

ANTIGENICS INC /DE/  
Form 10-K  
March 16, 2007  
Table of Contents

---

**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, 2006

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

**Antigenics Inc.**

*(exact name of registrant as specified in its charter)*

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

**06-1562417**  
*(I.R.S. Employer  
Identification No.)*

**162 Fifth Avenue, Suite 900, New York, New York 10010**

*(Address of principal executive offices including zip code)*

**Registrant's telephone number, including area code:**

**(212) 994-8200**

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

## Edgar Filing: ANTIGENICS INC /DE/ - Form 10-K

**None**  
(Title of each class)

**None**  
(Name of each exchange on which registered)

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

#### Common Stock, \$.01 Par Value

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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K 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, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐ Accelerated filer ☒ Non-accelerated filer ☐

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, 2006 was: \$72,472,830. There were 45,879,612 shares of the registrant's Common Stock outstanding as of March 1, 2007.

### DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive proxy statement for the registrant's 2007 Annual Meeting of Stockholders to be held on June 6, 2007, 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, 2006, are incorporated by reference into Part III of this Annual Report on Form 10-K.

---

**Table of Contents**

**TABLE OF CONTENTS**

		<b>Page</b>
	<b>PART I</b>	
ITEM 1.	<u>BUSINESS</u>	3
	<u>Our Business</u>	3
	<u>Our Products Under Development</u>	3
	<u>Intellectual Property Portfolio</u>	15
	<u>Regulatory Compliance</u>	19
	<u>Competition</u>	21
	<u>Employees</u>	22
	<u>Corporate History</u>	22
	<u>Availability of Periodic SEC Reports</u>	22
ITEM 1A.	<u>RISK FACTORS</u>	23
ITEM 1B.	<u>UNRESOLVED STAFF COMMENTS</u>	42
ITEM 2.	<u>PROPERTIES</u>	42
ITEM 3.	<u>LEGAL PROCEEDINGS</u>	43
ITEM 4.	<u>SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS</u>	44
	<b>PART II</b>	
ITEM 5.	<u>MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES</u>	47
ITEM 6.	<u>SELECTED FINANCIAL DATA</u>	49
ITEM 7.	<u>MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	51
ITEM 7A.	<u>QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	67
ITEM 8.	<u>FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA</u>	68
ITEM 9.	<u>CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE</u>	103
ITEM 9A.	<u>CONTROLS AND PROCEDURES</u>	103
ITEM 9B.	<u>OTHER INFORMATION</u>	106
	<b>PART III</b>	
ITEM 10.	<u>DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE</u>	107
ITEM 11.	<u>EXECUTIVE COMPENSATION</u>	107
ITEM 12.	<u>SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS</u>	107
ITEM 13.	<u>CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE</u>	107
ITEM 14.	<u>PRINCIPAL ACCOUNTANT FEES AND SERVICES</u>	107
	<b>PART IV</b>	
ITEM 15.	<u>EXHIBITS, FINANCIAL STATEMENT SCHEDULES</u>	108
	<u>15(a)(1) Financial Statements</u>	108
	<u>15(a)(2) Financial Statement Schedules</u>	108
	<u>15(a)(3) Exhibits</u>	108
	<u>15(b) Exhibits</u>	108

---

**Table of Contents**

**NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This Annual Report on Form 10-K contains forward-looking statements. Generally, these statements can be identified by the use of terms like believe, expect, anticipate, plan, may, will, could, estimate, potential, opportunity, future, project, and similar terms. Forward-looking statements include statements about generating royalty revenue from QS-21 in the 2010 timeframe, our timelines for performing and completing research, preclinical studies and clinical trials, timelines for releasing data from clinical trials, timelines for initiating new clinical trials, expectations regarding research, preclinical studies, clinical trials and regulatory processes, expectations regarding test results, future product research and development activities, the expected effectiveness of therapeutic drugs, vaccines, and combinations in treating diseases, applicability of our heat shock protein technology to multiple cancers and infectious diseases, competitive position, plans for regulatory filings, the sufficiency of our clinical trials in renal cell carcinoma and melanoma, or subgroup analyses of data from these trials, to support a biologics license application for product approval, possible receipt of future regulatory approvals, the performance of collaborative partners in, and revenue expectations from, our strategic license and partnering collaborations, expected liquidity and cash needs, plans for restructuring and reduction of our net cash burn (cash used in operating activities plus cash from investing activities less debt repayments and dividend payments), plans for sales and marketing, implementation of corporate strategy, and future financial performance. These forward-looking statements involve a number of risks and uncertainties that could cause actual results to differ materially from those suggested by the forward-looking statements. These risks and uncertainties include, among others, that clinical trials may not demonstrate that our products are both safe and more effective than current standards of care; that the subgroup analyses of our Oncophage clinical trials do not predict survival or efficacy of the product in future studies or use of Oncophage; that we may be unable to obtain the regulatory authorization necessary to conduct additional clinical trials; that we may not be able to enroll sufficient numbers of patients in our clinical trials; that we may be unable to obtain the regulatory review or approval necessary to commercialize our product candidates because the United States Food and Drug Administration (FDA) or other regulatory agencies are not satisfied with our trial protocols or the results of our trials; that we may fail to adequately protect our intellectual property or that it is determined that we infringe on the intellectual property of others; our strategic licenses and partnering collaborations may not meet expectations; manufacturing problems may cause product development and launch delays and unanticipated costs; our ability to raise additional capital; our ability to attract and retain key employees; changes in financial markets, regulatory requirements, and geopolitical developments; and the solvency of counter parties under material agreements, subleases, and general real estate risks.

We have included more detailed descriptions of these risks and uncertainties and other risks and uncertainties applicable to our business in Item 1A. Risk Factors of 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® and Stimulon® are registered trademarks of Antigenics and Aroplatin is a trademark of Antigenics. Gleevec® is a registered trademark of Novartis AG, Eloxatin® is a registered trademark of Sanofi-Aventis U.S., Nexavar® is a registered trademark of Onyx Pharmaceuticals, and Sutent® is a registered trademark of Pfizer, Inc. All rights reserved.

## **Table of Contents**

### **PART I**

#### **Item 1. Business** **Our Business**

##### ***Overview***

Antigenics Inc. (including its subsidiaries, also referred to in this Annual Report on Form 10-K as Antigenics, the Company, we, us, and our biotechnology company developing technologies and products to treat cancers and infectious diseases, primarily based on immunological approaches. Our most advanced product candidate is Oncophage® (vitespen; formerly HSPPC-96), a personalized therapeutic cancer vaccine candidate that has been tested, or is currently being tested, in several cancer indications, including in Phase 3 clinical trials for the treatment of renal cell carcinoma, the most common type of kidney cancer, and for metastatic melanoma. Oncophage is also being tested in Phase 2 and Phase 1 clinical trials in a range of indications. Our product candidate portfolio also includes (1) QS-21, an adjuvant used in numerous vaccines including, but not limited to, hepatitis, Lyme disease, human immunodeficiency virus ( HIV ), influenza, cancer, Alzheimer's disease, and malaria, (2) AG-707, a therapeutic vaccine program in a Phase 1 clinical trial for the treatment of genital herpes, and (3) Aroplatin, a liposomal chemotherapeutic in a Phase 1 clinical trial for the treatment of solid tumors and non-Hodgkin's lymphoma ( NHL ). Our related business activities include research and development, regulatory and clinical affairs, clinical manufacturing, business development, marketing, and administrative functions that support these activities.

#### **Our Products Under Development**

##### ***Introduction***

Oncophage is a personalized therapeutic cancer vaccine that is based on a heat shock protein called gp96 and has been studied in Phase 3 clinical trials for the treatment of renal cell carcinoma and metastatic melanoma. Oncophage has received Fast Track designation and Orphan Drug designation from the FDA for both renal cell carcinoma and metastatic melanoma. Oncophage has Orphan Drug status for renal cell carcinoma from the European Medicines Agency ( EMEA ).

We have observed clinical activity in Phase 1, Phase 1/2, Phase 2, and Phase 3 trials of Oncophage in terms of improvement or stabilization of disease in multiple cancer indications. This includes data demonstrating complete disappearance (a complete response) or substantial shrinkage (a partial response) of tumor lesions in a portion of patients with renal cell carcinoma, melanoma, and lymphoma as well as potential survival benefits in certain metastatic melanoma patients and potential improvements in recurrence-free survival in better-prognosis non-metastatic renal cell carcinoma patients. Additionally, in a portion of patients who were rendered disease-free by surgery and received Oncophage, we have observed signs of positive impact on disease, such as disease-free survival in resectable pancreatic cancer and increased survival in a subset population in stage IV colon cancer. In our studies to date, the vaccine has shown that it appears to have a favorable safety profile. The most common side effects have been mild to moderate injection site reactions and transient low-grade fevers. We believe that this human data further supports the broad applicability and corresponding commercial potential of our heat shock protein product candidates.

QS-21 is an investigational adjuvant being studied by our collaborative partners in both therapeutic and prophylactic vaccines to enhance immune response to the vaccines. In July 2006, we entered into expanded license and supply agreements with GlaxoSmithKline Biologicals SA ( GSK ) for the use of QS-21. QS-21 is a key component included in several proprietary adjuvant systems. We have executed license or option agreements with other companies, including but not limited to, Elan Corporation, plc, Advanced BioScience Laboratories, Inc., Acambis plc, and Progenics Pharmaceuticals, Inc., for the right to use QS-21 in their vaccines.

AG-707 is our therapeutic vaccine program for the treatment of genital herpes. AG-707 is a multivalent vaccine (a type of vaccine that addresses multiple components of the virus) that consists of a heat shock protein

## **Table of Contents**

(Hsc70) associated with multiple synthetic herpes simplex virus-2 peptides. Based on the results of completed toxicology studies and other preclinical activities, we submitted to the FDA an investigational new drug application ( IND ) for AG-707 during the second quarter of 2005 and in October 2005, we initiated a Phase 1 clinical trial of AG-707.

Aroplatin is a novel liposomal third-generation platinum chemotherapeutic that has been studied by Antigenics in two Phase 1 trials of patients with colorectal cancer and other solid tumors. A new formulation of Aroplatin is currently being evaluated in a Phase 1 dose-escalation trial in solid malignancies and NHL. Platinum chemotherapeutics are cancer drugs containing the metallic element platinum, which has been shown to have some anti-cancer effects. In the case of Aroplatin, the active platinum drug component is encapsulated in a liposome, which is a spherical particle of phospholipids that are components of human cell membranes.

Our technologies also include ATRA-IV (formerly known as ATRAGEN) and AG-858. ATRA-IV is a liposomal intravenous formulation of all-*trans*-retinoic acid ( ATRA ), a derivative of vitamin A. ATRA is approved and marketed in an oral formulation call Vesanio® (tretinoin, Hoffman-LaRoche) for the treatment of acute promyelocytic leukemia. Our liposomal formulation of ATRA-IV is designed to increase its bioavailability, or amount of drug absorbed into the body. We are considering studying ATRA-IV in combination with Oncophage. AG-858 is a personalized therapeutic cancer vaccine, based on a different heat shock protein called HSP70, which has been tested in combination with Gleevec (imatinib mesylate, Novartis) in a Phase 2 clinical trial for the treatment of chronic myelogenous leukemia ( CML ), a cancer of the blood system. We have temporarily discontinued development of AG-858 to focus our efforts on other development areas.

Through our preclinical research programs, we intend to develop additional novel compounds to treat cancer and infectious diseases that are designed to be more efficacious and safer than conventional therapies. In addition, we are currently studying the effect of Oncophage in combination with other agents and are developing process improvements for the production of Oncophage.

For the years ended December 31, 2006, 2005, and 2004, our research and development costs were approximately \$28.6 million, \$47.1 million, and \$41.7 million, respectively.

### ***Heat Shock Protein Technology***

Heat shock proteins, also known as HSPs, are also called stress proteins. HSPs are a group of proteins that are induced when a cell undergoes various types of environmental stresses like heat, cold, and oxygen deprivation. HSPs are present in all cells in all life forms from bacteria to mammals, and their structure and function are similar across these diverse life-forms. Under normal conditions, heat shock proteins play a major role in protein-folding and transporting fragments of proteins called peptides, including antigenic peptides, within a cell, and are thus called chaperones. Antigenic peptides are those portions of a protein that stimulate an immune response when recognized by the immune system. Because HSPs chaperone peptides within the cell, they bind to a broad array of antigenic peptides and facilitate their recognition by the immune system. Thus, HSPs play an integral role in the presentation of the antigenic fingerprint to the immune system.

Although heat shock proteins are normally found inside cells, they also serve an important purpose when found extracellularly, meaning outside of cells. When they are found outside of cells, it indicates that a cell has undergone necrosis, a type of rupturing cell death caused by disease, mutation, or injury, whereby a cell's contents are spilled into the body tissue. Extracellular HSPs send a powerful danger signal to the immune system that initiates a cascade of events capable of generating a targeted immune response against the infection or disease responsible for the necrotic cell death.

Combined, the intracellular and extracellular functions of heat shock proteins form the basis of our technology. The chaperoning nature of heat shock proteins allows us to produce vaccines containing all the antigenic peptides of a given disease. In the case of cancer, the vaccines are personalized, consisting of heat

**Table of Contents**

shock proteins purified from a patient's tumor cells, which remain bound, or complexed, to the broad array of peptides produced by that patient's tumor. These heat shock protein-peptide complexes, also known as HSPPCs, when injected into the skin, have the ability to stimulate a powerful cellular immune response capable of targeting and killing the cancer cells from which these complexes were derived. Because cancer is a highly variable disease from one patient to another, we believe that a personalized vaccination approach is required to generate a more robust and targeted immune response.

For certain diseases, such as genital herpes, we do not believe that a personalized vaccination approach is required. For example, in our AG-707 product candidate for the treatment of genital herpes, we complex, or bind, several defined antigenic herpes peptides to a heat shock protein (Hsc70) that we genetically engineer creating an HSPPC. This HSPPC, when injected into the skin, is designed to elicit a cellular immune response to the synthetic peptides carried by the heat shock protein.

***Product Development Portfolio***

Below is a table showing the clinical status of our lead product candidates under development by Antigenics.

<b>Product</b>	<b>Phase 3</b>	<b>Phase 2</b>	<b>Phase 1/2</b>
<b>Trials Currently Enrolling Patients:</b>			
AG-707			Genital herpes
Aroplatin			Solid tumors/NHL
Oncophage			Glioma (b)
<b>Trials Closed to Enrollment or Completed:</b>			
Oncophage	Renal cell carcinoma Part I (a)		
Oncophage	Renal cell carcinoma Part II (a)(c)	Colorectal cancer	Pancreatic cancer
	Metastatic melanoma (a)	Non-Hodgkin's lymphoma (NHL)	Metastatic melanoma (d)
		Gastric cancer	
		Metastatic renal cell carcinoma	
		Lung cancer	
		Metastatic melanoma	
Oncophage and ATRA-IV			Renal cell carcinoma (d)
AG-858		CML (a)(c)	
Aroplatin		Colorectal cancer	Solid tumors

(a) Multicenter trials conducted in the U.S. as well as internationally.

(b) Investigator sponsored trial.

(c) Trial has been terminated.

(d) Initiation of this study is on hold.

**Oncophage*****Introduction***

Oncophage, our most advanced product candidate, is a personalized therapeutic cancer vaccine that is based on heat shock protein gp96 and has been studied in Phase 3 clinical trials for the treatment of renal cell

## **Table of Contents**

carcinoma and metastatic melanoma. Each Oncophage vaccine is made from a patient's tumor tissue. After a surgeon removes a patient's tumor, a portion of that tumor tissue is frozen and shipped overnight to our manufacturing facility in Massachusetts. In our Phase 3 trials, we have required a minimum of five to seven grams of tumor tissue to yield a sufficient amount of Oncophage for clinical use.

Using a proprietary manufacturing process that takes approximately eight to ten hours per individual patient lot, we isolate the HSPPCs from the tumor tissue. Through this isolation process, the HSPPCs are extracted and purified from the tumor tissue, then formulated in sterile saline solution and packaged in standard single-injection vials. After the performance of quality control testing, including sterility testing, we ship Oncophage frozen back to the hospital pharmacy for administration after a patient has recovered from surgery, which is usually four to six weeks later. A medical professional administers Oncophage by injecting the product into the skin weekly for four weeks and every other week thereafter until that patient's supply of Oncophage is depleted.

Although we believe that our technology is applicable to all cancer types, our initial focus with Oncophage is on cancers that have poor or no available treatment options and that typically yield larger quantities of tumor tissue from the surgical procedure.

We filed an IND for Oncophage in November 1996 that the FDA allowed on December 20, 1996. We started enrolling patients in our first clinical trial at Memorial Sloan-Kettering Cancer Center in New York, New York in November 1997. To date, we have treated over 750 cancer patients with Oncophage in our clinical trials. Because Oncophage is a novel therapeutic cancer vaccine that is personalized for each patient, meaning it is derived from the patient's own tumor, it may experience a long regulatory review 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 Risk Factors.

We believe that the collective results from our clinical trials show that Oncophage has a favorable safety profile. We also believe that these results show that treatment with Oncophage can generate immunological and anti-tumor responses.

## **Oncophage Clinical Programs**

### ***Renal cell carcinoma***

*Background.* Renal cell carcinoma is the most common type of kidney cancer. The American Cancer Society estimates that there will be approximately 51,190 new cases of kidney cancer in the United States in 2007, and about 12,890 people will die from the disease in 2007. Renal cell carcinoma accounts for about 90 percent of all kidney tumors. By the time renal cell carcinoma is diagnosed in these patients, about one-third of them will have developed metastatic disease.

The current standard of care for patients with non-metastatic renal cell carcinoma consists of nephrectomy, meaning the surgical removal of the kidney, followed by observation. For patients with metastatic disease, FDA-approved treatments include intravenous high-dose interleukin-2, or IL-2, a human cytokine, which is a hormone-like protein that facilitates communication between cells of the immune system. In December 2005, Bayer AG and Onyx Pharmaceuticals, Inc. received FDA approval to market Nexavar (sorafenib) for the treatment of advanced renal cell carcinoma. In January 2006, Pfizer Inc. received FDA approval to market Sutent (sunitinib) for the treatment of advanced kidney cancer.

*Clinical Trials.* In a Phase 1/2 trial initiated at M.D. Anderson Cancer Center, in Houston, Texas, in February 1998, the investigator treated 38 patients with metastatic renal cell carcinoma. Of these patients, the investigator reported that one patient had a complete response and two patients had a partial response. Another nine patients showed no substantial change in their disease status, which is referred to as disease stabilization. The reported median time from surgery to worsening or progression of disease (time to progression) was 2.9 months, and the reported median time from surgery to death (survival) was 15 months. Twelve patients were reported alive at the two-year follow-up, and one patient had demonstrated survival at 2.4 years. Reported



## **Table of Contents**

median survival for metastatic renal cell carcinoma is approximately one year. No serious adverse events were reported with treatment with Oncophage. Because this was a single-arm study without a comparator arm, statistical significance is not calculable. This study is complete, and the data have undergone final review and analysis.

A Phase 2 trial for patients with metastatic renal cell carcinoma was initiated at M.D. Anderson Cancer Center in March 1999. Findings were presented at the 39th annual meeting of the American Society of Clinical Oncology, also known as ASCO, in June 2003. The investigators reported preliminary data on 61 patients with metastatic renal cell carcinoma treated with at least one dose of Oncophage. Patients were treated with Oncophage until progression and IL-2 after progression. The final study database reported 58 evaluable patients. Two patients were reported to have had a complete response, two additional patients were reported to have had partial responses, one patient had a minor response, and seven patients were reported to have had disease stabilization. The reported median survival (time from first Oncophage treatment to death) was 1.3 years. Six patients were reported alive at least 4.9 years, and one patient had documentation of survival at 5.4 years (at last follow-up). Reported median survival for metastatic renal cell carcinoma is approximately one year. Final results of the study are being prepared for publication. No significant toxicity was observed to be associated with Oncophage treatment. Because this was a single-arm study without a comparator arm, statistical significance is not calculable. This study is complete, and the data have undergone final review and analysis.

Oncophage received Fast Track designation for the treatment of renal cell carcinoma from the FDA in October 2001. Oncophage was the first personalized therapeutic cancer vaccine to receive Fast Track designation. Oncophage received Orphan Drug status in renal cell carcinoma from the FDA in May 2002 and from the EMEA in June 2005.

We initiated a Phase 3, multicenter, international trial for non-metastatic renal cell carcinoma in 2000 into which the first patient was randomized in February 2001. We did not submit a special protocol assessment to the FDA for this trial, as the guidance for such was not finalized until May 2002. Such an assessment would generally seek confirmation that the FDA would consider the clinical trial protocol acceptable for purposes of product approval. We conducted this trial at sites located in the following countries: USA, Canada, Belgium, Germany, France, Austria, Sweden, Switzerland, Norway, Spain, UK, Netherlands, Israel, Russia, and Poland. In addition, we commenced study initiation activities in a part II Phase 3 trial in February 2005. The FDA has indicated that, by itself, part I of our Phase 3 clinical trial in renal cell carcinoma is not sufficient to support a biologics license application (BLA) filing.

On March 24, 2006, we announced top-line results from part I of our Phase 3 study of Oncophage in renal cell carcinoma patients who are at high risk of recurrence after surgery, indicating that the trial did not meet its primary endpoint. We also announced the termination of part II of the trial. The analysis was triggered based on the number of events (defined as recurrence of disease or death of a patient prior to recurrence) reported by study investigators. However, an independent review by the trial's Clinical Events Committee (CEC) revealed that a substantially smaller number of events had actually occurred. The analysis showed a trend in favor of Oncophage for recurrence-free survival (the study's primary endpoint), and a trend against Oncophage for overall survival (a secondary endpoint); neither finding was statistically significant. The analysis of the overall survival endpoint is considered an interim assessment. It was unclear why opposing trends were observed between recurrence-free survival and overall survival. Importantly, there was no readily apparent adverse safety signal associated with the vaccine that we believe could be contributing to this finding.

We conducted an in-depth analysis of data from part I of our Phase 3 study of Oncophage in renal cell carcinoma during April and May 2006 and discussed the results with the FDA and a panel of experts in this medical field. On June 7, 2006, we announced the findings of the analysis. With regard to the primary endpoint, recurrence-free survival, this analysis revealed that in a subgroup of better-prognosis patients in the trial, there was a clinically significant improvement (nominal, two-sided  $P$  value of 0.018 and hazard ratio of 0.567). The

## **Table of Contents**

subgroup consisted of 361 patients, or 60% of the 604 patients in the full analysis set ( FAS ) population. As defined by FDA-issued guidance, the FAS is the set of subjects that is as close as possible to the ideal implied by the intention-to-treat principle. It is derived from the set of all randomized subjects by minimal and justified elimination of subjects. In this case, patients with baseline disease were excluded from the FAS population. In this 361-patient subgroup, patients receiving Oncophage had a 43% decreased risk of recurrence compared with patients in the observation arm.

Overall survival, the secondary endpoint, was also assessed in the 604 patients in the FAS patient population. The analysis, which is interim for the overall survival endpoint, indicated a trend against Oncophage. We believe that the data are likely to have been influenced by missing information from patients who were lost to follow-up or withdrew consent.

Since the analysis of the trial, we have continued to collect data per the protocol with an intent to terminate such data collection at the end of March 2007. At that time, we will perform updated analyses of recurrence-free survival (utilizing investigator reported information only) and overall survival using all of the data collected in the trial through March 2007. We also plan on opening a subsequent protocol that will continue to follow patients in the format of a registry in order to collect overall survival information as well as investigator reports of disease recurrence. The continued collection of this data may not affect the acceptability of the overall results of the trial, and even if clinically meaningful, may not meet the requirements of the FDA or other regulatory authorities for submission and approval of a marketing application or similar foreign applications for product approval. Further clinical studies must be conducted to demonstrate the safety and efficacy of Oncophage. We may not be able to secure additional financing to continue our clinical studies. If we cannot secure additional financing, we may become insolvent.

Because the evidence of clinically significant improvement was observed in a subgroup analysis and was not demonstrated in the pre-specified analysis of the primary and secondary endpoints of the Phase 3 study of Oncophage in renal cell carcinoma, this study alone is not expected to be sufficient to support a marketing application for product approval.

### ***Melanoma***

*Background.* Melanoma is the most serious form of skin cancer. According to the American Cancer Society, melanoma accounts for only about three percent of skin cancer cases, yet it causes most skin cancer deaths. The American Cancer Society also estimates that physicians will diagnose about 59,940 new cases of melanoma in the United States in 2007 and that the disease will kill approximately 8,110 people in 2007. The incidence of melanoma is growing at a rate of approximately three percent per year based on a report from the American Cancer Society.

Oncologists treat advanced or metastatic melanoma, also known as stage III or stage IV, with surgery, radiation therapy, immunotherapy, or chemotherapy, depending on the case. Approximately 15% of all melanoma patients at the time of their first diagnosis have stage III or stage IV disease. Existing treatments have not significantly improved overall survival of patients with metastatic melanoma. The median survival of patients with stage III melanoma varies widely according to published literature. According to published literature, the median survival of patients with late-stage III melanoma is about 24 months and patients with stage IV melanoma have a median survival of about seven months. Although oncologists use various treatments, the only FDA-approved therapies for patients with metastatic melanoma are high-dose intravenous interleukin-2 and alpha interferon, another human cytokine.

*Clinical Trials.* We treated 36 patients in a Phase 1/2 clinical trial evaluating Oncophage as a treatment for late-stage III and early stage IV metastatic melanoma. The investigator reported early data on 13 of 20 patients (65%) treated with vaccine who had complete surgical removal of all cancer and were alive after 4.5 years compared to one of 16 (6%) patients that still had some cancer left after surgery and was alive after 3.5 years.

## **Table of Contents**

Final analysis estimated a median time for survival of 2.1 years. Ten (28%) of the 36 patients were reported alive five years post-surgery, and one patient had documented long-term survival of 5.96 years. Because this was a single-arm study without a comparator arm, statistical significance is not calculable. This study is complete, and the data have undergone final review and analysis.

A Phase 2 trial was conducted in 45 melanoma patients with stage IV disease. Results of this trial were presented by the investigators at the ASCO meeting in May 2001 and the American Association for Cancer Research, also known as AACR, meeting in October 2001, where it was selected by the conference organizers as one of six presentations out of over 800 to be highlighted and presented to the press. In October 2002, the results from this trial were published in the *Journal of Clinical Oncology*, the official journal of ASCO. The data showed that 28 patients had residual disease after surgery, and of these patients, five patients responded favorably to Oncophage, including one who was reported to have achieved a complete response. Investigators also reported that Oncophage vaccination generated anti-melanoma immune responses in about one-half of the patients. Final analysis indicated that one patient had a complete response to the study treatment. The estimated median survival was 1.3 years. Three patients were reported alive more than four years after their first Oncophage treatment, and one patient had documented long-term survival of 4.7 years. Because this was a single-arm study without a comparator arm, statistical significance is not calculable. This study is complete, and the data have undergone final review and analysis.

Oncophage received Fast Track designation from the FDA for the treatment of metastatic melanoma in February 2002. Oncophage received Orphan Drug status in metastatic melanoma from the FDA in July 2002. In February 2002, we initiated a multicenter, international Phase 3 trial in metastatic melanoma. We conducted this trial at sites located in the following countries: USA, UK, Italy, Poland, Sweden, Hungary, Australia, Russia, and Ukraine. We believe this study will not qualify as registrational due to the relatively high failure rate in vaccine manufacturing. The vaccine could not be produced for approximately 30% of patients in this study. We have not had detailed discussions or formally asked the FDA if our overall product approval strategy for Oncophage in melanoma is acceptable.

During the quarter ended September 30, 2004, we completed enrollment in our Phase 3 trial in metastatic melanoma. Our overall manufacturing success rate for this trial was approximately 70%. During 2004, we indicated that we did not believe this trial would qualify as registrational. In October 2005, we announced preliminary survival data from this trial, and updated findings were presented on June 5, 2006 at the ASCO meeting. Overall, patients in the intent-to-treat Oncophage arm (M1a, b and c combined categories as defined by the American Joint Committee on Cancer, or AJCC) fared similarly to those in the physician's choice arm in terms of survival, the primary endpoint. In a subgroup of patients who received at least 10 injections of Oncophage, overall median survival increased by approximately 29% in the Oncophage-treated arm as compared with those in the physician's choice treatment arm (16.5 months versus 12.8 months). These findings also noted that in a subgroup of randomized stage IV M1a and M1b combined patients who received at least 10 doses of Oncophage vaccine, median survival increased by approximately 143% in the Oncophage-treated arm compared with those in the physician's choice treatment arm (31.2 months versus 12.8 months). This analysis was not pre-specified. The physician's choice treatment arm included the current array of therapies such as chemotherapeutics, biological agents, and/or surgery. This overall survival analysis of the primary endpoint on an intent-to-treat basis was not statistically significant.

### ***Other Cancers***

Oncophage has also been studied in other cancers, including glioma (enrollment ongoing), colorectal cancer, NHL, pancreatic cancer and gastric cancer. Data from some of these trials is summarized below.

*Glioma.* Glioma is a cancer that affects the central nervous system, beginning in glial cells (connective tissue cells that surround and support nerve cells) and regularly spreading to the adjacent brain tissue. About 42% of all brain tumors are gliomas, and approximately 77% of all malignant brain tumors are gliomas. The American

## **Table of Contents**

Cancer Society estimates that there will be approximately 18,820 new cases of malignant tumors of the brain or spinal cord in the United States in 2007 and about 12,820 people will die from these diseases in 2007. In November 2006, data from our investigator-sponsored Phase 1/2 trial in patients with recurrent glioma were presented at the Immunotherapy Task Force Meeting at the Society of Neuro-Oncology's 11th Annual Scientific Meeting. Results from the first cohort of six patients showed that vaccination was associated with tumor-specific immune responses in all six. Five of the six patients exceeded the historical median benchmark of 6.5 months survival from time of recurrence, and all six exceeded the overall survival historical benchmark of 14.6 months from time of diagnosis.

*Colorectal.* Colorectal cancer is a malignant tumor of the colon or the rectum. Colorectal cancer is the third most common cancer. The American Cancer Society estimates that there will be about 112,430 new cases of colon cancer and 41,420 new cases of rectal cancer in 2007 and that combined, they will cause 52,180 deaths in 2007.

Results from a Phase 2 clinical trial in 40 patients with metastatic colorectal cancer were published as a featured article in the August 15, 2003 issue of Clinical Cancer Research. The paper presented data on 29 patients with stage IV colorectal cancer that had spread to the liver who had undergone complete resection, or surgical removal, of their metastasized disease. Patients who responded immunologically to the vaccine (52% of study subjects) had a statistically significant survival advantage compared with patients who did not respond immunologically. Responders demonstrated a two-year overall survival rate of 100%, compared with 50% for nonresponders, and a disease-free survival rate of 51%, compared with 8% among nonresponders. These results were statistically significant. The final analysis demonstrated a median overall survival of 2.9 years. Eleven patients (27.5%) were reported alive at four years after their first Oncophage treatment, and one patient had documented long-term survival of 4.9 years. According to the literature, the median survival for metastatic colorectal cancer is between one and two years with less than 10% five-year survival. This study is complete, and the data have undergone final review and analysis.

*Non-Hodgkin's Lymphoma.* Non-Hodgkin's lymphoma is a disease in which cancerous (or malignant) cells are found in the lymph system. The American Cancer Society estimates that there will be about 63,190 new cases of NHL in 2007 and that 18,660 people will die from the disease in 2007.

A Phase 2, open-label, single-arm study for newly diagnosed or relapsed low-grade indolent, or slow-growing, NHL was conducted at M. D. Anderson Cancer Center. Results were presented by the principal investigator from the trial at the ASCO meeting in June 2003. Of the 10 patients who had received Oncophage up to that point in time, there were responses reported in six: one partial response, two minor responses, and three disease stabilizations. These findings were updated at the American Society of Hematology, or ASH, 45th annual meeting in December 2003. The lead investigator reported indications of clinical activity in eight of 14 evaluable patients treated up to that point in time, including one partial response, two minor responses, and five disease stabilizations. Oncophage was reported to be well tolerated and without significant adverse effects in this study. In total, 17 patients received Oncophage and were followed for survival. Fifteen, or 88%, of the 17 patients were alive as of the date of the last follow-up. The duration of follow-up for these 17 patients ranged from four months to 50 months; for 10, or 59%, of the 17 patients, the documented survival was greater than two years. The final study data demonstrates that out of 17 patients enrolled and treated in this study, 12 were evaluable. Eleven patients were reported with disease progression, and one patient demonstrated stable disease. The median time to disease progression was 5.8 months. Because this was a single-arm study without a comparator arm, statistical significance is not calculable. This study is complete, and the data has undergone final review and analysis.

*Gastric.* Most cancers of the stomach are adenocarcinomas, a type of cancer that develops in the mucosal cells that form the innermost lining of the stomach. Other types of stomach cancers include lymphomas and sarcomas. The American Cancer Society estimates that there will be about 21,260 new cases of stomach cancer in 2007 and that 11,210 people will die from the disease in 2007.

## **Table of Contents**

A Phase 1/2 trial in 20 metastatic gastric cancer patients (stage II to stage IV) was conducted with clinical investigators at the Johannes Gutenberg-University Hospital in Mainz, Germany, Technical University of Munich in Germany, and the Russian Oncology Research Center in Moscow, Russia. The investigators reported preliminary data at the ASCO meeting in 2002 for 15 patients who underwent surgery, then Oncophage vaccination. At 32 months post-surgery, three were still disease-free, nine had survived, and the mean disease-free and overall survival rates were seven months and over 16 months, respectively. Median overall survival was estimated to be 2.45 years. Two patients were reported alive at four years post-surgery, and one patient had documented long-term survival of five years. Stage II-IV non-metastatic gastric cancer has a reported median survival of about three years. No toxicity was observed to be associated with Oncophage treatment. Because this was a single-arm study without a comparator arm, statistical significance is not calculable. This study is complete, and the data has undergone final review and analysis.

*Pancreatic.* Pancreatic cancer is an abnormal, uncontrolled growth of cells in the pancreas, which is a digestive gland located behind the stomach. The American Cancer Society estimates that there will be about 37,170 new cases of pancreatic cancer in 2007 and that 33,370 people will die from the disease in 2007.

In early 1999, we conducted a pilot Phase 1 clinical trial evaluating Oncophage as a treatment for resectable pancreatic cancer with clinical investigators at the Memorial Sloan-Kettering Cancer Center. Initially, five patients were treated. Subsequently, five more patients were treated. Updated data from this pilot study was presented at the 12th annual European Cancer Conference, also known as ECCO, in September 2003. This data was highlighted in a press release issued by the Federation of European Cancer Societies during the ECCO conference. In this trial, which included 10 evaluable patients, the manufacture of Oncophage was feasible. Follow-up data from patients in this Phase 1 trial of Oncophage indicated a median overall survival of over 26 months, with one patient still alive and disease-free after more than five years and two other patients alive and disease-free 2.7 and 2.6 years after treatment. The published literature reports a median survival of about two years for the pancreatic cancer. No toxicity associated with vaccination was observed. Because this was a single-arm study without a comparator arm, statistical significance is not calculable. This study is complete, and the data has undergone final review and analysis.

## ***Manufacturing***

Oncophage is manufactured in our 162,000 square-foot manufacturing and research and development facility in Lexington, Massachusetts. We estimate that the facility's current capacity for Oncophage and AG-858 combined is approximately 10,000 patient courses per year, expandable to between 40,000 and 50,000 patient courses per year. On average, it takes eight to ten hours of direct processing time to manufacture a patient batch of Oncophage. As of December 31, 2006, we had eight employees in our manufacturing department.

After manufacturing, Oncophage is tested and released by our quality systems staff. The quality control organization, consisting of three employees as of December 31, 2006, performs a series of release assays designed to ensure that the product meets all applicable specifications. Our quality assurance staff, consisting of two employees as of December 31, 2006, also reviews manufacturing and quality control records prior to batch release in an effort to assure conformance with current Good Manufacturing Practices, also known as cGMP, as mandated by the FDA and foreign regulatory agencies.

Our Oncophage 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 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.

## **QS-21**

### ***Introduction***

QS-21 is an adjuvant, or a substance added to vaccines and other immunotherapies, that is designed to enhance the body's immune response to the antigen contained within the treatment. QS-21 is best known for its ability to stimulate antibody, or humoral, immune response, and has also been shown to activate cellular immunity. A natural

## **Table of Contents**

product, QS-21 is a triterpene glycoside, or saponin, a natural compound purified from the bark of a South American tree called Quillaja saponaria. It is sufficiently characterized with a known molecular structure, thus distinguishing it from other adjuvant candidates, which are typically emulsions, polymers or biologicals.

QS-21 has been tested in more than 90 clinical trials involving, in the aggregate, over 4,000 patients in a variety of cancer indications and infectious diseases. These studies have been carried out by academic institutions predominantly located in the United States and by global pharmaceutical companies at more than 20 international sites. A number of these studies have shown QS-21 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. None of these QS-21 trials performed to date have been pivotal.

