taxable income, if any, and expire between 2014 and 2033. Our ability to use these net operating losses is limited by change of control provisions under Internal Revenue Code Section 382 and may expire unused. In addition, we have \$9.3 million and \$7.4 million of Federal and state research and development credits, respectively, available to offset future taxable income. These Federal and state research and development credits expire between 2015 and 2034 and 2017 and 2029, respectively. We also have foreign income tax net operating loss carryforwards of approximately \$44.7 million which are available to offset future foreign taxable income, if any, and expire between 2015 and 2021. The potential impacts of such provisions are among the items considered and reflected in management's assessment of our valuation allowance requirements.

The tax effect of temporary differences and net operating loss and tax credit carryforwards that give rise to significant portions of the deferred tax assets and deferred tax liabilities as of December 31, 2014 and 2013 are presented below (in thousands).

	2014	2013
Deferred tax assets:		
U.S. Federal and State net operating loss carryforwards	\$192,223	\$177,589
Foreign net operating loss carryforwards	10,153	—
Research and development tax credits	14,393	13,674
Contingent royalty obligation	3,370	7,384
Other	15,059	14,230
Total deferred tax assets	235,198	212,877
Less: valuation allowance	(234,149	) (212,577
Net deferred tax assets	1,049	300
Deferred tax liabilities	(1,471	) (300
Net deferred tax liability	\$(422	) \$—

In assessing the realizability of deferred tax assets, we consider whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which the net operating loss and tax credit carryforwards can be utilized or the temporary differences become deductible. We consider projected future taxable income and tax planning strategies in making this assessment. In order to fully realize the deferred tax asset, we will need to generate future taxable income sufficient to utilize net operating losses prior to their expiration. Based upon our history of not generating taxable income due to our business activities focused on product development, we believe that it is more likely than not that deferred tax assets will not be realized through future earnings. Accordingly, a valuation allowance has been established for deferred tax assets which will not be offset by the reversal of deferred tax liabilities. The valuation allowance on the deferred tax assets increased by \$21.6 million and \$9.6 million during the years ended December 31, 2014 and 2013, respectively. The net operating loss includes amounts pertaining to tax deductions relating to stock exercises for which any subsequently recognized tax benefit will be recorded as an increase to additional paid-in capital.

Income tax benefit was nil for each of the years ended December 31, 2014, 2013, and 2012, and differed from the amounts computed by applying the U.S. Federal income tax rate of 34% to loss before income taxes as a result of the following (in thousands).



	2014	2013	2012
Computed "expected" Federal tax benefit	\$(14,445 )	\$(10,225 )	\$(3,850 )
(Increase) reduction in income taxes benefit resulting from:			
Change in valuation allowance	14,043	9,561	2,944
Increase due to uncertain tax positions	117	102	26
State and local income benefit, net of Federal income tax benefit	(642 )	(1,359 )	(581 )
Net operating loss expirations	996	1,778	821
Foreign rate differential	726	—	—
Other, net	(795 )	143	640
	\$—	\$—	\$—

A reconciliation of the beginning and ending amount of gross unrecognized tax benefits is as follows (in thousands):

Balance, December 31, 2013	\$5,649
Increase related to current year positions	90
Increase related to previously recognized positions	39
Balance, December 31, 2014	\$5,778

These unrecognized tax benefits would all impact the effective tax rate if recognized. There are no positions which we anticipate could change within the next twelve months.

#### (8) Accrued Liabilities

Accrued liabilities consist of the following as of December 31, 2014 and 2013 (in thousands):

	2014	2013
Professional fees	\$1,438	\$1,121
Payroll	3,134	1,635
Clinical trials	245	1,021
Other	685	438
	\$5,502	\$4,215

#### (9) Equity

Effective April 24, 2014, our certificate of incorporation was amended to increase the authorized number of shares of our common stock from 70,000,000 to 140,000,000.

In a private placement in September 2003, we sold 31,620 shares of our series A convertible preferred stock, par value \$0.01 per share, ("Series A Preferred Stock") for net proceeds of \$31.6 million. In February 2013, we entered into a Securities Exchange Agreement (the "Exchange Agreement") with the holder of our Series A Preferred Stock pursuant to which the holder exchanged all 31,620 of the outstanding shares of our Series A Preferred Stock for an equivalent number of shares of our Series A-1 Preferred Stock to be issued by us. The terms of the Series A-1 Preferred Stock are materially identical to the Series A Preferred Stock, except that the Series A-1 Preferred Stock accrues a 0.63% annual dividend, as compared to a 2.5% annual dividend for the Series A Preferred Stock. In exchange for this reduction in dividend obligations, we issued to the holder 666,666 shares of our common stock. After giving effect to the transactions contemplated by the Exchange Agreement, no shares of Series A Preferred Stock remain outstanding.

Under the terms and conditions of the Certificate of Designation creating the Series A-1 Preferred Stock, this stock is convertible by the holder at any time into our common stock, is non-voting, has an initial conversion price of \$94.86 per common share, subject to adjustment, and is redeemable by us at its face amount (\$31.6 million), plus any accrued and unpaid dividends, on or after September 24, 2013. The Certificate of Designation does not contemplate a sinking fund. The Series A-1 Preferred Stock ranks senior to our common stock. In a liquidation, dissolution, or winding up of the Company, the Series A-1 Preferred Stock's liquidation preference must be fully satisfied before any distribution could be made to the holders of the



common stock. Other than in such a liquidation, no terms of the Series A-1 Preferred Stock affect our ability to declare or pay dividends on our common stock as long as the Series A-1 Preferred Stock's dividends are accruing. The liquidation value of this Series A-1 Preferred stock is equal to \$1,000 per share outstanding plus any accrued unpaid dividends. Dividends in arrears with respect to the Series A-1 Preferred Stock were approximately \$392,000 or \$12.40 per share, at December 31, 2014, and dividends in arrears with respect to the Series A Preferred Stock were approximately \$650,000, or \$20.56 per share, at December 31, 2013.

In September 2007, we issued 270,562 shares of our common stock at a price of \$18.48 per share to a single institutional investor. In conjunction with this transaction, we also issued to the investor 10,000 shares of our new series B1 convertible preferred stock and 5,250 shares of our new series B2 convertible preferred stock. All shares of the series B1 convertible preferred stock have been converted. Shares of the series B2 convertible preferred stock permit the investor to purchase common shares for consideration of up to 35% of the total dollar amount previously invested pursuant to the agreement with the investor, including conversions of the series B1 convertible preferred stock, at a purchase price equal to the lesser of \$24.96 per common share or a price calculated based on the then-prevailing price of our common stock, with such right expiring seven years from the date of issuance. In April 2009, we issued 988,202 shares of our common stock upon conversion of 2,145 shares of our series B2 convertible preferred stock via cashless conversions. Upon completion of the conversions, 3,105 shares of our series B2 convertible preferred stock were still outstanding although no further shares could be converted into shares of common stock (other than in the event of a change of control) as the maximum number of shares (as defined in the agreement) had been issued. The total number of shares of common stock issued or issuable to the holder of the class B convertible preferred stock cannot exceed 19.9% of our outstanding common stock. No dividends are paid on the class B convertible preferred stock and there are no liquidation preferences. On September 7, 2014, all 3,105 shares of our issued and outstanding Series B2 Convertible Preferred Stock remained unconverted and were canceled and extinguished in accordance with the Certificate of Designation.

In January 2008, we entered into a private placement agreement (the "January 2008 private placement") pursuant to which we sold 1,451,450 shares of common stock for \$18.00 for each share sold. Investors also received (i) 10-year warrants to purchase, at an exercise price of \$18.00 per share, up to 1,451,450 shares of common stock and (ii) unit warrants to purchase, at an exercise price of \$18.00 per unit, contingent upon a triggering event as defined in the January 2008 private placement documents, (a) up to 1,451,450 shares of common stock and (b) additional 10-year warrants to purchase, at an exercise price of \$18.00 per share, up to 1,451,450 additional shares of common stock. In accordance with the terms of the January 2008 private placement, the 10-year warrants became exercisable for a period of 9.5 years as of July 9, 2008. Our private placement in April 2008 qualified as a triggering event, and therefore the unit warrants became exercisable for a period of eighteen months as of July 9, 2008. The unit warrants expired unexercised in January 2010. In February 2008, we filed a registration statement covering the resale of the 1,451,450 shares of common stock issued and the 1,451,450 shares issuable upon the exercise of the 10-year warrants issued in the January 2008 private placement. The Securities and Exchange Commission (the "SEC") declared the resale registration statement effective on February 14, 2008.

In April 2008, we entered into a private placement agreement (the "April 2008 private placement") under which we sold (i) 1,166,666 shares of common stock and (ii) five-year warrants to acquire up to 1,166,666 shares of common stock at an exercise price of \$22.50 per share, for \$18.00 for each share and warrant sold. The warrants became exercisable for a period of 4.5 years as of October 10, 2008. In April 2008, we filed a registration statement covering the resale of the 1,166,666 shares of common stock issued and the 1,166,666 shares issuable upon the exercise of the related warrants issued in the April 2008 private placement. The SEC declared the resale registration statement effective on May 7, 2008. These warrants expired unexercised April 2013.

In July 2009, we entered into a private placement agreement under which we issued and sold (i) 833,333 shares of our common stock, (ii) six-month warrants to purchase up to 416,666 additional shares of common stock at an exercise price of \$12.00 per share, and (iii) four-year warrants to purchase up to 362,316 additional shares of common stock at an exercise price of \$13.80 per share, for \$12.00 for each share sold generating gross proceeds of \$10.0 million. Subsequently, we filed, and the SEC declared effective, a registration statement covering the resale of the 833,333 shares of common stock issued and the 778,982 shares issuable upon the exercise of the related warrants issued in this

private placement. The six-month and four-year warrants expired unexercised in January 2010 and October 2013, respectively.