### ***Partnered QS-21 Programs***

We are actively pursuing a strategy of commercializing QS-21 through licensing to other pharmaceutical and biotechnology companies. A number of pharmaceutical and biotechnology companies have licensed QS-21 for a variety of human diseases. Companies with QS-21 programs include GSK, Elan Corporation, plc ( Elan ), Advanced BioScience Laboratories, Inc., Acambis plc, and Progenics Pharmaceuticals, Inc. In return for rights to use QS-21, these companies have agreed to pay us license fees, milestone payments, and royalties on product sales. In most cases, we have retained worldwide manufacturing rights and have the right to subcontract manufacturing for QS-21. In addition to these companies, we have developed a number of academic collaborations to test new vaccine concepts and products containing QS-21. Currently, there are no pivotal trials ongoing with QS-21. GSK, however, has released data from Phase 2 studies in lung cancer and malaria, and has indicated that it intends to proceed into late stage trials in each of these indications.

*GSK.* In July 2006, we entered into expanded license and supply agreements with GSK for the use of QS-21. Under the terms of the agreements, we have agreed to supply QS-21 to GSK through 2014. In addition, we agreed to transfer manufacturing technologies under the supply agreement. We will receive payments contingent upon successful milestone achievements and royalties on net sales for a period of at least 10 years after the first commercial sale under the supply agreement. We understand that QS-21 is a key component included in several of GSK's proprietary adjuvant systems and that a number of GSK's vaccine candidates currently under development are formulated using adjuvant systems containing QS-21.

*Elan.* During 2002, Elan, a sponsor that had been investigating a product candidate utilizing QS-21 for Alzheimer's disease, notified us of patients who were reported to show clinical signs consistent with inflammation of the central nervous system. The investigators reported possible causality with the study drug. We do not have details regarding these events. To our knowledge, however, there is no report of a causal connection between QS-21 and development of inflammation of the central nervous system. In one study investigating the product candidate for Alzheimer's disease, no events involving inflammation of the central nervous system have been reported from the study arm in which only QS-21 was administered. Additionally, no events of inflammation of the central nervous system have been reported to us from any other studies of drugs containing adjuvant QS-21. Following the investigation conducted by Elan, Elan modified the product candidate being evaluated in combination with QS-21 in an effort to reduce or eliminate the risk of central nervous system inflammation, and in 2005 reported that it had reinitiated clinical studies of the modified product candidate with QS-21.

### ***Manufacturing***

In March 2004, we entered into a supply agreement for the production of QS-21. The manufacturer is capable of producing up to 2 million doses per batch for investigational use at its facility. In most cases, we have retained worldwide manufacturing rights and have the right to subcontract manufacturing for QS-21. We are currently in discussions with cGMP-capable contract manufacturers for the production of up to 40 million doses per year.

## **Table of Contents**

### **AG-702/707**

AG-707 is our investigational therapeutic vaccine product candidate based on our heat shock protein technology for the treatment of genital herpes, a chronic disease caused by herpes simplex virus-2, or HSV-2. We initially developed our first-generation herpes vaccine, AG-702, prior to developing AG-707. AG-702 consisted of HSPPCs that we manufactured by complexing, or binding, a heat shock protein to a single synthetic peptide of HSV-2 homology and is referred to as a monovalent vaccine. In theory, this monovalent vaccine would only address approximately 40 percent of the patient population due to variances in patients' genetic makeup. AG-707 is a multivalent vaccine (a type of vaccine that addresses multiple targets) containing multiple synthetic HSV-2 peptides. The multivalent AG-707 is therefore designed to address HSV-2 infection in a broad population of patients (up to 90 percent of those affected). AG-707 is designed to be an off-the-shelf product because the antigenic profile of HSV-2 is similar in all patients, so we do not believe personalization of the product is required. The most common side effects of AG-702 and AG-707 have been injection-site reactions or transient low-grade fevers. Laboratory experiments to characterize and formulate AG-707 have demonstrated specific immune responses to the synthetic HSV-2 peptides using human donor blood and reduced disease severity in animals treated with product prior to exposure to HSV-2 virus. Based on the results of completed toxicology studies and other preclinical activities, we submitted to the FDA, and the FDA agreed to, an IND for AG-707 during the second half of 2005. We do not anticipate further developing AG-702 given that AG-707 should be beneficial to a larger number of patients with genital herpes.

*Background.* The U.S. Centers for Disease Control and Prevention estimated in surveys from 1997 that about one in five people in the United States ages 12 or older is infected with HSV-2. The World Health Organization estimated in 1995 that approximately 21 million people worldwide are infected each year. Genital herpes is currently treated with palliative topical drugs or antiviral agents that reduce further replication of the virus during the period of treatment.

*Clinical Trials.* We initiated a Phase 1 clinical trial of AG-702 as a proof-of-principle study in the fourth quarter of 2001 at The University of Washington. This is a dose-escalation study in both healthy volunteers and genital herpes patients. In October 2005, we initiated a multicenter Phase 1 clinical trial of AG-707. The study will evaluate the safety profile and immune response of patients to AG-707 with and without our QS-21 proprietary adjuvant at three dose levels compared with placebo or adjuvant alone.

### ***Manufacturing***

The synthetic peptide components used in AG-707 are manufactured for us by a contract manufacturer. A contract manufacturer also produced the genetically engineered Hsc70 used in AG-702. We plan to continue using contract manufacturers to produce the genetically engineered Hsc70 and the synthetic peptides for AG-707. The purification of genetically engineered Hsc70 complexing with synthetic peptides, fill and finish operations are performed in our Lexington, Massachusetts facility.

### **Aroplatin**

Aroplatin is a novel liposomal formulation of a third-generation platinum chemotherapeutic structurally similar to Eloxatin (oxaliplatin; Sanofi Aventis), a treatment for colorectal cancer. Although structural similarity does not guarantee similar clinical benefit, laboratory studies comparing Aroplatin to oxaliplatin showed that Aroplatin suppressed tumor growth, caused a reduction in tumor size, and provided a 50% increase in survival as compared to control animals. This data represents a five-fold improvement to results seen from the oxaliplatin arm of the study. Laboratory studies also indicate that Aroplatin has considerable anti-tumor activity, which is the ability to kill cancer cells. This anti-tumor activity has been demonstrated in over 10 tumor cell lines with results that are at least three-fold, or better, than those of cisplatin and/or carboplatin, two other approved platinum chemotherapeutic agents.

## **Table of Contents**

Platinum chemotherapeutics are cancer drugs containing the metallic element platinum, which has been shown to have some anti-cancer effects. Platinum chemotherapeutics have shown the ability to shrink solid tumors, and often in combination with non-platinum anti-cancer agents, have demonstrated moderate ability to slow the spread of several types of solid tumor cancers. Published results that demonstrate activity of Aroplatin against tumors cells resistant to cisplatin and carboplatin suggest that Aroplatin may be useful in cancers that are already resistant to platinum agents. Aroplatin is also formulated in liposomes, a round shell of phospholipids, which are basic components of human cell membranes. Liposome formulation has been shown to increase drug bioavailability, or the amount of time and specific distribution within the body, which can extend the treatment effect. In some cases, liposomal drugs have been shown to accumulate at the site of a tumor, delivering higher concentrations of the drug to a disease target. The liposomal delivery system can also help to reduce the damaging effects of some drugs on healthy tissues.

Clinical data collected to date with Aroplatin indicates that it has the safety profile similar to that of a chemotherapeutic agent; the most common side effect being suppression of formation of new red or white blood cells and platelets in the bone marrow. Thus, based on its chemical structure, which makes it active against platinal resistant tumors, and its liposomal formulation, we believe that Aroplatin will have some advantages for the treatment of certain cancers when compared with current platinum-based chemotherapeutics such as oxaliplatin, carboplatin, and cisplatin. We have developed a new formulation of Aroplatin to enhance its pharmacological (drug reaction) activity.

### ***Clinical Trials***

We initiated a Phase 2 trial for advanced colorectal cancer patients unresponsive to medical treatment in 2002. This single-arm, open-label trial, conducted at the Arizona Cancer Center, was designed to evaluate the effect of Aroplatin alone in patients whose disease is not responsive to standard first-line cancer treatments (5-fluorouracil/leucovorin or capecitabine and irinotecan). In September 2003, investigators presented early findings from this trial at ECCO. At that time, one out of the 15 evaluable patients demonstrated a partial clinical response, and two experienced disease stabilization. In addition, researchers observed that Aroplatin appeared well tolerated in this pretreated patient population. Updated data showed that of 18 evaluable patients, one demonstrated partial clinical response at 26 weeks and three remained stable for at least three months. Because this was a single-arm study without a comparator arm, statistical significance is not calculable. This study is complete, and the data has undergone final review and analysis.

In January 2003, we also initiated at the John Wayne Cancer Center, in Santa Monica, California, a Phase 1/2 trial of Aroplatin for a variety of advanced solid tumors amenable to platinum therapy. The final study data demonstrated that out of the 15 evaluable patients, 14 were reported with disease progression at the first evaluation for disease status after the first treatment with Aroplatin, and one patient demonstrated stabilization of disease with subsequent disease progression after two months. The median time to progression was 66 days with a minimum of 49 days and a maximum of 105 days. This study is complete, and the data have undergone final review and analysis.

In October 2005, we initiated a Phase 1, dose-escalation trial of Aroplatin in solid malignancies and NHL. This study is currently enrolling patients. We expect to reach the maximum tolerated dose ( MTD ) in this study in the first half of 2007. After identifying the MTD, we anticipate initiating a second clinical trial of Aroplatin, most likely in pancreatic cancer and in combination with another agent.

### ***Manufacturing***

Aroplatin is manufactured for us by contract manufacturers. These contract manufacturers also produce drug products for other pharmaceutical companies at clinical and commercial scale and are periodically inspected by appropriate regulatory agencies.



## Table of Contents

### Preclinical Activities

Our lead preclinical program is focused on supporting a higher-activity Oncophage vaccine. This vaccine is produced using an improved manufacturing process, which may allow us to produce Oncophage from smaller amounts of tumor tissue. We performed various preclinical animal studies in 2006 evaluating our modification to the manufacturing process for Oncophage. We also executed biochemical characterization, stability testing, in vitro evaluation, process development, and release assay evaluations. We anticipate completion of final preclinical research activities in 2007.

During 2004, we launched a preclinical program to evaluate Oncophage in combination with other compounds such as other biologic and chemotherapeutic products. These combination experiments have been performed in multiple preclinical tumor models and have demonstrated some measure of benefit in late-stage disease. The preclinical testing of Oncophage in combination with other compounds should be completed in 2007 to support potential clinical testing in 2007.

During 2006, we initiated a preclinical program to evaluate Aroplatin in combination with other chemotherapeutic products in multiple tumor models. The preliminary results demonstrate an improvement in tumor response and survival for certain regimens. These studies will continue in 2007 and support our clinical development of Aroplatin. We intend to continue method development in 2007 to support the manufacture of Aroplatin.

Our AG-707 program continues to enroll patients, and we conduct clinical assays testing the immunological response and safety testing of the product. In preclinical experiments, we continue assay development and testing for manufacture and release of the vaccine. We have observed improved immunological responses in prolonged culture conditions in preliminary experiments to assess how this will impact development of release testing.

### Intellectual Property Portfolio

We devote significant resources to protecting and expanding our intellectual property portfolio. We seek to protect our core technologies through a combination of patents, trade secrets and know-how. We currently have exclusive rights to 81 issued United States patents and 116 foreign patents. We also have rights to 37 pending United States patent applications and 137 pending foreign patent applications. Our issued patents cover our core technologies including (i) HSPs such as Oncophage and AG-858 for treatment of cancers; (ii) HSPs such as AG-702/707 for treatment of infections; (iii) HSPs for treatment of autoimmune disorders; (iv) saponin adjuvants such as QS-21; and (v) liposomal drugs, including Aroplatin. In addition, several patent applications are related to technology based on HSP receptors. The following tables provide detailed information regarding the United States patents and patent applications relating to our product candidates and technologies and their uses. The tables encompass less than all of our 197 issued patents and 174 pending patent applications, because a substantial portion of our patent portfolio is directed to alternative and/or non-core technologies.

	HSPs in					
	Oncophage &				Autoimmune	HSP
Products or Technologies	AG-858		AG-707		Disorders	Receptors
Number of issued U.S. patents	13		10		1	1
Expiration range	2014	2022	2014	2022	2017	2019
Number of pending U.S. patent applications	4		1			5
Number of issued foreign patents	19		19		2	
Expiration range	2015	2016	2015	2016	2018	
Number of pending foreign patent applications	16		11		4	9
We also have rights to 47 issued U.S. patents and 13 U.S. patent applications, 24 issued foreign patents and 57 foreign patent applications directed to various other HSP technologies. With the exception of five patent						

## Table of Contents

applications that we own outright, all of our patent applications relating to Oncophage, AG-858 and AG-702/707 are licensed exclusively to us.

Products or Technologies	QS-21		Aroplatin	
Number of issued U.S. patents	5		4	
Expiration range	2008	2019	2010	2023
Number of pending U.S. patent applications	1		4	
Number of issued foreign patents	51		10	
Expiration range	2008	2019	2006	2011
Number of pending foreign patent applications	13		14	

All patents and applications relating to QS-21 are owned by Antigenics. All of the U.S. and foreign patents and one foreign patent application relating to Aroplatin are licensed exclusively to us. We own our U.S. patent applications and 13 foreign applications relating to Aroplatin.

It is worth noting that:

patent applications in the United States are currently maintained in secrecy until they are published, generally 18 months after they are first filed in any country;

patent applications in other countries, likewise, generally are not published until 18 months after they are first filed in any country;

publication of technological developments in the scientific or patent literature often lags behind the date of these developments; and

searches of prior art may not reveal all relevant prior inventions.

In addition to our patents, we rely on our trade secrets and know-how to provide a competitive advantage, and we intend to continue to develop and protect this proprietary information. We take active measures to control access to know-how and trade secrets through confidentiality agreements, which we generally require all of our employees, consultants, and scientific collaborators to execute upon the commencement of an employment or consulting relationship with us. These agreements generally provide that all confidential information developed or made known to the individual by us during the course of the individual's relationship with us is to be kept confidential and not disclosed to third parties except in specific circumstances. In the case of employees and consultants, the agreements generally provide that all inventions conceived by the individual in the course of rendering services to us are assigned to us and become our exclusive property.

With the exception of one patent application that we own outright, all of our heat shock protein patents and patent applications directed to Oncophage, AG-858, and AG-702/707 have been exclusively licensed to us by the following academic institutions:

### *Mount Sinai School of Medicine*

In November 1994, we entered into a patent license agreement with the Mount Sinai School of Medicine. 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 one of our 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 (approximately 62,000 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 (2018) 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 of the written notice, Mount Sinai can terminate the agreement. The Mount Sinai agreement requires us to use due diligence to make the products covered by the

## **Table of Contents**

licensed patent rights commercially available, including a requirement for us to use best efforts to reach a number of developmental milestones, which have been achieved. If we fail to comply with the due diligence provisions of the agreement, Mount Sinai could take actions to convert our exclusive license to a non-exclusive license after six months written notice. The Mount Sinai Agreement does not contain any milestone payment provisions.

### ***Fordham University***

During 1995, Dr. Srivastava moved his research to Fordham University ( Fordham ). We entered into a sponsored research and technology license agreement with Fordham in March 1995 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 (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 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***

#### ***Research Agreement***

In February 1998, we entered into a research agreement with the University of Connecticut Health Center ( UConn ) and Dr. Srivastava, relating to the continued development of heat shock protein technology. Effective December 31, 2006, this agreement has been terminated, and a termination fee of \$250,000 was paid to UConn in January 2007. The research agreement provided us with an option to license inventions stemming from the research that we sponsored at UConn and provided certain pre-determined royalty rates for licensed inventions. The termination of this agreement does not affect our existing license rights under the license agreement discussed below.

#### ***License Agreement***

In May 2001, we entered into a license agreement with UConn. Through the license agreement, we obtained an exclusive worldwide license to patent rights resulting from inventions discovered under the research agreement. The term of the license agreement ends when the last of the licensed patents expires (2019) 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. 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. As of December 31, 2006, we have paid approximately \$65,000 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.

## **Table of Contents**

### *Amendment Agreement*

In March 2003, we entered into an amendment agreement that amended certain provisions of both the research agreement and the license agreement. During the term of the research agreement, the amendment agreement provided us with the right to elect to exercise our option to license inventions discovered or developed as a result of research we sponsored at UConn, and have such inventions automatically covered under the terms of our existing license agreement with UConn. In addition, 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 up front 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, 2006, we have paid approximately \$100,000 to UConn under the license agreement, as amended.

With the exception of four patent applications that we own outright, all of our Aroplatin patents and patent applications have been exclusively licensed to us by the following corporation and institution:

### *Sumitomo Pharmaceuticals Co., Ltd.*

In December 2000, Aronex Pharmaceuticals, Inc., a company we acquired in July 2001, entered into a license agreement with Sumitomo Pharmaceuticals Co., Ltd. ( Sumitomo ). In September 2003, this agreement was amended and restated with Antigenics. The license agreement grants us the exclusive right to an issued U.S. patent application that contains certain claims that relate to Aroplatin. Except for the treatment of hepatoma, the license agreement gives us the exclusive right to make, use, develop, import, and sell Aroplatin in the United States. The term of the license agreement ends when the licensed patent expires in 2020. Either party may terminate the license agreement by giving written notice to the other party upon the occurrence of the following events: (1) if the other party makes an assignment for the benefit of creditors, is the subject of bankruptcy proceedings, or has a trustee or receiver appointed for substantially all of its assets, (2) if the other party becomes insolvent, or (3) if the other party materially defaults in its performance under the license agreement. Prior to our acquisition of Aronex Pharmaceuticals, Inc., Sumitomo received a \$500,000 up front payment in 2001 from Aronex Pharmaceuticals, Inc. and will receive subsequent milestone payments from us in the aggregate of up to \$3.5 million if regulatory filings, regulatory approval and sales in connection with Aroplatin occur. We agreed to pay Sumitomo royalties on the net sales of Aroplatin in the United States upon commercialization of the product. The license agreement does not contain any diligence provisions.

### *University of Texas Board of Regents/University of Texas M.D. Anderson Cancer Center*

In June 1988, a predecessor to Aronex Pharmaceuticals, Inc. entered into an exclusive license agreement with: (1) The Board of Regents of The University of Texas System, and (2) The University of Texas System Cancer Center, collectively referred to as the University of Texas. As amended, the exclusive license agreement grants us the exclusive, worldwide license to the University of Texas patent rights containing claims that relate to Aroplatin. The term of the exclusive license agreement expires when the last licensed patent expires (2010). Either party may terminate the agreement upon 60 days written notice if the other party materially breaches any material term of the exclusive license agreement. The agreement requires that we meet certain diligence provisions, specifically the conduct of ongoing and active research, developmental activities, marketing, clinical testing, or a licensing program, directed towards the production and sale of Aroplatin. If we fail to comply with these diligence provisions, the University of Texas may be able to terminate the exclusive license agreement upon 90 days written notice. The University of Texas also has the right to terminate the exclusive license agreement in the event that: (1) we discontinue our business, (2) we have a receiver or trustee appointed for our assets, or (3) we are the subject of a bankruptcy proceeding. We agreed to pay the University of Texas royalties on the net sales of Aroplatin. The applicable royalty percentage is dependent on the level of net sales of Aroplatin. We have also agreed to make a \$200,000 milestone payment to the University of Texas if the FDA approves a new drug application for Aroplatin. To date, we have not made any payments to the University of Texas under the license agreement.

---

## **Table of Contents**

### **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. 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.

The first stage of the FDA approval process for a new biologic or drug involves completion of preclinical studies and the submission of the results of these studies to the FDA. This, together with proposed clinical protocols, manufacturing information, analytical data, and other information in an IND, must become effective before human clinical trials may commence. Preclinical studies involve laboratory evaluation of product characteristics and animal studies to assess the efficacy and safety of the product. The FDA regulates preclinical studies under a series of regulations called the current Good Laboratory Practices, or GLP, regulations. If the sponsor violates these regulations, the FDA may invalidate the studies and require that the sponsor replicate those studies.

After the IND becomes effective, a sponsor may commence human clinical trials. The sponsor typically conducts human clinical trials in three sequential phases, but the phases may overlap. In Phase 1 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 sponsor must submit to the FDA a clinical plan, or protocol, accompanied by the approval of the institutions participating in the trials, prior to commencement of each clinical trial. 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 the 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, in the case of a biologic, like Oncophage or AG-858, a 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 is 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. The amount of time taken for this approval process is a function of a number of variables, including the quality of the submission and studies presented and the potential contribution that the compound will make in improving the treatment of the disease in question.

Congress enacted the Food and Drug Administration Modernization Act of 1997 in part to ensure the availability of safe and effective drugs, biologics, and medical devices by expediting the FDA review process for new products. The Modernization Act establishes a statutory program for the approval of Fast Track products, including biologics. A Fast Track product is defined as a new drug or biologic intended for the treatment of a serious or life-threatening condition that demonstrates the potential to address unmet medical needs for this condition. Under the Fast Track program, the sponsor of a new drug or biologic may request the FDA to designate the drug or biologic as a Fast Track product at any time during the clinical development of the product. This designation assures access to FDA personnel for consultation throughout the development process and provides an opportunity to request priority review of a marketing application providing a six-month review timeline for the designated product. Our most advanced product, Oncophage, has been designated by the FDA as

## **Table of Contents**

a Fast Track product in renal cell carcinoma and metastatic melanoma. We cannot predict whether these designations will impact the timing or likelihood of FDA approval of Oncophage.

The Modernization Act specifies that the FDA must determine if the product qualifies for Fast Track designation within 60 days of receipt of the sponsor's request. The FDA can base approval of a marketing application for a Fast Track product on an effect on a clinical endpoint or on another endpoint that is reasonably likely to predict clinical benefit. The FDA may subject approval of an application for a Fast Track product to:

post-approval studies to validate the surrogate endpoint or confirm the effect on the clinical endpoint; and

prior review of all promotional materials.

In addition, the FDA may withdraw its approval of a Fast Track product on a number of grounds, including the sponsor's failure to conduct any required post-approval study with due diligence.

If a preliminary review of the clinical data suggests that a Fast Track product may be effective, the FDA may initiate review of sections of a marketing application for a Fast Track product before the sponsor completes the application. This rolling review is available if the applicant provides a schedule for submission of remaining information and pays applicable user fees. However, the time periods specified under the Prescription Drug User Fee Act concerning timing goals to which the FDA has committed in reviewing an application do not begin until the sponsor submits the complete application.

The Orphan Drug Program provides a mechanism for the FDA to acknowledge that a product is designed to treat a disease with limited prevalence in the United States. An orphan drug designation bestows certain advantages including extending marketing exclusivity if the product is ultimately approved for marketing, considerations in trial size and design based on the actual patient population, and tax credits for some research and development expenses. We hold orphan drug designations for Oncophage in renal cell carcinoma and in metastatic melanoma.

The FDA may, during its review of a new drug application or biologics license application, ask for additional test data. If the FDA does ultimately approve a product, it may require post-marketing testing, including potentially expensive Phase 4 studies, and extra surveillance to monitor the safety and effectiveness of the drug. In addition, the FDA may in some circumstances impose restrictions on the use of the drug that may be difficult and expensive to administer, and may require prior approval of promotional materials.

Before approving a new drug application or a BLA, the FDA may inspect the facilities at which the product is manufactured and will not approve the product unless the manufacturing facilities appear to be in compliance with cGMP. In order to accomplish this inspection, a local field division of the FDA is responsible for completing this inspection and providing a recommendation for or against approval. We are in communication with the field division of the FDA regarding our manufacturing facilities. This effort is intended to assure appropriate facility and process design to avoid potentially lengthy delays in product approvals due to inspection deficiencies.

Similarly, 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 GLP, for specific non-clinical toxicology studies.

To assure such cGMP, GCP, and GLP compliance, the applicants must incur significant time, money, and effort in the area of training, record keeping, production, and quality control. Following approval, the manufacture, holding, and distribution of a product must continue to devote significant resources to maintain full compliance in these areas.

The labeling, advertising, promotion, marketing, and distribution of a drug or biologic product must be in compliance with FDA regulatory requirements. Failure to comply with applicable requirements can lead to the FDA demanding that production and shipment cease, and, in some cases, that the manufacturer recall products,

## **Table of Contents**

or to enforcement actions that can include seizures, injunctions, and criminal prosecution. These failures can also lead to FDA withdrawal of approval to market a product.

Sales of pharmaceutical products outside the United States are subject to foreign regulatory requirements that vary widely from jurisdiction to jurisdiction. 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.

We are also planning for compliance with the various federal and state laws pertaining to health care fraud and abuse, including anti-kickback laws and false claims laws. Anti-kickback laws make it illegal for a prescription drug manufacturer to solicit, offer, receive, or pay any remuneration in exchange for, or to induce, the referral of business, including the purchase or prescription of a particular drug. False claims laws prohibit anyone from knowingly and willingly presenting, or causing to be presented for payment to third-party payors, including Medicare and Medicaid, claims for reimbursed drugs or services that are false or fraudulent, claims for items or services not provided as claimed, or claims for medically unnecessary items or services.

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, and various radioactive compounds. 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 research and manufacturing activities in voluntary compliance with the National Institutes of Health Guidelines for Recombinant DNA Research.

We are subject to the United States Foreign Corrupt Practices Act, which prohibits corporations and individuals from engaging in specified activities to obtain or retain business or to influence a person working in an official capacity. Under this act, it is illegal to pay, offer to pay, or authorize the payment of anything of value to any foreign government official, government staff member, political party, or political candidate in an attempt to obtain or retain business, or to otherwise influence a person working in an official capacity. Our present and future business has been and will continue to be subject to various other laws and 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. In addition, many competitors focus on immunotherapy as a treatment for cancer and infectious diseases. In particular, some of these companies are developing cancer vaccines produced from a patient's own cells or tissue. Others are focusing on developing heat shock protein products. 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,

## **Table of Contents**

and third-party collaborations. 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.

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 are aware of certain programs and products under development by others that may compete with our programs and products. Several companies, including Accentia Biopharmaceuticals, Inc., Avax Technologies Inc., Biomira Inc., Cell Genesys Inc., Dendreon Corporation, Geron Corporation, Medarex, Inc., Nventa Biopharmaceuticals Corporation, Oxford Biomedica PLC, LipoNova GmbH, Intracel Corporation, Favril, Inc., Genitope Corporation, GlaxoSmithKline plc, and Breakthrough Therapeutics, are developing treatments for cancer based on modulation of the immune system, including cancer vaccines. In addition, several companies, including Pfizer Inc., Bristol Myers-Squibb Company, Genentech, Inc., Hoffman-LaRoche Inc., Merck & Co., Inc., Schering-Plough Corporation, AstraZeneca PLC, GlaxoSmithKline plc, Novartis AG and Wyeth, have expertise in, and are developing products for the treatment of cancer and infectious diseases. In December 2005, Bayer AG and Onyx Pharmaceuticals, Inc. received FDA approval to market sorafenib for the treatment of advanced renal cell carcinoma. In January 2006, Pfizer Inc. received FDA approval to market sunitinib for the treatment of advanced kidney cancer. These approvals, as well as their ongoing development of these compounds for therapy in renal cell cancer, have the potential to increase competition and reduce market potential for our product's lead indication.

Certain companies to which we have licensed QS-21 have also licensed vaccine adjuvants from direct competitors, such as Coley Pharmaceutical Group and Avant Immunotherapeutics. 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.

## **Employees**

As of December 31, 2006, we had approximately 100 employees, of whom 10 have PhDs and three have 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.

## **Availability of Periodic SEC Reports**

Our Internet website address is [www.antigenics.com](http://www.antigenics.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 ( "Securities Exchange Act" ) as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the Securities and Exchange Commission ( "SEC" ). The contents of our website are not part of, or incorporated into, this document.



## **Table of Contents**

### **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. We cannot assure investors that our assumptions and expectations will prove to have been 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 on page 2 of 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 resources, we may become insolvent and be unable to continue our operations.*

From our inception through December 31, 2006, we have generated net losses totaling \$461.8 million. Our net losses for the years ended December 31, 2006, 2005, and 2004 were \$51.9 million, \$74.1 million, and \$56.2 million, respectively. We expect to incur significant losses over the next several years as we continue our clinical trials, apply for regulatory approvals, and continue development of our technologies. Furthermore, our ability to generate cash from operations is dependent on if and when we will be able to enter into strategic licensing and partnering relationships and/or commercialize our product candidates. Although we are seeking additional financing, and we implemented cost-cutting measures late in 2005 and further cost-cutting measures in April 2006, the anticipated savings may not be at the levels estimated. If we are unable to raise additional capital or if we incur operating losses for longer than we expect, we may become insolvent and be unable to continue our operations.

*If we fail to obtain the capital necessary to fund our operations, we will be unable to advance our development programs and complete our clinical trials.*

On December 31, 2006, we had \$40.1 million in cash, cash equivalents, and short-term investments. We believe that, based on our current plans and activities, our working capital resources at December 31, 2006, along with the estimated proceeds from our license, supply, and collaborative agreements, will be sufficient to satisfy our liquidity requirements into 2008. However, we plan to attempt to raise additional funds prior to that time. For the year ended December 31, 2006, the sum of our average monthly cash used in operating activities plus our average monthly capital expenditures was \$3.8 million. Total capital expenditures for the year ended December 31, 2006 were \$330,000. We do not anticipate significant capital expenditures during 2007. Since our inception, we have financed our operations principally by sales of equity and convertible debt instruments. In order to finance these expenditures as well as future operations, we will be required to raise additional funds in the capital markets, through arrangements with collaborative partners, or from other sources. Additional financing, however, may not be available on favorable terms or at all. If we are unable to raise additional funds when we need them, we will be required to delay, reduce, or eliminate some or all of our development programs and some or all of our clinical trials, including the development programs and clinical trials supporting our product candidate, Oncophage. We also may be forced to license technologies to others under agreements that allocate to third parties substantial portions of the potential value of these technologies.

*We have significant long-term debt, and we may not be able to make interest or principal payments when due.*

As of December 31, 2006, our total long-term debt, excluding the current portion, was \$75.3 million. Our 5.25% convertible senior notes due 2025 do not restrict our ability or the ability of our subsidiaries to incur additional indebtedness, including debt that effectively ranks senior to the notes. On each of February 1, 2012, February 1, 2015 and February 1, 2020, holders may require us to purchase their notes for cash equal to 100% of the principal amount of the notes, plus any accrued and unpaid interest. Holders may also require us to repurchase their notes upon a fundamental change, as defined, at a repurchase price, in cash, equal to 100% of the principal amount of the notes to be repurchased, plus any accrued and unpaid interest, and in some cases, an additional make-whole premium.

## Table of Contents

Our 8% senior secured convertible notes mature on August 30, 2011, at which point we may elect to repay the outstanding balance in cash or in common stock, subject to certain limitations. In no event will any of the noteholders be obligated to accept equity that would result in them owning in excess of 9.99% of our outstanding common stock at any given time in connection with any conversion, redemption, or repayment of these notes. The note agreements include material restrictions on our incurrence of debt and liens while these notes are outstanding, as well as other customary covenants.

Our ability to satisfy our obligations 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 are not able to generate sufficient cash flow from operations in the future to service our indebtedness, we may be required, among other things:

to seek additional financing in the debt or equity markets;

to refinance or restructure all or a portion of our indebtedness;

to sell assets; and/or

to 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 economically favorable terms.

To date, we have had negative cash flow from operations. For the years ended December 31, 2006, 2005, and 2004, net cash used in operating activities was \$44.7 million, \$66.3 million, and \$60.2 million, respectively. Excluding our 8% senior secured convertible notes, which mature in 2011 and for which we may elect to pay the interest in cash or additional notes, at our option, and for which the outstanding balance at maturity may be paid in cash or in common stock, subject to certain limitations, and assuming no additional interest-bearing debt is incurred and none of our notes are converted, redeemed, repurchased, or exchanged, our annual interest payments will be approximately \$2.6 million during 2007 and thereafter until maturity.

***Because part I of our Phase 3 trial in renal cell carcinoma did not achieve its primary endpoint, this trial would not be sufficient to support a biologics license application for product approval, and we would not expect to generate product revenue from sales of Oncophage until after the completion of additional clinical studies that demonstrate the safety and efficacy of Oncophage and the achievement of regulatory approval.***

On March 24, 2006, we announced top-line results from part I of our Phase 3 study of Oncophage in renal cell carcinoma patients who are at high risk of recurrence after surgery, indicating that the trial did not meet its primary endpoint. The analysis was triggered based on the number of events (defined as recurrence of disease or death of a patient prior to recurrence) reported by study investigators. However, an independent review by the trial's CEC revealed that a substantially smaller number of events had actually occurred. The analysis showed a trend in favor of Oncophage for recurrence-free survival (the study's primary endpoint), and a trend against Oncophage for overall survival (a secondary endpoint); neither finding was statistically significant. The analysis of the overall survival endpoint is considered an interim assessment. It was unclear why opposing trends were observed between recurrence-free survival and overall survival. Importantly, there was no readily apparent adverse safety signal associated with the vaccine that we believe could be contributing to this finding.

Since the analysis of the trial, we have continued to collect data per the protocol with an intent to terminate such data collection at the end of March 2007. At that time, we will perform updated analyses of recurrence-free survival (utilizing investigator-reported information only) and overall survival using all of the data collected in the trial through March 2007. We also plan on opening a subsequent protocol that will continue to follow patients in the format of a registry as a means of collecting overall survival information as well as investigator reports of disease recurrence. The continued collection of this data may not affect the acceptability of the overall results of the trial, and even if clinically meaningful, may not meet the requirements of the FDA or other regulatory



## Table of Contents

authorities for submission and approval of a marketing application or similar ex-U.S. applications for product approval. Further clinical studies must be conducted to demonstrate the safety and efficacy of Oncophage. We may not be able to secure additional financing to continue our clinical studies. If we cannot secure additional financing, we may become insolvent.

Because the evidence of clinically significant improvement has been observed in a subgroup analysis and was not demonstrated in the pre-specified analysis of the primary and secondary endpoints of the Phase 3 study of Oncophage in renal cell carcinoma, this study alone is not expected to be sufficient to support a marketing application for product approval.

***The FDA has previously told us that part I of our Phase 3 trial in renal cell carcinoma, by itself, will not be sufficient to support a BLA for product approval in this indication. Unless the FDA changes its position, and because of the results from part I, we do not expect the results of part I alone will support a future BLA that we ultimately may file with the FDA in this indication.***

On September 3, 2003, the FDA placed our Phase 3 Oncophage clinical trials in renal cell carcinoma and in melanoma on partial clinical hold. The FDA's written correspondence instituting the partial clinical hold indicated that Oncophage was not sufficiently characterized. On October 22, 2003, we submitted to the FDA additional specifications for purity, identity, potency, and pH, which represent product characterization data, and on November 23, 2003, the FDA lifted the partial clinical hold. Even though the FDA lifted the partial clinical hold, the FDA informed us that, for purposes of part I of our Phase 3 trial in renal cell carcinoma and our Phase 3 trial in melanoma, Oncophage has been insufficiently characterized and that the results obtained with an insufficiently characterized product could not be used to provide efficacy data in support of a BLA. The FDA deemed the Oncophage provided to patients before December 2003 to be insufficiently characterized because it had not prospectively undergone the full battery of tests required for drugs used in pivotal trials. Some of these tests, such as potency assays, were not fully developed until after September 2003. The imposition of the partial clinical hold prevented us from enrolling new patients in our Phase 3 clinical trials between September 3, 2003 and November 21, 2003. We believe that we addressed the comments the FDA raised in connection with the partial clinical hold. After the clinical hold was lifted, the FDA asked us to implement the use of potency assays to release vaccine lots for all trials of Oncophage, including our Phase 3 trials. Subsequently, we submitted, during 2004, our validation package to the FDA for the potency assays, and in May 2005 we successfully concluded discussions with the FDA on this matter. Validation of the assays refers, in general terms, to establishing the robustness and reproducibility of the assays on an ongoing basis and under various different conditions to demonstrate that the potency assays work consistently. The potency assays have been used to test product administered since December 2003, and we have performed tests on frozen stored portions of product administered to patients prior to December 2003. This data will be submitted to FDA as part of any BLA filing for Oncophage. We believe we have addressed all product characterization issues raised by the FDA to date.

Because the FDA indicated that, by itself, part I of our Phase 3 clinical trial in renal cell carcinoma was not sufficient to support a BLA filing, we expanded our clinical development plan by initiating a part II to this Phase 3 trial in a similar patient population. The FDA agreed with this registration plan, which was comprised of two components – part I and part II.

On March 24, 2006, we announced top-line results from part I of our Phase 3 study of Oncophage in renal cell carcinoma patients who are at high risk of recurrence after surgery, indicating that the trial did not meet its primary endpoint. The analysis was triggered based on the number of events (defined as recurrence of disease or death of a patient prior to recurrence) reported by study investigators. However, an independent review by the trial's CEC revealed that a substantially smaller number of events had actually occurred. The analysis showed a trend in favor of Oncophage for recurrence-free survival (the study's primary endpoint), and a trend against Oncophage for overall survival (a secondary endpoint); neither finding was statistically significant. The analysis of the overall survival endpoint is considered an interim assessment. It was unclear why opposing trends were observed between recurrence-free survival and overall survival. Importantly, there was no readily apparent adverse safety signal associated with the vaccine that we believe could be contributing to this finding.

## **Table of Contents**

Based on the results of part I, we discontinued part II of our Phase 3 renal cell carcinoma trial and initiated an in-depth analysis of the data from part I of the Phase 3 renal cell carcinoma trial. This in-depth analysis found what we believe to be clinically meaningful improvement in recurrence-free survival in a subgroup of better-prognosis patients. However, the data relating to overall survival, which is an interim assessment, indicated a trend against Oncophage.

Since the analysis of the trial, we have continued to collect data per the protocol with an intent to terminate such data collection at the end of March 2007. At that time, we will perform updated analyses of recurrence-free survival (utilizing investigator-reported information only) and overall survival using all of the data collected in the trial through March 2007. We also plan on opening a subsequent protocol that will continue to follow patients in the format of a registry in order to collect overall survival information as well as investigator reports of disease recurrence. The continued collection of this data may not affect the acceptability of the overall results of the trial, and even if clinically meaningful, may not meet the requirements of the FDA or other regulatory authorities for submission and approval of a marketing application or similar ex-U.S. applications for product approval. Further clinical studies must be conducted to demonstrate the safety and efficacy of Oncophage. We may not be able to secure additional financing to continue our clinical studies. If we cannot secure additional financing, we may become insolvent.

***Because we expect additional Phase 3 clinical trials of Oncophage in the treatment of melanoma will be required prior to submitting a BLA for this indication, we may not commercialize Oncophage in this indication for several years, if ever.***

During the quarter ended September 30, 2004, we completed enrollment of our Phase 3 trial in metastatic melanoma. Our overall manufacturing success rate for this trial was approximately 70%. During 2004, we indicated that we did not believe this trial would qualify as registrational. In October 2005, we announced preliminary survival data from this trial, and updated findings were presented on June 5, 2006 at the ASCO meeting. Overall, patients in the intent-to-treat Oncophage arm (M1a, b and c combined categories as defined by the AJCC) fared similarly to those in the physician's choice arm in terms of survival, the primary endpoint. In a subgroup of patients who received at least 10 injections of Oncophage, overall median survival increased by approximately 29% in the Oncophage-treated arm as compared with those in the physician's choice treatment arm (16.5 months versus 12.8 months). These findings also noted that in a subgroup of randomized stage IV M1a and M1b combined patients, who received at least 10 doses of Oncophage vaccine, median survival increased by approximately 143% in the Oncophage-treated arm compared with those in the physician's choice treatment arm (31.2 months versus 12.8 months). This analysis was not pre-specified. The physician's choice treatment arm included the current array of therapies such as chemotherapeutics, biological agents, and/or surgery. This overall survival analysis of the primary endpoint on an intent-to-treat basis was not statistically significant.

Due to a relatively high failure rate in vaccine manufacturing, this study would not, by itself, be expected to support a BLA filing. Even if we had not experienced the high manufacturing failure rate, the FDA has indicated that this study, like part I of our Phase 3 renal cell carcinoma study, could not, by itself, support a BLA filing, because the FDA views the Oncophage administered to patients in this study prior to December 2003 as insufficiently characterized. We have not yet had any specific discussions with the FDA regarding our clinical development plan for melanoma. Accordingly, we do not know the types of studies that the FDA will require to support a BLA filing. Even if the FDA were to indicate agreement with our clinical development plan, that plan may fail to support a BLA filing for many reasons, including failure of the trials to demonstrate that Oncophage is safe and effective in this indication, failure to conduct the studies in compliance with the clinical trial protocols, or a change in the FDA's views.

***Analysis of subgroups in clinical trials is generally hypothesis-generating, supportive of future clinical trials, and not generally supportive, alone, of registration or approval of a product.***

The signals and trends observed in the Phase 3 renal cell carcinoma and melanoma trials of Oncophage are based on data analysis of subgroups that were not pre-specified endpoints in these studies. While the data might

## **Table of Contents**

be suggestive of treatment effect, the results cannot be expected, alone, to support registration or approval of Oncophage. While the data provide important evidence that is useful for physicians in designing and conducting future clinical trials, additional evidence may be required to recruit physicians for future clinical research.

*We expect our commercial launch of Oncophage to be delayed, and it may be prevented, which would diminish our business prospects.*

On March 24, 2006, we announced top-line results from part I of our Phase 3 study of Oncophage in renal cell carcinoma patients who are at high risk of recurrence after surgery, indicating that the trial did not meet its primary endpoint. The analysis was triggered based on the number of events (defined as recurrence of disease or death of a patient prior to recurrence) reported by study investigators. However, an independent review by the trial's CEC revealed that a substantially smaller number of events had actually occurred. The analysis showed a trend in favor of Oncophage for recurrence-free survival (the study's primary endpoint), and a trend against Oncophage for overall survival (a secondary endpoint); neither finding was statistically significant. The analysis of the overall survival endpoint is considered an interim assessment. It was unclear as to why opposing trends were observed between recurrence-free survival and overall survival. Importantly, there was no readily apparent adverse safety signal associated with the vaccine that we believe could be contributing to this finding.

Based on the results, we discontinued part II of our Phase 3 renal cell carcinoma trial and initiated an in-depth analysis of the data from part I of the Phase 3 renal cell carcinoma trial. This in-depth analysis found what we believe to be clinically meaningful improvement in recurrence-free survival in a subgroup of better-prognosis patients. However, the data relating to overall survival, which is an interim assessment, indicated a trend against Oncophage.

Since the analysis of the trial, we have continued to collect data per the protocol with an intent to terminate such data collection at the end of March 2007. At that time, we will perform updated analyses of recurrence-free survival (utilizing Investigator reported information only) and overall survival using all of the data collected in the trial through March 2007. We also plan on opening a subsequent protocol that will continue to follow patients in the format of a registry in order to collect overall survival information as well as investigator reports of disease recurrence. The continued collection of this data may not affect the acceptability of the overall results of the trial, and even if clinically meaningful, may not meet the requirements of the FDA or other regulatory authorities for submission and approval of a marketing application or similar ex-U.S. applications for product approval. Further clinical studies must be conducted to demonstrate the safety and efficacy of Oncophage. We may not be able to secure additional financing to continue our clinical studies. If we cannot secure additional financing, we may become insolvent.

During the quarter ended September 30, 2004, we completed enrollment of our Phase 3 trial in metastatic melanoma. Our overall manufacturing success rate for this trial was approximately 70%. During 2004, we indicated that we did not believe this trial would qualify as registrational. In October 2005, we announced preliminary survival data from this trial and updated findings were presented on June 5, 2006 at the ASCO meeting. Overall, patients in the intent-to-treat Oncophage arm (M1a, b and c combined categories as defined by the AJCC) fared similarly to those in the physician's choice arm in terms of survival, the primary endpoint. In a subgroup of patients who received at least 10 injections of Oncophage, overall median survival increased by approximately 29% in the Oncophage treated arm as compared with those in the physician's choice treatment arm (16.5 months versus 12.8 months). These findings also noted that in a subgroup of randomized stage IV M1a and M1b combined patients, who received at least 10 doses of Oncophage vaccine, median survival increased by approximately 143% in the Oncophage-treated arm compared with those in the physician's choice treatment arm (31.2 months versus 12.8 months). This analysis was not pre-specified. The physician's choice treatment arm included the current array of therapies such as chemotherapeutics, biological agents, and/or surgery. This overall survival analysis of the primary endpoint on an intent-to-treat basis was not statistically significant. As we have previously stated, we believe this study will not, by itself support a BLA filing.

## **Table of Contents**

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

The process of obtaining and maintaining regulatory approvals for new therapeutic products is lengthy, expensive, and uncertain. It also can vary substantially based on the type, complexity, and novelty of the product. We must provide the FDA and foreign regulatory authorities with preclinical and clinical data demonstrating that our product candidates are safe and effective before they can be approved for commercial sale. Clinical development, including preclinical testing, is also a long, expensive, and uncertain process. It may take us several years to complete our testing, and failure can occur at any stage of testing. Interim results of preclinical or clinical studies 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 the FDA. 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.

Oncophage is a novel therapeutic cancer vaccine that is personalized for each patient, meaning it is derived from the patient's own tumor. To date, the FDA has not approved any therapeutic cancer vaccines for commercial sale, and foreign regulatory agencies have approved only a limited number. Both the FDA and foreign regulatory agencies, including the European Medicines Agency, which is responsible for product approvals in Europe, and Health Canada, which is responsible for product approvals in Canada, have relatively little experience in reviewing personalized oncology therapies. The partial clinical hold that the FDA had placed, and subsequently lifted, on our Phase 3 Oncophage clinical trials primarily related to product characterization issues. Oncophage may experience a long regulatory review process and high development costs, either of which could delay or prevent our commercialization efforts. We have also initiated communications with regulatory health authorities in other jurisdictions to discuss requirements for the approval of Oncophage in renal cell carcinoma. As of December 31, 2006, we have spent approximately 12 years and \$224.9 million on our research and development program in heat shock proteins for cancer.

To obtain regulatory approvals, we must, among other requirements, complete carefully controlled and well designed preclinical studies and clinical trials demonstrating that a particular product candidate is safe and effective for the applicable disease. Several biotechnology companies have failed to obtain regulatory approvals because regulatory agencies were not satisfied with the structure or conduct of the preclinical studies and clinical trials, or the ability to interpret the data from the trials; similar problems could delay or prevent us from obtaining approvals.

We may not complete our planned preclinical studies or clinical trials on schedule or at all. We may not be able to confirm the safety and efficacy of our potential drugs in long-term clinical trials, which may result in a delay or failure to commercialize our product candidates. The timing and success of a clinical trial is dependent on 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. Because we rely on third-party clinical investigators and contract research organizations to conduct our clinical trials, we may encounter delays outside our control, particularly if our relationships with any third-party clinical investigators or contract research organizations are adversarial. The timing and success of our clinical trials, in particular, are also dependent on the FDA and other regulatory agencies accepting each trial's protocol, statistical analysis plan, product characterization tests, and clinical data. If we are unable to satisfy the FDA and other regulatory agencies with such matters, including the specific matters noted above, or our clinical trials yield inconclusive or negative results, we will be required to modify or expand the scope of our clinical studies or conduct additional studies to support BLA filings. In addition, the FDA may request additional information or data that is not readily available. Delays in our ability to respond to such an FDA request would delay, and failure to adequately address all FDA concerns would prevent, our commercialization efforts.

## **Table of Contents**

Also, we, or the FDA, might further delay or halt our clinical trials for various reasons, including but not limited to:

we may fail to comply with extensive FDA regulations;

a product candidate may not appear to be more effective than current therapies;

a product candidate may have unforeseen, undesirable, or significant adverse side effects, toxicities, or other characteristics;

the time required to determine whether a product candidate is effective may be longer than expected;

we may be unable to adequately follow or evaluate patients after treatment with a product candidate;

patients may die during a clinical trial because their disease is too advanced or because they experience medical problems that may not be related to the product candidate;

sufficient numbers of patients may not enroll in our clinical trials; or

we may be unable to produce sufficient quantities of a product candidate to complete the trial.

Furthermore, regulatory authorities, including the FDA, may have varying interpretations of our preclinical and clinical trial data, which could delay, limit, or prevent regulatory approval or clearance. Any delays or difficulties in obtaining regulatory approvals or clearances for our product candidates may:

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

impose significant additional costs on us or our collaborators;

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

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

If we are delayed in these activities or do not receive regulatory approval for our product candidates in a timely manner, we will have to incur additional development expense, and subject to securing additional financing, we will not be able to commercialize them in the timeframe anticipated, and therefore our business will suffer.

***We typically require separate regulatory approvals for each of our product candidates for each type of disease indication before we can market and sell them in the United States or internationally.***

We and our collaborators generally cannot sell any drug or vaccine until we receive regulatory approval from governmental authorities in the United States and from similar agencies in other jurisdictions. Oncophage and any other drug candidate could take a significantly longer time to



gain regulatory approval than we expect, or may never gain approval, or may gain approval for only limited indications.

***Even if we do receive regulatory approval for our product candidates, the FDA or international regulatory authorities will impose limitations on the indicated uses for which our products may be marketed, or subsequently withdraw approval, or may take other actions against us or our products adverse to our business.***

The FDA and international 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, may be withdrawn if problems occur after initial marketing. Failure to comply with applicable FDA and other regulatory requirements can result in, among other things, warning letters, fines, injunctions, civil penalties, recall or seizure of products, total or partial suspension of production, refusal of the government to renew marketing applications, and/or criminal prosecution.

## **Table of Contents**

### ***Delays enrolling patients in our studies will slow or prevent completion of clinical trials.***

We have encountered in the past, and may encounter in the future, delays in initiating trial sites and in 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 approvals. If we fail to enroll a sufficient number of patients in clinical trials, the trials may fail to demonstrate the efficacy of a product candidate at a statistically significant level. While such trials may help support our efforts to obtain marketing approval, they generally would not, by themselves, be sufficient for obtaining approval. In our cancer trials, enrollment difficulties may arise due to many factors, including the novel nature of our product candidates such as Oncophage, the identification of patients meeting the specific criteria for inclusion in our trials, the speed by which participating clinical trial sites review our protocol and allow enrollment, and any delay in contract negotiations between us and the participating clinical trial sites. In addition, we may encounter problems in our clinical trials due to increased pharmaceutical industry demand for clinical trial patients as well as limited patient availability due to the advanced disease state of the target patient population. Even if our patient enrollment is adequate, patients may die during a clinical trial if their disease is too advanced or because they experience problems that may be unrelated to the product candidate. A high dropout rate in a trial may undermine the ability to gain statistically significant data from the study.

### ***If new data from our research and development activities continues to modify our strategy, then we expect to continually adjust our projections of timelines and costs of programs; this uncertainty may depress the market price of our stock and increase our expenses.***

Because we are focused on novel technologies, our research and development activities, including our preclinical 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 are sometimes a daily occurrence and constitute the basis on which our business is conducted. We need to 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. These issues are pronounced in our efforts to commercialize Oncophage, which represents an unprecedented approach to the treatment of cancer.

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 approval or prevent or limit commercial use.

### ***Failure to enter into significant collaboration agreements may hinder our efforts to develop and commercialize our product candidates and will increase our need to rely on sales of securities to fund our operations.***

We have been engaged in efforts to enter into collaborative agreements with a pharmaceutical or larger biotechnology company to assist us with development and/or commercialization of our product candidates.

While we have been pursuing these business development efforts for several years, we have not negotiated a definitive agreement relating to the potential commercialization of Oncophage. Following the announcement in March 2006 that part I of our Phase 3 trial in renal cell carcinoma did not achieve its primary endpoint, many larger companies may be unwilling to commit to a substantial agreement prior to receipt of additional clinical data. In the absence of such data, potential collaborative partners may demand economic terms that are unfavorable to us. Even if Oncophage generates favorable clinical data over the next several years, we may not be able to negotiate a transaction that provides us with favorable economic terms.

We plan on pursuing business development efforts to partner each of Aroplatin and AG-707. These products are at an early stage, and collaborative partners or licensees may defer discussions until results from early clinical trials become available.

## **Table of Contents**

While some other biotechnology companies have negotiated large collaborations, we may not be able to negotiate any agreements with terms that replicate the terms negotiated by those other companies. We may not, for example, obtain significant upfront payments or substantial royalty rates. Some larger companies are skeptical of the commercial potential and profitability of a personalized product candidate like Oncophage or early-stage products like Aroplatin and AG-707. If we fail to enter into such collaboration agreements, our efforts to develop and/or commercialize Oncophage, Aroplatin, or AG-707 may be undermined. In addition, if we do not raise funds through collaboration agreements, we will need to rely on sales of additional securities to fund our operations. Sales of additional equity securities may substantially dilute the ownership of existing stockholders.

***We may not receive significant royalty, milestone, or manufacturing revenue payments from collaborators or licensees due to unsuccessful results in existing collaborations and licenses, failure to enter into future collaborations or license agreements, or our inability to manufacture product supply requirements for our collaborators and licensees.***

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 success depends on our ability to negotiate such agreements and on the success of the other parties in performing research and preclinical and clinical testing. Our collaborations involving QS-21, for example, depend on our collaborative partners or licensees successfully completing clinical trials, our entering into a successful contract manufacturing relationship to meet collaborative partner or licensee demand, and our collaborative partners or licensees obtaining regulatory approvals.

These development activities frequently fail to produce marketable products. For example, in August 2006, Pharmexa A/S announced a decision to cease dosing patients in their Phase 2 clinical trial of their HER-2 Protein AutoVac(TM) breast cancer vaccine containing our QS-21 adjuvant, after it was determined that the trial was unlikely to meet its primary endpoint. Several of our agreements also require us to transfer important rights and regulatory compliance responsibilities to our collaborators and licensees. As a result of 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 devote resources to these arrangements or, under certain circumstances, may terminate these arrangements early. They may cease pursuing the programs 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. As a result of these factors, our strategic collaborations may not yield revenue. In addition, we may be unable to enter into new collaborations or enter into new collaborations on favorable terms. Failure to generate significant revenue from collaborations would increase our need to fund our operations through sales of securities and could limit financial resources available for investment in manufacturing capacity expansion.

***If we are unable to purify heat shock proteins from some cancer types, we may have difficulty successfully initiating clinical trials in new indications or completing our clinical trials, and even if we do successfully complete our clinical trials, the size of our potential market could decrease.***

Our ability to successfully develop and commercialize Oncophage for a particular cancer type depends on our ability to purify heat shock proteins from that type of cancer. If we experience difficulties in purifying heat shock proteins for a sufficiently large number of patients in our clinical trials, it may lower the probability of a successful analysis of the data from these trials and, ultimately, the ability to obtain FDA approval. Our overall manufacturing success rate for part I of our Phase 3 trial in renal cell carcinoma was 92%; for our Phase 3 trial in metastatic melanoma, it was 70%. Our inability to manufacture adequate amounts of Oncophage for approximately 30% of the patients randomized in the Oncophage treatment arm of the metastatic melanoma trial undermined the potential for the trial to meet its pre-specified clinical endpoints. To address this lower success rate for melanoma, we instituted an inhibitor process to avoid the breakdown of proteins. Subsequent to the implementation of this change, we successfully produced Oncophage for 18 of 23 patients, a success rate of

## **Table of Contents**

approximately 78%, whereas previously we had produced Oncophage for 123 of 179 patients, a success rate of approximately 69%. The small sample size used subsequent to our process change may make the reported improvement in our manufacturing success unreliable as a predictor of future success.

We have successfully manufactured product for 100%, 10 of 10, of the patients randomized to treatment in our Phase 2 lung cancer trial and 95%, 21 of 22 patients, randomized to treatment in our Phase 2 metastatic renal cell carcinoma trial. Based on our completed clinical trials to date, we have been able to manufacture Oncophage from 87% of the tumors delivered to our manufacturing facility; for renal cell carcinoma, 92%; for melanoma (including our Phase 3 trial), 70%; for colorectal cancer, 98%; for gastric cancer, 81%; for lymphoma, 89%; and for pancreatic cancer, 46%. The relatively low rate for pancreatic cancer is due to the abundance of proteases in pancreatic tissue. Proteases are enzymes that break down proteins. These proteases may degrade the heat shock proteins during the purification process. We have made process development advances that have improved the manufacture of Oncophage from pancreatic tissue. In an expanded Phase 1 pancreatic cancer study, Oncophage was manufactured from five of five tumor samples (100%), bringing the aggregate success rate for this cancer type, which was previously 30%, to 46%.

We may encounter problems with other types of cancer as we expand our research. If we cannot overcome these problems, the number of cancer types that our heat shock protein product candidates could treat would be limited. In addition, if we commercialize our heat shock protein product candidates, we may face claims from patients for whom we are unable to produce a vaccine.

### ***Manufacturing problems may cause product launch delays and unanticipated costs.***

If one of our product candidates or our licensees' product candidates for which we hold manufacturing rights nears marketing approval or is approved for sale, we expect we would be required to manufacture substantially more than we have been required to manufacture for preclinical studies and clinical trials. We have no experience manufacturing products in commercial quantities, and we can provide no assurance that we will be able to do so successfully. We may experience higher manufacturing failure rates than we have in the past if and when we attempt to substantially increase production volume.

Furthermore, because Oncophage is a personalized biologic, it requires product characterization steps that are more onerous than those required for most chemical pharmaceuticals. Accordingly, we employ multiple steps to attempt to control the manufacturing processes. Minor deviations in these manufacturing processes could result in unacceptable changes in the vaccine that result in production failures.

We have the right to elect to manufacture some of our product candidates other than Oncophage and AG-707 in our own manufacturing facilities (e.g., QS-21 and Aroplatin). This would require the investment of substantial funds and the recruitment of qualified personnel in order to build or lease and operate any new manufacturing facilities. In order to continue to develop our other product candidates, apply for regulatory approvals, and commercialize these product candidates, we or our licensees or collaborators will need to develop, contract for, or otherwise arrange for the necessary manufacturing capabilities. We currently rely and expect to continue to rely upon third parties, potentially including our collaborators, to produce materials required for preclinical studies and clinical trials and for these product candidates. In addition, we are currently in discussions with cGMP-capable contract manufacturers for the production of up to 40 million doses of QS-21 per year. A number of factors could cause production interruptions at our manufacturing facility or our contract manufacturers, 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 programs do not progress as planned.

There are a limited number of contract manufacturers that operate under the FDA's GMP regulations capable of manufacturing our product candidates. If we are unable to do so ourselves or arrange for third-party manufacturing of these product candidates, or to do so on commercially reasonable terms, we may not be able to

## **Table of Contents**

complete development of these product candidates or commercialize them ourselves or through our collaborative partners or licensees. 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.

Manufacturing is also subject to extensive government regulation. Regulatory authorities must approve the facilities in which human healthcare products are produced. 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.

***If we fail to sustain and further build our intellectual property rights, competitors will be able to take advantage of our research and development efforts to develop competing products.***

If we are not able to protect our proprietary technology, trade secrets, and know-how, our competitors may use our inventions to develop competing products. We currently have exclusive rights to 81 issued U.S. patents and 116 foreign patents. We also have rights to 37 pending U.S. patent applications and 137 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 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.

In addition to our patented technology, we also rely on unpatented technology, trade secrets, and confidential information. We may not be able to effectively protect our rights to this technology or information. Other parties may independently develop substantially equivalent information and techniques or otherwise gain access to or disclose our technology. We generally require each of our employees, consultants, collaborators, and certain contractors to execute a confidentiality agreement at the commencement of an employment, consulting, collaborative, or contractual relationship with us. However, these agreements may not provide effective protection of our technology or information, or in the event of unauthorized use or disclosure, they may not provide adequate remedies.

***We may incur substantial costs as a result of litigation or other proceedings relating to patent and other intellectual property rights, and we may be unable to protect our rights to, or use, our technology.***

If we choose to go to court to stop someone else from using the inventions claimed in our patents, that individual or company has the right to ask a court to rule that our patents are invalid and should not be enforced against that third party. These lawsuits are expensive and would consume time and other resources even if we were successful in stopping the infringement of our patents. In addition, there is a risk that the court will decide that our patents are not valid and that we do not have the right to stop the other party from using the inventions. There is also the risk that, even if the validity of our patents is upheld, the court will refuse to stop the other party on the grounds that such other party's activities do not infringe our patents.

We may not have rights under some patents or patent applications related to some of our existing and proposed products or processes. Third parties may own or control these patents and patent applications in the United States and abroad. Therefore, in some cases, such as those described below, in order to develop, use, manufacture, sell, or import some of our existing or proposed products, or develop or use some of our existing or proposed processes, we or our collaborators may choose to seek, or be required to seek, licenses under third-party

## **Table of Contents**

patents issued in the United States and abroad, or those that might issue from United States and foreign patent applications. In such an event, we likely would be required to pay license fees or royalties or both to the licensor. If licenses are not available to us on acceptable terms, we or our collaborators may not be able to exploit these products or processes.

Furthermore, a third party may claim that we are using inventions covered by such third party's patents or other intellectual property rights and may go to court to stop us from engaging in our normal operations and activities. These lawsuits are expensive and would consume time and other resources. There is a risk that a court would decide that we are infringing the third party's patents and would order us to stop the activities covered by the patents. In addition, there is a risk that a court will order us to pay the other party substantial damages for having violated the other party's patents. The biotechnology industry has produced a proliferation of patents, and it is not always clear to industry participants, including us, which patents cover various types of products. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform. We know of patents issued to third parties relating to heat shock proteins and alleviation of symptoms of cancer. We have reviewed these patents, and we believe, as to each claim in those patents, that we either do not infringe the claim, or that the claim is invalid. Moreover, patent holders sometimes send communications to a number of companies in related fields suggesting possible infringement, and we, like a number of biotechnology companies, have received this type of communication, including with respect to the third-party patents mentioned above, as well as a communication alleging infringement of a patent relating to certain gel-fiberglass structures. If we are sued for patent infringement, we would need to demonstrate that our products either do not infringe the patent claims of the relevant patent and/or that the patent claims are invalid, which we may not be able to do. Proving invalidity, in particular, is difficult, since it requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents. Additionally, two of the patent applications licensed to us contain claims that are substantially the same as claims in a third-party patent relating to heat shock proteins. We have asked the United States Patent and Trademark Office to declare an interference with this third-party patent, U.S. Patent No. 6,713,608 which we believe is owned by the Science & Technology Corporation @ UNM (University of New Mexico). We believe that the invention of U.S. Patent No. 6,713,608 is the same as that of earlier-filed U.S. Patents No. 5,747,332, 6,066,716, and 6,433,141, which we believe are owned by the University of New Mexico and which were involved in a previous interference proceeding with one of those two applications. During that interference proceeding, we were awarded priority based upon our earlier effective filing date. Accordingly, we believe that the United States Patent and Trademark Office should declare an interference between our pending patent applications and this latest third-party patent and that the claims of U.S. Patent No. 6,713,608 should be deemed invalid. Although we believe that we should prevail against this third-party patent in an interference proceeding, there is no guarantee that that will be the outcome.

Additionally, a third party has filed a notice of opposition to European patent EP 0750513 B1, which has claims relating to AG-702/707, to which we hold the exclusive license. We believe this patent claims valid subject matter. We have filed a response to this opposition and intend to continue to defend the opposition. However, there is no guarantee that we will continue to do so, that this patent will not be revoked, or that we may not have to amend the claims.

***We may become involved in expensive patent litigation or other proceedings, which could result in our incurring substantial costs and expenses or substantial liability for damages, or require us to stop our development and commercialization efforts.***

There has been substantial litigation and other proceedings regarding patent and other intellectual property rights in the pharmaceutical and biotechnology industries. We may become a party to patent litigation or other proceedings regarding intellectual property rights. Interference proceedings before the United States Patent and Trademark Office may be necessary to establish which party was the first to invent a particular invention.

The cost to us 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 or proceedings more

## **Table of Contents**

effectively than we can because of their substantially greater financial resources. If a patent litigation or other proceeding is resolved against us, we or our collaborators may be enjoined from using, manufacturing, selling, or importing our products or processes without a license from the other party, and we may be held liable for significant damages. We may not be able to obtain any required licenses on commercially acceptable terms or at all.

Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to enter into collaborations with other entities, obtain financing, or compete in the marketplace. Patent litigation and other proceedings may also absorb significant management time.

***Our patent protection for any compound or product that we seek to develop may be limited to a particular method of use or indication such that, if a third party were to obtain approval of the compound or product for use in another indication, we could be subject to competition arising from off-label use.***

Although we generally seek the broadest patent protection available for our proprietary compounds, we may not be able to obtain patent protection for the actual composition of matter of any particular compound and may be limited to protecting a new method of use for the compound or otherwise restricted in our ability to prevent others from exploiting the compound. If we are unable to obtain patent protection for the actual composition of matter of any compound that we seek to develop and commercialize and must rely on method of use patent coverage, we would likely be unable to prevent others from manufacturing or marketing that compound for any use that is not protected by our patent rights. If a third party were to receive marketing approval for the compound for another use, physicians might nevertheless prescribe it for indications that are not described in the product's labeling or approved by the FDA or other regulatory authorities. Even if we have patent protection of the prescribed indication, as a practical matter, we likely would have little recourse as a result of this off-label use. In that event, our revenues from the commercialization of the compound would likely be adversely affected.

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

We are a party to various license agreements under which we receive the right to practice and use important third-party patent rights. We may enter into additional licenses in the future. Our existing licenses impose, and we expect future licenses will impose, various diligence, milestone payment, royalty, insurance, and other obligations on us. If we fail to comply with these obligations, the licensor may have the right to terminate the license, in which event we might not be able to market any product that is covered by the licensed patents.

***If we fail to maintain positive relationships with particular individuals, we may be unable to successfully develop our product candidates, conduct clinical trials, and obtain financing.***

Pramod K. Srivastava, Ph.D., a member of our Board of Directors, the Chairman of our Scientific and Medical Advisory Board, and a consultant to us, and Garo H. Armen, Ph.D., the Chairman of our Board of Directors and our Chief Executive Officer, who together founded Antigenics in 1994, have been, and continue to be, integral to building the Company and developing our technology. If either of these individuals severs their relationship with the Company, our business could be adversely impacted.

Dr. Srivastava is not an employee of Antigenics and has other professional commitments. Dr. Srivastava is a member of the faculty of the University of Connecticut School of Medicine. The regulations and policies of the University of Connecticut Health Center govern the relationship between a faculty member and a commercial enterprise. These regulations and policies prohibit Dr. Srivastava from becoming our employee, and the University of Connecticut may modify its regulations and policies in the future to further limit Dr. Srivastava's relationship with us. Dr. Srivastava currently has a consulting agreement with Antigenics, which includes financial incentives for him to remain associated with us, but these may not prove sufficient to prevent him from

## **Table of Contents**

severing his relationship with Antigenics, even during the time covered by the consulting agreement. The consulting agreement terminates in March 2011 and does not restrict Dr. Srivastava's ability to compete against us after his association with Antigenics is terminated. In addition, we have a license agreement with the University of Connecticut Health Center and until December 31, 2006, we sponsored research in Dr. Srivastava's laboratory at the University. If Dr. Srivastava were to terminate his affiliation with us, this could adversely affect the advancement of our heat shock protein technologies.

Effective December 1, 2005, the Company entered into an employment agreement (the "Agreement") with Dr. Armen. Subject to earlier termination as provided in the Agreement, the Agreement shall have an original term of one year and shall be 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. We do not carry key employee insurance policies for Dr. Armen or any other employee.

We also rely greatly on employing and retaining other highly trained and experienced senior management and scientific personnel. Since our manufacturing process is unique, our manufacturing and quality control personnel are very important. The competition for these and other qualified personnel in the biotechnology field is intense. If we are not able to attract and retain qualified scientific, technical, and managerial personnel, we probably will be unable to achieve our business objectives.

***We may face litigation that could result in substantial damages and may divert management's time and attention from our business.***

Antigenics, our Chairman and Chief Executive Officer, Garo H. Armen, Ph.D., and two investment banking firms that served as underwriters in our initial public offering have been named as defendants in a federal civil class action lawsuit. The suit alleges that the brokerage arms of the investment banking firms charged secret excessive commissions to certain of their customers in return for allocations of our stock in the offering. The suit also alleges that shares of our stock were allocated to certain of the investment banking firms' customers based upon agreements by such customers to purchase additional shares of our stock in the secondary market. To date, the plaintiffs have not asserted a specific amount of damages. We have submitted settlement papers with the Federal District Court for the Southern District of New York, which the court preliminarily approved. The settlement remains subject to a number of conditions, including final Court approval. On December 5, 2006, the Court of Appeals for the Second Circuit reversed the Court's October 2004 order certifying a class in six test cases that were selected by the underwriter defendants and plaintiffs in the coordinated proceeding. Antigenics is not one of the test cases, and it is unclear what impact this will have on Antigenics' case. Regardless of the outcome, participation in this lawsuit diverts our management's time and attention from our business and may result in our paying damages.

Antigenics and our Chairman and Chief Executive Officer have been named as defendants in a purported shareholder class action complaint filed on June 16, 2006 in Federal District Court in New Mexico by Steven J. Tuckfelt on behalf of himself and all others similarly situated. The complaint alleges that certain of our disclosures in connection with the conduct of the Oncophage Phase 3 renal cell carcinoma trial violated Sections 10(b) and 20(a) of the Securities Exchange Act as well as includes purported claims for breach of fiduciary duty. While we believe that the complaint is without merit and plan to vigorously defend against the litigation, the outcome of litigation is uncertain. Regardless of the outcome, participation in this lawsuit diverts management's time and attention from our business and may result in our paying legal fees and damages.

In addition, we are involved in other litigation and may become involved in additional litigation. Any such litigation could be expensive in terms of out-of-pocket costs and management time, and the outcome of any such litigation is uncertain.

Our Directors and Officers insurance policies provide \$25 million annual aggregate coverage and \$25 million per occurrence. This limited insurance coverage may not be sufficient to cover us for future claims.



## **Table of Contents**

***If we fail to obtain adequate levels of reimbursement for our product candidates from third-party payers, the commercial potential of our product candidates will be significantly limited.***

Our profitability will depend on the extent to which government authorities, private health insurance providers, and other organizations provide reimbursement for the cost of our product candidates. Many patients will not be capable of paying for our product candidates by themselves. A primary trend in the United States health care industry is toward cost containment. Large private payers, managed care organizations, group purchasing organizations, and similar organizations are exerting increasing influence on decisions regarding the use of particular treatments. Furthermore, many third-party payers limit reimbursement for newly approved health care products. Cost containment measures may prevent us from becoming profitable.

It is not clear that public and private insurance programs will determine that Oncophage or our other product candidates come within a category of items and services covered by their insurance plans. For example, although the federal Medicare program covers drugs and biological products, the Medicare program takes the position that the FDA's treatment of a product as a drug or biologic does not require the Medicare program to treat the product in the same manner. Accordingly, it is possible that the Medicare program will not cover Oncophage or our other product candidates if they are approved for commercialization. It is also possible that there will be substantial delays in obtaining coverage of Oncophage or our other product candidates and that, if coverage is obtained, there may be significant restrictions on the circumstances in which there would be reimbursement. Where insurance coverage is available, there may be limits on the payment amount. Congress and the Medicare program periodically propose significant reductions in the Medicare reimbursement amounts for drugs and biologics. Such reductions could have a material adverse effect on sales of any of our product candidates that receive marketing approval. In December 2003, the President of the United States signed the Medicare Prescription Drug, Improvement, and Modernization Act of 2003. The future impact of this legislation on our product candidates is uncertain. Effective January 1, 2004, Medicare payments for many drugs administered in physician's offices were reduced significantly. This provision impacts many drugs used in cancer treatment by oncologists and urologists. The payment methodology changes in future years, and it is unclear how the payment methodology will impact reimbursement for Oncophage, if it receives regulatory approval, and incentives for physicians to recommend Oncophage relative to alternative therapies.

***Our sales, marketing, and commercial operations experience is limited and needs to be developed or acquired.***

We have very limited experience in marketing and selling pharmaceutical products or in running commercial operations. In addition, for our personalized heat shock protein product candidates, we will need to develop specialized commercial operations to manage patient-specific ordering, tracking, and control. There are few companies that have developed this expertise. We must either develop commercial operations and marketing capabilities and a sales force or enter into arrangements with third parties to perform such operations and/or market and sell any of our product candidates that are approved by regulatory authorities. We do not know whether we will be able to enter into commercial operations or marketing and sales agreements with others on acceptable terms, if at all. We may not be able to successfully develop our own commercial operations capabilities or sales and marketing force for drug candidates for which we have retained or elect to retain marketing or co-promotion rights. As we develop our own commercial operations or marketing and sales capability, we may be competing with other companies that currently have experienced and well funded operations. Where we have licensed our products to third-party collaborators or licensees, we will be dependent on their commercial operations, sales and marketing expertise and resources, and any revenues we receive from those products will depend primarily on the sales and marketing efforts of others.

***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 will face even greater risks if we sell our product candidates commercially. An individual may

## **Table of Contents**

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;

injury to our reputation;

withdrawal of clinical trial volunteers;

costs of related litigation; and

substantial monetary awards to plaintiffs.

We manufacture Oncophage from a patient's cancer cells, and a medical professional must inject Oncophage into the patient from which it was manufactured. A patient may sue us if we, a hospital, or a shipping company fails to deliver the removed cancer tissue or that patient's Oncophage. We anticipate that the logistics of shipping will become more complex if the number of patients we treat increases, and it is possible that all shipments will not be made without incident. In addition, administration of Oncophage at a hospital poses risk of delivery to the wrong patient. Currently, we do not have insurance that covers loss of or damage to Oncophage, and we do not know whether insurance will be available to us at a reasonable price or at all. We have limited product liability coverage for clinical research use of product candidates. Our product liability policy provides \$10 million aggregate coverage and \$10 million per occurrence. This limited insurance coverage may be insufficient to fully cover us for future claims.