In August 2009, we entered into a private placement agreement under which we issued and sold (i) 730,994 shares of our common stock, (ii) six-month warrants to purchase up to 365,495 additional shares of common stock at an exercise price of \$13.86 per share, and (iii) four-year warrants to purchase up to 328,946 additional shares of common stock at an exercise price of \$15.00 per share, for \$13.68 for each share sold generating gross proceeds of \$10.0 million. The warrants were not exercisable for the first six months following the closing, which occurred on August 4, 2009. Subsequently, we filed, and the SEC declared effective, a registration statement covering the resale of the 730,994 shares of our common stock issued and the

694,441 shares issuable upon the exercise of the related warrants issued in this private placement. The six-month warrants expired unexercised in July 2010.

As part of all private placement agreements, we agreed to register the shares of common stock and the shares of common stock underlying the warrants (with the exception of the unit warrants from the January 2008 private placement) issued to the investors with the SEC within contractually specified time periods. As noted above, we filed registration statements covering all required shares.

During 2012, we terminated our then existing At Market Issuance Sales Agreement (the "Old ATM Program") and entered into a new At Market Issuance Sales Agreement with MLV & Co. LLC, ("MLV") as sales agent, under which we may sell from time to time up to five million shares of our common stock (the "2012 ATM Program"). In December 2012, we entered into an Amended and Restated At Market Sales Issuance Agreement with MLV to increase the number of shares of common stock available for offer and sale under the 2012 ATM Program to an aggregate of ten million shares.

During the year ended December 31, 2012, we sold an aggregate of approximately 952,000 shares of our common stock in at the market offerings under the Old ATM Program and received net proceeds of approximately \$2.8 million after deducting offering costs of approximately \$87,000, and an aggregate of approximately 1.5 million shares of our common stock in at the market offerings under the 2012 ATM Program and received net proceeds of approximately \$7.7 million after deducting offering costs of approximately \$244,000. During the years ended December 31, 2014 and 2013, we sold an aggregate of approximately 215,000 and 4.8 million shares of our common stock in at the market offerings under the 2012 ATM Program and received net proceeds of approximately \$601,000 and \$17.0 million, respectively, after deducting offering costs of approximately \$20,000 and \$499,000, respectively. These offerings were made under effective shelf registration statements and proceeds from the offerings were used for general corporate purposes.

During September 2013, we sold approximately 3,333,000 shares of our common stock and warrants to purchase 1,000,000 shares of our common stock in a registered direct public offering raising net proceeds of approximately \$9.5 million, after deducting offering expenses. The common stock and warrants were sold in units, with each unit consisting of one share of common stock and a warrant to purchase 0.3 of a share of common stock. Subject to certain ownership limitations, the warrants will become exercisable beginning 6 months following issuance and will expire five years from the date they become exercisable, at an exercise price of \$3.75 per share. The number of shares issuable upon exercise of the warrants and the exercise price of the warrants are adjustable in the event of stock splits, stock dividends, combinations of shares and similar recapitalization transactions.

In February 2014, we issued and sold 22,236,000 shares of our common stock in a public underwritten offering. Net proceeds after deducting offering expenses were approximately \$56.0 million. This offering was made under an effective shelf registration statement and proceeds from the offering are being used for general corporate purposes.

In February 2014, our Board of Directors retired 43,490 shares of our treasury stock then outstanding and returned those shares to authorized and unissued shares of our common stock.

In October 2014, we filed a Registration Statement on Form S-3, declared effective by the SEC on October 23, 2014 (the "2014 Registration Statement"), covering the offering of up to \$150 million of common stock, preferred stock, warrants, debt securities and units. The 2014 Registration Statement included a prospectus covering the offering, issuance and sale of up to 10 million shares of our common stock from time to time in "at the market offerings" pursuant to an At Market Sales Issuance Agreement entered into with MLV on October 10, 2014. On October 10, 2014, we exercised our right under 2012 ATM Program to terminate the 2012 ATM Program upon effectiveness of the 2014 Registration Statement.

#### (10) Share-based Compensation Plans

Our 1999 Equity Incentive Plan, as amended (the "1999 EIP") authorized awards of incentive stock options within the meaning of Section 422 of the Internal Revenue Code (the "Code"), non-qualified stock options, nonvested (restricted) stock, and unrestricted stock for up to 2.0 million shares of common stock (subject to adjustment for stock splits and similar capital changes and exclusive of options exchanged at the consummation of mergers) to employees and, in the case of non-qualified stock options, nonvested (restricted) stock, and unrestricted stock, to consultants and directors as defined in the 1999 EIP. The plan terminated on November 15, 2009. On March 12, 2009, our Board of Directors



adopted, and on June 10, 2009, our stockholders approved, our 2009 Equity Incentive Plan (the “2009 EIP”). The 2009 EIP provides for the grant of incentive stock options intended to qualify under Section 422 of the Code, nonstatutory stock options, restricted stock, unrestricted stock and other equity-based awards, such as stock appreciation rights, phantom stock awards, and restricted stock units, which we refer to collectively as Awards, for up to 4.2 million shares of our common stock (subject to adjustment in the event of stock splits and other similar events). On March 7, 2013, our Board of Directors adopted, and on June 12, 2013, our stockholders approved, an amendment to the 2009 EIP increasing shares available for award under the plan to 6.2 million. On February 26, 2014, our Board of Directors adopted, and on April 23, 2014, our stockholders approved, an amendment to the 2009 EIP

increasing shares available for award under the plan to 10.2 million. The Board of Directors appointed the Compensation Committee to administer the 1999 EIP and the 2009 EIP. No awards will be granted under the 2009 EIP after June 10, 2019.

On March 12, 2009, our Board of Directors adopted, and on June 10, 2009, our stockholders approved, the 2009 Employee Stock Purchase Plan (the "2009 ESPP") to provide eligible employees the opportunity to acquire our common stock in a program designed to comply with Section 423 of the Code. There are currently 166,666 shares of common stock reserved for issuance under the 2009 ESPP. Rights to purchase common stock under the 2009 ESPP are granted at the discretion of the Compensation Committee, which determines the frequency and duration of individual offerings under the plan and the dates when stock may be purchased. Eligible employees participate voluntarily and may withdraw from any offering at any time before the stock is purchased. Participation terminates automatically upon termination of employment. The purchase price per share of common stock in an offering is 85% of the lesser of its fair value at the beginning of the offering period or on the applicable exercise date and may be paid through payroll deductions, periodic lump sum payments, the delivery of our common stock, or a combination thereof. Unless otherwise permitted by the Board of Directors, no participant may acquire more than 3,333 shares of stock in any offering period. No participant is allowed to purchase shares under the 2009 ESPP if such employee would own or would be deemed to own stock possessing 5% or more of the total combined voting power or value of the Company. No offerings will be made under the 2009 ESPP after June 10, 2019.

Our Director's Deferred Compensation Plan, as amended, permits each outside director to defer all, or a portion of, their cash compensation until their service as a director ends or until a specified date into a cash account or a stock account. There are 225,000 shares of our common stock reserved for issuance under this plan. As of December 31, 2014, 48,971 shares have been issued. Amounts deferred to a cash account will earn interest at the rate paid on one-year Treasury bills with interest added to the account annually. Amounts deferred to a stock account will be converted on a quarterly basis into a number of units representing shares of our common stock equal to the amount of compensation which the participant has elected to defer to the stock account divided by the applicable price for our common stock. The applicable price for our common stock has been defined as the average of the closing price of our common stock for all trading days during the calendar quarter preceding the conversion date as reported by The Nasdaq Capital Market. Pursuant to this plan, a total of 221,630 units, each representing a share of our common stock at a weighted average common stock price of \$5.70, have been credited to participants' stock accounts as of December 31, 2014. The compensation charges for this plan were immaterial for all periods presented.

We use the Black-Scholes option pricing model to value options granted to employees and non-employees, as well as options granted to members of our Board of Directors. All stock option grants have 10-year terms and generally vest ratably over a 3 or 4-year period. The non-cash charge to operations for the non-employee options with vesting or other performance criteria is affected each reporting period, until the non-employee options vest, by changes in the fair value of our common stock.

The fair value of each option granted during the periods was estimated on the date of grant using the following weighted average assumptions:

	2014	2013	2012	
Expected volatility	84	% 87	% 96	%
Expected term in years	6	6	6	
Risk-free interest rate	1.7	% 1.5	% 0.9	%
Dividend yield	—	% —	% —	%

Expected volatility is based exclusively on historical volatility data of our common stock. The expected term of stock options granted is based on historical data and other factors and represents the period of time that stock options are expected to be outstanding prior to exercise. The risk-free interest rate is based on U.S. Treasury strips with maturities that match the expected term on the date of grant.

A summary of option activity for 2014 is presented below:



	Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Outstanding at December 31, 2013	4,163,100	\$5.72		
Granted	3,277,700	3.02		
Exercised	(48,381 )	3.00		
Forfeited	(464,941 )	3.41		
Expired	(401,754 )	8.16		
Outstanding at December 31, 2014	6,525,724	\$4.40	7.89	\$3,788,900
Vested or expected to vest at December 31, 2014	6,000,984	\$4.51	7.79	\$3,307,644
Exercisable at December 31, 2014	3,197,167	\$5.63	6.74	\$1,057,765

The weighted average grant-date fair values of options granted during the years ended December 31, 2014, 2013, and 2012, was \$1.87, \$2.42, and \$3.94, respectively.