### ***We may incur significant costs complying with environmental laws and regulations.***

We use hazardous, infectious, and radioactive materials 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 limited pollution liability coverage (\$2 million) and a workers' compensation liability policy, in the event of an accident or accidental release, we could be held liable for resulting damages, which could be substantially in excess of any available insurance coverage and could substantially disrupt our business.

### ***Our competitors in the biotechnology and pharmaceutical industries may have superior products, manufacturing capability, or marketing expertise.***

Our business may fail because we face intense competition from major pharmaceutical companies and specialized biotechnology companies engaged in the development of product candidates directed at cancer and infectious diseases. Several of these companies have products that utilize similar technologies and/or personalized medicine techniques, such as Dendreon's Sipuleucel-T, for which Dendreon announced on January 16, 2007 that the FDA has accepted for filing and has assigned priority review status to their BLA based



## **Table of Contents**

on Phase 3 data in prostate cancer, and Lapuleucel-T in Phase 1 trials for ovarian, colorectal, and breast cancer, Nventa's (formerly Stressgen) HspE7, which is currently in or has completed Phase 2 trials in HPV-related diseases, such as internal genital warts, recurrent respiratory papillomatosis, and cervical dysplasia, AVAX's AC Vaccine therapeutic platform vaccines in clinical trials for melanoma and non-small cell lung cancer and approved for sale in Switzerland for melanoma, Intracel's OncoVax, currently approved for administration in the Netherlands, Switzerland, and Israel and in a Phase 3 trial in the U.S. for colon cancer, Liponova's Reniale, which completed Phase 3 trials for renal cell carcinoma, Vical's Allovectin with a special protocol assessment for a Phase 3 trial for metastatic melanoma, Favril's FavID currently in a Phase 3 trial for NHL, Accentia's BiovaxID currently in a Phase 3 trial for NHL, Genitope's MyVax currently in a Phase 3 trial for NHL, and Cell Genesys' GVAX vaccines currently in trials for prostate cancer (Phase 3), AML (Phase 1), pancreatic cancer (Phase 2), lung cancer (Phase 2), and myeloma (Phase 1). Patents have been issued in both the U.S. and Europe related to Nventa's heat shock protein technology.

More specifically, if we receive regulatory approvals, some of our product candidates will compete with FDA-approved therapies such as interleukin-2 and interferon-alpha for renal cell carcinoma and melanoma, which have generated substantial sales over a number of years. In addition, sorafenib and sunitinib for the treatment of patients with advanced renal cell carcinoma, or kidney cancer, were recently approved by the FDA. Other product candidates, such as Aroplatin, may compete with existing approved chemotherapies or other chemotherapies that are in development. Several other platinum therapies are in development for a variety of diseases. The most advanced candidate is GPC Biotech's satraplatin for second-line hormone-refractory prostate cancer, for which the company is in the final stages of filing a rolling new drug application based on the completed Phase 3 trial. Additionally, Poniard Pharmaceuticals' picoplatin is in Phase 2 clinical trials. In addition, 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. 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.

Several other vaccine adjuvants are in development and could compete with QS-21 for inclusion in vaccines in development. These adjuvants include, but are not limited to, oligonucleotides, under development by Coley, Idera, Juvaris and Dynavax, anti-CTLA-4 antibody, under development by Medarex, MF59, SAF, under development by Novartis, and MPL, under development by GlaxoSmithKline. In addition, several companies, such as CSL Limited and Galenica, are developing saponin adjuvants, including synthetic formulations.

Additionally, 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; or

- adversely affect our ability to recruit patients for our clinical trials.

### **Risks Related to our Common Stock**

*Our officers and directors may be able to block proposals for a change in control.*

## Edgar Filing: ANTIGENICS INC /DE/ - Form 10-K

Antigenics Holdings L.L.C. is a holding company that owns shares of our common stock, and as of December 31, 2006, Antigenics Holdings L.L.C. controlled approximately 24% of our outstanding common

## **Table of Contents**

stock. Due to this concentration of ownership, Antigenics Holdings L.L.C. may be able to prevail on all matters requiring a stockholder vote, including:

the election of directors;

the amendment of our organizational documents; or

the approval of a merger, sale of assets, or other major corporate transaction.

Certain of our directors and officers, including our Chief Executive Officer, directly and indirectly own approximately 70% of Antigenics Holdings L.L.C., and if they elect to act together, can control Antigenics Holdings L.L.C. In addition, several of our directors and officers directly and indirectly own approximately 1% of our outstanding common stock.

***A single, otherwise unaffiliated, stockholder holds, and another single, unaffiliated holder of our senior secured convertible notes issued in October 2006 has the right to convert such notes into a substantial percentage of our outstanding capital stock.***

According to publicly filed documents, Mr. Brad M. Kelley beneficially owns 5,546,240 shares of our outstanding common stock and 31,620 shares of our series A convertible preferred stock. The shares of preferred stock are currently convertible at any time into 2,000,000 shares of common stock at an initial conversion price of \$15.81, are non-voting, and carry a 2.5% annual dividend yield. If Mr. Kelley had converted all of the shares of preferred stock on December 31, 2006, he would have held approximately 16% of our outstanding common stock. We currently have a right of first refusal agreement with Mr. Kelley that provides us with limited rights to purchase certain of Mr. Kelley's shares if he proposes to sell them to a third party.

Mr. Kelley's substantial ownership position provides him with the ability to substantially influence the outcome of matters submitted to our stockholders for approval. Furthermore, collectively, Mr. Kelley and Antigenics Holdings L.L.C. control approximately 36% of our outstanding common stock as of March 1, 2007, providing substantial ability, if they vote in the same manner, to determine the outcome of matters submitted to a stockholder vote. If Mr. Kelley were to convert all of his preferred stock into common stock, the combined percentage would increase to 39%. Additional purchases of our common stock by Mr. Kelley also would increase both his own percentage of outstanding voting rights and the percentage combined with Antigenics Holdings L.L.C. While Mr. Kelley's shares of preferred stock do not carry voting rights, the shares of common stock issuable upon conversion carry the same voting rights as other shares of common stock.

On October 30, 2006, we sold \$25 million of 8% senior secured convertible notes to a group of accredited investors. The proceeds have been received in full. These 8% senior secured convertible notes, together with any interest paid in the form of additional 8% senior secured convertible notes (the "2006 Notes"), are convertible into our common stock at an initial fixed conversion price of \$3.50 per share at the option of the investors. While the 2006 Notes do not carry any voting rights, the common stock issuable upon conversion of the 2006 Notes do carry the same voting rights as other shares of common stock. On March 1, 2007, one holder of the 2006 Notes had holdings, which if totally converted into shares of our common stock, would result in this holder owning 5,714,285 shares. If such holder had exercised such conversion right on March 1, 2007, such holder would have owned approximately 12% of our outstanding common stock. However, the holder is limited to a 9.99% maximum percentage of ownership, in accordance with the terms of the 2006 Notes. Such ownership position following any such conversion along with any open market purchases by such holder could provide the holder with the ability to substantially influence the outcome of matters submitted to our stockholders for approval.

***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 consent of our Board of Directors. Our certificate of incorporation provides for a

## **Table of Contents**

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.

### ***Our stock has low trading volume and its public trading price has been volatile.***

Between our initial public offering on February 4, 2000 and December 31, 2006, and for the year ended December 31, 2006, the sale price of our common stock has fluctuated between \$1.38 and \$52.63 per share and \$1.38 and \$7.22 per share, respectively, with an average daily trading volume for the year ended December 31, 2006 of approximately 347,000 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 over the next several years as we continue our clinical trials;

announcements of decisions made by public officials;

results of our preclinical and clinical trials;

announcements of technological innovations or new commercial products by our competitors;

developments concerning proprietary rights, including patent and litigation matters;

publicity regarding actual or potential results with respect to product candidates under development by us or by our competitors;

regulatory developments; and

quarterly fluctuations in our financial results.

### ***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, 2006, we had approximately 45,844,000 shares of common stock outstanding. All of these shares are eligible for sale on the NASDAQ Global Market, although certain of the shares are subject to sales volume and other limitations.

We have filed registration statements to permit the sale of 10,436,831 shares of common stock under our equity incentive plan and certain equity plans that we assumed in the acquisitions of Aquila Biopharmaceuticals, Inc. and Aronex Pharmaceuticals, Inc. We have also filed a registration statement to permit the sale of 300,000 shares of common stock under our employee stock purchase plan. We have also filed a registration statement to permit the sale of 100,000 shares of common stock under our directors' deferred compensation plan. As of December 31, 2006,

## Edgar Filing: ANTIGENICS INC /DE/ - Form 10-K

options to purchase approximately 5,913,000 shares of our common stock with a weighted average exercise price per share of \$7.17 were outstanding. Many of these options are subject to vesting that



## **Table of Contents**

generally occurs over a period of up to five years following the date of grant. As of December 31, 2006, we have approximately 53,000 nonvested shares outstanding. As of December 31, 2006, warrants to purchase approximately 8,910 shares of our common stock with a weighted average exercise price per share of \$54.71 were outstanding. The market price of our common stock may decrease based on the expectation of such sales.

*Because we are a relatively small public company, we have been disproportionately negatively impacted by the Sarbanes-Oxley Act of 2002 and related regulations, which have increased our costs and required additional management resources.*

The Sarbanes-Oxley Act of 2002, which became law in July 2002, has required changes in some of our corporate governance, securities disclosure, and compliance practices. In response to the requirements of that Act, the SEC and the NASDAQ have promulgated new rules and listing standards covering a variety of subjects. Compliance with these new rules and listing standards significantly increased our legal, financial, and accounting costs, which we expect to increase as we expand our operations. In addition, the requirements have taxed a significant amount of management's and the Board of Directors' time and resources. Likewise, these developments have made it more difficult for us to attract and retain qualified members of our Board of Directors, particularly independent directors, or qualified executive officers. Because we are a relatively small public company, we expect to be disproportionately negatively impacted by these changes in securities laws and regulations, which have increased our costs and required additional management resources.

Our internal control over financial reporting (as defined in Rules 13a-15 of the Securities Exchange Act) is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external purposes in accordance with generally accepted accounting principles. 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, 2006, 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.

### **Item 1B. *Unresolved Staff Comments***

We have received no written comments from the staff of the SEC regarding our periodic or current reports that (1) we believe are material, (2) were issued not less than 180 days before the end of our 2006 fiscal year, and (3) remain unresolved.

### **Item 2. *Properties***

We lease a 162,000 square-foot facility in Lexington, Massachusetts, under a lease agreement that terminates in August 2013. We have an option to renew this lease for two additional ten-year periods. We began occupying approximately 94,000 square-feet of this new facility, beginning in October 2003. Based on the terms of our lease agreement, our space increased to 132,000 square feet in August 2005 with a second expansion to 162,000 square feet in September 2006.

We also lease approximately 40,000 square feet of laboratory, office, and manufacturing space in Framingham, Massachusetts under a lease agreement that terminates in September 2010. We have an option to renew the lease for two additional five-year periods. We have sublet this entire facility.

We maintain our corporate offices in New York, New York, in an office building in which we lease approximately 5,400 square feet. Our New York lease terminates in April 2012.

## **Table of Contents**

In addition, on December 15, 2006, we terminated our lease for approximately 30,000 square feet of laboratory and office space in The Woodlands, Texas, a suburb of Houston. We were not actively using this facility.

The Company believes substantially all of its property and equipment is in good condition and that it has sufficient capacity to meet its 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**

Antigenics, our Chairman and Chief Executive Officer, Garo H. Armen, Ph.D., and two investment banking firms that served as underwriters in our initial public offering have been named as defendants in a civil class action lawsuit filed on November 5, 2001 in the Federal District Court for the Southern District of New York on behalf of a class of purchasers of our stock between February 3, 2000 and December 6, 2000. Similar complaints were filed against about 300 other issuers, their underwriters, and in many instances their directors and officers. These cases have been coordinated under the caption *In re Initial Public Offering Securities Litigation*, Civ. No. 21 MC 92 (SAS), by order dated August 9, 2001. The suit against Antigenics and Dr. Armen alleges that the brokerage arms of the investment banking firms charged secret excessive commissions to certain of their customers in return for allocations of our stock in the offering. The suit also alleges that shares of our stock were allocated to certain of the investment banking firms' customers based upon agreements by such customers to purchase additional shares of our stock in the secondary market. The complaint alleges that Antigenics is liable under Section 11 of the Securities Act of 1933, as amended (the Securities Act), and Dr. Armen is liable under Sections 11 and 15 of the Securities Act because our registration statement did not disclose these alleged practices. On April 19, 2002, the plaintiffs in this action filed an amended class action complaint, which contains new allegations. Again, similar amended complaints were filed with respect to the other companies. In addition to the claims in the earlier complaint, the amended complaint alleges that Antigenics and Dr. Armen violated Sections 10(b) and 20 of the Securities Exchange Act and SEC Rule 10b-5 by making false and misleading statements and/or omissions in order to inflate our stock price and conceal the investment banking firms' alleged secret arrangements. The claims against Dr. Armen, in his individual capacity, have been dismissed without prejudice. On July 15, 2002, Antigenics and Dr. Armen joined the Issuer Defendants' Motion to Dismiss the Consolidated Amended Complaints. By order of the Court, this motion set forth all common issues, i.e., all grounds for dismissal common to all or a significant number of Issuer Defendants. The hearing on the Issuer Defendants' Motion to Dismiss and the other Defendants' motions to dismiss was held on November 1, 2002. On February 19, 2003, the Court issued its opinion and order on the Issuer Defendants' Motion to Dismiss. The Court granted Antigenics' motion to dismiss the Rule 10b-5 and Section 20 claims with leave to amend and denied our motion to dismiss the Section 11 and Section 15 claims. On June 14, 2004, papers formalizing a proposed settlement among the plaintiffs, Issuer Defendants, and insurers were presented to the Federal District Court for the Southern District of New York. On February 15, 2005, the Court granted preliminary approval of the settlement. On August 31, 2005, the Court issued an order confirming preliminary approval of the settlement. The settlement remains subject to a number of conditions, including final court approval. On December 5, 2006, the Court of Appeals for the Second Circuit reversed the Court's October 2004 order certifying a class in six test cases that were selected by the underwriter defendants and plaintiffs in the coordinated proceeding. Antigenics is not one of the test cases, and it is unclear what impact this will have on Antigenics' case. If the settlement becomes effective, Antigenics anticipates that it will not incur significant out-of-pocket costs, after insurance. Accordingly, an accrual has not been recorded at December 31, 2006.

On October 12, 2005, a third party filed a notice of opposition in the European Patent Office to European patent EP 0750513 B1 which has claims relating to AG-702/707, to which we hold the exclusive license. We believe this patent claims valid subject matter. We have filed a response to this opposition and intend to continue to defend the opposition. However, there is no guarantee that we will continue to do so, that this patent will not be revoked, or that we may not have to amend the claims.

**Table of Contents**

Antigenics and our Chairman and Chief Executive Officer have been named as defendants in a purported shareholder class action complaint filed on June 16, 2006 in Federal District Court in New Mexico by Steven J. Tuckfelt on behalf of himself and all others similarly situated. The complaint alleges that certain of our disclosures in connection with the conduct of the Oncophage Phase 3 renal cell carcinoma trial violated Sections 10(b) and 20(a) of the Securities Exchange Act as well as includes purported claims for breach of fiduciary duty. While we believe that the complaint is without merit and plan to vigorously defend against the litigation, the outcome of litigation is uncertain. Regardless of the outcome, participation in this lawsuit diverts management's time and attention from our business and may result in our paying legal fees and damages.

We currently are a party to other legal proceedings as well. 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.

**Item 4. Submission of Matters to a Vote of Security Holders**

No matters were submitted to stockholders for a vote during the fourth quarter of 2006.

**Executive Officers of the Registrant**

Set forth below is certain information regarding our current and certain former executive officers, including their age, as of March 1, 2007:

Name	Age	Title
Garro H. Armen, Ph.D.	54	Chairman of the Board and Chief Executive Officer
Shalini Sharp	32	Vice President and Chief Financial Officer
Roman M. Chiciz, Ph.D.	44	Senior Vice President, Research and Development
Kerry A. Wentworth	34	Vice President, Regulatory Affairs &
		Clinical Operations
Peter Thornton	42	Former Senior Vice President and
		Chief Financial Officer
Bruce A. Leicher	51	Former Vice President, General Counsel & Secretary
Renu Gupta, M.D.	51	Former Senior Vice President, Development

GARRO H. ARMEN, PH.D. is Chairman and Chief Executive Officer of Antigenics Inc., the biotechnology company he co-founded with Pramod Srivastava in 1994. From mid-2002 through 2004, he was Chairman of the Board of Directors for the biopharmaceutical company Elan Corporation, plc. Dr. Armen also serves on the Board of Directors of Color Kinetics Inc., a company that designs, markets and licenses intelligent solid-state lighting systems. Dr. Armen is also the founder and President of the Children of Armenia Fund (COAF), a charitable organization established in 2000 that is dedicated to the positive development of the children and youth of Armenia.

SHALINI SHARP joined Antigenics in 2003 as a member of the senior management team, managing strategic planning, investor relations, and financing and acquisition transactions. Prior to this, she was Director of Strategic Planning at Elan Corporation, plc, where she served as Chief of Staff to the Chairman of the Board during the restructuring process and drove to completion a number of strategic corporate and financial transactions. Ms. Sharp was previously a management consultant at McKinsey & Company, specializing in the pharmaceutical and medical device industries. She has also worked in investment banking at Goldman, Sachs & Company, primarily in the health care field. Ms. Sharp received both her bachelor's degree and MBA from Harvard University.

## **Table of Contents**

ROMAN M. CHICZ, PH.D. joined Antigenics in July 2004 and is the Senior Vice President of Research and Development. Prior to this, Dr. Chicz was a co-founder and Vice President of Discovery Research at ZYCOS Inc. from its inception in 1996 until its acquisition in 2004. During his tenure at ZYCOS, Dr. Chicz was responsible for the identification and validation of novel anti-viral and oncology drugs, product development support, and management of the Aventis Pasteur oncology alliance. He also played a key role in business development and private financing of the company. Prior to ZYCOS, Dr. Chicz served as a principal scientist and postdoctoral fellow at Harvard University. Dr. Chicz received his bachelor's degree in chemistry from Occidental College and his doctorate in biochemistry from Purdue University.

KERRY A. WENTWORTH joined Antigenics in 2005 and previously served as Senior Director of Regulatory Affairs at Genelabs Technologies, where she was responsible for regulatory and quality functions. There, she focused on late-stage clinical development and subsequent U.S. and European commercial application filings for the company's lead product Prestara, a treatment for systemic lupus erythematosus. Prior to Genelabs, Ms. Wentworth held various positions in regulatory affairs at Shaman Pharmaceuticals and at Genzyme Corporation. With more than 12 years of regulatory experience, Ms. Wentworth has considerable expertise in the development, global licensing, and post-marketing activities associated with drug and biological products. Ms. Wentworth received a bachelor's degree in pre-veterinary medicine from the University of New Hampshire.

PETER THORNTON is President and Chief Operating Officer at Circ Pharma Limited, a specialty pharmaceutical product development company with a late-stage pipeline of novel formulations of existing drugs in the areas of cardiology and neurology, and is a Director of Antigenics. From 2004 to 2006, Mr. Thornton was Senior Vice President and Chief Financial Officer of Antigenics. Prior to 2004, Mr. Thornton held senior management positions in operations and finance with the global biopharmaceutical company Elan Corporation, plc. He was later Elan's Senior Vice President of business operations, focusing on the operational management of several business units, and restructuring and divestiture activities. During Mr. Thornton's tenure at Elan, he also served as Senior Vice President of Finance and Operations for Elan's drug delivery division. Prior to joining Elan in 1994, Mr. Thornton worked at the international accounting firm KPMG in Dublin and Paris. Mr. Thornton is a nonexecutive director of specialty pharmaceutical companies, Cydex Inc. and Merrion Pharmaceuticals Limited. Mr. Thornton earned his bachelor's degree in commerce from University College, Cork, Ireland, and is a fellow of the Institute of Chartered Accountants in Ireland. Mr. Thornton was recommended to be a Director of Antigenics by Dr. Armen and other members of the Board, based on Mr. Thornton's prior history as Antigenics' Chief Financial Officer, and his experience at Elan and with his prior employment, in areas of audit, finance, restructuring and corporate development.

BRUCE A. LEICHER resigned from Antigenics in December 2006 and presently holds the positions of Senior Vice President and General Counsel and Secretary at Altus Pharmaceuticals, Inc. Prior to joining Antigenics, Mr. Leicher was Vice President, Chief Pharmaceutical Counsel and Compliance Officer at Millennium Pharmaceuticals. While at Millennium, he was a leader in the creation of the commercial infrastructure to launch Velcade (bortezomib) — the first protease inhibitor approved by the FDA — as a treatment for multiple myeloma. Prior to joining Millennium, he was Co-Chair of the Life Sciences Practice Group at Hill & Barlow in Boston. He also served as Vice President and General Counsel at Curis Inc., and Vice President — Law at the Genetics Institute Inc. With 25 years of legal experience, Mr. Leicher has developed a specific expertise in implementing systems that facilitate accelerated product development and compliance with U.S. and international regulatory requirements. He has also built and managed legal teams; trained clinical and R&D operations professionals to handle high-volume research and clinical contracts; participated in portfolio and strategic planning; and managed significant product partnering and acquisition transactions. Mr. Leicher received a bachelor's degree in psychology from the University of Rochester in New York and a law degree from Georgetown University Law Center.

RENU GUPTA, M.D. resigned from Antigenics on August 30, 2006. Dr. Gupta remains involved with Antigenics as a consultant and is the Executive Vice President of Development and Chief Medical Officer at

**Table of Contents**

Transave, Inc. Prior to this, Dr. Gupta was Senior Vice President of Development at Antigenics. Prior to joining Antigenics, Dr. Gupta was Vice President and Head of U.S. Clinical Research and Development at Novartis. Dr. Gupta has extensive experience in providing leadership for corporate strategic plans; handling corporate partnerships in clinical and regulatory development; managing preparation, submission, and defense of global regulatory filings in multiple therapeutic areas; working with regulatory agencies and committees at all stages of drug development; and overseeing innovative trial design. Dr. Gupta also spent two years at Covance as Vice President and Head of Medical, Safety and Therapeutics, and almost 10 years at Bristol-Myers Squibb, where she was responsible for high-level global marketing strategy, clinical research and business development. Dr. Gupta has more than 20 years of research, business, management and regulatory experience in the pharmaceutical industry. Dr. Gupta received her bachelor's and medical degrees from the University of Zambia and completed her research training at the Wistar Institute of Anatomy and Biology, and her medical training at Albert Einstein Medical Center in Philadelphia and the University of Pennsylvania's Children's Hospital of Philadelphia.

**Table of Contents****PART II****Item 5. Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities**

Our common stock trades on the NASDAQ Global 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 as reported on the NASDAQ Global Market.

	High	Low
<b>2005</b>		
First Quarter	\$ 10.24	\$ 6.10
Second Quarter	7.35	5.30
Third Quarter	6.72	5.15
Fourth Quarter	6.07	4.62
<b>2006</b>		
First Quarter	7.22	2.50
Second Quarter	2.83	1.67
Third Quarter	2.20	1.38
Fourth Quarter	2.57	1.53

As of March 1, 2007, there were approximately 2,000 holders of record and approximately 19,600 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, 2001 to December 31, 2006, 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, 2001. 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 Securities Exchange Act, nor shall it be deemed incorporated by reference in any of our filings under the Securities Act.

**Table of Contents**

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

	12/31/01	12/31/02	12/31/03	12/31/04	12/31/05	12/31/06
Antigenics Inc.	100.00	62.44	69.15	61.71	29.02	11.16
NASDAQ Stock Market (U.S.)	100.00	68.47	102.72	111.54	113.07	123.84
NASDAQ Biotechnology Index	100.00	54.67	79.68	84.57	86.96	87.85

***Securities Authorized For Issuance Under Equity Compensation Plans***

	Number of Securities		
	Remaining Available for		
	Number of Securities to be	Weighted-average	Future Issuance under
	Issued Upon Exercise of	Exercise Price of	Equity Compensation Plan
	Outstanding Options,	Outstanding Options,	(Excluding Securities
Plan Category	Warrants and Rights (1)	Warrants and Rights	Reflected in Column (a)) (2)
	(a)	(b)	(c)
Equity compensation plans approved by security holders	6,063,494	\$ 7.12	3,393,274
Equity compensation plans not approved by security holders			
<b>Total</b>	<b>6,063,494</b>		<b>3,393,274</b>

- (1) Includes (i) 1,128 options outstanding at a weighted average exercise price of \$48.56 assumed in connection with our merger with Aronex Pharmaceuticals, Inc. in July 2001; (ii) 11,728 options outstanding at a weighted average exercise price of \$12.66 assumed in our merger with Aquila Biopharmaceuticals Inc. in November 2000; and (iii) 97,974 shares issuable under our Directors' Deferred Compensation Plan at a weighted average price of \$4.34.
- (2) Includes 82,901 shares that may be issued under our 1999 Employee Stock Purchase Plan and 2,026 shares available under our Directors' Deferred Compensation Plan.

## **Table of Contents**

### **Item 6.      *Selected Financial Data***

We have derived the consolidated balance sheet data set forth below as of December 31, 2006 and 2005, and the consolidated statement of operations data for each of the years in the three-year period ended December 31, 2006, from our audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K. The consolidated balance sheet data as of December 31, 2002 is unaudited. It is based on audited data as adjusted for discontinued operations accounting treatment related to the sale of manufacturing rights to our feline leukemia virus vaccine and certain other assets in March 2004, which adjustments have not been audited as of December 31, 2002.

You should read the selected 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 those consolidated financial statements included elsewhere in this Annual Report on Form 10-K.

Given our history of incurring operating losses, management believes that it is more likely than not that any deferred tax assets will not be realized through future earnings. Therefore, no income tax benefit has been recognized in the consolidated financial statements because of the loss before income taxes and the need to recognize a valuation allowance on our deferred tax assets, which will not be offset by the reversal of deferred tax liabilities (see (3) below).

Changes in cash, cash equivalents, and short-term investments, total current assets, total assets, and stockholders' (deficit) equity 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 warrants, and employee stock purchases that totaled approximately \$25.4 million, \$48.3 million, \$54.6 million, \$92.5 million, and \$56.7 million in 2006, 2005, 2004, 2003, and 2002, respectively.



## Table of Contents

	2006	For the Year Ended December 31, 2005      2004      2003				2002
(In thousands, except per share data)						
Consolidated Statement of Operations Data:						
Revenue	\$ 692	\$ 630	\$ 707	\$ 985	\$ 784	
Operating Expenses:						
Cost of sales			(5)			
Research and development	(28,643)	(47,080)	(41,718)	(46,264)	(37,478)	
General and administrative	(21,288)	(25,868)	(25,784)	(21,682)	(20,673)	
Acquired in-process research and development (1)			(2,888)			
Restructuring costs	(1,374)	(1,596)				
Loss from operations	(50,613)	(73,914)	(69,688)	(66,961)	(57,367)	
Non-operating income	141	1	8			
Interest (expense) income, net	(1,409)	(191)	929	919	1,225	
Loss from continuing operations	(51,881)	(74,104)	(68,751)	(66,042)	(56,142)	
Income from discontinued operations (2)			12,589	108	264	
Net loss (3)	(51,881)	(74,104)	(56,162)	(65,934)	(55,878)	
Dividends on series A convertible preferred stock	(790)	(790)	(790)	(224)		
Net loss attributable to common stockholders	\$ (52,671)	\$ (74,894)	\$ (56,952)	\$ (66,158)	\$ (55,878)	
Loss from continuing operations per common share, basic and diluted	\$ (1.15)	\$ (1.64)	\$ (1.56)	\$ (1.70)	\$ (1.71)	
Income from discontinued operations, per common share, basic and diluted	\$	\$	\$ 0.28	\$	\$ 0.01	
Net loss attributable to common stockholders per common share, basic and diluted	\$ (1.15)	\$ (1.64)	\$ (1.27)	\$ (1.70)	\$ (1.70)	
Weighted average number of shares outstanding, basic and diluted	45,809	45,577	44,685	38,989	32,905	
	2006	2005	December 31, 2004	2003	2002	
			(In thousands)		(Unaudited)	
Consolidated Balance Sheet Data:						
Cash, cash equivalents, and short-term investments	\$ 40,095	\$ 61,748	\$ 86,921	\$ 87,978	\$ 57,720	
Total current assets	42,298	66,962	92,604	91,821	62,395	
Total assets	72,952	104,151	133,058	140,080	89,063	
Total current liabilities	9,078	19,145	19,204	22,105	9,971	
Long-term debt, less current portion	75,333	50,044	4,512	10,245	12	
Stockholders' (deficit) equity	(17,393)	31,899	106,443	105,246	77,757	

- (1) We recorded a charge to operations for the write-off of in-process research and development acquired with the purchase of intellectual property from Mojave Therapeutics Inc. in July 2004.
- (2) In March 2004, we sold our manufacturing rights and related assets for a feline leukemia virus (FeLV) vaccine to Virbac S.A. The results of operations of the FeLV activity has been treated as discontinued operations for all periods presented.
- (3) Given our history of incurring operating losses, no income tax benefit has been recognized in our consolidated financial statements because of the loss before income taxes and the need to recognize a valuation allowance on our deferred tax assets, which will not be offset by the reversal of deferred tax liabilities.

## **Table of Contents**

### **Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations*** **OVERVIEW**

We are currently researching and/or developing product candidates to treat cancers and infectious diseases. Since our inception in March 1994, our activities have primarily been associated with the development of our heat shock protein technology and our most advanced product candidate, Oncophage, a personalized therapeutic cancer vaccine. Our business activities have included product research and development, intellectual property prosecution, manufacturing therapeutic vaccines for clinical trials, regulatory and clinical affairs, corporate finance and development activities, marketing, and integration of our acquisitions.

We have incurred significant losses since our inception. As of December 31, 2006, we had an accumulated deficit of \$461.8 million. Since our inception, we have financed our operations principally by sales of equity and convertible debt instruments. On October 30, 2006, we sold \$25 million of 8% senior secured convertible notes due 2011 to a group of accredited investors and on January 25, 2005, we raised net proceeds of approximately \$48 million through the issuance of 5.25% convertible senior notes due 2025 (see Note 15 of the notes to consolidated financial statements). For the years ended December 31, 2006 and 2005, we raised through exercises of stock options and proceeds from our employee stock purchase plan approximately \$469,000 and \$327,000, respectively.

We believe, based on our current plans and activities, that our working capital resources at December 31, 2006, along with the estimated proceeds from our license, supply, and collaborative agreements, will be sufficient to satisfy our liquidity requirements into 2008. In addition, we expect to attempt to raise additional funds in advance of depleting our current funds. Satisfying long-term liquidity needs may require the successful commercialization of product candidates and will require additional capital.

As part of an effort to conserve funds, on December 6, 2005, we announced that we had refocused our programs and priorities, including the postponement and deceleration of a number of our projects. To match our updated business strategy, we also reduced our workforce by approximately 30% at that time.

On March 24, 2006, we announced top-line results from part I of our Phase 3 study of Oncophage in renal cell carcinoma patients who are at high risk of recurrence after surgery, and such results indicated that the trial did not meet its primary endpoint. The analysis was triggered based on the number of events (defined as recurrence of disease or death of a patient prior to recurrence) reported by study investigators. However, an independent review by the trial's Clinical Events Committee (CEC) revealed that substantially fewer events had actually occurred. The analysis showed a trend in favor of Oncophage for recurrence-free survival (the study's primary endpoint), and a trend against Oncophage for overall survival (a secondary endpoint); neither finding was statistically significant. The analysis of the overall survival endpoint is considered an interim assessment. It was unclear why opposing trends were observed between recurrence-free survival and overall survival. Importantly, there was no readily apparent adverse safety signal associated with the vaccine that we believe could be contributing to this finding.

Based on the March results, in April 2006, we implemented a restructuring plan that further refocused our programs and priorities resulting in the temporary discontinuation of all late-stage clinical programs and concentration on Phase 1 and preclinical programs, including Aroplatin for the treatment of solid tumors and B-cell lymphoma, AG-707 for the treatment of genital herpes, and AU-801 for autoimmune disorders. In addition, we terminated part II of the Phase 3 renal cell carcinoma trial and our Phase 2 trial of AG-858 for the treatment of chronic myelogenous leukemia (CML). A combination study of Oncophage and ATRA-IV is also on hold. We continue to support and develop our QS-21 Stimulon® adjuvant (QS-21) partnering collaborations, with the goal of generating royalties from this product in the 2010 timeframe. To match these priorities, we eliminated an additional 42 positions in April 2006. In September 2006, we temporarily discontinued activities related to AU-801.

## **Table of Contents**

We conducted an in-depth analysis of data from part I of our Phase 3 study of Oncophage in renal cell carcinoma during April and May 2006 and discussed the results with the U.S. Food and Drug Administration (the FDA) and a panel of experts in this medical field. On June 7, 2006, we announced the findings of the analysis. With regard to the primary endpoint, recurrence-free survival, this analysis revealed that in a subgroup of better-prognosis patients in the trial, there was a clinically significant improvement (nominal, two-sided *P* value of 0.018 and hazard ratio of 0.567). The subgroup consisted of 361 patients, or 60% of the 604 patients in the full analysis set (FAS) population. As defined by FDA-issued guidance, the FAS is the set of subjects that is as close as possible to the ideal implied by the intention-to-treat principle. It is derived from the set of all randomized subjects by minimal and justified elimination of subjects. In this case, patients with baseline disease, who were not eligible for the trial per protocol, were excluded from the FAS population. In this 361-patient subgroup, patients receiving Oncophage had a 43% decreased risk of recurrence compared with patients in the observation arm.

Overall survival, the secondary endpoint, was also assessed in the 604 patients in the FAS patient population. The analysis, which is interim for the overall survival endpoint, indicated a trend against Oncophage. We believe that the data are likely to have been influenced by missing information from patients who were lost to follow-up or withdrew consent.

Since the analysis of the trial, we have continued to collect data per the protocol with an intent to terminate such data collection at the end of March 2007. At that time, we will perform updated analyses of recurrence-free survival (utilizing investigator-reported information only) and overall survival using all of the data collected in the trial through March 2007. We also plan on opening a subsequent protocol that will continue to follow patients in the format of a registry in order to collect overall survival information as well as investigator reports of disease recurrence. The continued collection of this data may not affect the acceptability of the overall results of the trial, and even if clinically meaningful, may not meet the requirements of the FDA or other regulatory authorities for submission and approval of a marketing application or similar ex-U.S. applications for product approval. Further clinical studies must be conducted to demonstrate the safety and efficacy of Oncophage.

On July 6, 2006, we entered into expanded license and supply agreements with GlaxoSmithKline Biologicals SA (GSK) for the use of QS-21, an investigational adjuvant used in numerous vaccines under development. QS-21 is a key component included in several proprietary adjuvant systems. A number of vaccine candidates currently under development are formulated with adjuvant systems containing QS-21. Under the terms of the agreements, we have agreed to supply QS-21 to GSK through 2014. In addition, we agreed to transfer manufacturing technologies under the supply agreement. We will receive payments contingent upon successful milestone achievements and royalties on net sales for a period of at least 10 years after the first commercial sale under the supply agreement. In conjunction with our expanded license and supply agreements with GSK, we received a \$3.0 million up front non-refundable payment in July 2006. In February 2007, we achieved a milestone related to the transfer of manufacturing technologies to GSK and received a payment of \$2.0 million.

We have the right to elect to manufacture some of our product candidates in our own manufacturing facilities. This would require the investment of substantial funds and the recruitment of qualified personnel in order to build or lease and operate any new manufacturing facilities. In order to continue to develop our other product candidates, apply for regulatory approvals and commercialize these product candidates, we or our licensees or collaborators will need to develop, contract for, or otherwise arrange for the necessary manufacturing capabilities. We currently rely, and expect to continue to rely, upon third parties, potentially including our collaborators, to produce materials required for preclinical studies and clinical trials and for these product candidates. In order to meet demand for QS-21 under our license and supply agreements, we intend to enter into a contract manufacturing relationship with a third party for such purpose. A number of factors could cause production interruptions at our manufacturing facility or at our contract manufacturers, including equipment malfunctions, labor or employment retention problems, natural disasters, power outages, terrorist

## **Table of Contents**

activities, or disruptions in the operations of our suppliers. Alternatively, there is the possibility we may have excess manufacturing capacity if programs do not progress as planned.

### **Historical Results of Operations**

#### ***Year Ended December 31, 2006 Compared To The Year Ended December 31, 2005***

**Revenue:** We generated \$692,000 and \$630,000 of research and development revenue during the years ended December 31, 2006 and 2005, respectively. Revenues from research and development activities include revenues earned on shipments of QS-21 to our QS-21 licensees and license fees earned.

**Research and Development:** Research and development expenses include the costs associated with our internal research and development activities, including salaries and benefits, occupancy costs, clinical manufacturing costs, administrative costs, and research and development conducted for us by outside advisors, such as sponsored university-based research partners and clinical research organizations. Research and development expenses decreased 39% to \$28.6 million for the year ended December 31, 2006 from \$47.1 million for the year ended December 31, 2005. The decrease was partially due to a \$9.4 million reduction in payroll and personnel related expenses attributable to the workforce reductions in June and December 2005 and in April 2006. There was an additional decrease of \$6.3 million in our clinical trial-related expenses due to our restructuring plan and temporary discontinuance of late-stage clinical programs. Other expenses decreased \$2.8 million due to fewer ongoing projects and cost containment efforts.

**General and Administrative:** General and administrative expenses consist primarily of personnel costs, facility expenses, and professional fees. In addition, in 2006 general and administrative expenses include an \$806,000 impairment charge for an other than temporary decline in the value of our investment in Applied Genomic Technology Capital Fund ( AGTC ), a limited partnership. During December 2006, we entered into a formal plan to sell our limited partner interest in AGTC, identified potential buyers, and received offers. On January 9, 2007, we contributed the final capital call of \$165,000 to AGTC, and on February 2, 2007, we completed the sale of our limited partner interest in AGTC to an accredited investor and received approximately \$1.7 million. No gain or loss was realized on this sale. General and administrative expenses decreased 18% to \$21.3 million for the year ended December 31, 2006 from \$25.9 million for the year ended December 31, 2005. This decrease is a reflection of our cost-cutting efforts. Specific cost reductions included a \$4.2 million reduction in payroll and personnel related expenses due mainly to the workforce reductions in June and December 2005 and in April 2006, as well as a reduction in professional fees of \$3.5 million. These reductions were offset by an increase in non-cash, stock-based compensation expense of \$3.1 million primarily due to the adoption of Statement of Financial Accounting Standards ( SFAS ) No. 123R, *Share-Based Payment* ( SFAS No. 123R ) as of January 1, 2006.

**Restructuring Costs:** In June 2005, we took steps to improve our operating efficiency through the prioritization of our development portfolio and a streamlining of our infrastructure, resulting in the elimination of 26 positions. We recorded restructuring charges of \$606,000 related to the elimination of these positions.

In December 2005, we further updated our business strategy and refocused our programs and priorities, including the postponement and deceleration of a number of our projects. To match these priorities, we eliminated 65 positions. In addition to charges of \$990,000 recorded in December 2005 related to the elimination of these positions, we recorded charges of \$112,000 during the three months ended March 31, 2006. In April 2006, we commenced the implementation of a plan to further restructure, refocusing our programs and priorities with the goal of reducing our net cash burn (cash used in operating activities plus cash from investing activities less debt repayments and dividend payments) and eliminated 42 additional positions. We recorded charges of \$645,000 related to the elimination of these positions in 2006 resulting in total charges of \$757,000 for the year ended December 31, 2006.

**Table of Contents**

A summary of restructuring costs is as follows (in thousands).

<b>Year Ended December 31, 2006:</b>	<b>Liability at December 31, 2005</b>	<b>Charge to Operations</b>	<b>Amount Paid</b>	<b>Liability at December 31, 2006</b>
Severance and payroll taxes	\$ 832	\$ 649	\$ (1,481)	\$
Outplacement	89	39	(128)	
Other	33	69	(102)	
<b>Total</b>	<b>\$ 954</b>	<b>\$ 757</b>	<b>\$ (1,711)</b>	<b>\$</b>

During 2006, we wrote-off certain assets that were determined to not be required for our updated business strategy. This resulted in impairment charges of \$617,000.

*Non-operating Income:* Non-operating income of \$141,000 represents a lease termination fee received from one of our sublessees and proceeds from the sale of certain assets.

*Interest Expense:* Interest expense increased to \$3.3 million for the year ended December 31, 2006 from \$3.0 million for the year ended December 31, 2005. This increase relates primarily to interest on our 8% senior secured convertible notes due 2011 that were sold on October 30, 2006.

*Interest Income:* Interest income decreased 32% to \$1.9 million for the year ended December 31, 2006 from \$2.8 million for the year ended December 31, 2005. This decrease is primarily attributable to a decrease in cash, cash equivalents, and short-term investments, partially offset by a rise in interest rates earned on our cash, cash equivalents, and short-term investments. Our average interest rate earned increased from 2.9% for the year ended December 31, 2005 to 4.6% for the year ended December 31, 2006.

***Year Ended December 31, 2005 Compared To The Year Ended December 31, 2004***

*Revenue:* We generated \$630,000 and \$707,000 of research and development revenue during the years ended December 31, 2005 and 2004, respectively. Revenues from research and development activities include revenues earned on shipments of QS-21 to our QS-21 licensees, license fees, and in 2004 it included grant revenue earned. The decrease in research and development revenue is attributable to the expiration of a grant and to a large non-recurring shipment of QS-21 during 2004, which is partially offset by increased license fees earned in 2005.

*Research and Development:* Research and development expenses include the costs associated with our internal research and development activities, including salaries and benefits, 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, including the University of Connecticut Health Center, and clinical research organizations, as well as expenses related to grant revenue. Research and development expense increased 13% to \$47.1 million for the year ended December 31, 2005 from \$41.7 million for the year ended December 31, 2004. The increase was primarily due to payroll-related expenses for additional personnel assisting with our research and development activities, costs incurred to advance our development programs, start-up costs related to part II of our Oncophage renal cell carcinoma Phase 3 trial, increased fees related to the close-out activities of our other Phase 3 trials, and costs incurred due to a reduction in headcount. Payroll-related expenses increased \$2.9 million in comparison to 2004. Clinical trial related expenses increased \$1.9 million in comparison to 2004, as the result of close-out activities for part I of our Phase 3 clinical trial in renal cell carcinoma and our Phase 3 clinical trial in metastatic melanoma (due to the completion of enrollment during the third quarter of 2004) coupled with the initiation of our part II Phase 3 clinical trial in renal cell carcinoma. Expenses related to our research and development programs increased \$853,000 in comparison to 2004 due primarily to the toxicology studies performed on our new formulation of Aroplatin and on AG-707, and increased contract manufacturing of Aroplatin. Other research and development costs decreased \$309,000.

**Table of Contents**

*General and Administrative:* General and administrative expenses consist primarily of personnel costs, facility expenses, and professional fees. General and administrative expenses increased to \$25.9 million for the year ended December 31, 2005 from \$25.8 million for the year ended December 31, 2004. This increase included a \$527,000 increase in fees related to additional consulting services driven by our preparations for potential commercialization of Oncophage. Payroll-related expenses increased \$343,000 in comparison to 2004. Facility-related expenses increased \$201,000 in comparison to 2004 due largely to increased costs related to increased headcount prior to the elimination of positions in conjunction with our steps taken to improve our operating efficiency. These increases were largely offset by a \$534,000 decrease in legal fees in 2005 compared to 2004 and a \$414,000 decrease in our non-cash charge for options granted and earned by outside advisors, directors, and employees for 2005 compared to 2004. Other general and administrative expenses decreased \$39,000.

*Acquired In-Process Research and Development:* Acquired in-process research and development of \$2.9 million for the year ended December 31, 2004 related to the charge for the purchase from Mojave Therapeutics Inc. ( Mojave ) of all of their intellectual property and certain assets relating to their heat shock protein based antigen delivery system and other technologies. The total purchase price of the assets (comprised of a cash payment of \$200,000 and the value of common stock issued of \$2.7 million) was allocated to incomplete acquired technologies under development but not yet technologically feasible or commercialized and which had no alternative future uses. At the date of the acquisition, none of the purchased technologies under development by Mojave had achieved technological feasibility and none were being sold on the market. There still remains substantial risk and significant uncertainty concerning the remaining course of technical development. Because of the great uncertainty associated with these issues and the remaining effort associated with development of these technologies, the development projects had not established technological feasibility at the acquisition date.

*Restructuring Costs:* In June 2005, we took steps to improve our operating efficiency through the prioritization of our development portfolio and a streamlining of our infrastructure, resulting in the elimination of 26 positions. In December 2005, we further updated our business strategy and refocused our programs and priorities, including the postponement and deceleration of a number of our projects. To match these priorities, we eliminated 65 positions. We recorded charges of \$1.6 million during the year ended December 31, 2005 related to the elimination of these positions. As of December 31, 2005, we had paid \$642,000 of these expenses. The remaining cash payment obligation of \$954,000, which was included in accrued liabilities in our consolidated balance sheet as of December 31, 2005 was paid through July 2006.

A summary of restructuring costs is as follows (in thousands).

	Charge to	Amount	Liability at
	Operations	Paid	December 31, 2005
Severance and payroll taxes	\$ 1,375	\$ (543)	\$ 832
Outplacement	167	(78)	89
Other	54	(21)	33
Total	\$ 1,596	\$ (642)	\$ 954

*Interest Expense:* Interest expense increased to \$3.0 million for the year ended December 31, 2005 from \$531,000 for the year ended December 31, 2004. This increase relates primarily to interest on our 5.25% convertible senior notes due 2025 that were issued on January 25, 2005.

*Interest Income:* Interest income increased to \$2.8 million for the year ended December 31, 2005 from \$1.5 million for the year ended December 31, 2004. This increase is largely attributable to a rise in interest rates earned on our cash, cash equivalents, and short-term investments. Our average interest rate earned increased from 1.4% for the year ended December 31, 2004 to 2.9% for the year ended December 31, 2005.

## Table of Contents

*Discontinued Operations:* Due to the sale of our manufacturing rights for a FeLV vaccine and related assets to Virbac in 2004, we have reported this portion of our business as discontinued operations in accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*.

### 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. During 2006, these research and development programs consisted largely of Oncophage, AG-858, AG-707, Aroplatin, and QS-21, as indicated in the following table (in thousands).

Research and Development Program	Product	Year Ended December 31,				Prior to	
		2006	2005	2004	2003	2003	Total
Heat shock proteins for cancer	Oncophage & AG-858	\$ 20,468	\$ 37,836	\$ 35,462	\$ 40,052	\$ 91,121	\$ 224,939
Heat shock proteins for infectious diseases	AG-702/707	1,986	3,001	2,682	2,376	4,068	14,113
Liposomal cancer treatments*	Aroplatin	2,534	3,214	1,112	1,263	3,503	11,626
Vaccine adjuvant**	QS-21	1,856	310	264	301	3,956	6,687
Other research and development programs		1,799	2,719	2,198	2,272	7,550	16,538
Total research and development expenses		\$ 28,643	\$ 47,080	\$ 41,718	\$ 46,264	\$ 110,198	\$ 273,903

\* Prior to 2001, costs were incurred by Aronex Pharmaceuticals, Inc., a company we acquired in July 2001.

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

We have allocated direct and indirect costs to each program based on certain assumptions and our review of the status of each program, payroll related expenses, and other overhead costs based on estimated usage by each program. Our product candidates are in various stages of development as described below. Significant additional expenditures will be required if we complete our clinical trials, start new trials, apply for regulatory approvals, continue development of our technologies, expand our operations, and bring our product candidates to market. The eventual total cost of each clinical trial is dependent on a number of uncertainties 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 the development of our most advanced product candidate, Oncophage, is subject to further evaluation and uncertain, and because AG-707 and Aroplatin are in early-stage clinical development, we are unable to reliably estimate the cost of completing our research and development programs, the timing of bringing such programs to market, and, therefore, when material cash inflows are likely to commence. Our collaborations involving QS-21 depend on our collaborative partners or licensees successfully completing clinical trials, our entering into a successful contract manufacturing relationship to meet collaborative partner or licensee demand, and our collaborative partners or licensees obtaining regulatory approvals and successfully commercializing product candidates containing QS-21.

### Product Development Portfolio

#### Oncophage

We started enrolling patients in our first clinical trial studying Oncophage in November 1997. To date, we have treated over 750 cancer patients with Oncophage in our clinical trials. Because Oncophage is a novel therapeutic cancer vaccine that is personalized for each patient, meaning it is derived from the patient's own tumor, it may experience a long regulatory review process and high development costs, either of which could

## **Table of Contents**

delay or prevent our commercialization efforts. For additional information regarding regulatory risks and uncertainties, please read the risks identified under Item 1A. Risk Factors of this Annual Report on Form 10-K.

On March 24, 2006, we announced top-line results from part I of our Phase 3 study of Oncophage in renal cell carcinoma patients who are at high risk of recurrence after surgery, indicating that the trial did not meet its primary endpoint. We also announced the termination of part II of the trial. The analysis was triggered based on the number of events (defined as recurrence of disease or death of a patient prior to recurrence) reported by study investigators. However, an independent review by the trial's CEC revealed that substantially fewer events had actually occurred. The analysis showed a trend in favor of Oncophage for recurrence-free survival (the study's primary endpoint), and a trend against Oncophage for overall survival (a secondary endpoint); neither finding was statistically significant. The analysis of the overall survival endpoint is considered an interim assessment. It was unclear why opposing trends were observed between recurrence-free survival and overall survival. Importantly, there was no readily apparent adverse safety signal associated with the vaccine that we believe could be contributing to this finding.

We conducted an in-depth analysis of data from part I of our Phase 3 study of Oncophage in renal cell carcinoma during April and May 2006 and discussed the results with the FDA and a panel of experts in this medical field. On June 7, 2006, we announced the findings of the analysis. With regard to the primary endpoint, recurrence-free survival, this analysis revealed that in a subgroup of better-prognosis patients in the trial, there was a clinically significant improvement (nominal, two-sided *P* value of 0.018 and hazard ratio of 0.567). The subgroup consisted of 361 patients, or 60% of the 604 patients in the FAS population. In this 361-patient subgroup, patients receiving Oncophage had a 43% decreased risk of recurrence compared with patients in the observation arm.

Overall survival, the secondary endpoint, was also assessed in the 604 patients in the FAS patient population. The analysis, which is interim for the overall survival endpoint, indicated a trend against Oncophage. We believe that the data are likely to have been influenced by missing information from patients who were lost to follow-up or withdrew consent.

Because the evidence of clinically significant improvement was observed in a subgroup analysis and not demonstrated in the pre-specified analysis of the primary and secondary endpoints of the Phase 3 study of Oncophage in renal cell carcinoma, this study alone is not expected to be sufficient to support a marketing application for product approval.

Since the analysis of the trial, we have continued to collect data per the protocol with an intent to terminate such data collection at the end of March 2007. At that time, we will perform updated analyses of recurrence-free survival (utilizing investigator-reported information only) and overall survival using all of the data collected in the trial through March 2007. We also plan on opening a subsequent protocol that will continue to follow patients in the format of a registry in order to collect overall survival information as well as investigator reports of disease recurrence. The continued collection of this data may not affect the acceptability of the overall results of the trial, and even if clinically meaningful, may not meet the requirements of the FDA or other regulatory authorities for submission and approval of a marketing application or similar ex-U.S. applications for product approval. Further clinical studies must be conducted to demonstrate the safety and efficacy of Oncophage.

During the quarter ended September 30, 2004, we completed enrollment of our Phase 3 trial in metastatic melanoma. Our overall manufacturing success rate for this trial was approximately 70%. During 2004, we indicated that we did not believe this trial would qualify as registrational. In October 2005, we announced preliminary survival data from this trial and updated findings were presented on June 5, 2006 at the ASCO meeting. Overall, patients in the intent-to-treat Oncophage arm (M1a, b and c combined categories as defined by the AJCC) fared similarly to those in the physician's choice arm in terms of survival, the primary endpoint. In a subgroup of patients who received at least 10 injections of Oncophage,



## **Table of Contents**

overall median survival increased by approximately 29% in the Oncophage treated arm as compared with those in the physician's choice treatment arm (16.5 months versus 12.8 months). These findings also noted that in a subgroup of randomized stage IV M1a and M1b combined patients who received at least 10 doses of Oncophage vaccine, median survival increased by approximately 143% in the Oncophage-treated arm compared with those in the physician's choice treatment arm (31.2 months versus 12.8 months). This analysis was not pre-specified. The physician's choice treatment arm included the current array of therapies such as chemotherapeutics, biological agents, and/or surgery. This overall survival analysis of the primary endpoint on an intent-to-treat basis was not statistically significant.

### *AG-858*

In December 2002, we reported interim data from a pilot Phase 1 clinical trial conducted at the University of Connecticut School of Medicine using HSPPC-70, a purified HSP70 and its associated antigens, for the treatment of chronic myelogenous leukemia, or CML. In April 2003, we initiated a Phase 2 trial in CML combining AG-858, our HSP70-based product candidate, with Gleevec (imatinib mesylate, Novartis) in patients with CML unresponsive to medical treatment with Gleevec. In May 2004, we voluntarily placed enrollment of this study on hold to modify the cell collection procedure. The study resumed on July 24, 2004. Effective April 7, 2006, the study was terminated due to a change in our corporate priorities.

### *AG-707*

The first potential off-the-shelf application of our HSP technology, AG-707, is an investigational therapeutic vaccine product candidate directed at the virus that causes genital herpes (herpes simplex virus-2, or HSV-2). We initiated a proof-of-principle Phase 1 trial for AG-702, a monovalent (single-antigen) vaccine and predecessor to AG-707, in the fourth quarter of 2001. AG-707 is a multivalent vaccine containing multiple synthetic HSV-2 peptides. Based on the results of completed toxicology studies and other preclinical activities, we submitted to the FDA an investigational new drug application (IND) for AG-707 during the second quarter of 2005 and in October 2005, initiated a Phase 1 clinical trial of AG-707. We do not anticipate further developing AG-702, given that AG-707 has a potential to benefit a larger number of patients with genital herpes.

### *Aroplatin*

We initiated a Phase 2 trial with Aroplatin for advanced colorectal cancer unresponsive to medical treatment in 2002. This single-arm, open-label trial, conducted at the Arizona Cancer Center, was designed to evaluate the effect of Aroplatin alone in patients whose disease is not responsive to standard first-line cancer treatments (5-fluorouracil/leucovorin or capecitabine and irinotecan). In September 2003, the investigators presented findings from this trial at the European Cancer Conference, also known as ECCO. One out of the 15 evaluable patients demonstrated a partial clinical response and two experienced disease stabilization. Researchers observed that Aroplatin appeared well tolerated in this pretreated patient population. Because this was a single-arm study without a comparator arm, statistical significance is not calculable. This trial is closed to enrollment.

In January 2003, we also initiated at the John Wayne Cancer Center, in Santa Monica, California, a Phase 1/2 trial of Aroplatin for a variety of advanced solid tumors amenable to platinum therapy. This study is closed to enrollment.

We have developed a new formulation of Aroplatin to enhance its pharmacological (drug reaction) activity. We initiated a Phase 1, dose-escalation trial of Aroplatin in solid malignancies and NHL (non-Hodgkin's lymphoma) in October 2005. This study is currently enrolling patients.

### *QS-21*

On July 6, 2006, we entered into expanded license and supply agreements with GSK for the use of QS-21, an investigational adjuvant used in numerous vaccines. QS-21 is a key component included in several proprietary

## **Table of Contents**

adjuvant systems. A number of vaccine candidates currently under development are formulated with adjuvant systems containing QS-21. Under the terms of the agreements, we have agreed to supply QS-21 to GSK through 2014. In addition, we agreed to transfer manufacturing technologies under the supply agreement. We will receive payments contingent upon successful milestone achievements, and royalties on net sales for a period of at least 10 years after the first commercial sale under the supply agreement. In order to meet demand for QS-21 under our license and supply agreements, we intend to enter into a contract manufacturing relationship with a third party for such purpose.

## **Liquidity and Capital Resources**

We have incurred annual operating losses since inception, and we had an accumulated deficit of \$461.8 million as of December 31, 2006. We expect to incur significant losses over the next several years if we continue our clinical trials, apply for regulatory approvals, continue development of our technologies, and expand our operations. Phase 3 trials are particularly expensive to conduct. Since our inception, we have financed our operations primarily through the sale of equity and convertible notes, interest income earned on cash, cash equivalents, and short-term investment balances, and debt provided through secured lines of credit. From our inception through December 31, 2006, we have raised aggregate net proceeds of \$424.6 million through the sale of equity, the exercise of stock options and warrants, proceeds from our employee stock purchase plan, and the issuance of convertible notes, and borrowed \$20.5 million under two credit facilities. At December 31, 2006, we had debt outstanding of approximately \$75.5 million, including \$25.3 million of 8% senior secured convertible notes maturing on August 30, 2011 and \$50.0 million of 5.25% convertible senior notes maturing February 20, 2025.

We believe, based on our current plans and activities, that our working capital resources at December 31, 2006, along with the estimated proceeds from our license, supply, and collaborative agreements, will be sufficient to satisfy our liquidity requirements into 2008. However, we plan to attempt to raise additional funds prior to that time. In June 2005, we took steps to improve our operating efficiency through the prioritization of our development portfolio and a streamlining of our infrastructure, resulting in the elimination of 26 positions. During December 2005, we implemented a series of actions to reduce our net cash burn (cash used in operating activities plus cash from investing activities less debt repayments and dividend payments), and preserve our cash. These actions included eliminating 65 positions, additional cost saving activities, and a focusing and streamlining of our research and development activities. In April 2006, we expanded our restructuring plan to further conserve funds. This additional restructuring involved temporarily discontinuing all late-stage clinical programs and concentrating on Phase 1 and preclinical programs, including Aroplatin, AG-707, and AU-801 (in September 2006, we temporarily discontinued activities related to AU-801). In addition, we continue to support and develop our QS-21 partnering collaborations, with the goal of generating royalties from this product in the 2010 timeframe. These actions also included further reducing our headcount to approximately 130 at the time. As a result of these actions and based on our current plans and activities, we anticipate that our ongoing net cash burn will be between \$30 million and \$35 million, on an annualized basis. In order to fund our operations through 2008 and beyond, we will need to raise additional funds and may attempt to do so by: (1) licensing technologies or products to one or more collaborative partners, (2) renegotiating license agreements with current collaborative partners, (3) completing an outright sale of assets, (4) securing additional debt financing, and/or (5) selling additional equity securities. Our ability to successfully enter into any such arrangements is uncertain, and if funds are not available, or not available on terms acceptable to us, we may be required to revise our planned clinical trials, other development activities, capital expenditures, and/or the scale of our operations. As noted above, we expect to attempt to raise additional funds in advance of depleting our current funds; however, we may not be able to raise funds or raise amounts sufficient to meet the long-term needs of the business. Satisfying long-term liquidity needs may require the successful commercialization of product candidates and will require additional capital as discussed above. Please see the Forward-Looking Statements section and the risks highlighted under Item 1A. Risk Factors of this Annual Report on Form 10-K.

## **Table of Contents**

Our future cash requirements include, but are not limited to, supporting our clinical trial and regulatory efforts and continuing our other research and development programs. Since inception, we have entered into various agreements with institutions and clinical research organizations to conduct and monitor our current clinical studies. Under these agreements, subject to the enrollment of patients and performance by the applicable institution of certain services, we have estimated our payments to be \$44.7 million over the term of the studies. Through December 31, 2006, approximately \$44.3 million has been expensed as research and development expenses in the accompanying consolidated statements of operations and \$41.7 million has been paid or accrued related to these clinical studies. The timing of expense recognition and future payments related to these agreements are subject to the enrollment of patients and performance by the applicable institution of certain services. In addition, we have entered into sponsored research agreements related to our product candidates that require payments of approximately \$6.5 million, of which \$6.3 million has been paid through December 31, 2006. The actual amounts we pay out related to these agreements, if any, will depend on a range of factors outside of our control, including the success of our preclinical and clinical development efforts with respect to product candidates being developed, which incorporate patents, the content and timing of decisions made by the United States Patent and Trademark Office ( USPTO ), the FDA and other regulatory authorities, the existence and scope of third-party intellectual property, the reimbursement and competitive landscape around such products, and other factors affecting operating results. We plan to enter into additional agreements, and we anticipate significant additional expenditures will be required to complete 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. We have various agreements, for example, with collaborative partners and/or licensees, that allow the use of our QS-21 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 provide us with rights to manufacture and supply QS-21 to the collaborative partner or licensee and also call for royalties to be paid to us on future sales of licensed vaccines that include QS-21, which may or may not be achieved. Significant investment in manufacturing capacity will be required to exercise our manufacturing and supply rights.

Our cash, cash equivalents, and short-term investments at December 31, 2006 were \$40.1 million, a decrease of \$21.7 million from December 31, 2005. In conjunction with our expanded license and supply agreements with GSK, we received a \$3.0 million up front non-refundable payment in July 2006. In February 2007, we achieved a milestone related to the transfer of manufacturing technologies to GSK and received a payment of \$2.0 million. During the year ended December 31, 2006, we used cash primarily to finance our operations. Net cash used in operating activities for the years ended December 31, 2006 and 2005 was \$44.9 million and \$66.3 million, respectively. The decrease resulted primarily from steps taken in June 2005 to improve our operating efficiency through the prioritization of our development portfolio and a streamlining of our infrastructure and, in December 2005, to further update our business strategy and refocus our programs and priorities, including the postponement and deceleration of a number of our projects. These combined steps resulted in the elimination of 91 positions. In addition, in April 2006, we implemented a restructuring plan that further refocused our programs and priorities resulting in the temporary discontinuation of all late-stage clinical programs and concentration on Phase 1 and preclinical programs, including Aroplatin for the treatment of solid tumors and B-cell lymphoma, AG-707 for the treatment of genital herpes, and AU-801 for autoimmune disorders (in September 2006, we temporarily discontinued activities related to AU-801). We also terminated part II of the Phase 3 renal cell carcinoma trial and our Phase 2 trial of AG-858 for the treatment of CML. A combination study of Oncophage and ATRA-IV is also on hold. We continue to support and develop our QS-21 partnering collaborations, with the goal of generating royalties from this product in the 2010 timeframe. To match these priorities, we eliminated an additional 42 positions. Our future ability to generate cash from operations will depend on achieving regulatory approval of our product candidates, market acceptance of such product candidates, achieving benchmarks as defined in existing collaborative agreements, and our ability to enter into new collaborations. Please see the Forward-Looking Statements section and the risks highlighted under Item 1A. Risk Factors of this Annual Report on Form 10-K.

## Table of Contents

Net cash provided by investing activities for the year ended December 31, 2006 was \$15.4 million as compared to \$41.8 million for the year ended December 31, 2005. During the year ended December 31, 2006, we had net maturities of \$12.9 million of short-term investments compared with \$42.5 million during the year ended December 31, 2005. Additionally, our expenditures on equipment and furniture and fixtures decreased \$2.3 million to \$330,000 for the year ended December 31, 2006. We anticipate capital expenditures to be immaterial during 2007. We received \$3.0 million during the year ended December 31, 2006 and \$2.1 million during the year ended December 31, 2005 from the release of restrictions on our restricted cash balance.

We made contributions of \$285,000 and \$300,000 to AGTC, a limited partnership, during the years ended December 31, 2006 and 2005, respectively. In addition, during the year ended December 31, 2005, we received a cash distribution from AGTC of \$123,000. During December 2006, we entered into a formal plan to sell our limited partner interest in AGTC, identified potential buyers, and received offers. On January 9, 2007, we contributed the final capital call of \$165,000 to AGTC and on February 2, 2007, we completed the sale of our limited partner interest in AGTC to an accredited investor and received \$1.7 million.

Net cash provided by financing activities was \$20.6 million for the year ended December 31, 2006 as compared to \$41.8 million for the year ended December 31, 2005. For the years ended December 31, 2006 and 2005, we raised through exercises of stock options and proceeds from our employee stock purchase plan \$469,000 and \$327,000, respectively. Repayments of long-term debt totaled \$4.0 million during the year ended December 31, 2006, compared to \$5.8 million during the year ended December 31, 2005.

On October 30, 2006, we sold \$25.0 million of 8% senior secured convertible notes to a group of accredited investors. The proceeds have been received in full. These 8% senior secured convertible notes, together with any interest paid in the form of additional 8% senior secured convertible notes (the 2006 Notes), are convertible into our common stock at an initial fixed conversion price of \$3.50 per share at the option of the investors. In January 2005, we received net proceeds of \$48.0 million from the issuance of our convertible senior notes. In July 2003, we entered into a \$17.1 million debt facility to finance the first phase of the build-out of our Lexington facility. Through December 31, 2006, we have borrowed \$17.0 million under this facility. As of December 31, 2006, there was no balance outstanding on this debt facility.

The table below summarizes our contractual obligations as of December 31, 2006 (in thousands).

	Total	Payments Due by Period				
		Less than 1 Year	1 Year	3 Years	5 Years	More than 5 Years
Long-term debt (1)	\$ 101,122	\$ 2,771	\$ 5,250	\$ 41,788	\$ 51,313	
Operating leases	17,942	3,096	6,161	5,139	3,546	
Research agreement (2)	250	250				
Total	\$ 119,314	\$ 6,117	\$ 11,411	\$ 46,927	\$ 54,859	

- (1) Assumes the 2006 Notes are not converted and are paid in 2011. In certain circumstances, they could be called or converted before then. Also includes fixed interest payments and assumes that the convertible senior notes issued on January 25, 2005 are not converted on February 1, 2012. In certain circumstances, they could be converted before then. In addition, the note holders can require us to purchase debt from them at certain dates between 2012 and 2020. If the convertible senior notes are not converted and we are not required to purchase the debt, it matures on February 1, 2025. If the debt were outstanding until maturity, there would be additional interest payments of \$34.1 million for the period 2012 through 2025.
- (2) Represents termination payment on the research agreement with the University of Connecticut Health Center.

## **Table of Contents**

Effective July 19, 2002, we sublet part of our Framingham manufacturing, research and development, and office space to GTC Biotherapeutics, Inc. ( GTC ), and we have leased related leasehold improvements and equipment under agreements that expired on December 31, 2006. GTC has exercised its option to extend this lease until September 2010. Under the terms of our original lease, we are obligated to pay our landlord approximately 7% of our rental income. Effective March 17, 2004, we sublet an additional part of our Framingham manufacturing, research and development, and office space to PP Manufacturing, whose lease also expires on September 30, 2010. As a result of the PP Manufacturing lease agreement, we amended our agreement with GTC effective March 16, 2004, adjusting the leaseable square footage. We are contractually entitled to receive rental income of \$1.1 million in 2007, \$1.0 million in 2008, \$1.0 million in 2009, and \$750,000 in 2010. The collection of this income, however, is subject to uncertainty.

We are currently involved in certain legal proceedings as detailed in Item 3 above and Note 16 of the notes to our consolidated financial statements. 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.

### **Inflation**

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

### **Related Parties**

As of December 31, 2006 and 2005, we had invested \$2.8 million and \$2.6 million, respectively, in a limited partnership, AGTC, and during the year ended December 31, 2005, we received \$123,000 as a distribution from this partnership. Our total capital commitment to AGTC was \$3.0 million. The general partner of AGTC is AGTC Partners, L.P. The management company for AGTC is NewcoGen Group Inc., which is a wholly owned subsidiary of Flagship Venture Management, Inc. ( Flagship ). Noubar Afeyan, Ph.D., who is one of our directors, is the Managing Partner and Chief Executive Officer of Flagship. For additional details, refer to Note 5 to our consolidated financial statements. Garo H. Armen, Ph.D., our Chairman and Chief Executive Officer, was a director of NewcoGen Group Inc. until 2004. During December 2006, we entered into a formal plan to sell our limited partner interest in AGTC, identified potential buyers, and received offers. On January 9, 2007, we contributed the final capital call of \$165,000 to AGTC and on February 2, 2007, we completed the sale of our limited partner interest in AGTC to an accredited investor and received \$1.7 million.

In March 1995, we entered into a consulting agreement with Dr. Pramod Srivastava, our scientific founder and one of our directors, and upon its expiration in March 2006, we entered into a new consulting agreement (the Agreement ), effective March 28, 2006, with Dr. Srivastava. The Agreement with Dr. Srivastava has an initial term of five years and is automatically extended for successive terms of one year unless either party notifies the other at least 90 days prior to the expiration of the original or any extension term that the Agreement is not to be extended. The Agreement may be terminated without cause by us during its term, subject to the payment of compensation for twelve months at the then current rate provided for under the Agreement. In exchange for the timely performance of services, as defined in the Agreement, Dr. Srivastava is entitled to receive compensation to be established by the Compensation Committee of the Antigenics Board of Directors. For the twelve-month period ending March 31, 2007, Dr. Srivastava will receive \$175,000. Dr. Srivastava is also eligible to receive an annual bonus and stock options at the discretion of the Compensation Committee of our Board of Directors.

In February 1998, we entered into a research agreement with the University of Connecticut Health Center ( UConn ) to fund research in Dr. Srivastava's laboratory at UConn. Dr. Srivastava is a member of the faculty of the University of Connecticut School of Medicine. Effective December 31, 2006, this agreement has been terminated, and a termination fee of \$250,000 was paid to UConn in January 2007. The termination of this agreement does not affect our existing license rights under our license agreement with UConn.

## **Table of Contents**

In September 2004, we entered into a \$60,000 one-year service agreement with Techsoft, Inc. d.b.a Medical Systems and NG Techsoft Pvt. Ltd. for data management services. Navin Gupta is the President and Chief Executive Officer of Techsoft, Inc. d.b.a Medical Systems and a Director and Chairman of the Board of NG Techsoft Pvt. Ltd. He also is the spouse of Dr. Renu Gupta, our former Senior Vice President of Development. This agreement was extended several times during 2005 to obtain additional data management and processing services and expired in May 2006. For the years ended December 31, 2006 and 2005, we expensed approximately \$125,000 and \$76,000, respectively, under this agreement. At December 31, 2006, we had no amounts due under this agreement.

### **Critical Accounting Policies and Estimates**

The Securities and Exchange Commission ( 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 to our consolidated financial statements. 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.

### ***Research and Development Clinical Study Accruals***

Research and development costs are expensed as incurred and were \$28.6 million, \$47.1 million, and \$41.7 million for the years ended December 31, 2006, 2005, and 2004, respectively. Research and development expenses include the costs associated with our internal research and development activities, including salaries and benefits, 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 all expenses related to any grant revenue recognized, as well as the cost of clinical trial materials shipped to our research partners. This estimated cost includes payments to the trial site and patient-related costs, including laboratory costs, related to the conduct of the trial. Cost per patient varies based on the type of clinical trial, the site of the clinical trial and the length of the treatment period for each patient. As we become aware of the actual costs, we adjust our accrual; such a change in estimate may be a material change in our clinical study accrual, which could also materially affect our results of operations. There were no changes to our estimates during the years ended December 31, 2006 and 2005. During the year ended December 31, 2004, two of our Phase 3 trials were closed to enrollment and an analysis of the assumptions used in our clinical study accruals, primarily the number of patients in the study as well as the estimated length of the study, resulted in a reduction in our accruals in the amount of \$401,000. Clinical study costs included in accrued liabilities on our consolidated balance sheets were \$1.9 million and \$2.6 million at December 31, 2006 and 2005, respectively. Clinical study costs that are subject to estimation and included in research and development expenses were \$512,000, \$1.9 million, and \$3.5 million for the years ended December 31, 2006, 2005, and 2004, respectively. We believe the effects of reasonably likely changes in the key assumptions underlying the clinical study cost estimates would not likely have a material effect on the consolidated financial statements.

## **Table of Contents**

### ***Investments***

We classify investments in marketable securities at the time of purchase. At December 31, 2006, all marketable securities are classified as available-for-sale and as such, changes in the fair value of the securities are reported as a separate component of accumulated other comprehensive income (loss) until realized. If we were to classify future investments as trading securities rather than available-for-sale, our financial results would be subject to greater volatility. If declines in the fair value of available-for-sale securities are determined to be other than temporary, such losses would be recorded in the consolidated statement of operations.

Investments of less than 20% of the voting control of companies or other entities over whose operating and financial policies we do not have the power to exercise significant influence are accounted for by the cost method. We account for our investment in AGTC under the cost method, and as of December 31, 2006, we have included it in other long-term assets on the consolidated balance sheet, as more fully disclosed in Note 5 to our consolidated financial statements. The general partner of AGTC determines the timing of our additional contributions. Our investment represents an approximate ownership interest of 2%. We continually assess the realizability of this investment. In order to assess whether or not there has been an other than temporary decline in the value of this investment, we analyze several factors including: (1) the carrying value of the limited partnership's investments in its portfolio companies, (2) how recently the investments in the portfolio companies had been made, (3) the post-financing valuations of those investments, (4) the level of uninvested capital held by the limited partnership, and (5) the overall trend in venture capital valuations. In addition, we entered into a formal plan in December 2006 to sell our limited partner interest in AGTC, identified potential buyers, and received offers. As a result, we concluded that an other than temporary decline in the value of this investment had occurred as of December 31, 2006 and recorded an impairment charge in general and administrative expenses that reduced the carrying value (the cost of our investment in this partnership) by \$806,000 to \$1.5 million as of December 31, 2006.

### ***Revenue Recognition***

Revenue from product sales is recognized at the time of product shipment. Revenue for services under research and development grants and 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 are recognized as they are earned.