The aggregate intrinsic value in the table above represents the difference between our closing stock price on the last trading day of fiscal 2014 and the exercise price, multiplied by the number of in-the-money options that would have been received by the option holders had all option holders exercised their options on December 31, 2014 (the intrinsic value is considered to be zero if the exercise price is greater than the closing stock price). This amount changes based on the fair market value of our stock. The total intrinsic value of options exercised during the years ended December 31, 2014, 2013, and 2012, determined on the dates of exercise, was \$45,000, \$5,000, and \$12,000, respectively.

During 2014, 2013, and 2012, all options were granted with exercise prices equal to the market value of the underlying shares of common stock on the grant date other than awards dated February 14, 2014. In February 2014, our Board of Directors approved awards subject to forfeiture in the event shareholder approval was not obtained to increase the shares available under our 2009 EIP. This approval was obtained in April 2014. Accordingly, these awards have a grant date of April 2014 with an exercise price as of the date the Board of Director's approved the awards in February 2014.

As of December 31, 2014, there was \$4.4 million of total unrecognized compensation cost related to stock options granted to employees and directors expected to be recognized over a weighted average period of 2.2 years.

As of December 31, 2014, unrecognized expense for options granted to outside advisors for which performance (vesting) has not yet been completed but the exercise price of the option is known is \$314,000. Such amount is subject to change each reporting period based upon changes in the fair value of our common stock, expected volatility, and the risk-free interest rate, until the outside advisor completes his or her performance under the option agreement. Certain employees and consultants have been granted nonvested stock. The fair value of nonvested stock is calculated based on the closing sale price of our common stock on the date of issuance.

A summary of nonvested stock activity for 2014 is presented below:

	Nonvested Shares	Weighted Average Grant Date Fair Value
Outstanding at December 31, 2013	147,274	\$3.99
Granted	—	
Vested	(48,239 )	4.26
Forfeited	(20,207 )	3.59
Outstanding at December 31, 2014	78,828	3.93

As of December 31, 2014, there was \$192,000 of unrecognized share-based compensation expense related to these nonvested shares. The remaining cost is expected to be recognized over a weighted average period of 1.9 years. The total intrinsic value of shares vested during the years ended December 31, 2014, 2013, and 2012, was \$205,000, \$1.6 million, and \$2.1 million, respectively.

Cash received from option exercises and purchases under our 2009 ESPP for the years ended December 31, 2014, 2013, and 2012, was \$252,000, \$104,000, and \$79,000, respectively. We issue new shares upon option exercises, purchases under our 2009 ESPP, vesting of nonvested stock, and under the Director's Deferred Compensation Plan. During the years ended December 31, 2014, 2013, and 2012, 46,025 shares, 26,758 shares, and 28,859 shares, were issued under the 2009 ESPP, respectively. During the years ended December 31, 2014, 2013, and 2012, 48,239 shares, 339,800 shares and 523,210 shares, respectively were issued as a result of the vesting of nonvested stock.

The impact on our results of operations from share-based compensation for the years ended December 31, 2014, 2013, and 2012, was as follows (in thousands).

	2014	2013	2012
Research and development	\$1,272	\$1,147	\$1,138
General and administrative	3,400	2,981	3,166
Total share-based compensation expense	\$4,672	\$4,128	\$4,304

(11) License, Research, and Other Agreements

In May 2001, we entered into a license agreement with UConn which was amended in March 2003 and June 2009. Through the license agreement, we obtained an exclusive license to patent rights resulting from inventions discovered under a research agreement that was effective from February 1998 until December 2006. The term of the license agreement ends when the last of the licensed patents expires (2024) or becomes no longer valid. UConn may terminate the agreement: (1) if, after 30 days written notice for breach, we continue to fail to make any payments due under the license agreement, or (2) we cease to carry on our business related to the patent rights or if we initiate or conduct actions in order to declare bankruptcy. We may terminate the agreement upon 90 days written notice. We are still required to make royalty payments on any obligations created prior to the effective date of termination of the license agreement. Upon expiration or termination of the license agreement due to breach, we have the right to continue to manufacture and sell products covered under the license agreement which are considered to be works in progress for a period of 6 months. The license agreement contains aggregate milestone payments of \$1.2 million for each product we develop covered by the licensed patent rights. These milestone payments are contingent upon regulatory filings, regulatory approvals and commercial sales of products. We have also agreed to pay UConn a royalty on the net sales of products covered by the license agreement as well as annual license maintenance fees beginning in May 2006. Royalties otherwise due on the net sales of products covered by the license agreement may be credited against the annual license maintenance fee obligations. As of December 31, 2014, we have paid \$640,000 to UConn under the license agreement. The license agreement gives us complete discretion over the commercialization of products covered by the licensed patent rights, but also requires us to use commercially reasonable diligent efforts to introduce commercial products within and outside the United States. If we fail to meet these diligence requirements, UConn may be able to terminate the license agreement.

In March 2003, we entered into an amendment agreement that amended certain provisions of the license agreement with UConn. The amendment agreement granted us a license to additional patent rights. In consideration for execution of the amendment agreement, we agreed to pay UConn an upfront payment and to make future payments for licensed patents or patent applications. Through December 31, 2014, we have paid approximately \$100,000 to UConn under the license agreement, as amended.

In December 2011, we signed a license, development and manufacturing technology transfer agreement ("NewVac Agreement") for Oncophage with NewVac LLC (a subsidiary of ChemRar Ventures LLC, "NewVac"), a company focused on the development of innovative technology for cancer immunotherapy. Under the NewVac Agreement, we granted NewVac an exclusive license to manufacture, market and sell Oncophage as well as pursue a development program in the Russian Federation and certain other CIS countries. The NewVac Agreement had an initial term of three years and could have been extended under certain terms for a period ending the later of December 2021, or the expiration of the last valid claim of the licensed patent rights, as defined. During the term of the NewVac Agreement we were entitled to receive modest milestone payments in addition to payments for supply of Oncophage and/or royalties in the low double-digits on net sales of Oncophage. Upon termination of the NewVac Agreement, all activity under the agreement immediately ceases. In December 2014, the NewVac Agreement expired in accordance with its

terms.

On December 5, 2014, we entered into a license agreement with the Ludwig Institute for Cancer Research Ltd. (“Ludwig”), which replaced and superseded the Collaborative Research and Development Agreement entered into on May 23, 2011 (the “Prior Agreement”). Pursuant to the terms of the license agreement, Ludwig granted us an exclusive, worldwide license under certain intellectual property rights of Ludwig and Memorial Sloan Kettering Cancer Center arising from the Prior Agreement, to further develop and commercialize GITR, OX40 and TIM-3 antibodies. Pursuant to the license agreement, we made an upfront payment of \$1.0 million to Ludwig. The license agreement also obligates us to make potential milestone

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payments of up to \$20.0 million for events prior to regulatory approval of licensed products, and potential milestone payments in excess of \$80.0 million if licensed products are approved in multiple jurisdictions, in more than one indication, and certain sales milestones are achieved. We will also be obligated to pay low to mid-single digit royalties on all net sales of licensed products during the royalty period, and to pay Ludwig a percentage of any sublicensing income, ranging from a low to mid-double digit percentage depending on various factors. The license agreement may be terminated as follows: (i) by either party if the other party commits a material, uncured breach; (ii) by either party if the other party initiates bankruptcy, liquidation or similar proceedings; or (iii) by us for convenience upon 90 days' prior written notice. The license agreement also contains customary representations and warranties, mutual indemnification, confidentiality and arbitration provisions.

We have entered into various agreements with institutions and contract research organizations to conduct clinical studies. Under these agreements, subject to the enrollment of patients and performance by the institution of certain services, we have estimated our payments to be \$53.5 million over the term of the studies. For the years ended December 31, 2014, 2013, and 2012, \$895,000, \$2,720,000, and \$654,000, respectively, have been expensed in the accompanying consolidated statements of operations related to these clinical studies. Through December 31, 2014, \$51.1 million of this estimate has been paid. The timing of our expense recognition and future payments related to these agreements is dependent on the enrollment of patients and documentation received from the institutions.

We have various comprehensive agreements with collaborative partners that allow for the use of QS-21 Stimulon, an investigational adjuvant used in numerous vaccines under development for a variety of diseases including, but not limited to, hepatitis, HIV, influenza, cancer, Alzheimer's disease, malaria, and tuberculosis. These agreements grant exclusive worldwide rights in some fields of use, and co-exclusive or non-exclusive rights in others. The agreements call for royalties to be paid to us by the collaborative partner on the future sales of licensed vaccines that include QS-21 Stimulon.

In July 2006, we entered into a license agreement and a supply agreement with GlaxoSmithKline ("GSK") for the use of QS-21 Stimulon (the "GSK License Agreement" and the "GSK Supply Agreement", respectively). In January 2009, we entered into an Amended and Restated Manufacturing Technology Transfer and Supply Agreement (the "Amended GSK Supply Agreement") under which GSK has the right to manufacture all of its requirements of commercial grade QS-21 Stimulon. GSK is obligated to supply us (or our affiliates, licensees, or customers) certain quantities of commercial grade QS-21 Stimulon for a stated period of time. In March 2012 we entered into a First Right to Negotiate and Amendment Agreement amending the GSK License Agreement and the Amended GSK Supply Agreement to clarify and include additional rights for the use of QS-21 Stimulon (the "GSK First Right to Negotiate Agreement"). In addition, we granted GSK the first right to negotiate for the purchase of the Company or certain of our assets. The first right to negotiate will expire after five years. As consideration for entering into the GSK First Right to Negotiate Agreement, GSK paid us an upfront, non-refundable payment of \$9.0 million, \$2.5 million of which is creditable toward future royalty payments. We sometimes refer to the GSK License Agreement, the Amended GSK Supply Agreement and the GSK First Right to Negotiate Agreement, the "GSK Agreements". As of December 31, 2014, we have received \$23.3 million of a potential \$24.3 million in upfront and milestone payments related to the GSK Agreements. We are generally entitled to receive low single-digit royalties on net sales for a period of 7-10 years after the first commercial sale of a resulting GSK product. The GSK License and Amended GSK Supply Agreements may be terminated by either party upon a material breach if the breach is not cured within the time specified in the respective agreement. The termination or expiration of the GSK License Agreement does not relieve either party from any obligation which accrued prior to the termination or expiration. Among other provisions, the milestone payment obligations survive termination or expiration of the GSK Agreements for any reason, and the license rights granted to GSK survive expiration of the GSK License Agreement. The license rights and payment obligations of GSK under the Amended GSK Supply Agreement survive termination or expiration, except that GSK's license rights and future royalty obligations do not survive if we terminate due to GSK's material breach unless we elect otherwise.

During the years ended December 31, 2014, 2013, and 2012, we recognized revenue of \$3.3 million, \$1.3 million, and \$1.3 million, respectively, related to payments received under our GSK License and Amended GSK Supply Agreements. As we have no future service obligation under the GSK First Right to Negotiate Agreement, we



recognized \$6.5 million in revenue during the year ended December 31, 2012. Deferred revenue of \$2.5 million related to the GSK Agreements is included in deferred revenue on our consolidated balance sheet as of December 31, 2014.

During March 2012, we received \$6.25 million through an amended license of non-core technologies with an existing licensee. This amendment converted the license grant from non-exclusive to exclusive and enabled the licensee to buy-out the current royalty stream structure. As we have no future service obligation under this agreement, we recognized the \$6.25 million in revenue during the year ended December 31, 2012.

(12) Certain Related Party Transactions

In August 2011, we issued and sold 2,287,581 shares of our common stock in an underwritten offering for net proceeds of approximately \$6.3 million. Of the 2,287,581 shares of our common stock issued and sold, 358,496 of these shares of common stock were issued and sold to our CEO.

Effective February 12, 2014, in connection with our acquisition of the capital stock of 4-Antibody and pursuant to the Share Exchange Agreement, our Board of Directors elected Shahzad Malik, M.D. as a director. Dr. Malik is a General Partner of Advent Venture Partners LLP (“Advent”). Advent, through its affiliated entities, was 4-Antibody’s largest shareholder prior to the completion of the acquisition. Upon completion of the acquisition, Advent and its affiliates received 996,088 shares of our common stock, having a value of approximately \$3.0 million. In connection with the achievement of the first milestone in January 2015 under the Share Exchange Agreement, Advent and its affiliates received consideration of approximately \$6.2 million. The above listed consideration was received by Advent and its affiliated entities, not Dr. Malik in his individual capacity.

#### (13) Leases

We lease manufacturing, research and development, and office facilities under various long-term lease arrangements. Rent expense (before sublease income) was \$2.1 million, \$1.6 million, and \$1.0 million, for the years ended December 31, 2014, 2013, and 2012, respectively.

We lease a facility in Lexington, Massachusetts for our manufacturing, research and development, and corporate offices. During April 2011, we executed a Fifth Amendment of Lease reducing our occupied space in this facility from approximately 162,000 square feet to approximately 82,000 square feet. During December 2012 we entered into a commercial lease for approximately 5,600 square feet of office space in New York, New York for use as corporate offices. Through our acquisition of 4-AB, we lease facilities in Jena, Germany and Basel, Switzerland for 4-AB’s manufacturing, research and development and corporate offices.

The future minimum rental payments under our leases of our New York City facility, which expires in 2020, our Lexington headquarters, which expires in 2023 and our Jena, Germany and Basel, Switzerland leases, which expire in 2016, are as follows (in thousands).

Year ending December 31,	
2015	\$ 1,924
2016	1,728
2017	1,548
2018	1,601
2019	1,647
Thereafter	5,286
Total	\$ 13,734

In connection with the Lexington facility, we maintain a fully collateralized letter of credit of \$1.0 million. No amounts have been drawn on the letter of credit as of December 31, 2014. In addition, for the office space in New York City, we are required to deposit \$204,000 with the landlord as an interest-bearing security deposit pursuant to our obligations under the lease.

We sublet a portion of our facilities and received rental payments of \$365,000, \$481,000, and \$399,000 for the years ended December 31, 2014, 2013, and 2012, respectively. We are contractually entitled to receive rental payments of \$376,000 in 2015.

#### (14) Debt

As of December 31, 2014, we have \$6.3 million in principal of debt outstanding: \$6.1 million of notes and \$146,000 of debentures.

##### Convertible Notes—2006 Notes

On October 30, 2006 (the “Issuance Date”), we issued \$25.0 million of the 2006 Notes to a group of accredited investors (“Investors”). These 2006 Notes bore interest at 8% (an effective rate of 8.10%) payable semi-annually on December 30 and June 30 in cash or, at our option, in additional notes or a combination thereof and had an original maturity date of August 30, 2011. During the years ended December 2012, we issued additional 2006 Notes in the amount of \$1.5

million as payment for interest due.

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On February 23, 2011, we entered into a Ninth Amendment of Rights Agreement (the “Amendment”) to the 2006 Notes. The Amendment extended the maturity date of the 2006 Notes to August 31, 2014, and waived the rights of the note holders to convert the 2006 Notes into our common stock.

On April 15, 2013, we entered into a Securities Exchange Agreement (the “Exchange”) with the holders of all of our 2006 Notes which were due August 2014 (outstanding principal of \$39.0 million). The holders exchanged the 2006 Notes, including all accrued interest thereon, for \$10.0 million in cash, 2,500,000 shares of our common stock (for purpose of the Exchange, valued at \$4.51 per share) (the “Shares”), and a contractual right to the proceeds of 20% of our revenue interests from certain QS-21 Stimulon partnered programs and a 0.5% royalty on net sales of HerpV. The rights are governed by a Revenue Interests Assignment Agreement dated as of April 15, 2013 between us and the holders of the 2006 Notes. The rights were valued at \$19.1 million on April 15, 2013, (\$15.3 million and \$18.8 million at December 31, 2014 and December 31, 2013 respectively) based on management's estimate with the assistance of a third party valuation and are reflected in the consolidated balance sheet as contingent royalty obligation. For the year ended December 31, 2013 we recorded a loss of \$3.3 million in non-operating (loss) income based on the Exchange and eliminated \$5.6 million of non-controlling interest.

#### Notes—2013 Notes

In connection with the Exchange, we entered into a Loan and Security Agreement with Silicon Valley Bank for senior secured debt in the aggregate principal amount of \$5.0 million (the “SVB Loan”). The SVB Loan bears interest at a rate of 6.75% per annum, payable in cash on the first day of each month. Principal payments of approximately \$278,000 are due monthly beginning November 2013 and ending in April 2015. As of December 31, 2014, \$1.1 million remains outstanding on the SVB Loan. The SVB Loan is secured by a lien against substantially all of our assets and contains a number of restrictions and covenants, including, but not limited to, restrictions and covenants that limit our ability to incur certain additional indebtedness, make certain investments, pay dividends other than dividends required pursuant to pre-existing commitments, make payments on subordinated indebtedness other than regularly scheduled payments of interest, create certain liens, consolidate, merge, sell or otherwise dispose of our assets, and/or change our line of business. The SVB Loan also specifies a number of events of default (some of which are subject to applicable cure periods), including, among other things, covenant defaults, other non-payment defaults, bankruptcy, certain penalties and judgments from a governmental authority, cross-defaults in respect of indebtedness over \$50,000, and insolvency defaults.

Additionally, any material adverse change with respect to us or our subsidiary, Antigenics Inc., constitutes an event of default. Upon the occurrence of an event of default under the SVB Loan, subject to cure periods in certain circumstances, Silicon Valley Bank may declare all amounts outstanding to be immediately due and payable and may foreclose upon our assets that secure the SVB Loan. During the continuance of an event of default which does not accelerate the maturity of the SVB Loan, interest will accrue at a default rate equal to the otherwise applicable rate plus 5%. We may prepay the SVB Loan at any time, in full, subject to certain notice requirements and a prepayment premium equal to 4% of the outstanding principal amount of the SVB Loan.

In addition, in connection with the Exchange, we also entered into a Note Purchase Agreement, dated as of April 15, 2013 with various investors to issue senior subordinated notes (the “2013 Subordinated Notes”) in the aggregate principal amount of \$5.0 million and four year warrants to purchase 500,000 unregistered shares of our common stock at an exercise price of \$4.41 per share. We recorded a debt discount of \$1.1 million based on the relative fair values of the 2013 Subordinated Notes and 4 year warrants. The 2013 Subordinated Notes bear interest at a rate of 10% per annum, payable in cash on the first day of each month in arrears and were due April 2015. The 2013 Subordinated Notes include default provisions which allow for the acceleration of the principal payment of the 2013 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 2013 Subordinated Notes, default on other indebtedness with an aggregate principal balance of \$5.0 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 \$5.0 million if such amount will not be covered by third-party insurance. The debt discount, and issuance costs of approximately \$178,000, are being amortized using the effective interest method over 2 years, the expected life of the SVB Loan and the 2013 Subordinated Notes. During February 2015, we exchanged the 2013 Subordinated Notes, see

Note 20 for further discussion. As a result of this exchange, the 2013 Subordinated Notes outstanding as of December 31, 2014 are classified as long-term within our consolidated balance sheets.