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

Effective January 1, 2006, we adopted the fair value recognition provisions of SFAS No. 123R, using the modified prospective transition method, and therefore have not restated prior periods' results. Our results of operations for the year ended December 31, 2006 were impacted by the recognition of non-cash expense related to the fair value of our stock-based compensation awards. During the year ended December 31, 2006, we recorded a net charge of \$3.0 million related to stock-based compensation, of which a credit of \$74,000 is included in research and development expense and a charge of \$3.1 million is included in general and administrative expense. Stock-based compensation expense for the year ended December 31, 2006 includes compensation expense for all stock-based options granted prior to, but not yet vested as of January 1, 2006, based on the grant date value estimated in accordance with the original provision of SFAS No. 123, *Accounting for Stock-Based Compensation*. In addition, stock-based compensation expense for the year ended December 31, 2006 includes compensation expense for all stock-based options granted, modified, or settled after January 1, 2006, based on the grant date fair value estimated in accordance with the provisions of SFAS No. 123R. Under the fair value recognition provisions of SFAS No. 123R, we recognize stock-based compensation net of an estimated forfeiture rate and only recognize compensation cost for those shares expected to vest. Compensation cost is recognized on a straight-line prorated basis over the requisite service period of the award. In March 2005, the SEC issued Staff Accounting Bulletin (SAB) No. 107, *Share-Based Payment* (SAB No. 107), which contained the SEC's guidance on SFAS No. 123R and the valuation of share-based payments for public companies. We have applied the provisions of SAB No. 107 in the adoption of SFAS No. 123R. See Note 11 of our notes to consolidated financial statements for a further discussion on stock-based compensation.

## **Table of Contents**

Prior to the adoption of SFAS No. 123R, we accounted for options granted to employees and directors in accordance with Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees*, and related interpretations. As such, compensation cost was recorded on fixed stock option grants only if the current fair value of the underlying stock exceeded the exercise price of the option at the date of grant. In those situations, compensation expense was recognized on a straight-line basis over the vesting period.

Stock options granted to certain non-employees have been accounted for based on the fair value method of accounting in accordance with SFAS No. 123R and Emerging Issues Task Force ( EITF ) Issue No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*. As a result, the non-cash charge to operations for 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. Effective January 1, 2006, under the provisions of EITF Issue No. 00-19, *Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock*, the change in fair value of vested options issued to non-employees will also affect each reporting period, until the options are exercised or expire.

Determining the appropriate fair value model and calculating the fair value of share-based payment awards require the input of highly subjective assumptions, including the expected life of the share-based payment awards and stock price volatility. The assumptions used in calculating the fair value of share-based payment 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 stock-based compensation expense could be materially different in the future. In addition, we are required to estimate the expected forfeiture rate and only recognize expense for those shares expected to vest. If our actual forfeiture rate is materially different from our estimate, the stock-based compensation expense could be significantly different from what we have recorded in the current period. See Note 11 of our notes to consolidated financial statements for a further discussion on stock-based compensation.

## **Recent Accounting Pronouncements**

In July 2006, the Financial Accounting Standards Board ( FASB ) issued Interpretation No. 48, *Accounting for Uncertainty in Income Taxes* ( FIN 48 ). FIN 48 clarifies the accounting for uncertainty in income taxes recognized in an entity's financial statements in accordance with SFAS No. 109, *Accounting for Income Taxes*, and prescribes a recognition threshold or measurement attribute for financial statement disclosure of tax positions taken or expected to be taken on a tax return requiring that we determine whether it is more likely than not that a tax position will be sustained upon examination by the appropriate taxing authority. Additionally, FIN 48 provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. FIN 48 is effective for fiscal years beginning after December 15, 2006, with early adoption permitted. We have not yet determined the impact of adoption on our consolidated financial statements, if any.

In September 2006, the SEC issued SAB No. 108, *Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements* ( SAB No. 108 ). SAB No. 108 provides interpretive guidance on the consideration of the effects of prior year misstatements in quantifying current year misstatements for the purpose of a materiality assessment. SAB No. 108 permits adjustment for the cumulative effect of errors relating to prior years in the carrying amount of assets and liabilities as of the beginning of the current fiscal year with an offsetting adjustment to the opening balance of retained earnings (accumulated deficit) in the year of adoption. SAB No. 108 further requires the adjustment of any prior quarterly financial statements within the year of adoption for the effects of such errors on the quarters when the information is next presented. Such adjustments do not require reports previously filed with the SEC to be amended. We adopted the provisions of SAB No. 108 as of December 31, 2006. The adoption of SAB No. 108 did not have an effect on our results of financial operations or financial position.



**Table of Contents**

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements* ( SFAS No. 157 ). SFAS No. 157 establishes a framework for reporting fair value and expands disclosures about fair value measurements. We are required to adopt SFAS No. 157 as of January 1, 2008. We have not yet determined the impact of adoption on our consolidated financial statements.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities* ( SFAS No. 159 ). SFAS No. 159 provides companies with the option to measure specified financial instruments and certain other items at fair value. We are required to adopt SFAS No. 159 as of January 1, 2008. We have not yet determined the impact of adoption on our consolidated financial statements.

**Table of Contents****Item 7A. Quantitative and Qualitative Disclosures About Market Risk**

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 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. During the year ended December 31, 2006, there has been no material change with respect to our interest rate and foreign currency exposures or our approach toward those exposures. Further, we do not expect our market risk exposures to change in the near term.

The information below summarizes our market risks associated with debt obligations as of December 31, 2006. Fair value included herein has been estimated taking into consideration the nature and terms of each instrument and the prevailing economic and market conditions at December 31, 2006. The table presents principal payments by year of maturity and related interest rates based on the terms of the debt (in thousands).

	Estimated	Carrying Amount	Year of Maturity		
	Fair Value (2)	December 31, 2006	2007	2011	2012
Long-term debt (1)	\$ 57,617	\$ 75,479	\$ 146	\$ 25,333	\$ 50,000

- (1) Fixed interest rates range from 5.25% to 8%. The above table is based on the assumptions that interest on the senior secured convertible notes issued on October 30, 2006 is paid in cash and that these notes are not converted at maturity (August 30, 2011). In certain circumstances, the notes could be called or converted before then. In addition, the table is based on the assumption that the convertible senior debt issued on January 25, 2005 is not converted on February 1, 2012. In certain circumstances, it could be converted before then. In addition, the note holders of our convertible senior debt can require us to redeem debt at certain dates between 2012 and 2020. If the convertible senior debt is not converted and we are not required to purchase the debt, it matures on February 1, 2025.
- (2) The estimated 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. In addition, the fair value of our convertible senior notes issued on January 25, 2005 was estimated based on trader quotes.

We had cash, cash equivalents, and short-term investments at December 31, 2006 of \$40.1 million, which are exposed to the impact of interest rate changes, and our interest income fluctuates as interest rates change. Due to the short-term nature of our investments in money market funds, corporate debt securities, taxable auction preferreds, and government backed securities, our carrying value approximates the fair value of these investments at December 31, 2006, however, we are subject to investment risk.

We invest our cash, cash equivalents, and short-term investments 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. 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. Our investments are also subject to interest rate risk and will decrease in value if market interest rates increase. However, due to the conservative nature of our investments and relatively short duration, interest rate risk is mitigated. We do not invest in derivative financial instruments. Accordingly, we do not believe that there is any material market risk exposure with respect to derivative or other financial instruments that would require disclosure under this item.

**Table of Contents**

**Item 8.      *Financial Statements and Supplementary Data***

**INDEX TO FINANCIAL STATEMENTS**

<u>Report of Independent Registered Public Accounting Firm</u>	69
<u>Consolidated Balance Sheets as of December 31, 2006 and 2005</u>	70
<u>Consolidated Statements of Operations for the years ended December 31, 2006, 2005 and 2004</u>	71
<u>Consolidated Statements of Stockholders' (Deficit) Equity and Comprehensive Loss for the years ended December 31, 2006, 2005 and 2004</u>	72
<u>Consolidated Statements of Cash Flows for the years ended December 31, 2006, 2005 and 2004</u>	73
<u>Notes to Consolidated Financial Statements</u>	74

**Table of Contents**

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Board of Directors and Stockholders

Antigenics Inc.:

We have audited the accompanying consolidated balance sheets of Antigenics Inc. and subsidiaries as of December 31, 2006 and 2005, and the related consolidated statements of operations, stockholders' (deficit) equity and comprehensive loss, and cash flows for each of the years in the three-year period ended December 31, 2006. 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 Antigenics Inc. and subsidiaries as of December 31, 2006 and 2005, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2006, 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), the effectiveness of Antigenics Inc.'s internal control over financial reporting as of December 31, 2006, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated March 15, 2007 expressed an unqualified opinion on management's assessment of, and the effective operation of, internal control over financial reporting.

As discussed in Note 2(l) to the consolidated financial statements, the Company adopted the provisions of Statement of Financial Accounting Standards No. 123R, *Share-Based Payment*, effective January 1, 2006.

/s/ KPMG LLP

Boston, Massachusetts

March 15, 2007

**Table of Contents****ANTIGENICS INC. AND SUBSIDIARIES****CONSOLIDATED BALANCE SHEETS**

	December 31, 2006	December 31, 2005
<b>ASSETS</b>		
Cash and cash equivalents	\$ 24,218,683	\$ 33,216,876
Short-term investments	15,876,302	28,530,650
Accounts receivable	182,493	45,586
Inventories	438,644	251,053
Prepaid expenses	1,307,648	1,665,308
Restricted cash		2,961,266
Other current assets	274,652	291,127
Total current assets	42,298,422	66,961,866
Plant and equipment, net of accumulated amortization and depreciation of \$18,610,317 and \$14,769,426 at December 31, 2006 and 2005, respectively	18,618,632	23,350,246
Goodwill	2,572,203	2,572,203
Core and developed technology, net of accumulated amortization of \$6,431,318 and \$5,324,055 at December 31, 2006 and 2005, respectively	4,641,311	5,748,574
Restricted cash		21,912
Debt issuance costs, net of accumulated amortization of \$470,213 and \$210,686 at December 31, 2006 and 2005, respectively	1,623,570	1,782,056
Other long-term assets	3,197,403	3,713,760
Total assets	\$ 72,951,541	\$ 104,150,617
<b>LIABILITIES AND STOCKHOLDERS (DEFICIT) EQUITY</b>		
Current portion, long-term debt	\$ 146,061	\$ 4,125,913
Accounts payable	1,089,567	2,590,016
Accrued liabilities	7,586,378	12,291,085
Other current liabilities	255,735	138,367
Total current liabilities	9,077,741	19,145,381
Long-term debt, less current portion		43,823
Convertible senior notes	75,333,333	50,000,000
Other long-term liabilities	5,933,935	3,062,392
Commitments and contingencies		
<b>STOCKHOLDERS (DEFICIT) EQUITY</b>		
Preferred stock, par value \$0.01 per share; 25,000,000 shares authorized Series A convertible preferred stock; 31,620 shares designated, issued and outstanding at December 31, 2006 and 2005, respectively; liquidation value of \$31,817,625 at December 31, 2006	316	316
Common stock, par value \$0.01 per share; 100,000,000 shares authorized; 45,843,751 and 45,591,216 shares issued and outstanding at December 31, 2006 and 2005, respectively	458,438	455,912
Additional paid-in capital	444,013,527	441,497,317
Deferred compensation		(3,074)
Accumulated other comprehensive loss	(21,853)	(88,103)
Accumulated deficit	(461,843,896)	(409,963,347)
Total stockholders (deficit) equity	(17,393,468)	31,899,021
Total liabilities and stockholders (deficit) equity	\$ 72,951,541	\$ 104,150,617

See accompanying notes to consolidated financial statements.

**Table of Contents****ANTIGENICS INC. AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF OPERATIONS****For the Years Ended December 31, 2006, 2005 and 2004**

	<b>2006</b>	<b>2005</b>	<b>2004</b>
Revenue	\$ 692,135	\$ 629,978	\$ 707,073
Operating expenses:			
Cost of sales			(4,799)
Research and development	(28,643,510)	(47,079,493)	(41,717,626)
General and administrative	(21,287,599)	(25,868,142)	(25,784,360)
Acquired in-process research and development			(2,888,000)
Restructuring costs	(1,374,293)	(1,596,200)	
Operating loss	(50,613,267)	(73,913,857)	(69,687,712)
Other income (expense):			
Non-operating income	141,329	1,000	7,654
Interest expense	(3,288,660)	(2,963,496)	(530,880)
Interest income	1,880,049	2,772,799	1,459,976
Loss from continuing operations	(51,880,549)	(74,103,554)	(68,750,962)
Income from discontinued operations, net of tax of \$617,145 in 2004 (including gain on disposal of \$14,132,028 in 2004)			12,589,237
Net loss	(51,880,549)	(74,103,554)	(56,161,725)
Dividends on series A convertible preferred stock	(790,500)	(790,500)	(790,500)
Net loss attributable to common stockholders	\$ (52,671,049)	\$ (74,894,054)	\$ (56,952,225)
Per common share data, basic and diluted:			
Loss from continuing operations	\$ (1.15)	\$ (1.64)	\$ (1.56)
Income from discontinued operations	\$	\$	\$ 0.28
Net loss attributable to common stockholders	\$ (1.15)	\$ (1.64)	\$ (1.27)
Weighted average number of common shares outstanding, basic and diluted	45,809,142	45,577,344	44,685,023

See accompanying notes to consolidated financial statements.

**Table of Contents****ANTIGENICS INC. AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF STOCKHOLDERS (DEFICIT) EQUITY AND COMPREHENSIVE LOSS****For the Years Ended December 31, 2006, 2005 and 2004**

	Series A Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Deferred Compensation	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total
	Number of Shares	Par Value	Number of Shares	Par Value					
Balance at January 1, 2004	31,620	\$ 316	39,522,699	\$ 395,227	\$ 384,457,556	\$ (72,081)	\$ 162,802	\$ (279,698,068)	\$ 105,245,752
Comprehensive loss:									
Net loss								(56,161,725)	(56,161,725)
Unrealized loss on marketable securities, net							(310,179)		(310,179)
Comprehensive loss									\$ (56,471,904)
Grant and recognition of stock options					1,221,450	44,947			1,266,397
Exercise of stock options			248,706	2,487	876,426				878,913
Issuance of common stock in follow-on offering in February 2004 at \$10.50 per share (net of issuance costs of \$3,179,516)			5,400,000	54,000	53,466,484				53,520,484
Employee stock purchases			14,607	146	106,046				106,192
Dividend on series A convertible preferred stock (\$25 per share)					(790,500)				(790,500)
Issuance of stock in asset acquisition			350,000	3,500	2,684,500				2,688,000
Balance at December 31, 2004	31,620	316	45,536,012	455,360	442,021,962	(27,134)	(147,377)	(335,859,793)	106,443,334
Comprehensive loss:									
Net loss								(74,103,554)	(74,103,554)
Unrealized gain on marketable securities, net							59,274		59,274
Comprehensive loss									\$ (74,044,280)
Grant and recognition of stock options					(60,889)	24,060			(36,829)
Employee stock purchases			55,204	552	326,744				327,296
Dividend on series A convertible preferred stock (\$25 per share)					(790,500)				(790,500)
Balance at December 31, 2005	31,620	316	45,591,216	455,912	441,497,317	(3,074)	(88,103)	(409,963,347)	31,899,021
Comprehensive loss:									
Net loss								(51,880,549)	(51,880,549)
Unrealized gain on marketable securities, net							66,250		66,250
Comprehensive loss									\$ (51,814,299)
Grant and recognition of stock options					4,568,473	3,074			4,571,547



# Edgar Filing: ANTIGENICS INC /DE/ - Form 10-K

Reclassification of unearned stock-based compensation upon adoption of SFAS 123R			(1,728,537)	(1,728,537)
Exercise of stock options	185,660	1,857	270,252	272,109
Employee stock purchases	66,875	669	196,522	197,191
Dividend on series A convertible preferred stock (\$25 per share)			(790,500)	(790,500)

Balance at December 31, 2006	31,620	\$ 316	45,843,751	\$ 458,438	\$ 444,013,527	\$	\$ (21,853)	\$ (461,843,896)	\$ (17,393,468)
------------------------------	--------	--------	------------	------------	----------------	----	-------------	------------------	-----------------

See accompanying notes to consolidated financial statements.

**Table of Contents****ANTIGENICS INC. AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CASH FLOWS****For the Years Ended December 31, 2006, 2005 and 2004**

	2006	2005	2004
Cash flows from operating activities:			
Net loss	\$ (51,880,549)	\$ (74,103,554)	\$ (56,161,725)
Loss from discontinued operations			(925,646)
Gain on disposal of discontinued operations			13,514,883
Loss from continuing operations	(51,880,549)	(74,103,554)	(68,750,962)
Adjustments to reconcile loss from continuing operations to net cash used in continuing operations:			
Depreciation and amortization	5,655,595	5,593,661	4,809,663
Acquired in-process research and development			2,688,000
Non-cash stock compensation	3,036,211	(36,829)	1,266,397
Non-cash interest payment	333,333		
Write-down of plant and equipment	695,894	243,225	67,495
Loss on disposal of equipment	37,900	22,068	78,737
Asset impairment	805,861		
Changes in operating assets and liabilities:			
Accounts receivable	(136,907)	30,045	(34,007)
Inventories	(187,591)	(81,310)	58,154
Prepaid expenses	357,660	259,743	(25,493)
Accounts payable	(1,500,449)	(333,874)	(255,677)
Accrued liabilities and other current liabilities	(4,780,540)	1,559,217	(498,476)
Other operating assets and liabilities	2,624,512	521,816	322,657
Net cash used in continuing operations	(44,939,070)	(66,325,792)	(60,273,512)
Net cash provided by discontinued operations			48,599
Net cash used in operating activities	(44,939,070)	(66,325,792)	(60,224,913)
Cash flows from investing activities:			
Proceeds from maturities of available-for-sale securities	21,100,000	143,409,815	126,054,000
Purchases of available-for-sale securities	(8,114,749)	(100,940,028)	(133,743,995)
Investment in AGTC	(285,000)	(300,000)	(375,000)
Distribution from AGTC		123,169	
Purchases of plant and equipment	(329,893)	(2,660,296)	(3,970,043)
Proceeds from sale of equipment	33,257		18,000
Proceeds from divestiture of assets			12,552,011
Decrease in restricted cash	2,983,178	2,138,505	3,399,366
Net cash provided by investing activities	15,386,793	41,771,165	3,934,339
Cash flows from financing activities:			
Net proceeds from sale of equity			53,631,418
Proceeds from exercise of stock options	272,109		878,913
Proceeds from employee stock purchases	197,191	327,296	106,192
Payments of series A convertible preferred stock dividend	(790,500)	(790,500)	(817,015)
Proceeds from long-term debt	25,000,000	50,000,000	
Debt issuance costs	(101,041)	(1,992,742)	

# Edgar Filing: ANTIGENICS INC /DE/ - Form 10-K

Payments of long-term debt	(4,023,675)	(5,752,265)	(5,945,531)
Net cash provided by financing activities	20,554,084	41,791,789	47,853,977
Net (decrease) increase in cash and cash equivalents	(8,998,193)	17,237,162	(8,436,597)
Cash and cash equivalents, beginning of year	33,216,876	15,979,714	24,416,311
Cash and cash equivalents, end of year	\$ 24,218,683	\$ 33,216,876	\$ 15,979,714
Supplemental cash flow information:			
Cash paid for interest	\$ 2,690,467	\$ 1,650,569	\$ 579,199
Cash paid for income taxes	\$	\$ 96,969	\$
Non-cash investing and financing activities:			
Issuance of equity for acquired in-process research and development	\$	\$	\$ 2,688,000
Issuance of senior secured convertible notes as payment in-kind for interest	\$ 333,333	\$	\$

See accompanying notes to consolidated financial statements.

## **Table of Contents**

### **ANTIGENICS INC. AND SUBSIDIARIES**

#### **NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

##### **(1) Organization and Business**

The business was formed on March 31, 1994 through the creation of a Delaware corporation (Founder Holdings Inc.). In July 1995, the founders of Founder Holdings Inc. formed Antigenics Inc., formerly Antigenics LLC ( Antigenics or the Company ), a Delaware limited liability company, and subsequently transferred to the Company all of the assets, liabilities, properties and rights of the Delaware corporation in exchange for an initial 81.5% equity interest in the Company. The accounting for this recapitalization was recorded at Founder Holdings Inc.'s historical cost.

Since the reorganization in 1995, Founder Holdings Inc. has directly or indirectly (through Antigenics Holdings LLC) owned a significant portion of our common stock. As of December 31, 2006, Founder Holdings Inc. owns approximately 79% of Antigenics Holdings LLC that in turn owns approximately 24% of our outstanding common stock. As of December 31, 2006, Founder Holdings Inc. had no direct ownership of our common stock. Certain of our board members and executive officers own significant interests in these related parties.

We are a biotechnology company developing technologies and products to treat cancers and infectious diseases, primarily based on immunological approaches. Our most advanced product candidate is Oncophage® (vitespen; formerly HSPPC-96), a personalized therapeutic cancer vaccine candidate that has been tested, or is currently being tested, in several cancer indications, including in Phase 3 clinical trials for the treatment of renal cell carcinoma, the most common type of kidney cancer, and for metastatic melanoma. Oncophage is also being tested in Phase 2 and Phase 1 clinical trials in a range of indications. Our product candidate portfolio also includes (1) QS-21, an adjuvant used in numerous vaccines including, but not limited to, hepatitis, lyme disease, human immunodeficiency virus ( HIV ), influenza, cancer, Alzheimer's disease, and malaria, (2) AG-707, a therapeutic vaccine program in a Phase 1 clinical trial for the treatment of genital herpes, and (3) Aroplatin, a liposomal chemotherapeutic in a Phase 1 clinical trial for the treatment of solid tumors and non-Hodgkin's lymphoma ( NHL ). Our related business activities include research and development, regulatory and clinical affairs, clinical manufacturing, business development, marketing, and administrative functions that support these activities.

On March 24, 2006, we announced top-line results from part I of our Phase 3 study of Oncophage in renal cell carcinoma patients who are at high risk of recurrence after surgery, and such results indicated that the trial did not meet its primary endpoint. The analysis was triggered based on the number of events (defined as recurrence of disease or death of a patient prior to recurrence) reported by study investigators. However, an independent review by the trial's Clinical Events Committee revealed that substantially fewer events had actually occurred. The analysis showed a trend in favor of Oncophage for recurrence-free survival (the study's primary endpoint), and a trend against Oncophage for overall survival (a secondary endpoint); neither finding was statistically significant. The analysis of the overall survival endpoint is considered an interim assessment. It was unclear why opposing trends were observed between recurrence-free survival and overall survival. Importantly, there was no readily apparent adverse safety signal associated with the vaccine that we believe could be contributing to this finding.

Based on these results, in April 2006, we implemented a restructuring plan that refocused our programs and priorities resulting in the temporary discontinuation of all late-stage clinical programs and concentration on Phase 1 and preclinical programs, including those stated above for Aroplatin and AG-707, and AU-801, a novel preclinical application of our proprietary heat shock protein technology as a treatment for autoimmune disorders. In addition, we terminated part II of the Phase 3 renal cell carcinoma trial and our Phase 2 trial of AG-858 for the treatment of chronic myelogenous leukemia. A combination study of Oncophage and ATRA-IV, a liposomal intravenous formulation of all-*trans*-retinoic acid, is also on hold. We continue to support and develop our QS-21 partnering collaborations, with the goal of generating royalties from this product in the 2010 timeframe. To

## **Table of Contents**

match these priorities, we eliminated 42 positions in April 2006. In September 2006, we temporarily discontinued activities related to AU-801.

On June 5, 2006, we announced the updated results from our Phase 3 trial of Oncophage in metastatic melanoma, and on June 7, 2006, we announced the results of an in-depth analysis of the data from part I of our Phase 3 trial of Oncophage in renal cell carcinoma. Based on these results, we decided to continue to collect survival data for our Phase 3 trial of Oncophage in renal cell carcinoma before making a decision regarding future pivotal clinical trials or seeking registration of Oncophage.

On October 30, 2006, we sold \$25.0 million of senior secured convertible notes ( 2006 Notes ) to a group of accredited investors. The proceeds have been received in full. These 2006 Notes are convertible into our common stock at an initial fixed conversion price of \$3.50 per share at the option of the investors. Alternatively, the 2006 Notes can be converted into an interest in one of our wholly owned subsidiaries that holds the rights or patents to QS-21 and AG-707. The 2006 Notes bear interest at 8% (an effective rate of 8.10%) payable semiannually on December 30 and June 30 in cash or, at our option, in additional notes or a combination thereof and mature on August 30, 2011. For further information, refer to Note 15 to our consolidated financial statements.

We have incurred annual operating losses since inception and, as a result, we have an accumulated deficit of \$461.8 million at December 31, 2006. Our operations have been funded principally by sales of equity and convertible debt instruments. We believe that our working capital resources at December 31, 2006 are sufficient to satisfy our liquidity requirements into 2008. Satisfying our long-term liquidity needs may require the successful commercialization of product candidates and will require additional capital.

Our lead product candidates require clinical trials and approvals from regulatory agencies as well as acceptance in the marketplace. We are conducting clinical trials in various cancers and in one infectious disease indication. Although we believe our patents, patent rights, and patent applications are valid, the invalidation of our patents or failure of certain of our pending patent applications to issue as patents could have a material adverse effect upon our business. Part of our strategy is to develop and commercialize some of our product candidates by continuing our existing collaborative arrangements with academic and corporate collaborators and licensees and by entering into new collaborations. Our success depends, in part, on the success of these parties in performing research and preclinical and clinical testing. We compete with specialized biotechnology companies, major pharmaceutical companies, universities, and research institutions. Many of these competitors have substantially greater resources than we do.

## **(2) Summary of Significant Accounting Policies**

### ***(a) Basis of Presentation and Principles of Consolidation***

The consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles and include the accounts of Antigenics and our wholly owned subsidiaries. All 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 Statement of Financial Accounting Standards ( SFAS ) No. 131, *Disclosures about Segments of an Enterprise and Related Information*.

### ***(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

## **Table of Contents**

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. As of December 31, 2006 and 2005, cash equivalents consist primarily of money market funds.

### ***(e) Investments***

We classify investments in marketable securities at the time of purchase. At December 31, 2006 and 2005, all marketable securities are classified as available-for-sale and as such, the investments are recorded at fair value with changes in fair value reported as a component of accumulated other comprehensive loss. Gains and losses on the sale of marketable securities are recognized in operations based on the specific identification method.

Investments of less than 20% of the voting control of companies or other entities over whose operating and financial policies we do not have the power to exercise significant influence are accounted for by the cost method. We record our investment at cost and recognize dividends received as income. The carrying values of investments are periodically reviewed to determine whether any decline in value is other than temporary. Other than temporary declines in the value of available-for-sale securities and other investments are charged to operations.

### ***(f) Concentrations of Credit Risk***

Financial instruments that potentially subject us to concentrations of credit risk are primarily cash and cash equivalents, marketable securities, and accounts receivable. We invest our cash and cash equivalents 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. Credit risk on accounts receivable is minimized by the financial position of the entities with which we do business. Credit losses from our customers have been immaterial.

### ***(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.

### ***(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.

As of December 31, 2006, we have capitalized software costs of \$2.6 million, including \$581,000 of internal costs, in accordance with Statement of Position 98-1, *Accounting for the Costs of Computer Software Developed or Obtained for Internal Use*, related to the implementation of new enterprise resource planning and related software to manage certain business processes.

## **Table of Contents**

### ***(i) Fair Value of Financial Instruments***

The fair value of a financial instrument represents the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced sale or liquidation. Significant differences can arise between the fair value and carrying amounts of financial instruments that are recognized at historical cost amounts. 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 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. In addition, the fair value of our convertible senior notes was estimated based on trader quotes. The carrying amount of debt, including current portions, is \$75.5 million and \$54.2 million at December 31, 2006 and 2005, respectively, and the fair value is estimated to be \$57.6 million and \$32.9 million at December 31, 2006 and 2005, respectively.

### ***(j) Revenue Recognition***

Revenue from product sales is recognized at the time of product shipment. Revenue for services under research and development grants and 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 are recognized as they are earned. For the year ended December 31, 2006, one research partner represented 89% of our research and development revenue, while for the year ended December 31, 2005, two research partners represented 55% and 43% of our research and development revenue, and for the year ended December 31, 2004, two research partners represented 67% and 25% of our research and development revenue.

### ***(k) Research and Development***

Research and development expenses include the costs associated with our internal research and development activities, including salaries and benefits, 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 all expenses related to any grant revenue recognized, as well as the cost of clinical trial materials shipped to our research partners. Research and development costs are expensed as incurred.

### ***(l) Stock-Based Compensation***

Effective January 1, 2006, we adopted the fair value recognition provisions of SFAS No. 123R, *Share-Based Payment* ( SFAS No. 123R ), using the modified prospective transition method, and therefore have not restated prior periods' results. Our results of operations for the year ended December 31, 2006 were impacted by the recognition of non-cash expense related to the fair value of our stock-based compensation awards. During the year ended December 31, 2006, we recorded a net charge of \$3.0 million related to stock-based compensation, of which a credit of \$74,000 is included in research and development expense and a charge of \$3.1 million is included in general and administrative expense. Stock-based compensation expense for the year ended December 31, 2006 includes compensation expense for all stock-based options granted prior to, but not yet vested as of January 1, 2006, based on the grant date value estimated in accordance with the original provision of SFAS No. 123, *Accounting for Stock-Based Compensation* ( SFAS No. 123 ). In addition, stock-based compensation expense for the year ended December 31, 2006 includes compensation expense for all stock-based options granted, modified, or settled after January 1, 2006, based on the grant date fair value estimated in accordance with the provisions of SFAS No. 123R. Under the fair value recognition provisions of SFAS No. 123R, we recognize stock-based compensation net of an estimated forfeiture rate and only recognize compensation cost for those shares expected to vest. Compensation cost is recognized on a straight-line prorated basis over the requisite service period of the award. In March 2005, the Securities and Exchange Commission ( SEC ) issued Staff Accounting Bulletin ( SAB ) No. 107, *Share-Based Payment* ( SAB No. 107 ), which contained the

## **Table of Contents**

SEC's guidance on SFAS No. 123R and the valuation of share-based payments for public companies. We have applied the provisions of SAB No. 107 in the adoption of SFAS No. 123R. The effect of adoption of SFAS No. 123R for the year ended December 31, 2006 related to stock options was additional non-cash expenses of \$3.3 million (\$0.07 per share, basic and diluted). See Note 11 for a further discussion on stock-based compensation.

### ***(m) 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 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.

### ***(n) Net Loss Per Share***

Basic earnings or loss per common share (EPS) is calculated by dividing the applicable earnings or loss by the weighted average number of common shares outstanding and common shares issuable under our directors' deferred compensation plan. Diluted EPS is calculated by dividing the applicable earnings or loss by the weighted average common shares outstanding plus the dilutive effect of outstanding stock options, stock warrants, the series A convertible preferred stock, the 5.25% convertible senior notes due 2025, and the 8% senior secured convertible notes due 2011. Because we have reported a net loss attributable to common stockholders for all periods, diluted loss per common share is the same as basic loss per common share as the effect of including the outstanding stock options, stock warrants, the Series A convertible preferred stock, the 5.25% convertible senior notes due 2025, and the 8% senior secured convertible notes due 2011 in the calculation would have reduced the net loss per common share. Therefore, the 5,966,000 outstanding stock options and nonvested shares, the 8,910 outstanding stock warrants, the 31,620 outstanding shares of series A convertible preferred stock, the 5.25% convertible senior notes due 2025, and the 8% senior secured convertible notes due 2011 are not included in the calculation of diluted net loss per common share.

### ***(o) Goodwill and Acquired Intangible Assets***

Goodwill represents the excess of cost over the fair value of net assets of businesses acquired. In accordance with SFAS No. 142, *Goodwill and Other Intangible Assets* (SFAS No. 142), goodwill and acquired intangible assets determined to have an indefinite useful life are not amortized, but instead tested for impairment at least annually. SFAS No. 142 also requires that intangible assets with estimable useful lives be amortized over their respective estimated useful lives to their estimated residual values, and reviewed for impairment in accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets* (SFAS No. 144).

SFAS No. 142 requires us to assess annually 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 on October 31 of each year. We consider ourselves a single reporting unit for purposes of the impairment test. We determine our fair value using the quoted market price of our common stock, adjusted for certain factors, and compare it to our net book value at the date of our evaluation. To the extent our net book value exceeds the fair value, there is an indication that the reporting unit goodwill may be impaired and a second step of the impairment test is performed to determine the amount of the impairment to be recognized, if any.

The costs of core and developed technology are presented at estimated fair value at acquisition date. These costs are being amortized on a straight-line basis over their estimated useful lives of 10 years.



## **Table of Contents**

### ***(p) Accounting for Asset Retirement Obligations***

We account for asset retirement obligations in accordance with SFAS No. 143, *Accounting for Asset Retirement Obligations* ( SFAS No. 143 ). SFAS No. 143 requires us to 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 will be charged to the consolidated statement of operations, whereas changes due to the timing or amount of cash flows will be an adjustment to the carrying amount of the related asset. Our asset retirement obligations primarily relate to the expiration of our facility leases and anticipated costs to be incurred based on our lease terms.

### ***(q) Long-lived Assets***

SFAS No. 144 requires that long-lived assets, except goodwill and intangible assets not being amortized, be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to 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. SFAS No. 144 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.

### ***(r) Liquidity***

We have not generated significant revenue from product sales and have financed our operations principally by sales of equity and convertible debt instruments. Satisfying long-term liquidity needs will require us to raise additional funds in the capital markets, through arrangements with corporate partners, or from other sources. Additional financing, however, may not be available on favorable terms or at all. If we are unable to raise additional funds when we need them, we will be required to delay, reduce, or eliminate some or all of our development programs and some or all of our clinical trials, including the development programs and clinical trials supporting our most advanced product candidate, Oncophage. We also may be forced to license technologies to others under agreements that allocate to third parties substantial portions of the potential value of these technologies.

We believe, based on our current plans and activities, that our working capital resources at December 31, 2006, along with the estimated proceeds from our license, supply, and collaborative agreements will be sufficient to satisfy our liquidity requirements into 2008. However, we plan to attempt to raise additional funds prior to that time.

### ***(s) Recent Accounting Pronouncements***

In July 2006, the Financial Accounting Standards Board ( FASB ) issued Interpretation No. 48, *Accounting for Uncertainty in Income Taxes* ( FIN 48 ). FIN 48 clarifies the accounting for uncertainty in income taxes recognized in an entity's financial statements in accordance with SFAS No. 109, *Accounting for Income Taxes*, and prescribes a recognition threshold or measurement attribute for financial statement disclosure of tax positions taken or expected to be taken on a tax return requiring that we determine whether it is more likely than not that a tax position will be sustained upon examination by the appropriate taxing authority. Additionally, FIN 48 provides guidance on

**Table of Contents**

derecognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition. FIN 48 is effective for fiscal years beginning after December 15, 2006, with early adoption permitted. We have not yet determined the impact of adoption on our consolidated financial statements, if any.

In September 2006, the SEC issued SAB No. 108, *Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements* ( SAB No. 108 ). SAB No. 108 provides interpretive guidance on the consideration of the effects of prior year misstatements in quantifying current year misstatements for the purpose of a materiality assessment. SAB No. 108 permits adjustment for the cumulative effect of errors relating to prior years in the carrying amount of assets and liabilities as of the beginning of the current fiscal year with an offsetting adjustment to the opening balance of retained earnings (accumulated deficit) in the year of adoption. SAB No. 108 further requires the adjustment of any prior quarterly financial statements within the year of adoption for the effects of such errors on the quarters when the information is next presented. Such adjustments do not require reports previously filed with the SEC to be amended. We adopted the provisions of SAB No. 108 as of December 31, 2006. The adoption of SAB No. 108 did not have an effect on our results of financial operations or financial position.

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements* ( SFAS No. 157 ). SFAS No. 157 establishes a framework for reporting fair value and expands disclosures about fair value measurements. We are required to adopt SFAS No. 157 as of January 1, 2008. We have not yet determined the impact of adoption on our consolidated financial statements.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities* ( SFAS No. 159 ). SFAS No. 159 provides companies with the option to measure specified financial instruments and certain other items at fair value. We are required to adopt SFAS No. 159 as of January 1, 2008. We have not yet determined the impact of adoption on our consolidated financial statements.

**(3) Discontinued Operations**

On March 17, 2004, we sold our manufacturing rights for feline leukemia virus (FeLV) vaccine to French veterinary pharmaceutical manufacturer Virbac S.A. (Virbac). Pursuant to this arrangement, in exchange for the transfer of our manufacturing rights and related equipment for FeLV, we received \$14.6 million in cash. In addition, we entered into a sublease agreement with PP Manufacturing, a subsidiary of Virbac, for a portion of the manufacturing facility in Framingham, MA.

In April 2004, upon the satisfaction of a contingency of the sale, in accordance with SFAS No. 144, we recorded a gain on the divestiture of these assets. The gain recorded in 2004 was \$14.1 million before tax. The carrying value of the assets sold and liabilities assumed were \$409,000 and \$15,000, respectively. In addition, we have classified the results of operations of the FeLV activity as discontinued operations in the accompanying consolidated financial statements. The loss from the results of the discontinued operations consists of the following (in thousands).