Other

At December 31, 2014, approximately \$146,000 of debentures we assumed in our merger with Aquila Biopharmaceuticals are outstanding. These debentures carry interest at 7% and are callable by the holders. Accordingly they are classified as part of our long-term debt.

(15) Fair Value Measurements

We measure fair value based on a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that observable inputs be used when available. The fair value hierarchy is broken down into three levels based on the source of inputs as follows:

Level 1-Valuations based on unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access;

Level 2-Valuations based on quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active and models for which all significant inputs are observable, either directly or indirectly; and

Level 3-Valuations based on inputs that are unobservable and significant to the overall fair value measurement.

The availability of observable inputs can vary among the various types of financial assets and liabilities. To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, for financial statement disclosure purposes, the level in the fair value hierarchy within which the fair value measurement is categorized is based on the lowest level input that is significant to the overall fair value measurement.

The estimated fair values of all of our financial instruments, excluding long-term debt, approximate their carrying amounts in the consolidated balance sheets. The fair value of our long-term debt was derived by evaluating the nature and terms of each note and considering the prevailing economic and market conditions at the balance sheet date.

We measure our contingent royalty obligation and our contingent purchase price at fair value. The fair values of our contingent royalty obligation and contingent purchase price, \$15.3 million and \$16.4 million respectively at December 31, 2014, are based on significant inputs not observable in the market, which require it to be reported as a Level 3 liability within the fair value hierarchy. The valuations use assumptions we believe would be made by a market participant. In particular, the valuation analysis for the contingent royalty obligation used the Income Approach based on the sum of the economic income that an asset is anticipated to produce in the future. In this case that asset is the potential royalty income to be paid to us as a result of certain license agreements for QS-21 Stimulon and the potential net sales generated from HerpV. The fair value of the contingent royalty obligation is estimated by applying a risk adjusted discount rate (10.2%) to the probability adjusted royalty revenue stream based on expected approval dates. These fair value estimates are most sensitive to changes in the probability of regulatory approvals. The Discounted Cash Flow method of the Income Approach was chosen as the method best suited to valuing the contingent royalty obligation.

The fair value of our contingent purchase price consideration is based on estimates from a Monte Carlo simulation of our market capitalization and other factors impacting the probability of triggering the milestone payments. Market capitalization was evolved using a geometric brownian motion, calculated daily for the life of the contingent purchase price consideration.

Assets and liabilities measured at fair value are summarized below (in thousands):

Description	December 31, 2014	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Assets:</b>				
Short-term investments	\$14,510	\$14,510	\$—	\$—
<b>Liabilities:</b>				
Contingent royalty obligation	15,279	—	—	15,279
Contingent purchase price consideration	16,420	—	—	16,420
	\$31,699	\$—	\$—	\$31,699

Description	December 31, 2013	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Liabilities:</b>				
Contingent royalty obligation	\$18,799	\$—	\$—	\$18,799

The following table presents our liabilities measured at fair value using significant unobservable inputs (Level 3), as of December 31, 2014 (amounts in thousands):

Balance, December 31, 2013	\$18,799
Contingent purchase price consideration	9,721
Change in fair value of contingent royalty obligation during period	(3,120)
Change in the fair value of purchase price consideration during period	6,699
Payment of contingent royalty obligation during period	(400)
Balance, December 31, 2014	\$31,699

The decrease in fair value of the contingent royalty obligation liability is included in non-operating income (expense) in our consolidated statement of operations for the year ended December 31, 2014. There were no changes in the valuation techniques during the period and there were no transfers into or out of Levels 1 and 2.

The fair value of our outstanding debt balance at December 31, 2014 and 2013, was \$6.1 million and \$9.6 million, respectively based on the level 2 valuation hierarchy of the fair value measurements standard using a present value methodology. The principal value of our outstanding debt balance at December 31, 2014 and 2013 was \$6.3 million and \$9.6 million, respectively.

In connection with the acquisition of 4-AB, we assumed convertible notes which upon a change of control of 4-AB had the

ability to convert into shares of our common stock. All of the convertible notes assumed in connection with the acquisition of 4-AB were converted into approximately 383,000 shares of our common stock on May 8, 2014. We elected to account for these

convertible notes using fair value as a Level 1 liability. The fair value of our convertible notes on the date of settlement was

approximately \$954,000.

(16) Contingencies

We may currently be, or may become, a party to legal proceedings. 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.

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**(17) Benefit Plans**

We sponsor a defined contribution 401(k) savings plan for all eligible employees, as defined. Participants may contribute up to 60% of their compensation, as defined in the savings plan, with a maximum contribution of \$17,500 for individuals under 50 years old and \$23,000 for individuals 50 years old and older in 2014. Each participant is fully vested in his or her contributions and related earnings and losses. No discretionary contributions or expense was recorded for the years ended December 31, 2014 and 2013. For the year ended December 31, 2012, we expensed \$48,000 related to a discretionary contribution.

We also have a multiple employer benefit plan that covers all of our international employees. The annual measurement date for this plan is December 31. Benefits are based upon years of service and compensation. We are required to recognize the funded status (the difference between the fair value of plan assets and the projected benefit obligations) of our multiple employer plan in our consolidated balance sheets which amounted to a liability of approximately \$621,000 with a corresponding adjustment to accumulated other comprehensive loss, of \$194,000 for the year ended December 31, 2014. During the year ended December 31, 2014 we contributed approximately \$98,000 to our international benefit plan and we expect to contribute approximately \$104,000 to that plan during 2015. As of December 31, 2014, the benefits expected to be paid under this plan in the next five years and in the aggregate for the five years thereafter are as follows, \$90,000 in 2015, \$85,000 in 2016, \$80,000 in 2017, \$77,000 in 2018, \$69,000 in 2019 and \$313,000 for the years 2020-2024.

**(18) Geographic Information**

The following is geographical information regarding our revenues for the years ended December 31, 2014, 2013 and 2012 and the Company's long-lived assets as of December 31, 2014 and 2013 (in thousands):

	2014	2013	2012
Revenue:			
United States	\$3,664	\$3,045	\$15,961
Europe	3,313	—	—
	\$6,977	\$3,045	\$15,961

Revenue by geographic region is allocated based on the domicile of our respective business operations.

	2014	2013
Long-lived Assets:		
United States	\$5,111	\$4,089
Europe	2,102	—
	\$7,213	\$4,089

Long-lived assets include "Property and equipment, net" and "Other long-term assets" from the consolidated balance sheets, by the geographic location where the asset resides.

**(19) Quarterly Financial Data (Unaudited)**

	Quarter Ended,			
	March 31,	June 30,	September 30,	December 31,
	(In thousands, except per share data)			
2014				
Revenue	\$721	\$3,074	\$1,563	\$1,619
Net loss	(357)	) (8,042	) (8,109	) (25,978
Net loss attributable to common stockholders	(409)	) (8,091	) (8,161	) (26,029
Per common share, basic and diluted:				
Basic and diluted net loss attributable to common stockholders	\$(0.01	) \$(0.13	) \$(0.13	) \$(0.41



	Quarter Ended,			
	March 31,	June 30,	September 30,	December 31,
	(In thousands, except per share data)			
2013				
Revenue	\$1,109	\$807	\$736	\$393
Net loss	(5,835	) (11,142	) (7,319	) (5,777
Net loss attributable to common stockholders	(8,842	) (11,193	) (7,370	) (5,827
Per common share, basic and diluted:				
Basic and diluted net loss attributable to common stockholders	\$(0.35	) \$(0.40	) \$(0.24	) \$(0.16

Net loss attributable to common stockholders per share is calculated independently for each of the quarters presented. Therefore, the sum of the quarterly net loss per share amounts will not necessarily equal the total for the full fiscal year.

#### (20) Subsequent Events

On January 9, 2015, we entered into a global license, development and commercialization agreement (the “Collaboration Agreement”) with Incyte Corporation (“Incyte”) and a wholly-owned subsidiary thereof, pursuant to which the parties agreed to develop and commercialize novel immuno-therapeutics using Agenus’ proprietary Retrocyte Display™ antibody discovery platform.

Pursuant to the terms of the Collaboration Agreement, Incyte paid upfront payments to us totaling \$25.0 million in February 2015. The collaboration will initially focus on four checkpoint modulator programs directed at GITR, OX40, LAG-3 and TIM-3. The parties will share all costs and profits for the GITR and OX40 antibody programs on a 50:50 basis, and we will be eligible to receive potential milestone payments for these two antibody programs. Incyte is obligated to reimburse us for all development costs that we incur in connection with the LAG-3 and TIM-3 antibody programs, and we will be eligible to receive potential milestone payments and royalties. Through the direction of a joint steering committee, the parties anticipate that, for each program, we will lead preclinical development activities through IND filing, and Incyte will lead all clinical development activities. The parties expect to initiate the first clinical trials of antibodies arising from these programs in 2016. The Collaboration Agreement became effective February 19, 2015.

On January 9, 2015, we also entered into a Stock Purchase Agreement with Incyte (the “Stock Purchase Agreement” and together with the Collaboration Agreement, the “Agreements”), pursuant to which Incyte purchased approximately 7.76 million shares of our common stock (the “Shares”) in February 2015 for an aggregate purchase price of \$35.0 million, or approximately \$4.51 per share. Incyte owns approximately 11% of the outstanding shares of our common stock after such purchase. Under the Stock Purchase Agreement, Incyte has agreed not to dispose of any of the Shares for a period of 12 months and we have agreed to register the Shares for resale under the Securities Act of 1933, as amended (the “Securities Act”).

On January 23, 2015, we achieved the first contingent milestone pursuant to the terms of our Share Exchange Agreement with the 4-AB Shareholders and accordingly are obligated to pay \$20.0 million to such 4-AB Shareholders.

On February 20, 2015, the Company, certain existing investors and certain additional investors entered into an Amended and Restated Note Purchase Agreement, pursuant to which we (i) canceled the 2013 Subordinated Notes in exchange for new senior subordinated promissory notes (the “2015 Subordinated Notes”) in the aggregate principal amount of \$5.0 million, (ii) issued additional 2015 Subordinated Notes in the aggregate principal amount of \$9.0 million and (iii) issued five year warrants to purchase 1,400,000 shares of our common stock at an exercise price of \$5.10 per share.

The 2015 Subordinated Notes bear interest at a rate of 8% per annum, payable in cash on the first day of each month in arrears. Among other default and acceleration terms customary for indebtedness of this type, the 2015 Subordinated Notes include default provisions which 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. The 2015 Subordinated Notes are not convertible and will mature on February 20, 2018, at which point the we must repay the outstanding balance in cash. The Company may prepay the 2015 Subordinated Notes at any time, in part or in full, without premium or penalty.

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure  
Not applicable.

Item 9A. Controls and Procedures

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our Chief Executive Officer and Principal Financial Officer, we conducted an evaluation of the effectiveness of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Exchange Act. Based on this evaluation, our Chief Executive Officer and our Principal Financial Officer concluded that our disclosure controls and procedures were functioning effectively as of the end of the period covered by this Annual Report on Form 10-K to provide reasonable assurance that the Company can meet its disclosure obligations.

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of our management, including our Chief Executive Officer and Principal Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control—Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Effective February 12, 2014, the Company acquired all of the outstanding capital stock of 4-Antibody AG ("4-AB"), and management excluded from its assessment of the effectiveness of the Company's internal controls over financial reporting as of December 31, 2014, 4-AB's internal controls over financial reporting associated with total assets of approximately \$4.2 million and revenue of \$1.5 million generated by 4-AB that was included in the Company's consolidated financial statements as of and for the year ended December 31, 2014. Based on our evaluation under the framework, our management concluded that our internal control over financial reporting was effective as of December 31, 2014.

KPMG LLP, our independent registered public accounting firm, has issued their report, included herein, on the effectiveness of our internal control over financial reporting.

Changes in Internal Control Over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the fourth quarter 2014 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. However, in the first quarter of 2014, we completed the acquisition of 4-AB, at which time 4-AB became our wholly-owned subsidiary. We are currently in the process of assessing and integrating 4-AB's internal controls over financial reporting into our financial reporting systems.

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Report of Independent Registered Public Accounting Firm  
The Board of Directors and Stockholders  
Agenus Inc.:

We have audited Agenus Inc. and subsidiaries' internal control over financial reporting as of December 31, 2014, based on criteria established in Internal Control - Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Agenus Inc.'s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Agenus Inc. and subsidiaries maintained, in all material respects, effective internal control over financial reporting as of December 31, 2014, based on criteria established in Internal Control - Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

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 the Company's consolidated financial statements as of and for the year ended December 31, 2014. Our 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.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Agenus Inc. and subsidiaries as of December 31, 2014 and 2013, and the related consolidated statements of operations and comprehensive loss, stockholders' equity (deficit), and cash flows for each of the years in the three-year period ended December 31, 2014, and our report dated March 16, 2015 expressed an unqualified opinion on those consolidated financial statements.

/s/ KPMG LLP

Boston, Massachusetts  
March 16, 2015

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Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information regarding our executive officers is incorporated herein by reference to the information contained in Part I of this Annual Report on Form 10-K under the heading "Executive Officers of the Registrant." The balance of the information required by this Item is incorporated herein by reference to the information that will be contained in our proxy statement related to the 2015 Annual Meeting of Stockholders, which we intend to file with the Securities and Exchange Commission within 120 days of the end of our fiscal year pursuant to General Instruction G(3) of Form 10-K.

Item 11. Executive Compensation

The information required by this Item is incorporated herein by reference to the information that will be contained in our proxy statement related to the 2015 Annual Meeting of Stockholders, which we intend to file with the Securities and Exchange Commission within 120 days of the end of our fiscal year pursuant to General Instruction G(3) of Form 10-K.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this Item is incorporated herein by reference to the information that will be contained in our proxy statement related to the 2015 Annual Meeting of Stockholders, which we intend to file with the Securities and Exchange Commission within 120 days of the end of our fiscal year pursuant to General Instruction G(3) of Form 10-K.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this Item is incorporated herein by reference to the information that will be contained in our proxy statement related to the 2015 Annual Meeting of Stockholders, which we intend to file with the Securities and Exchange Commission within 120 days of the end of our fiscal year pursuant to General Instruction G(3) of Form 10-K.

Item 14. Principal Accounting Fees and Services

The information required by this Item is incorporated herein by reference to the information that will be contained in our proxy statement related to the 2015 Annual Meeting of Stockholders, which we intend to file with the Securities and Exchange Commission within 120 days of the end of our fiscal year pursuant to General Instruction G(3) of Form 10-K.



PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) 1. Consolidated Financial Statements

The consolidated financial statements are listed under Item 8 of this Annual Report on Form 10-K.

2. Financial Statement Schedules

The financial statement schedules required under this Item and Item 8 are omitted because they are not applicable or the required information is shown in the consolidated financial statements or the footnotes thereto.

3. Exhibits

The exhibits are listed below under Part IV Item 15(b).

(b) Exhibits

Exhibit Index

Exhibit No.	Description
3.1	Amended and Restated Certificate of Incorporation of Antigenics Inc. Filed as Exhibit 3.1 to our Current Report on Form 8-K (File No. 0-29089) filed on June 10, 2002 and incorporated herein by reference.
3.1.1	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Antigenics Inc. Filed as Exhibit 3.1 to our Current Report on Form 8-K (File No. 0-29089) filed on June 11, 2007 and incorporated herein by reference.
3.1.2	Certificate of Ownership and Merger changing the name of the corporation to Agenus Inc. Filed as Exhibit 3.1 to our Current Report on Form 8-K (File No. 0-29089) filed on January 6, 2011 and incorporated herein by reference.
3.1.3	Certificate of Second Amendment to the Amended and Restated Certificate of Incorporation of Agenus Inc. Filed as Exhibit 3.1 to our Current Report on Form 8-K (File No. 0-29089) filed on September 30, 2011 and incorporated herein by reference.
3.1.4	Certificate of Third Amendment to the Amended and Restated Certificate of Incorporation of Agenus Inc. Filed as Exhibit 3.1.4 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended June 30, 2012 and incorporated herein by reference.
3.1.5	Certificate of Fourth Amendment to the Amended and Restated Certificate of Incorporation of Agenus Inc. Filed as Exhibit 3.1 to our Current Report on Form 8-K (File No. 0-29089) filed on April 25, 2014 and incorporated herein by reference.
3.2	Fifth Amended and Restated By-laws of Agenus Inc. Filed as Exhibit 3.2 to our Current Report on Form 8-K (File No. 0-29089) filed on January 6, 2011 and incorporated herein by reference.
3.3	Certificate of Designation, Preferences and Rights of the Series A Convertible Preferred Stock of Agenus Inc. filed with the Secretary of State of the State of Delaware on September 24, 2003. Filed as Exhibit 3.1 to our Current Report on Form 8-K (File No. 0-29089) filed on September 25, 2003 and incorporated herein by reference.
3.4	

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Certificate of Designations, Preferences and Rights of the Class B Convertible Preferred Stock of Agenus Inc. Filed as Exhibit 3.1 to our Current Report on Form 8-K (File No. 0-29089) filed on September 5, 2007 and incorporated herein by reference.

3.5

Certificate of Designations, Preferences and Rights of the Series A-1 Convertible Preferred Stock of Agenus Inc. Filed as Exhibit 3.1 to our Current Report on Form 8-K (File No. 0-29089) filed on February 5, 2013 and 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. 0-29089) filed on January 6, 2011 and incorporated herein by reference.