	<b>Year Ended</b>
	<b>December 31, 2004</b>
Revenue	\$ 338
Expenses:	
Cost of sales	594
Research and development	193
General and administrative	477
Net loss from discontinued operations	\$ (926)

## Table of Contents

Virbac has held exclusive perpetual worldwide marketing rights to the FeLV vaccine since 1983. The supply agreement was due for renewal in July 2002, at which point we began to supply product to Virbac through month-to-month supply agreements until the sale of our FeLV manufacturing rights to them in March 2004. Subsequent to the completion of the sale, we had no further product sales of the FeLV vaccine.

### (4) Inventories

Inventories are stated at cost using the first-in, first-out method. The components of inventories are as follows (in thousands).

	December 31, 2006	December 31, 2005
Work in process	\$ 344	\$
Finished goods	95	251
	\$ 439	\$ 251

### (5) Investments

#### Cash Equivalents and Short-term Investments

Our unrealized holding gains and losses in available-for-sale securities are as follows at December 31, 2006 and 2005 (in thousands).

	2006 Unrealized	2005 Unrealized
	Holding Gains Losses	Holding Gains Losses
Government backed securities	\$ 22	\$ 88

Available-for-sale securities consisted of the following at December 31, 2006 and 2005 (in thousands).

	2006 Estimated	2005 Estimated
	Cost Fair Value	Cost Fair Value
Institutional money market funds	\$ 16,929 \$ 16,929	\$ 20,253 \$ 20,253
Corporate debt securities		999 999
Auction rate securities	11,625 11,625	15,300 15,300
Government backed securities	11,586 11,564	24,246 24,158
	\$ 40,140 \$ 40,118	\$ 60,798 \$ 60,710

Proceeds from maturities of available-for-sale securities amounted to \$21.1 million, \$143.4 million, and \$126.1 million for the years ended December 31, 2006, 2005, and 2004, respectively. No available-for-sale securities were sold before their maturity in 2006, 2005, or 2004. Gross realized gains and gross realized losses included in net loss as a result of those maturities were immaterial for each of the years ended December 31, 2006, 2005, and 2004, respectively. The change in net unrealized holding gains (losses) included in comprehensive loss amounted to \$66,000, \$59,000, and \$(310,000) for the years ended December 31, 2006, 2005, and 2004, respectively.

## Edgar Filing: ANTIGENICS INC /DE/ - Form 10-K

Of the available-for-sale securities listed above \$24.5 million and \$32.2 million have been classified as cash and cash equivalents on our consolidated balance sheet at December 31, 2006 and 2005, respectively. Approximately \$15.9 million and \$28.5 million have been classified as short-term investments at December 31, 2006 and 2005, respectively.

The contractual maturities of available-for-sale securities at December 31, 2006 are approximately \$28.5 million in 2007, and \$11.6 million between 2025 and 2045. Securities with contractual maturities between 2025 and 2045 are auction rate securities and similar instruments and are classified as short-term investments, as we have the intent and ability to sell these securities as needed.

**Table of Contents****Long-term Investments**

On May 18, 2000, we committed \$3.0 million to become a limited partner in a limited partnership called Applied Genomic Technology Capital Fund ( AGTC ), which invests principally in companies that apply genomic technologies and information in their offerings of products and services or that are engaged in research and development involving genomic technologies. Capital contributions to the limited partnership are made as requested by the general partner. Through December 31, 2006, we have invested approximately \$2.8 million in AGTC (approximately \$2.6 million through December 31, 2005). In addition, during the year ended December 31, 2005, we received a cash distribution from AGTC of \$123,000, which was recorded as a reduction in the carrying value of our investment. This investment is accounted for under the cost method, as our ownership interest is approximately 2%.

In order to assess whether or not there has been an other than temporary decline in the value of this investment, we analyze several factors, including: (1) the carrying value of the limited partnership's investments in its portfolio companies, (2) how recently the investments in the portfolio companies have been made, (3) the post-financing valuations of those investments, (4) the level of uninvested capital held by the limited partnership, and (5) overall trends in venture capital valuations. In addition, we entered into a formal plan in December 2006 to sell our limited partner interest in AGTC, identified potential buyers, and received offers. As a result, we concluded that an other than temporary decline in the value of this investment had occurred as of December 31, 2006 and we reduced the carrying value (the cost of our investment in this partnership) by \$806,000 to \$1.5 million at December 31, 2006. This impairment charge is included in general and administrative expense. During the year ended December 31, 2004, we concluded that an other than temporary decline in the value of this investment had occurred and reduced the carrying value by \$67,000.

Our investment balance aggregated \$1.5 million and \$2.0 million at December 31, 2006 and 2005, respectively, and is included in other long-term assets. The difference between the total amount invested and the carrying value is the result of distributions and other than temporary impairment charges.

On January 9, 2007, we contributed the final capital call of \$165,000 to AGTC, and on February 2, 2007, we completed the sale of our limited partner interest in AGTC to an accredited investor and received \$1.7 million. No gain or loss was realized on this sale.

The general partner of the limited partnership is AGTC Partners, L.P. The management company for AGTC is NewcoGen Group Inc., which is a wholly owned subsidiary of Flagship Ventures Management, Inc. ( Flagship ). Noubar Afeyan, Ph.D., who is one of our directors, is Managing Partner and Chief Executive Officer of Flagship. In addition, Garo H. Armen, Ph.D., our Chairman and Chief Executive Officer, was a director of NewcoGen Group Inc. until 2004.

**(6) Plant and Equipment, Net**

Plant and equipment, net at December 31, 2006 and 2005 consists of the following (in thousands).

			Estimated
			Depreciable
	2006	2005	Lives
Furniture, fixtures, and other	\$ 1,635	\$ 1,746	3 to 10 years
Laboratory and manufacturing equipment	6,905	6,972	4 to 10 years
Leasehold improvements	22,445	23,120	2 to 12 years
Software and computer equipment	6,023	6,281	3 years
Construction in progress	221		
	37,229	38,119	
Less accumulated depreciation and amortization	(18,610)	(14,769)	
	\$ 18,619	\$ 23,350	



**Table of Contents**

Plant and equipment, net that was retired and removed from the accounts aggregated \$668,000 and \$22,000 for the years ended December 31, 2006 and 2005, respectively.

**(7) Other Intangible Assets**

The following table presents certain information on our intangible assets as of December 31, 2006 and 2005 (in thousands).

	Weighted	As of December 31, 2006			As of December 31, 2005		
	Average	Gross	Net		Gross	Net	
	Amortization	Carrying	Accumulated	Carrying	Carrying	Accumulated	Carrying
	Period	Amount	Amortization	Amount	Amount	Amortization	Amount

**Amortizing intangible assets:**

Core and developed technology	10 years	\$ 11,073	\$ 6,432	\$ 4,641	\$ 11,073	\$ 5,324	\$ 5,749
-------------------------------	----------	-----------	----------	----------	-----------	----------	----------

Our intangible assets are being amortized over their estimated useful lives of 10 years, with no estimated residual values. Amortization expense related to core and developed technology amounted to \$1.1 million for each of the years 2006, 2005, and 2004. Amortization expense is estimated at \$1.1 million for each of the years 2007 through 2010 and \$265,000 thereafter.

**(8) Income Taxes**

As of December 31, 2006, we have available net operating loss carryforwards of approximately \$422.0 million and \$300.2 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 2008 and 2026, and 2007 and 2026, respectively. These net operating loss carryforwards include \$80.8 million for federal income tax purposes that was acquired in our mergers. Our ability to use such net operating losses is limited by change of control provisions under Internal Revenue Code Section 382 and may expire unused. In addition, we have \$8.2 million and \$5.6 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 2020 and 2026, and 2015 and 2021, respectively. 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, 2006 and 2005 are presented below (in thousands).

	2006	2005
Deferred tax assets:		
Net operating loss carryforwards	\$ 161,388	\$ 144,734
Research and development tax credit	11,908	11,479
Other	6,574	4,972
Total deferred tax assets	179,870	161,185
Less: valuation allowance	(178,289)	(159,256)
Net deferred tax assets	1,581	1,929
Deferred tax liabilities	(1,581)	(1,929)
Net deferred tax	\$	\$

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





**Table of Contents**

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 \$19.0 million during the year ended December 31, 2006 and increased by \$33.9 million during the year ended December 31, 2005. The valuation allowance 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. Of the deferred tax assets related to the federal net operating loss carryforwards, \$27.5 million at December 31, 2006 relates to net operating loss carryforwards acquired in our mergers. If adjustments are made to the valuation allowance related to these net operating loss carryforwards, such adjustment will result in reductions to our goodwill and other acquired intangible assets. In 2004, due to the gain realized on our sale of the manufacturing rights to the FeLV vaccine in March 2004, and the use of acquired state net operating loss carryforwards to reduce the estimated taxable gain, we reduced goodwill by \$509,000 representing the tax benefit realized as the associated deferred tax asset had a 100% valuation allowance recorded against it at acquisition.

Income tax benefit attributable to loss from continuing operations was nil for each of the years ended December 31, 2006, 2005, and 2004, 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).

	2006	2005	2004
Computed expected federal tax benefit	\$ (17,639)	\$ (25,195)	\$ (23,375)
(Increase) reduction in income taxes benefit resulting from:			
Change in valuation allowance	19,033	33,923	19,672
State and local income benefit, net of Federal income tax benefit	(3,082)	(4,402)	(4,083)
Other, net	1,688	(4,326)	7,786
	\$	\$	\$

**(9) Accrued Liabilities**

Accrued liabilities consist of the following at December 31, 2006 and 2005 (in thousands).

	2006	2005
Clinical trials	\$ 1,879	\$ 2,608
Payroll	1,188	2,886
Professional fees	1,167	2,351
Interest on convertible notes	1,108	1,102
Clinical contractors	764	2,141
Other	1,480	1,203
	\$ 7,586	\$ 12,291

**(10) Equity**

Our authorized capital stock consists of 100,000,000 shares of common stock, \$0.01 par value per share, and 25,000,000 shares of preferred stock, \$0.01 par value per share. Our Board of Directors is authorized to issue the preferred stock and to set the voting, conversion, and other rights.

## **Table of Contents**

As part of the Aronex Pharmaceuticals, Inc. merger in 2001, we assumed warrants to purchase our common stock that are exercisable for approximately 104,000 shares of our common stock with a weighted average exercise price of \$52.94 per share, of which approximately 38,000 expired during 2004, 57,000 expired in 2005, and 9,000 expire in 2007. In addition, we issued warrants to purchase approximately 26,000 shares of our common stock at a weighted average exercise price of \$13.96, which expired during 2005.

In February 2004, we sold 5,400,000 shares of our common stock at an average price of \$10.50 per share. We received net proceeds of approximately \$53.5 million.

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, for proceeds of approximately \$31.6 million, after deducting offering costs of approximately \$14,000. Under the terms and conditions of the Certificate of Designation creating the series A convertible preferred stock, this stock is convertible by the holder at any time into our common stock, is non-voting, carries a 2.5% annual dividend yield, has an initial conversion price of \$15.81 per common share, subject to adjustment, and is redeemable by us at its face amount (\$31.6 million) on or after September 24, 2013. The Certificate of Designation does not contemplate a sinking fund. The series A preferred stock ranks senior to our common stock. In a liquidation, dissolution, or winding up of us, the series A preferred stock's liquidation preference must be fully satisfied before any distribution could be made to the common stock. Other than in such a liquidation, no terms of the series A preferred stock affect our ability to declare or pay dividends on our common stock as long as the series A preferred stock's dividends are accruing. The liquidation value of this series A convertible preferred stock is equal to \$1,000 per share outstanding plus any accrued unpaid dividends. Accrued and unpaid dividends of Series A convertible preferred stock aggregated \$197,625 or \$6.25 per share at December 31, 2006.

### **(11) Stock-based Compensation Plans**

Our 1999 Equity Incentive Plan, as amended (the "1999 Equity Plan"), authorizes awards of incentive stock options within the meaning of Section 422 of the Internal Revenue Code, non-qualified stock options, nonvested (restricted) stock, and unrestricted stock for up to 10,000,000 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, to consultants and directors as defined in the 1999 Equity Plan. The Board of Directors appointed the Compensation Committee to administer the 1999 Equity Plan.

Under the 1999 Employee Stock Purchase Plan (the "1999 ESPP"), employees may purchase shares of common stock at a discount from fair value. There are 300,000 shares of common stock reserved for issuance under the 1999 ESPP. The 1999 ESPP is intended to qualify as an employee stock purchase plan within the meaning of Section 423 of the Internal Revenue Code. Rights to purchase common stock under the 1999 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 will not be less than 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, or a combination of both. The plan terminates on November 15, 2009. From inception through December 31, 2006, 217,000 shares of common stock have been purchased under the plan.

Effective June 11, 2003, our stockholders approved our Director's Deferred Compensation Plan permitting 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. There are 100,000 shares of our common stock reserved for issuance under this plan. As of

## **Table of Contents**

December 31, 2006, no shares have been issued. The plan allows eligible directors to defer all, or a portion, of their cash compensation into a cash account or a stock account. 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 is 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 Global Market. Pursuant to this plan, 97,974 units, each representing a share of our common stock at an average common stock price of \$4.34, were credited to participants stock accounts as of December 31, 2006. The compensation charges for this plan were immaterial for all periods presented.

Stock options granted to non-employees are accounted for based on the fair-value method of accounting in accordance with SFAS No. 123R and Emerging Issues Task Force ( EITF ) Issue No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*. As a result, the non-cash charge to operations for 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.

Certain of our fully vested options granted to non-employees are outside the scope of SFAS No. 123R and are subject to EITF Issue No. 00-19, *Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock*, which requires the stock options held by certain non-employee consultants to be accounted for as liability awards. The fair value of these vested and unexercised awards was estimated using the Black-Scholes option pricing model, and \$1.7 million was reclassified from equity to a current liability as of January 1, 2006. The fair value of the award is remeasured at each financial statement date until the award is settled or expires. During the year ended December 31, 2006, we recorded a non-cash credit of \$1.3 million based on the remeasurement of these options. We also reclassified an additional liability of \$64,000 during the year ended December 31, 2006 based on the vesting of certain of these options. Non-employees exercised stock options to acquire 64,612 shares of common stock at an exercise price of \$1.45 during the year ended December 31, 2006 and the total liability of \$216,000 as of the exercise dates was reclassified to equity. As of December 31, 2006, stock options to acquire approximately 876,000 shares of common stock are held by non-employee consultants and remained unexercised.

Prior to January 1, 2006, we accounted for options granted to employees and directors in accordance with Accounting Principles Board ( APB ) Opinion No. 25, *Accounting for Stock Issued to Employees*, and related interpretations. As such, compensation cost was recorded for stock option grants only if the fair value of the underlying stock exceeded the exercise price of the option at the date of grant, and it was recognized on a straight-line basis over the vesting period.

We provided pro forma disclosure amounts in accordance with SFAS No. 148, *Accounting for Stock-Based Compensation: Transition and Disclosure*, as if the fair value method defined by SFAS No. 123 had been applied to our stock-based compensation plans.

The total compensation related to these plans was a net expense (credit) of \$3.0 million, \$(37,000), and \$1.3 million for the years ended December 31, 2006, 2005, and 2004, respectively.

The following table illustrates the effect on net loss attributable to common stockholders and net loss attributable to common stockholders per common share, basic and diluted, had compensation cost for options granted to employees and directors and sold through our employee stock purchase plan been determined consistent with the fair value method of SFAS No. 123 (in thousands, except per share data).

**Table of Contents**

	<b>Year Ended December 31,</b>	
	<b>2005</b>	<b>2004</b>
Net loss attributable to common stockholders, as reported	\$ (74,894)	\$ (56,952)
Add: Stock-based employee and director compensation recognized under APB Opinion No. 25	50	463
Deduct: total stock-based employee and director compensation expense determined under fair-value based method for all awards	(7,493)	(6,238)
Pro forma net loss attributable to common stockholders	\$ (82,377)	\$ (62,727)
Net loss attributable to common stockholders per common share, basic and diluted:		
As reported	\$ (1.64)	\$ (1.27)
Pro forma	\$ (1.81)	\$ (1.40)

In light of the new accounting guidance under SFAS No. 123R and SAB No. 107, we reevaluated our assumptions used in estimating the fair value of employee options granted. We also examined our historical pattern of option exercises in an effort to determine if there were any discernable activity patterns based on certain employee populations. From this analysis, we identified two employee populations. We used the Black-Scholes option pricing model to value the options for both of the employee populations as well as our options granted to members of our Board of Directors. The effects of applying SFAS No. 123R, for purposes of recognizing compensation cost under such pronouncement, may not be representative of the effects on our reported results of operations for future years.

All stock option grants are for a ten-year term and generally vest ratably over two-year to four-year periods. The fair value of each option granted during the periods is estimated on the date of grant with the following weighted average assumptions:

	<b>2006</b>	<b>2005</b>	<b>2004</b>
Expected volatility	70%	68%	47%
Expected term in years	5	5	6
Risk-free interest rate	4.5%	4.3%	3.3%
Dividend yield	0%	0%	0%

Expected volatility is based exclusively on historical volatility data of the Company's 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 as of December 31, 2006, and changes during the year then ended is presented below:

	<b>Options</b>	<b>Weighted Average Exercise Price</b>	<b>Weighted Average Remaining Contractual Term (in years)</b>	<b>Aggregate Intrinsic Value</b>
Outstanding at December 31, 2005	5,957,084	\$ 8.74		
Granted	2,583,963	3.45		
Exercised	(185,660)	1.47		
Forfeited	(2,442,537)	7.49		
Outstanding at December 31, 2006	5,912,850	\$ 7.17	6.94	\$ 192,151
Vested or expected to vest at December 31, 2006	5,036,875	\$ 7.55	6.62	\$ 136,789
Exercisable at December 31, 2006	2,559,257	\$ 9.68	4.63	\$



## Table of Contents

The outstanding options at December 31, 2005 exclude 47,652 options granted to outside advisors with an exercise price which was determined based on the fair value of the underlying shares of common stock beginning on the second anniversary of the grant date as the options vested; these options vested prior to December 31, 1998 with an exercise price of approximately \$11.17 per share, and compensation expense was charged at such time. These options expired during the year ended December 31, 2006.

The weighted average grant-date fair value of options granted during the years ended December 31, 2006, 2005, and 2004 was \$2.21, \$3.75, and \$5.36, respectively.

The aggregate intrinsic value in the table above represents the difference between our closing stock price on the last trading day of fiscal 2006 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, 2006. 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, 2006 and 2004, determined on the date of exercise, was \$915,000 and \$1.5 million, respectively. No options were exercised during the year ended December 31, 2005.

During 2006, 2005, and 2004, all options were granted with exercise prices equal to the fair market value of the shares of common stock on the grant date.

As of December 31, 2006, \$7.5 million of total unrecognized compensation cost related to stock options granted to employees and directors is expected to be recognized over a weighted-average period of approximately three years.

At December 31, 2006, 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 approximately \$271,000. 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.

A summary of our options outstanding and exercisable as of December 31, 2006 is as follows:

		Options Outstanding		Options Exercisable	
		Number	Weighted Average Remaining Life (Years)	Number	Weighted Average Exercise Price
Range of Exercise Prices		Outstanding		Exercisable	
\$ 1.45	\$ 5.00	1,529,210	8.6	206,816	\$ 2.80
\$ 5.01	\$10.00	2,636,919	7.4	1,035,770	7.56
\$10.01	\$15.00	1,657,897	4.9	1,228,247	12.14
\$15.01	\$20.00	87,696	2.7	87,296	16.10
		5,911,722		2,558,129	\$ 9.67

We had 6,003,608 and 5,633,358 options outstanding at December 31, 2005 and 2004, respectively, with weighted average exercise prices of \$8.75 and \$9.51, respectively.

The preceding table excludes 1,128 options assumed in our merger with Aronex Pharmaceuticals, Inc. As of December 31, 2006, all of these options were outstanding and exercisable with a weighted average remaining life of 1 years and a weighted average exercise price of \$48.56 per share.

Beginning with the year ended December 31, 2006, certain employees have been granted nonvested stock. In accordance with SFAS No. 123R, the fair value of nonvested stock is estimated based on the closing sale price of the Company's common stock on the NASDAQ Global Market on the date of issuance.



## Table of Contents

A summary of nonvested stock activity as of December 31, 2006, and changes during the year then ended is presented below:

	Nonvested Shares	Weighted Average Grant Date Fair Value
Outstanding at December 31, 2005		\$
Granted	75,464	4.65
Vested		
Forfeited	(22,794)	4.76
Outstanding at December 31, 2006	52,670	\$ 4.60

As of December 31, 2006, there was \$211,000 of unrecognized stock-based compensation expense related to these nonvested shares. That cost is expected to be recognized over a weighted-average period of one year.

Cash received from option exercises and purchases under the 1999 ESPP for the years ended December 31, 2006, 2005, and 2004 was approximately \$469,000, \$327,000, and \$985,000, respectively. We issue new shares upon option exercises and purchases under the 1999 ESPP.

## (12) License, Research, and Other Agreements

In November 1994, we entered into a Patent License Agreement with the Mount Sinai School of Medicine, or Mount Sinai (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 one of our 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 (approximately 62,000 shares valued at \$90,000 at the time of issuance). The term of the Mount Sinai Agreement ends when the last of the licensed patents expires (2018) 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 of the written notice, Mount Sinai can terminate the agreement. The Mount Sinai Agreement requires us to use due diligence to make the products covered by the licensed patent rights commercially available, including a requirement for us to use best efforts to reach a number of developmental milestones which have been achieved. If we fail to comply with the diligence provisions of the agreement, Mount Sinai could take actions to convert our exclusive license to a non-exclusive license after six months written notice. The Mount Sinai Agreement does not contain any milestone payment provisions.

During 1995, Dr. Srivastava moved his research to Fordham University ("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 that 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 (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 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 the agreement, we paid \$2.4 million to Fordham.

We have had two agreements with the University of Connecticut Health Center ("UConn"): (1) a research agreement under which we paid UConn to sponsor research in Dr. Srivastava's laboratory and which provided us



## **Table of Contents**

with an option to license technologies discovered and developed as a result of that research (effective December 31, 2006, this agreement has been terminated, and a termination fee of \$250,000 was paid to UConn in January 2007), and (2) a license agreement that provides us with the exclusive, worldwide rights to technologies discovered and developed under the research agreement, (the License Agreement ). Each agreement is discussed in more detail below.

In February 1998, we entered into a research agreement with UConn and Dr. Srivastava (the research agreement ) relating to the continued development of the heat shock protein technology. The research agreement was terminated effective December 31, 2006 and we paid a termination fee of \$250,000 in January 2007. The research agreement provided us with an option to license inventions stemming from the research that we sponsor at UConn and provided certain pre-determined royalty rates for licensed inventions. The research agreement had an initial term of five years and called for minimum payments to UConn totaling \$5.0 million, payable quarterly at a rate of \$250,000 (contingent upon the continuing employment of Dr. Srivastava by UConn). The research agreement was amended during 2002 and again on December 31, 2003 to: (1) extend the term of the research agreement to December 31, 2003 and then to December 31, 2008, and (2) provide for an annual payment of \$1.2 million payable quarterly at the rate of \$300,000 during 2003 and then an annual payment of \$1.4 million payable quarterly at the rate of \$337,500 from 2004 through 2008. Research and development expense in the accompanying 2006, 2005, and 2004 consolidated statements of operations includes \$1.4 million, \$1.5 million, and \$1.4 million, respectively, of costs incurred under the research agreement. The research agreement was further amended by the amendment agreement entered into in March 2003 and further described below.

In May 2001, we entered into a license agreement with UConn (the license agreement ). Through the license agreement, we obtained an exclusive worldwide license to patent rights resulting from inventions discovered under the research agreement. The term of the license agreement ends when the last of the licensed patents expires (2019) or becomes no longer valid. UConn may terminate the license 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 license agreement upon 90 days written notice. 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. Royalties otherwise due on the net sales of products covered by the license agreement may be credited against the annual license maintenance fee obligations. To date, we have paid \$65,000 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 both the research agreement and the license agreement. During the term of the research agreement, the amendment agreement provided us with the right to elect to exercise our option to license inventions discovered or developed as a result of research we sponsored at UConn, and have such inventions automatically covered under the terms of our existing license agreement with UConn. In addition, 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 up-front payment and to make future payments for each patent or patent application with respect to which we exercise our option under the research agreement. Through December 31, 2006, we have paid approximately \$100,000 to UConn under the license agreement, as amended.

We have entered into various additional research agreements with educational and medical institutions, which expired through August 2005. These agreements required initial and quarterly payments totaling approximately \$2.2 million (of which \$45,000 and \$130,000 was paid during the years ended December 31, 2005 and 2004, respectively).

## **Table of Contents**

We have entered into various agreements with institutions and contract research organizations to conduct our 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 \$44.7 million over the term of the studies. For the years ended December 31, 2006, 2005, and 2004, \$3.7 million, \$9.3 million, and \$7.1 million, respectively, have been expensed in the accompanying consolidated statements of operations related to these clinical studies. Through December 31, 2006, \$41.7 million of this estimate has been paid or accrued. 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.

In December 2000, Aronex Pharmaceuticals Inc., a company we acquired in July 2001, entered into a license agreement with Sumitomo Pharmaceuticals Co., Ltd., (the Sumitomo Agreement). In September 2003, this agreement was amended and restated with Antigenics. The Sumitomo Agreement grants us the exclusive right to an allowed U.S. patent application that contains certain claims related to Aroplatin. Except for the treatment of hepatoma, the Sumitomo Agreement gives us the exclusive right to make, use, develop, import, and sell Aroplatin in the United States. The term of the Sumitomo Agreement ends when the licensed patent expires in 2020. Either party may terminate the Sumitomo Agreement by giving written notice to the other party upon the occurrence of the following events: (1) if the other party makes an assignment for the benefit of creditors, is the subject of bankruptcy proceedings, or has a trustee or receiver appointed for substantially all of its assets, (2) if the other party becomes insolvent, or (3) if the other party materially defaults in its performance under the Sumitomo Agreement. Prior to our acquisition of Aronex Pharmaceuticals, Inc., Sumitomo received a \$500,000 up front payment in 2001 from Aronex Pharmaceuticals, Inc. and will receive subsequent milestone payments from us in the aggregate of up to \$3.5 million if regulatory filings, regulatory approval, and sales in connection with Aroplatin occur. We agreed to pay Sumitomo royalties on the net sales of Aroplatin in the United States upon commercialization of the product.

In June 1988, a predecessor to Aronex Pharmaceuticals, Inc. entered into an exclusive license agreement with: (1) The Board of Regents of The University of Texas System and (2) The University of Texas System Cancer Center, collectively referred to as the University of Texas. As amended, the exclusive license agreement grants us the exclusive, worldwide license to the University of Texas patent rights containing claims that relate to Aroplatin. The term of the exclusive license agreement expires when the last licensed patent expires (2010). Either party may terminate the agreement upon 60 days written notice if the other party materially breaches any material terms of the exclusive license agreement. The agreement requires that we meet certain diligence provisions, specifically the conduct of ongoing and active research, developmental activities, marketing, clinical testing, or a licensing program, directed towards the production and sale of Aroplatin. If we fail to comply with these diligence provisions, the University of Texas may be able to terminate the exclusive license agreement upon 90 days written notice. The University of Texas also has the right to terminate the exclusive license agreement in the event that: (1) we discontinue our business, (2) we have a receiver or trustee appointed for our assets, or (3) we are the subject of a bankruptcy proceeding. We agreed to pay the University of Texas royalties on the net sales of Aroplatin. The applicable royalty percentage is dependent on the level of net sales of Aroplatin. We have also agreed to make a \$200,000 milestone payment to the University of Texas if the FDA approves a new drug application for Aroplatin. To date, we have not made any payments to the University of Texas under the exclusive license agreement.

We have various comprehensive agreements with corporate partners that allow for the use of QS-21, an investigational adjuvant used in numerous vaccines including, but not limited to, hepatitis, lyme disease, human immunodeficiency virus ( HIV ), influenza, cancer, and malaria. 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 partner on its future sales of licensed vaccines that include QS-21.

On July 6, 2006, we entered into expanded license and supply agreements with GlaxoSmithKline Biologicals SA ( GSK ) for the use of QS-21 in numerous vaccines. Under the terms of the agreements, we have agreed to supply QS-21 to GSK through 2014. In addition, we agreed to transfer manufacturing technologies

## **Table of Contents**

under the supply agreement. We will receive payments contingent upon successful milestone achievements and royalties on net sales for a period of at least 10 years after the first commercial sale under the supply agreement. In order to meet demand for QS-21 under our license and supply agreements, we intend to enter into a contract manufacturing relationship with a third party for such purpose.

In conjunction with our expanded license and supply agreements with GSK, we received a \$3.0 million up front non-refundable payment in July 2006. In February 2007, we achieved a milestone related to the transfer of manufacturing technologies to GSK and received a payment of \$2.0 million.

### **(13) Certain Related Party Transactions**

We currently have QS-21 license and supply agreements with Neuralab Limited, a wholly owned subsidiary of Elan Corporation, plc, for use of QS-21 with an antigen in the field of Alzheimer's disease. Garo H. Armen, Ph.D., our Chairman and Chief Executive Officer, was a director of Elan until May 2006. For the years ended December 31, 2006, 2005, and 2004, no revenues were earned under these agreements and we had no amounts due to us under these agreements, as of December 31, 2006 and 2005.

In March 1995, we entered into a consulting agreement with Dr. Srivastava, our scientific founder and one of our directors, and upon its expiration in March 2006, we entered into a new consulting agreement (the Agreement), effective March 28, 2006, with Dr. Srivastava. The Agreement with Dr. Srivastava has an initial term of five years and is automatically extended for successive terms of one year unless either party notifies the other at least 90 days prior to the expiration of the original or any extension term that the Agreement is not to be extended. The Agreement may be terminated without cause by us during its term, subject to the payment of compensation for twelve months at the then current rate provided for under the Agreement. In exchange for the timely performance of services, as defined in the Agreement, Dr. Srivastava is entitled to receive compensation to be established by the Compensation Committee of the Antigenics Board of Directors. In each of 2005 and 2004, we paid Dr. Srivastava cash bonuses of \$135,000 and granted him options to purchase 120,000 shares of our common stock for services performed in each of 2004 and 2003, respectively. These options vest over four years and are exercisable at \$6.92 per share for the 2005 options and \$10.18 per share for the 2004 options.

In September 2004, we entered into a \$60,000 one-year service agreement with Techsoft, Inc. d.b.a Medical Systems and NG Techsoft Pvt. Ltd. for data management services. Navin Gupta is the President and Chief Executive Officer of Techsoft, Inc. d.b.a Medical Systems and the Director and Chairman of the Board of NG Techsoft Pvt. Ltd. He also is the spouse of Renu Gupta, our former Senior Vice President of Development. This agreement was extended several times during 2005 to obtain additional data management and processing services and expired in May 2006. For the year ended December 31, 2006, we expensed \$125,000 under this agreement. At December 31, 2006, we had no amounts due under this agreement.

On October 22, 2004, we executed a letter of intent with Symphony Capital LLC for a potential transaction to provide funding for certain of our research programs. Mr. Mark Kessel, one of our former directors, is a managing director of Symphony Capital LLC. During February 2005, we determined not to pursue this potential transaction. During 2004, we made payments to Symphony Capital LLC of \$125,000 for development planning activities. During the year ended December 31, 2005, we paid \$196,000 to Symphony Capital LLC for activities up to termination in February 2005. Dr. Alastair Wood, another former director of ours, is a consultant to, and has a financial interest in, Symphony Capital LLC.

### **(14) Leases**

We lease manufacturing, research and development, and office facilities under various long-term lease arrangements. Rent expense (before sublease income) included in the loss from continuing operations was \$3.3 million, \$3.4 million, and \$3.7 million for the years ended December 31, 2006, 2005, and 2004, respectively.

## **Table of Contents**

We lease a 162,000 square foot facility in Lexington, Massachusetts. We currently occupy 94,000 square feet of this facility. The future minimum rental payments under our leases of our Framingham and Lexington facilities, which expire in 2010 and 2013, respectively, and our New York City headquarters, which expires in 2012, are as follows (in thousands).

Year ending December 31,	
2007	\$ 3,096
2008	3,053
2009	3,108
2010	2,915
2011	2,224
Thereafter	3,546
Total	\$ 17,942

In connection with the Framingham and Lexington facilities, we maintain fully collateralized letters of credit of \$375,000 and \$1.0 million, respectively. No amounts have been drawn on the letters of credit as of December 31, 2006. In addition, for the office space in New York City, we are required to deposit \$161,000 with the landlord as an interest-bearing security deposit pursuant to our obligations under the lease.

Included in accrued liabilities on the consolidated balance sheet at December 31, 2006 is approximately \$187,000 representing our remaining payments due under our lease for the manufacturing, research, and office facility located in The Woodlands, Texas assumed in the Aronex Pharmaceuticals, Inc. merger. This lease was terminated effective December 15, 2006. Included in accrued liabilities and other long-term liabilities at December 31, 2005 is approximately \$906,000 also related to this lease.

We have subleased a portion of our Framingham and New York City facilities and are contractually entitled to receive rental income of \$1.1 million in 2007, \$1.0 million in 2008, \$1.0 million in 2009, and \$750,000 in 2010. For the years ended December 31, 2006, 2005, and 2004, we earned rental income of \$1.2 million, \$1.1 million, and \$1.4 million, respectively, from our subleased facilities, and such income is recorded in operating expenses as an offset to rental expense.

## **(15) Debt**

As of December 31, 2006 we have \$75.5 million of debt outstanding.

### *Convertible Notes*

On October 30, 2006 (the Issuance Date), we sold \$25.0 million of the 2006 Notes to a group of accredited investors ( Investors ). The proceeds have been received in full. These 2006 Notes bear 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 mature on August 30, 2011.

The 2006 Notes are convertible into our common stock at an initial fixed conversion price of \$3.50 per share at the option of the Investors. If, prior to the maturity date of these notes, we issue or sell, or in accordance with the terms of the 2006 Notes we are deemed to have issued or sold, any shares of our common stock (including the issuance or sale of shares of our common stock owned or held by or for our account, but excluding certain excluded securities) for a consideration per share of less than \$3.00 (the New Issuance Price), then immediately after such issuance, the fixed conversion price then in effect shall be reduced to an amount equal to a 16.66% premium to the New Issuance Price. Alternatively, the 2006 Notes can be converted into an interest in one of our wholly owned subsidiaries that holds the rights or patents to QS-21 and AG-707. If converted into an

## **Table of Contents**

interest of this subsidiary, the conversion amount is determined by multiplying the quotient of the conversion amount divided by \$25.0 million by 30%.

For purposes of determining the adjusted New Issuance Price, the following shall be applicable:

- (i) Issuance of options. If we in any manner grant or sell any options, other than options granted in the 1999 Equity Plan, and the lowest price per share for which one share of our common stock is issuable upon the exercise of any such option or upon conversion or exchange or exercise of any convertible securities issuable upon exercise of such option is less than \$3.00 per share, then such share of our common stock shall be deemed to be outstanding and to have been issued and sold by us at the time of the granting or sale of such option for such price per share.
- (ii) Issuance of convertible securities. If we in any manner issue or sell any convertible securities and the lowest price per share for which one share of our common stock is issuable upon such conversion or exchange or exercise thereof is less than \$3.00 per share, then such share of our common stock shall be deemed to be outstanding and to have been issued and sold by us at the time of the issuance or sale of such convertible securities for such price per share.
- (iii) Change in option price or rate of conversion. If the purchase price provided for in any options is changed, the additional consideration, if any, payable upon the issue, conversion, exchange, or exercise of any convertible securities, or the rate at which any convertible securities are convertible into or exchangeable or exercisable for our common stock changes at any time, the fixed conversion price in effect at the time of such change shall be adjusted to the fixed conversion price which would have been in effect at such time had such options or convertible securities provided for such changed purchase price, additional consideration, or changed conversion rate, as the case may be, at the time initially granted, issued, or sold.

At any time after October 30, 2009, we may call the 2006 Notes and accrued interest at face value for cash if our shares have a minimum average trading price during the prior 30-day period of \$7.00 or higher. Such redemption shall not be effective until the 20th business day following notice from us, during which period Investors may elect to exercise their conversion rights. If Investors elect at any time to convert the 2006 Notes into ownership of the subsidiary holding the rights or patents to QS-21 and AG-707, we also have the right, within 30 days, to redeem the 2006 Notes, including accrued interest, at a redemption price providing a 30-percent internal rate of return to the Investors. The 2006 Notes are secured by our equity ownership in this subsidiary.

Upon the maturity of the 2006 Notes, we may elect to repay the outstanding balance in cash or in common stock, subject to certain limitations. If we elect to satisfy the outstanding balance with common shares at maturity, the number of shares issued will be determined by dividing the cash obligation by 90 percent of the average closing price of the common shares for the 20 trading days preceding the maturity date of the 2006 Notes. This right is subject to our market capitalization exceeding \$300 million at such time.