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- 4.2 Form of Amended and Restated Note under the Securities Purchase Agreement dated as of October 30, 2006 (as amended), by and among Agenus Inc., a Delaware corporation and the investors listed on the Schedule of Buyers thereto. Filed as Exhibit 4.4 to our Annual Report on Form 10-K (File No. 0-29089) for the year ended December 31, 2010 and incorporated herein by reference.
- 4.3 Form of Warrant under the Securities Purchase Agreement dated January 9, 2008. Filed as Exhibit 4.1 to our Current Report on Form 8-K (File No. 0-29089) filed on January 11, 2008 and incorporated herein by reference.
- 4.4 Purchase Agreement dated August 31, 2007 by and between Agenus Inc. and Fletcher International. Filed as Exhibit 99.1 to our Current Report on Form 8-K (File No. 0-29089) filed on September 5, 2007 and incorporated herein by reference.
- 4.5 Securities Purchase Agreement dated April 8, 2008. Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) filed on April 10, 2008 and incorporated herein by reference.
- 4.6 Form of Warrant to purchase common stock dated April 9, 2008. Filed as Exhibit 4.1 to our Current Report on Form 8-K (File No. 0-29089) filed on April 10, 2008 and incorporated herein by reference.
- 4.7 Securities Purchase Agreement by and between Agenus Inc. and the investors identified on Schedule I attached to the agreement, dated January 9, 2008. Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) filed on January 11, 2008 and incorporated herein by reference.
- 4.8 Form of 4 Year Warrant under the Securities Purchase Agreement dated July 30, 2009. Filed as Exhibit 4.2 to our Current Report on Form 8-K (File No. 0-29089) filed on August 3, 2009 and incorporated herein by reference.
- 4.9 Form of 4 Year Warrant under the Securities Purchase Agreement dated August 3, 2009. Filed as Exhibit 4.2 to our Current Report on Form 8-K (File No. 0-29089) filed on August 5, 2009 and incorporated herein by reference.
- 4.10 Securities Purchase Agreement dated as of July 30, 2009 by and among Agenus Inc. and the investors listed on the Schedule of Buyers thereto. Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) filed on August 3, 2009 and incorporated herein by reference.
- 4.11 Securities Exchange Agreement dated as of February 4, 2013 by and between Agenus Inc., and Mr. Brad Kelley. Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) filed on February 5, 2013 and incorporated herein by reference.
- 4.12 Note Purchase Agreement dated as of April 15, 2013 by and between Agenus Inc., and the Purchasers listed on Schedule 1.1 thereto. Filed as Exhibit 4.1 to our Quarterly Report on Form 10-Q (File No. 0-029089) for the quarter ended March 31, 2013 and incorporated herein by reference.
- 4.13

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Form of Senior Subordinated Note under the Note Purchase Agreement dated as of April 15, 2013 by and between Agenus Inc., and the Purchasers listed on Schedule 1.1 thereto. Filed as Exhibit 4.2 to our Quarterly Report on Form 10-Q (File No. 0-029089) for the quarter ended March 31, 2013 and incorporated herein by reference.

4.14 Form of Warrant under the Note Purchase Agreement dated as of April 15, 2013 by and between Agenus Inc., and the Purchasers listed on Schedule 1.1 thereto. Filed as Exhibit 4.3 to our Quarterly Report on Form 10-Q (File No. 0-029089) for the quarter ended March 31, 2013 and incorporated herein by reference.

4.15 Loan and Security Agreement dated as of April 15, 2013 by and among Agenus Inc., Antigenics Inc., a Massachusetts corporation (and wholly-owned subsidiary of Agenus Inc.), and Silicon Valley Bank, a California corporation. Filed as Exhibit 4.4 to our Quarterly Report on Form 10-Q (File No. 0-029089) for the quarter ended March 31, 2013 and incorporated herein by reference.

4.16 Securities Exchange Agreement dated as of April 15, 2013 by and among Agenus Inc., Ingalls & Snyder Value Partners L.P. and Arthur Koenig. Filed as Exhibit 4.5 to our Quarterly Report on Form 10-Q (File No. 0-029089) for the quarter ended March 31, 2013 and incorporated herein by reference.

4.17 Securities Purchase Agreement, dated September 18, 2013, as amended, by and between Agenus Inc. and the investors party thereto. Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) filed on September 19, 2013 and incorporated herein by reference.

- 4.18 Form of Warrant under the Securities Purchase Agreement, dated September 18, 2013, as amended, by and between Agenus Inc. and the investors party thereto. Filed as Exhibit 4.1 to our Current Report on Form 8-K (File No. 0-29089) filed on September 19, 2013 and incorporated herein by reference.
- 4.19 Share Exchange Agreement, dated January 10, 2014, by and among Agenus Inc., 4-Antibody AG, certain shareholders of 4-Antibody AG and Vischer AG. Filed as Exhibit 2.1 to our Current Report on Form 8-K (File No. 0-29089) filed on January 13, 2014 and incorporated herein by reference.
- 4.20 Securities Purchase Agreement dated as of August 3, 2009 by and among Agenus Inc. and the investors listed on the Schedule of Buyers thereto. Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) filed on August 5, 2009 and incorporated herein by reference.
- 4.21 Stock Purchase Agreement dated as of January 9, 2015, by and between Agenus Inc. and Incyte Corporation. Filed herewith.
- Employment Agreements and Compensation Plans
- 10.1\* 1999 Equity Incentive Plan, as amended. Filed as Exhibit 10.1 to our Annual Report on Form 10-K (File No. 0-29089) for the year ended December 31, 2008 and incorporated herein by reference.
- 10.1.2\* Form of Non-Statutory Stock Option. Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) filed on December 15, 2004 and incorporated herein by reference.
- 10.1.3\* Form of 2007 Restricted Stock Award Agreement. Filed as Exhibit 10.1.5 to our Annual Report on Form 10-K (File No. 0-29089) for the year ended December 31, 2007 and incorporated herein by reference.
- 10.1.4\* Form of 2008 Restricted Stock Award Agreement. Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) filed on March 11, 2008 and incorporated herein by reference.
- 10.1.5\* Sixth Amendment to the Agenus Inc. 1999 Equity Incentive Plan. Filed as Appendix D to our Definitive Proxy Statement on Schedule 14A filed on April 27, 2009 and incorporated herein by reference.
- 10.2\* Agenus Inc. 2009 Equity Incentive Plan, as amended. Filed as Appendix B to our Definitive Proxy Statement on Schedule 14A filed on March 10, 2014 and incorporated herein by reference.
- 10.2.1\* Third Amendment to the Agenus Inc. 2009 Equity Incentive Plan. Filed as Appendix C to our Definitive Proxy Statement on Schedule 14A filed on March 10, 2014 and incorporated herein by reference.
- 10.2.2\* Form of Restricted Stock Agreement for the Agenus Inc. Agenus Inc. 2009 Equity Incentive Plan. Filed as Exhibit 10.2 to our Current Report on Form 8-K (File No. 0-29089) filed on June 15, 2009 and incorporated herein by reference.

- 10.2.3\* Form of Stock Option Agreement for the Agenus Inc. 2009 Equity Incentive Plan. Filed as Exhibit 10.3 to our Current Report on Form 8-K (File No. 0-29089) filed on June 15, 2009 and incorporated herein by reference.
- 10.3\* Agenus Inc. 2009 Employee Stock Purchase Plan. Filed as Appendix B to our Definitive Proxy Statement on Schedule 14A filed on April 27, 2009 and incorporated herein by reference.
- 10.4 Agenus Inc. Directors' Deferred Compensation Plan, as amended to date. Filed as Exhibit 10.4 to our Annual Report on Form 10-K (File No. 0-29089) for the year ended December 31, 2012 and incorporated herein by reference.
- 10.5\* Amended and Restated Executive Change-in-Control Plan applicable to Christine M. Klaskin. Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) filed on November 3, 2010 and incorporated herein by reference.
- 10.5.1\* Modification of Rights in the Event of a Change of Control, dated as of June 14, 2012, by and between Agenus Inc. and Christine Klaskin. Filed as Exhibit 10.1 to our Quarterly Report on Form 10-Q (File No. 0-029089) for the quarter ended June 30, 2012 and incorporated herein by reference.
- 10.6\* 2004 Executive Incentive Plan, as amended. Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) filed on January 27, 2011 and incorporated herein by reference.

- 10.7 Form of Indemnification Agreement between Agenus Inc. and its directors and executive officers. These agreements are materially different only as to the signatories and the dates of execution. Filed as Exhibit 10.4 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.
- 10.8 Current schedule identifying the directors and executive officers who are party to an Indemnification Agreement, the form of which was filed as Exhibit 10.4 to our registration statement on Form S-1 (File No. 333-91747). Filed herewith.
- 10.9\* Employment Agreement dated December 1, 2005 between Agenus Inc. and Garo Armen. Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) filed on December 7, 2005 and incorporated herein by reference.
- 10.9.1\* First Amendment to Employment Agreement dated July 2, 2009 between Agenus Inc. and Garo Armen. Filed as Exhibit 10.1 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended September 30, 2009 and incorporated herein by reference.
- 10.9.2\* Second Amendment to Employment Agreement dated December 15, 2010 between Agenus Inc. and Garo Armen. Filed as Exhibit 10.12.2 to our Annual Report on Form 10-K (File No. 0-29089) for the year ended December 31, 2010 and incorporated herein by reference.
- 10.10\* Employment Agreement dated September 16, 2008 between Agenus Inc. and Karen Valentine. Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) filed on September 19, 2008 and incorporated herein by reference.
- 10.10.1\* First Amendment to Employment Agreement dated July 2, 2009 between Agenus Inc. and Karen Valentine. Filed as Exhibit 10.3 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended September 30, 2009 and incorporated herein by reference.
- 10.10.2\* Second Amendment to Employment Agreement dated December 15, 2010 between Agenus Inc. and Karen Valentine. Filed as Exhibit 10.20.2 to our Annual Report on Form 10-K (File No. 0-29089) for the year ended December 31, 2010 and incorporated herein by reference.
- 10.11.1\* Employment Agreement dated February 20, 2007 between Agenus Inc. and Kerry Wentworth. Filed as Exhibit 10.2 to our Current Report on Form 8-K (File No. 0-29089) filed on February 26, 2007 and incorporated herein by reference.
- 10.11.2\* First Amendment to Employment Agreement dated July 2, 2009 between Agenus Inc. and Kerry Wentworth. Filed as Exhibit 10.4 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended September 30, 2009 and incorporated herein by reference.
- 10.11.3\* Second Amendment to Employment Agreement dated December 15, 2010 between Agenus Inc. and Kerry Wentworth. Filed as Exhibit 10.11.2 to our Annual Report on Form 10-K (File No. 0-29089) for the year ended December 31, 2010 and incorporated herein by reference.

License and Collaboration Agreements

10.12(1)

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Patent License Agreement between Agenus Inc. and Mount Sinai School of Medicine dated November 1, 1994, as amended on June 5, 1995. Filed as Exhibit 10.8 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.

10.13(1) Sponsored Research and Technology License Agreement between Agenus Inc. and Fordham University dated March 28, 1995, as amended on March 22, 1996. Filed as Exhibit 10.9 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.

10.14(1) License Agreement between the University of Connecticut Health Center and Agenus Inc. dated May 25, 2001, as amended on March 18, 2003. Filed as Exhibit 10.2 to the Amendment No. 1 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended March 31, 2003 and incorporated herein by reference.

10.14.1(1) Letter Agreement by and between Agenus Inc. and The University of Connecticut Health Center dated May 11, 2009. Filed as Exhibit 10.5 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended June 30, 2009 and incorporated herein by reference.

10.14.2(1) Amendment Number Two to License Agreement by and between Agenus Inc. and The University of Connecticut Health Center dated June 5, 2009. Filed as Exhibit 10.6 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended June 30, 2009 and incorporated herein by reference.



- 10.15(1) License Agreement by and between Agenus Inc. and GlaxoSmithKline Biologicals SA dated July 6, 2006. Filed as Exhibit 10.1 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended June 30, 2006 and incorporated herein by reference.
- 10.16(1) Amended and Restated Manufacturing Technology Transfer and Supply Agreement by and between Agenus Inc. and GlaxoSmithKline Biologicals SA dated January 19, 2009. Filed as Exhibit 10.1 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended March 31, 2009 and incorporated herein by reference.
- 10.17(1) First Right to Negotiate and Amendment Agreement between Agenus Inc., Antigenics Inc. and GlaxoSmithKline Biologicals SA, dated March 2, 2012. Filed as Exhibit 10.1 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended March 31, 2012 and incorporated herein by reference.
- 10.18(1) Amended and Restated License Agreement by and between Antigenics Inc., a Massachusetts corporation and wholly owned subsidiary of Agenus Inc., Elan Pharma International Limited, and Elan Pharmaceuticals, Inc. dated September 14, 2009. Filed as Exhibit 10.5 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended September 30, 2009 and incorporated herein by reference.
- 10.19 License Agreement by and between Agenus Inc. and NewVac LLC dated December 19, 2011. Filed as Exhibit 10.42 to our Annual Report on Form 10-K (File No. 0-29089) for the year ended December 31, 2011 and incorporated herein by reference.
- 10.20(1) Revenue Interests Assignment Agreement dated as of April 15, 2013 by and among Agenus Inc., Ingalls & Snyder Value Partners L.P., Arthur Koenig and Antigenics Inc., a Massachusetts corporation (and wholly-owned subsidiary of Agenus Inc.). Filed as Exhibit 10.1 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended March 31, 2013 and incorporated herein by reference.
- 10.21(1) License Agreement dated as of December 5, 2014 by and between 4-Antibody AG, a limited liability company organized under the laws of Switzerland (and wholly-owned subsidiary of Agenus Inc.) and Ludwig Institute for Cancer Research Ltd. Filed herewith.
- 10.22(1) License, Development and Commercialization Agreement dated as of January 9, 2015 by and among Agenus Inc., 4-Antibody AG, a limited liability company organized under the laws of Switzerland (and wholly-owned subsidiary of Agenus Inc.), Incyte Corporation and Incyte Europe Sarl, a Swiss limited liability company (and wholly-owned subsidiary of Incyte Corporation). Filed herewith.
- Real Estate Leases
- 10.23 Lease of Premises at 3 Forbes Road, Lexington, Massachusetts dated as of December 6, 2002 from BHX, LLC, as Trustee of 3 Forbes Realty Trust, to Agenus Inc. Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) filed on January 8, 2003 and incorporated herein by reference.

- 10.23.1 First Amendment of Lease dated as of August 15, 2003 from BHX, LLC, as trustee of 3 Forbes Road Realty, to Agenus Inc. Filed as Exhibit 10.1 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended March 31, 2004 and incorporated herein by reference.
- 10.23.2 Second Amendment of Lease dated as of March 7, 2007 from BHX, LLC as trustee of 3 Forbes Road Realty, to Agenus Inc. Filed as Exhibit 10.1 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended March 31, 2007 and incorporated herein by reference.
- 10.23.3 Third Amendment to Lease dated April 23, 2008 between TBCI, LLC, as successor to BHX, LLC, as Trustee of 3 Forbes Road Realty Trust, and Agenus Inc. Filed as Exhibit 10.2 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended June 30, 2008 and incorporated herein by reference.
- 10.23.4 Fourth Amendment to Lease dated September 30, 2008 between TBCI, LLC, as successor to BHX, LLC, as Trustee of 3 Forbes Road Realty Trust, and Agenus Inc. Filed as Exhibit 10.2 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended September 30, 2008 and incorporated herein by reference.
- 10.23.5 Fifth Amendment to Lease dated April 11, 2011 between TBCI, LLC, as successor to BHX, LLC, as Trustee of 3 Forbes Road Realty Trust, and Agenus Inc. Filed as Exhibit 10.3 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended March 31, 2011 and incorporated herein by reference.

- 10.24 Standard Form of Office Lease dated December 13, 2012 between 149 Fifth Ave. Corp. and Agenus Inc. Filed as Exhibit 10.22 to our Annual Report on Form 10-K (File No. 0-29089) for the year ended December 31, 2012 and incorporated herein by reference.
- 10.25 Sublease Agreement between 4-Antibody AG, and Technologie Park Basel AG dated January 28, 2011. Filed as Exhibit 10.3 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended March 31, 2014 and incorporated herein by reference.
- 10.25.1 Addendum to the Lease Agreement from January 28, 2011 between 4-Antibody AG and Technologie Park Basel AG dated March 31, 2012. Filed as Exhibit 10.3.1 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended March 31, 2014 and incorporated herein by reference.
- 10.25.2 Addendum No. 4 to the Lease Agreement from January 28, 2011 between 4-Antibody AG and Technologie Park Basel AG dated June 2013. Filed as Exhibit 10.3.2 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended March 31, 2014 and incorporated herein by reference.
- 10.25.3 Addendum No. 5 to the Lease Agreement from January 28, 2011 between 4-Antibody AG and Technologie Park Basel AG dated April 30, 2013. Filed as Exhibit 10.3.3 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended March 31, 2014 and incorporated herein by reference.
- 10.25.4 Addendum No. 6 to the Lease Agreement from January 28, 2011 between 4-Antibody AG and Technologie Park Basel AG dated July 31, 2013. Filed as Exhibit 10.3.4 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended March 31, 2014 and incorporated herein by reference.
- 10.26 Commercial Lease Agreement No. 01/2003 between BioCentiv GmbH and 4-Antibody AG dated December 1, 2002. Filed as Exhibit 10.4 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended March 31, 2014 and incorporated herein by reference.
- 10.26.1 20th Addendum to Commercial Lease Agreement No. 01/2003 between BioCentiv GmbH and 4-Antibody AG dated November 1, 2010. Filed as Exhibit 10.4.1 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended March 31, 2014 and incorporated herein by reference.
- 10.26.2 28th Addendum to Commercial Lease Agreement No. 01/2003 between BioCentiv GmbH and 4-Antibody AG dated July 2, 2013. Filed as Exhibit 10.4.2 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended March 31, 2014 and incorporated herein by reference.
- 10.26.3 29th Addendum to Commercial Lease Agreement No. 01/2003 dated between BioCentiv GmbH and 4-Antibody AG August 9, 2013. Filed as Exhibit 10.4.3 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended March 31, 2014 and incorporated herein by reference.
- Sales Agreement

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10.27	At Market Issuance Agreement, dated as of October 24, 2014, by and between Agenus Inc. and MLV & Co. LLC. Filed as Exhibit 1.2 to our Registration Statement on Form S-3 (File No. 333-199255) and incorporated herein by reference.
21.1	Subsidiaries of Agenus Inc. Filed herewith.
23.1	Consent of KPMG LLP, independent registered public accounting firm. Filed herewith.
31.1	Certification of Chief Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as amended. Filed herewith.
31.2	Certification of Principal Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as amended. Filed herewith.
32.1	Certification of Chief Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. Submitted herewith.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document

101.LAB XBRL Label Linkbase Document

101.PRE XBRL Taxonomy Presentation Linkbase Document

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\*Indicates a management contract or compensatory plan.

Certain confidential material contained in the document has been omitted and filed separately with the Securities (1) and Exchange Commission pursuant to Rule 406 of the Securities Act or Rule 24b-2 of the Securities Exchange Act.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AGENUS INC.

By: /s/ GARO H. ARMEN, PH.D.  
 Garo H. Armen, Ph.D.  
 Chief Executive Officer and  
 Chairman of the Board

Dated: March 16, 2015

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/S/ GARO H. ARMEN, PH.D. Garo H. Armen, Ph.D.	Chief Executive Officer and Chairman of the Board of Directors (Principal Executive Officer)	March 16, 2015
/S/ CHRISTINE M. KLASKIN Christine M. Klaskin	Vice President, Finance (Principal Accounting and Financial Officer)	March 16, 2015
/S/ BRIAN CORVESE Brian Corvese	Director	March 16, 2015
/S/ TOM DECHAENE Tom Dechaene	Director	March 16, 2015
/S/ WADIH JORDAN Wadih Jordan	Director	March 16, 2015
/S/ SHAHZAD MALIK Shahzad Malik	Director	March 16, 2015
/S/ SHALINI SHARP Shalini Sharp	Director	March 16, 2015
/S/ TIMOTHY R. WRIGHT Timothy R. Wright	Director	March 16, 2015