In no event will any Investor be obligated to accept equity that would result in an Investor owning in excess of 9.99% of the Company's outstanding common stock at any given time in connection with any conversion, redemption, or repayment of the 2006 Notes. The note agreements include material restrictions on the Company's incurrence of debt and liens while the 2006 Notes are outstanding, as well as other customary covenants. The note agreements also include a change of control provision whereby the holders of the 2006 Notes may require us to redeem all or a portion of the then outstanding 2006 Notes at a price equal to 101% of the conversion amount being redeemed and a right of first refusal provision for the holders of the 2006 Notes on any sales of equity of the subsidiary holding the rights or patents to QS-21 and AG-707, to purchase up to 50% of such sales of equity on the same terms as the third party purchaser.

## **Table of Contents**

If we at any time on or after the Issuance Date subdivide (by any stock split, stock dividend, recapitalization, or otherwise) one or more classes of our outstanding shares of common stock into a greater number of shares, the fixed conversion price in effect immediately prior to such subdivision will be proportionately reduced. If we at any time on or after the Issuance Date combine (by combination, reverse stock split, or otherwise) one or more classes of our outstanding shares of common stock into a smaller number of shares, the fixed conversion price in effect immediately prior to such combination will be proportionately increased.

If any event occurs of the type contemplated above but not expressly provided for by such provisions (including, without limitation, the granting of stock appreciation rights, phantom stock rights, or other rights with equity features), then our Board of Directors will make an appropriate adjustment in the fixed conversion price then in effect so as to protect the rights of the holders of the 2006 Notes; provided that no such adjustment will increase the fixed conversion price then in effect as otherwise determined.

The fair value of the 2006 Notes is estimated to be approximately \$25.2 million at December 31, 2006.

On January 25, 2005, we issued \$50.0 million of convertible senior notes in a private placement ( 2005 Notes ). Proceeds from the sale of the 2005 Notes were approximately \$48.0 million net of issuance costs. Issuance costs are being amortized using the effective interest method over seven years, the expected life of the 2005 Notes based on the earliest date on which the holders can require redemption. The 2005 Notes, which mature in 2025, bear interest payable semi-annually on February 1 and August 1 each year, at a rate of 5.25% per annum (an effective rate of 5.94%) and are convertible into common stock at an initial conversion price of approximately \$10.76 per share.

Subject to the terms of the indenture, this conversion rate may be adjusted for:

dividends or distributions payable in shares of our common stock to all holders of our common stock or,

subdivisions, combinations, or certain reclassifications of our common stock, by multiplying the conversion rate in effect before such event by the number of shares a person holding a single common share would own after such event.

The conversion rate may also be adjusted for:

distributions to all or substantially all holders of our common stock of certain rights or warrants (other than, as described below, certain rights distributed pursuant to a stockholder rights plan) entitling them, for a period expiring not more than 60 days immediately following the record date for the distribution, to purchase or subscribe for shares of our common stock, or securities convertible into or exchangeable or exercisable for shares of our common stock, at a price per share, or having a conversion price per share, that is less than the current market price (as defined in the indenture) per share of our common stock on the record date for the distribution, by multiplying the conversion rate in effect before such event by a fraction whose numerator is the sum of the number of common shares outstanding before the event and the number of shares underlying the rights or warrants and whose denominator is the sum of the number of common shares outstanding before the event and the number of shares of common stock that could be purchased at market price with the aggregate dollar amount of the underlying shares at the below-market price (however, we will not adjust the conversion rate pursuant to this provision for distributions of certain rights or warrants, if we make certain arrangements for holders of the 2005 Notes to receive those rights and warrants upon conversion of the 2005 Notes);

dividends or other distributions to all or substantially all holders of our common stock of shares of our capital stock (other than our common stock), evidences of indebtedness, or other assets (other than dividends or distributions covered by the bullet points below) or the dividend or distribution to all or substantially all holders of our common stock of certain rights or warrants (other than those covered

## Table of Contents

above or, as described below, certain rights or warrants distributed pursuant to a stockholder rights plan) to purchase or subscribe for our securities, by multiplying the conversion rate in effect before such event by a fraction whose numerator is the current market price of the stock and whose denominator is that price less the fair market value of the dividend or distributed instrument attributable to one share of common stock as determined in good faith by the Board of Directors (if the denominator is less than or equal to zero, then provision will be made for noteholders to receive upon conversion an amount of such instrument as they would have received had they converted all of their securities on the record date);

cash dividends or other cash distributions by us to all or substantially all holders of our common stock, other than distributions described in the immediately following bullet point, by multiplying the conversion rate in effect immediately before the close of business on the record date for the cash distribution by a fraction whose numerator is the current market price per share of our common stock on the record date and whose denominator is that current market price less the per share amount of the distribution. However, we will not adjust the conversion rate pursuant to this provision to the extent that the adjustment would reduce the conversion price below \$0.01; and

distributions of cash or other consideration by us or any of our subsidiaries in respect of a tender offer or exchange offer for our common stock, where such cash and the value of any such other consideration per share of our common stock validly tendered or exchanged exceeds the current market price per share of our common stock on the last date on which tenders or exchanges may be made pursuant to the tender or exchange offer, by multiplying the conversion rate then in effect by a fraction whose numerator is equal to the sum of the aggregate amount of cash distributed and the aggregate fair market value as determined by the Board of Directors of the other consideration distributed and the product of the current market price per share of common stock and the number of shares of common stock outstanding at the last time at which tenders or exchanges could have been made, less the shares validly tendered or exchanged, and whose denominator is the product of the number of shares of common stock outstanding and the current market price of the stock.

If we issue rights, options, or warrants that are only exercisable upon the occurrence of certain triggering events, then:

we will not adjust the conversion rate pursuant to the bullet points above until the earliest of these triggering events occurs; and

we will readjust the conversion rate to the extent any of these rights, options, or warrants are not exercised before they expire. The indenture does not require us to adjust the conversion rate for any of the transactions described in the bullet points above if we make provision for holders of the 2005 Notes to participate in the transaction without conversion on a basis and with notice that our Board of Directors determines in good faith to be fair and appropriate, as provided in the indenture. The indenture also does not require us to make any adjustments to the conversion rate for any dividends or distributions solely on our preferred stock.

We will not adjust the conversion rate pursuant to the bullet points above unless the adjustment would result in a change of at least 1% in the then effective conversion rate. However, we will carry forward any adjustment that we would otherwise have to make and take that adjustment into account in any subsequent adjustment.

To the extent permitted by law and the continued listing requirements of the NASDAQ Global Market, we may, from time to time, increase the conversion rate by any amount for a period of at least 20 days or any longer period permitted by law, so long as the increase is irrevocable during that period and our Board of Directors determines that the increase is in our best interests. In addition, we may also increase the conversion rate as we determine to be advisable in order to avoid or diminish any income taxes to holders of our common stock resulting from certain distributions.

## **Table of Contents**

On conversion, the holders of the 2005 Notes will receive, in addition to shares of our common stock and any cash for fractional shares, the rights under any future stockholder rights plan (i.e., a poison pill) we may establish, whether or not the rights are separated from our common stock prior to conversion. A distribution of rights pursuant to such a stockholder rights plan will not trigger a conversion rate adjustment so long as we have made proper provision to provide that holders will receive such rights upon conversion in accordance with the terms of the indenture.

The 2005 Notes surrendered for conversion in connection with certain fundamental changes, as defined, that occur before February 1, 2012 may in certain circumstances be entitled to an increase in the conversion rate per \$1,000 principal amount of the 2005 Notes.

A fundamental change generally will be deemed to occur upon the occurrence of a change in control or a termination of trading.

A change in control generally will be deemed to occur at such time as:

any person or group (as these terms are used for purposes of Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, or the Securities Exchange Act), other than us, any of our subsidiaries, or any of our employee benefit plans, is or becomes the beneficial owner (as that term is used in Rule 13d-3 under the Securities Exchange Act), directly or indirectly, of 50% or more of the total voting power of all classes of our capital stock entitled to vote generally in the election of directors (voting stock);

there occurs a sale, transfer, lease, conveyance, or other disposition of all or substantially all of our property or assets to any person or group (as those terms are used in Sections 13(d) and 14(d) of the Securities Exchange Act), including any group acting for the purpose of acquiring, holding, voting, or disposing of securities within the meaning of Rule 13d-5(b)(1) under the Securities Exchange Act;

we consolidate with, or merge with or into, another person or any person consolidates with, or merges with or into, us, unless either:

- (i) the persons that beneficially owned, directly or indirectly, the shares of our voting stock immediately prior to such consolidation or merger, beneficially own, directly or indirectly, immediately after such consolidation or merger, shares of the surviving or continuing corporation's voting stock representing at least a majority of the total voting power of all outstanding classes of voting stock of the surviving or continuing corporation in substantially the same proportion as such ownership immediately prior to the transaction; or

- (ii) both of the following conditions are satisfied:

- at least 90% of the consideration (other than cash payments for fractional shares or pursuant to statutory appraisal rights) in such consolidation or merger consists of common stock and any associated rights traded on a U.S. national securities exchange or quoted on the NASDAQ Global Market (or which will be so traded or quoted when issued or exchanged in connection with such consolidation or merger); and

- as a result of such consolidation or merger, the 2005 Notes become convertible solely into such common stock, associated rights, and cash for fractional shares;

the following persons cease for any reason to constitute a majority of our Board of Directors:

- (i) individuals who on the first issue date of the 2005 Notes constituted our Board of Directors; and

- (ii) any new directors whose election to our Board of Directors or whose nomination for election by our stockholders was approved by at least a majority of our directors then still in office either who were directors on such first issue date of the 2005 Notes or whose election or nomination for election was previously so approved; or





## Table of Contents

we are liquidated or dissolved or holders of our capital stock approve any plan or proposal for our liquidation or dissolution. A termination of trading is deemed to occur if our common stock (or other common stock into which the 2005 Notes are then convertible) is neither listed for trading on a U.S. national securities exchange nor approved for trading on an established automated over-the-counter trading market in the United States.

If:

a fundamental change, as described under the first, second, or third bullet point of the description of change in control occurs before February 1, 2012; and

at least 10% of the consideration (excluding cash payments for fractional shares or pursuant to statutory appraisal rights) for our common stock in the fundamental change consists of any combination of cash or securities (or other property) that are not traded on a U.S. national securities exchange or quoted on the NASDAQ Global Market (and are not scheduled to be so traded or quoted immediately after the fundamental change), then we will increase the conversion rate applicable to the 2005 Notes that are surrendered for conversion at any time from, and including, the 15th business day before the date we originally announce as the anticipated effective date of the fundamental change until, and including, the 15th business day after the actual effective date of the fundamental change.

We refer to such a fundamental change as a make-whole fundamental change. However, if the make-whole fundamental change is a public acquirer fundamental change, as described below, then, in lieu of increasing the conversion rate as described above, we may elect to change the conversion right in the manner described below.

If a holder surrenders a note for conversion in connection with a make-whole fundamental change we have announced, but the make-whole fundamental change is not consummated, the holder will not be entitled to any increased conversion rate in connection with the conversion.

In connection with a make-whole fundamental change, we will increase the conversion rate, based on the date when the make-whole fundamental change becomes effective, which we refer to as the effective date, and the applicable price. If the consideration (excluding cash payments for fractional shares or pursuant to statutory appraisal rights) for our common stock in the make-whole fundamental change consists solely of cash, then the applicable price will be the cash amount paid per share of our common stock in the make-whole fundamental change. Otherwise, the applicable price will be the average of the closing sale prices (as defined in the indenture) per share of our common stock for the five consecutive trading days immediately preceding the effective date. Our Board of Directors will make appropriate adjustments, in its good faith determination, to account for any adjustment to the conversion rate that becomes effective, or any event requiring an adjustment to the conversion rate where the ex date of the event occurs, at any time during those five consecutive trading days.

If an event occurs that requires an adjustment to the conversion rate, we will, on the date we must adjust the conversion rate, adjust each applicable price by multiplying the applicable price in effect immediately before the adjustment by a fraction:

whose numerator is the conversion rate in effect immediately before the adjustment; and

whose denominator is the adjusted conversion rate.

In addition, we will adjust the number of additional shares in accordance with a table in the indenture, based on the price per share of our common stock, and the timing of a fundamental change. As of December 31, 2006, the Company could issue between 0 and 39.53 additional shares per \$1,000 principal amount of the 2005 Notes (representing up to 1,980,000 additional shares) in the event of a fundamental change. The number of additional shares is based on a closing sale price of \$8.97 per share of our common stock on January 19, 2005 and certain pricing assumptions. If the actual applicable price is greater than \$52.50 per share (subject to adjustment) or less than \$8.97 per share (subject to adjustment), we will not increase the conversion rate.

## **Table of Contents**

However, certain continued listing standards of the NASDAQ Global Market potentially limit the amount by which we may increase the conversion rate. These standards generally require us to obtain the approval of our stockholders before entering into certain transactions that potentially result in the issuance of 20% or more of our outstanding common stock. Accordingly, we will not increase the conversion rate as described above beyond the maximum level permitted by these continued listing standards. We will make any such reduction in the increase to the conversion rate in good faith and, to the extent practical, pro rata in accordance with the principal amount of the 2005 Notes surrendered for conversion in connection with the make-whole fundamental change. In accordance with these listing standards, these restrictions will apply at any time when the 2005 Notes are outstanding, regardless of whether we then have a class of securities quoted on the NASDAQ Global Market.

If the make-whole fundamental change is a public acquirer fundamental change, as described below, then we may elect to change the conversion right in lieu of increasing the conversion rate applicable to the 2005 Notes that are converted in connection with that public acquirer fundamental change. If we make this election, then we will adjust the conversion rate and our related conversion obligation such that, from and after the effective time of the public acquirer fundamental change, the right to convert a note into shares of our common stock will be changed into a right to convert it into shares of public acquirer common stock, as described below, at a conversion rate equal to the conversion rate in effect immediately before the effective time multiplied by a fraction:

whose numerator is:

(i) if the public acquirer fundamental change is a share exchange, consolidation, merger, or binding share exchange pursuant to which our common stock is converted into cash, securities, or other property, the fair market value (as determined in good faith by our Board of Directors), as of the effective time of the public acquirer fundamental change, of the cash, securities, and other property paid or payable per share of our common stock; or

(ii) in the case of any other public acquirer fundamental change, the average of the closing sale prices (as defined in the indenture) per share of our common stock for the five consecutive trading days before, and excluding, the effective date of the public acquirer fundamental change (subject to certain adjustments to be made in good faith by our Board of Directors); and

whose denominator is the average of the last reported sale prices per share of the public acquirer common stock for the five consecutive trading days commencing on, and including, the trading day immediately after the effective date of the public acquirer fundamental change (subject to certain adjustments to be made in good faith by our Board of Directors).

If we elect to change the conversion right as described above, the change in the conversion right will apply to all holders from and after the effective time of the public acquirer fundamental change, and not just those holders, if any, that convert their 2005 Notes in connection with the public acquirer fundamental change.

A public acquirer fundamental change generally means an acquisition of us pursuant to a change of control described in the first, second, or third bullet point under the description of change in control where the acquirer (or any entity that is a direct or indirect wholly-owned subsidiary of the acquirer) has a class of common stock that is traded on a national securities exchange or quoted on the NASDAQ Global Market or that will be so traded or quoted when issued or exchanged in connection with the change in control. We refer to such common stock as the public acquirer common stock.

On or after February 1, 2012, we may redeem the 2005 Notes for cash, at a redemption price equal to 100% of the principal amount of the 2005 Notes, plus any accrued and unpaid interest. On each of February 1, 2012, February 1, 2015 and February 1, 2020, holders may require us to purchase their 2005 Notes for cash equal to 100% of the principal amount of the 2005 Notes, plus any accrued and unpaid interest. Holders may also require us to repurchase their 2005 Notes upon a fundamental change, as defined above, at a repurchase price, in cash, equal to 100% of the principal amount of the 2005 Notes to be repurchased, plus any accrued and unpaid

## **Table of Contents**

interest. The 2005 Notes are senior unsecured obligations of Antigenics and rank equally with all of our existing and future senior unsecured indebtedness. The 2005 Notes are effectively subordinated to all of our existing and future secured indebtedness and all existing and future liabilities of our subsidiaries. The 2005 Notes do not contain any financial covenants and do not limit our ability to incur additional indebtedness, including senior or secured indebtedness, issue securities, pay dividends, or repurchase our securities. We were obligated until January 25, 2007 to keep effective a shelf registration statement with the SEC for resale of the 2005 Notes and the shares of common stock issuable upon conversion of the 2005 Notes by the holders thereof. Failure to do so could have resulted in an obligation to pay additional interest to each holder of registrable securities who was affected.

The fair value of the 2005 Notes is estimated to be \$32.2 million at December 31, 2006 based on trader quotes.

Under SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*, the conversion features of our convertible notes are essentially call options on our stock. Because the options are indexed to our own stock and a separate instrument with the same terms would be classified in stockholders' (deficit) equity in our consolidated balance sheet, the options are not considered to be derivative instruments and should not be separated from the host contracts. Accordingly, the conversion features of these convertible notes are not bifurcated from either of the notes.

### *Debt Facility*

On July 17, 2003, we entered into a \$17.1 million debt facility with GE Capital pursuant to which we borrowed \$17.0 million to finance the build-out of our Lexington, Massachusetts facility. As we utilized the debt facility, separate promissory notes were executed. Each note had a term of thirty-six months with the interest rate based on the Federal Reserve's three year Treasury Constant Maturities Rate plus 1.875% fixed at the closing of each note, ranging from 3.92% to 4.42%. Each note was collateralized by a 50% cash security deposit (classified as restricted cash in the accompanying consolidated balance sheets) as well as our plant and equipment, accounts receivable, inventory, and intangible assets excluding our intellectual property. As of December 31, 2006, there was no balance outstanding on this debt facility.

### *Other*

At December 31, 2006, 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 the current portion of long-term debt.

## **(16) Contingencies**

Antigenics, our Chairman and Chief Executive Officer, Garo H. Armen, Ph.D., and two investment banking firms that served as underwriters in our initial public offering have been named as defendants in a civil class action lawsuit filed on November 5, 2001 in the Federal District Court for the Southern District of New York on behalf of a class of purchasers of our stock between February 3, 2000 and December 6, 2000. Similar complaints were filed against about 300 other issuers, their underwriters, and in many instances their directors and officers. These cases have been coordinated under the caption *In re Initial Public Offering Securities Litigation*, Civ. No. 21 MC 92 (SAS), by order dated August 9, 2001. The suit against Antigenics and Dr. Armen alleges that the brokerage arms of the investment banking firms charged secret excessive commissions to certain of their customers in return for allocations of our stock in the offering. The suit also alleges that shares of our stock were allocated to certain of the investment banking firms' customers based upon agreements by such customers to purchase additional shares of our stock in the secondary market. The complaint alleges that Antigenics is liable under Section 11 of the Securities Act of 1933, as amended (the Securities Act), and Dr. Armen is liable under Sections 11 and 15 of the Securities Act because our registration statement did not disclose these alleged

## **Table of Contents**

practices. On April 19, 2002, the plaintiffs in this action filed an amended class action complaint, which contains new allegations. Again, similar amended complaints were filed with respect to the other companies. In addition to the claims in the earlier complaint, the amended complaint alleges that Antigenics and Dr. Armen violated Sections 10(b) and 20 of the Securities Exchange Act and SEC Rule 10b-5 by making false and misleading statements and/or omissions in order to inflate our stock price and conceal the investment banking firms' alleged secret arrangements. The claims against Dr. Armen, in his individual capacity, have been dismissed without prejudice. On July 15, 2002, Antigenics and Dr. Armen joined the Issuer Defendants' Motion to Dismiss the Consolidated Amended Complaints. By order of the Court, this motion set forth all common issues, i.e., all grounds for dismissal common to all or a significant number of Issuer Defendants. The hearing on the Issuer Defendants' Motion to Dismiss and the other Defendants' motions to dismiss was held on November 1, 2002. On February 19, 2003, the Court issued its opinion and order on the Issuer Defendants' Motion to Dismiss. The Court granted Antigenics' motion to dismiss the Rule 10b-5 and Section 20 claims with leave to amend and denied our motion to dismiss the Section 11 and Section 15 claims. On June 14, 2004, papers formalizing a proposed settlement among the plaintiffs, Issuer Defendants, and insurers were presented to the Federal District Court for the Southern District of New York. On February 15, 2005, the Court granted preliminary approval of the settlement. On August 31, 2005, the Court issued an order confirming preliminary approval of the settlement. The settlement remains subject to a number of conditions, including final court approval. On December 5, 2006, the Court of Appeals for the Second Circuit reversed the Court's October 2004 order certifying a class in six test cases that were selected by the underwriter defendants and plaintiffs in the coordinated proceeding. Antigenics is not one of the test cases, and it is unclear what impact this will have on Antigenics' case. If the settlement becomes effective, Antigenics anticipates that it will not incur significant out-of-pocket costs, after insurance. Accordingly, an accrual has not been recorded at December 31, 2006.

On February 19, 2004, Jonathan Lewis, M.D., our former Chief Medical Officer, filed a complaint against us in the United States District Court for the Southern District of New York. The suit alleged that we terminated Dr. Lewis without cause and that we failed to pay severance benefits to which Dr. Lewis believes he is entitled. This suit was settled during October 2004. For the year ended December 31, 2004, we recorded a charge in the accompanying consolidated financial statements related to this settlement.

On October 12, 2005, a third party filed a notice of opposition in the European Patent Office to European patent EP 0750513 B1 which has claims relating to AG-702/707, to which we hold the exclusive license. We believe this patent claims valid subject matter. We have filed a response to this opposition and intend to continue to defend the opposition. However, there is no guarantee that we will continue to do so, that this patent will not be revoked, or that we may not have to amend the claims.

Antigenics and our Chairman and Chief Executive Officer have been named as defendants in a purported shareholder class action complaint filed on June 16, 2006 in Federal District Court in New Mexico by Steven J. Tuckfelt on behalf of himself and all others similarly situated. The complaint alleges that certain of our disclosures in connection with the conduct of the Oncophage Phase 3 renal cell carcinoma trial violated Sections 10(b) and 20(a) of the Securities Exchange Act as well as includes purported claims for breach of fiduciary duty. While we believe that the complaint is without merit and plan to vigorously defend against the litigation, the outcome of litigation is uncertain. Regardless of the outcome, participation in this lawsuit diverts management's time and attention from our business and may result in our paying legal fees and damages.

We currently are a party to other legal proceedings as well. 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.

**Table of Contents****(17) 401(k) Plan**

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, with a maximum of \$15,000 in 2006. Each participant is fully vested in his or her contributions and related earnings and losses. The Company matches 50% of the participant's contribution, subject to a maximum of 6% of compensation. Such matching contributions vest over four years. For the years ended December 31, 2006, 2005, and 2004, we expensed \$213,000, \$534,000, and \$477,000 for the Company's contributions to the 401(k) plan.

**(18) Acquired In-process Research and Development**

On July 30, 2004, we issued 350,000 shares of our common stock and paid \$200,000 in cash to Mojave Therapeutics Inc. as consideration to purchase all of its intellectual property and certain scientific assets relating to its heat shock protein based antigen delivery system and other technologies. The total purchase price of the assets was allocated to incomplete acquired technologies under development but not yet technologically feasible or commercialized and which had no alternative future uses. At the date these assets were acquired, none of the purchased technologies under development had achieved technological feasibility and none were being sold on the market. There still remains substantial risk and uncertainty concerning the remaining course of technical development. Because of the great uncertainty associated with these issues and the remaining effort associated with development of these technologies, technological feasibility had not been established at the acquisition date. Accordingly, the \$2.9 million purchase price for these assets has been charged to acquired in-process research and development during 2004 in the accompanying consolidated statements of operations.

**(19) Restructuring Costs**

In June 2005, we took steps to improve our operating efficiency through the prioritization of our development portfolio and a streamlining of our infrastructure, resulting in the elimination of 26 positions. We recorded charges of \$606,000 related to the elimination of these positions.

In December 2005, we further updated our business strategy and refocused our programs and priorities, including the postponement and deceleration of a number of our projects. To match these priorities, we eliminated 65 positions. In addition to charges of \$990,000 recorded in December 2005 related to the elimination of these positions, we recorded charges of \$112,000 during the three months ended March 31, 2006. In April 2006, we commenced the implementation of a plan to further restructure, refocusing our programs and priorities with the goal of reducing our net cash burn (cash used in operating activities plus cash from investing activities less debt repayments and dividend payments), and eliminated 42 additional positions. We recorded charges of \$645,000 related to the elimination of these positions in 2006 resulting in total charges of \$757,000 for the year ended December 31, 2006.

A summary of restructuring costs is as follows (in thousands).

<b>Year Ended December 31, 2006:</b>	<b>Liability at December 31, 2005</b>	<b>Charge to Operations</b>	<b>Amount Paid</b>	<b>Liability at December 31, 2006</b>
Severance and payroll taxes	\$ 832	\$ 649	\$ (1,481)	\$
Outplacement	89	39	(128)	
Other	33	69	(102)	
Total	\$ 954	\$ 757	\$ (1,711)	\$

<b>Year Ended December 31, 2005:</b>	<b>Liability at December 31, 2004</b>	<b>Charge to Operations</b>	<b>Amount Paid</b>	<b>Liability at December 31, 2005</b>
Severance and payroll taxes	\$	\$ 1,375	\$ (543)	\$ 832
Outplacement		167	(78)	89
Other		54	(21)	33
Total	\$	\$ 1,596	\$ (642)	\$ 954



**Table of Contents**

During 2006, we wrote-off certain assets that were determined to not be required for our updated business strategy. This resulted in impairment charges of \$617,000.

**(20) Quarterly Financial Data (Unaudited)**

	March 31,	Three Months Ended, June 30, September 30, (In thousands, except per share data)			December 31,
2006					
Revenue	\$ 60	\$ 96	\$ 216	\$ 320	
Net loss	(15,234)	(14,088)	(11,022)	(11,537)	
Net loss attributable to common stockholders	(15,432)	(14,286)	(11,219)	(11,734)	
Per common share, basic and diluted:					
Net loss attributable to common stockholders	\$ (0.34)	\$ (0.31)	\$ (0.24)	\$ (0.26)	
	March 31,	Three Months Ended, June 30, September 30, (In thousands, except per share data)			December 31,
2005					
Revenue	\$ 120	\$ 85	\$ 77	\$ 348	
Net loss	(18,003)	(21,128)	(17,255)	(17,718)	
Net loss attributable to common stockholders	(18,201)	(21,326)	(17,452)	(17,915)	
Per common share, basic and diluted:					
Net loss attributable to common stockholders	\$ (0.40)	\$ (0.47)	\$ (0.38)	\$ (0.39)	

**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 Chief 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 Securities Exchange Act of 1934, as amended (the "Securities Exchange Act"). Based on this evaluation, our Chief Executive Officer and our Chief 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 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 Securities Exchange Act Rule 13a-15(f). Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief 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* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the framework in *Internal Control - Integrated Framework*, issued by the Committee of Sponsoring Organizations of the Treadway Commission, our management concluded that our internal control over financial reporting was effective as of December 31, 2006.



**Table of Contents**

KPMG LLP, an independent registered public accounting firm, has audited the consolidated financial statements included in this Annual Report on Form 10-K and, as part of their audit, has issued their report, included herein, (1) on our management's assessment of the effectiveness of our internal control over financial reporting and, (2) on the effectiveness of our internal control over financial reporting.

**Changes in Internal Controls Over Financial Reporting**

There were no changes in our internal control over financial reporting that occurred during the fourth quarter of 2006 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

---

**Table of Contents**

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Board of Directors and Stockholders

Antigenics Inc.:

We have audited management's assessment, included in the accompanying Management's Report on Internal Control Over Financial Reporting, that Antigenics Inc. maintained effective internal control over financial reporting as of December 31, 2006, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Antigenics 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. Our responsibility is to express an opinion on management's assessment and an opinion on the effectiveness of 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, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and 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, management's assessment that Antigenics Inc. maintained effective internal control over financial reporting as of December 31, 2006, is fairly stated, in all material respects, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Also, in our opinion, Antigenics Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2006, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Antigenics Inc. and subsidiaries as of December 31, 2006 and 2005, and the related consolidated statements of operations, stockholders' (deficit) equity and comprehensive loss, and cash flows for each of the years in the three-year period ended December 31, 2006, and our report dated March 15, 2007 expressed an unqualified opinion on those consolidated financial statements.

/s/ KPMG LLP

Boston, Massachusetts

March 15, 2007

**Table of Contents**

**Item 9B.**    *Other Information*  
None.

106

**Table of Contents**

**PART III**

**Item 10. Directors, Executive Officers and Corporate Governance**

The response to this item is incorporated by reference from Executive Officers of the Registrant found in Part I, following Item 4 and in our Proxy Statement relating to our 2007 Annual Meeting of Stockholders scheduled for June 6, 2007.

**Item 11. Executive Compensation**

The response to this item is incorporated by reference into this Annual Report on Form 10-K from our Proxy Statement relating to our 2007 Annual Meeting of Stockholders scheduled for June 6, 2007.

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

The response to this item is incorporated by reference into this Annual Report on Form 10-K from our Proxy Statement relating to our 2007 Annual Meeting of Stockholders scheduled for June 6, 2007.

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

The response to this item is incorporated by reference into this Annual Report on Form 10-K from our Proxy Statement relating to our 2007 Annual Meeting of Stockholders scheduled for June 6, 2007.

**Item 14. Principal Accountant Fees and Services**

The response to this item is incorporated by reference into this Annual Report on Form 10-K from our Proxy Statement relating to our 2007 Annual Meeting of Stockholders scheduled for June 6, 2007.

**Table of Contents**

**PART IV**

**Item 15. Exhibits, 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. *Consolidated Financial Statement Schedules*

The consolidated 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**

<b>Exhibit No.</b>	<b>Description</b>
3.1	Amended and Restated Certificate of Incorporation of Antigenics. Filed as Exhibit 3.1 to our Current Report on Form 8-K (File No. 0-29089) dated June 10, 2002 and incorporated herein by reference.
3.2	Amended and Restated By-laws of Antigenics Inc. Filed as Exhibit 3.2 to our Current Report on Form 8-K (File No. 0-29089) dated June 10, 2002 and incorporated herein by reference.
3.3	Certificate of Designation, Preferences and Rights of the Series A Convertible Preferred Stock of Antigenics 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) dated September 25, 2003 and incorporated herein by reference.
4.1	Form of Common Stock Certificate. Filed as Exhibit 4.1 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.
4.2	Form of Warrant to purchase Common Stock, together with a list of holders. Filed as Exhibit 4.2 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.
4.3	Right of First Refusal Agreements dated as of May 21, 2004 between Antigenics Inc. and Brad M. Kelly. Filed as Exhibit 4.1 to our Current Report on Form 8-K (File No. 0-29089) dated May 27, 2004 and incorporated herein by reference.
4.4	Form of Debenture. Filed as exhibit 4.1 to the Current Report on Form 8-K dated April 13, 1998 of Aquila Biopharmaceuticals, Inc. (File No. 0-12081) and incorporated herein by reference.
4.5	Form of Common Stock Purchase Warrant. Filed as Exhibit 4.2 to the Current Report on Form 8-K (File No. 0-20111) of Aronex Pharmaceuticals, Inc. dated May 25, 2000 and incorporated herein by reference.
4.6	Form of Common Stock Purchase Warrant to Paramount Capital Inc. Filed as Exhibit 4.3 to the Current Report on Form 8-K (File No. 0-20111) of Aronex Pharmaceuticals, Inc. dated May 25, 2000 and incorporated herein by reference.



## **Table of Contents**

<b>Exhibit No.</b>	<b>Description</b>
4.7	Registration Rights Agreement dated August 2, 1989 by and among Aronex Pharmaceuticals, Inc. and certain of its stockholders. Filed as Exhibit 10.1 to the registration statement on Form S-1 (File No. 333-47418) of Aronex Pharmaceuticals, Inc. and incorporated herein by reference.
4.8	First Amendment to Registration Rights Agreement dated April 18, 1990, by and among Aronex Pharmaceuticals, Inc. and certain of its stockholders. Filed as Exhibit 10.2 to the registration statement on Form S-1 (File No. 333-47418) of Aronex Pharmaceuticals, Inc. and incorporated herein by reference.
4.9	Second Amendment to Registration Rights Agreement dated October 31, 1991, by and among Aronex Pharmaceuticals, Inc. and certain of its stockholders. Filed as Exhibit 10.3 to the registration statement on Form S-1 (File No. 333-47418) of Aronex Pharmaceuticals, Inc. and incorporated herein by reference.
4.10	Third Amendment to Registration Rights Agreement, dated September 10, 1993, among Aronex Pharmaceuticals, Inc. and certain of its stockholders. Filed as Exhibit 10.4 to the registration statement on Form S-1 (File No. 333-71166) of Aronex Pharmaceuticals, Inc. and incorporated herein by reference.
4.11	Fourth Amendment to Registration Rights Agreement dated January 20, 1994, among Aronex Pharmaceuticals and certain of its stockholders. Filed as Exhibit 10.5 to the Annual Report on Form 10-K/A for the year ended December 31, 1999 (File No. 0-20111) of Aronex Pharmaceuticals, Inc. and incorporated herein by reference.
4.12	Indenture, dated January 25, 2005, between the Registrant and HSBC Bank USA, National Association. Filed as Exhibit 4.1 to our Current Report on Form 8-K dated January 25, 2005 and incorporated herein by reference.
4.13	Registration Rights Agreement, dated January 25, 2005, between the Registrant and the initial purchasers. Filed as Exhibit 4.2 to our Current Report on Form 8-K dated January 25, 2005 and incorporated herein by reference.
4.14	Form of Note under the Securities Purchase Agreement dated as of October 30, 2006 by and among Antigenics Inc., a Delaware corporation and the investors listed on the Schedule of Buyers thereto. Filed as Exhibit 4.1 to our Current Report on Form 8-K dated October 31, 2006 and incorporated herein by reference.
4.15	Form of PIK Note under the Securities Purchase Agreement dated as of October 30, 2006 by and among Antigenics Inc., a Delaware corporation and the investors listed on the Schedule of Buyers thereto. Filed as Exhibit 4.2 to our Current Report on Form 8-K dated October 31, 2006 and incorporated herein by reference.
4.16	Pledge of Security Agreement dated as of October 30, 2006 by and among Antigenics Inc., a Delaware corporation and the investors listed on the Schedule of Buyers thereto. Filed as Exhibit 4.3 to our Current Report on Form 8-K dated October 31, 2006 and incorporated herein by reference.
4.17	Guaranty dated as of October 30, 2006 by and between Antigenics Inc., a Massachusetts corporation and Ingalls & Snyder LLC, as Collateral Agent for the Buyers. Filed as Exhibit 4.4 to our Current Report on Form 8-K dated October 31, 2006 and incorporated herein by reference.
4.18	Guaranty dated as of October 30, 2006 by and between Aronex Pharmaceuticals, Inc. and Ingalls & Snyder LLC, as Collateral Agent for the Buyers. Filed as Exhibit 4.5 to our Current Report on Form 8-K dated October 31, 2006 and incorporated herein by reference.
4.19	Securities Purchase Agreement dated as of October 30, 2006 by and among Antigenics Inc., a Delaware corporation and the investors listed on the Schedule of Buyers thereto. Filed as Exhibit 4.6 to our Current Report on Form 8-K dated October 31, 2006 and incorporated herein by reference.

## **Table of Contents**

<b>Exhibit No.</b>	<b>Description</b>
10.1*	1999 Equity Incentive Plan. Filed as Exhibit 10.1 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.
10.1.1*	Amendment No. 1 to Antigenics Inc. 1999 Equity Incentive Plan. Filed as Exhibit 4.1 to our Current Report on Form 8-K (File No. 0-29089) dated June 11, 2003 and incorporated herein by reference.
10.1.2*	Amendment No. 2 to Antigenics Inc. 1999 Equity Incentive Plan. Filed as Exhibit 4.1 to our Current Report on Form 8-K (File No. 0-29089) dated May 27, 2004 and incorporated herein by reference.
10.1.3	Form of Non-Statutory Stock Option. Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) dated December 15, 2004 and incorporated herein by reference.
10.1.4*	Amendment No. 3 to Antigenics Inc. 1999 Equity Incentive Plan. Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) dated June 14, 2006 and incorporated herein by reference.
10.2*	1999 Employee Stock Purchase Plan. Filed as Exhibit 10.2 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.
10.3	Founding Scientist's Agreement between Antigenics and Pramod K. Srivastava, Ph.D. dated March 28, 1995. Filed as Exhibit 10.3 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.
10.4	Form of Indemnification Agreement between Antigenics 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. Current schedule identifying the directors and executive officers filed herewith.
10.5	Sublease of Premises at 630 Fifth Avenue, New York, New York dated as of February 6, 2006 from Antigenics to Omrix Biopharmaceuticals Inc. Filed as Exhibit 10.5 to our Annual Report on Form 10-K (File No. 0-29089) for the year ended December 31, 2005 and incorporated herein by reference.
10.6(1)	Patent License Agreement between Antigenics 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.
10.7(1)	Sponsored Research and Technology License Agreement between Antigenics 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.
10.8(1)	Research Agreement between Antigenics and The University of Connecticut Health Center dated February 18, 1998. Filed as Exhibit 10.8 to our Annual Report on Form 10-K (File No. 0-29089) for the year ended December 31, 2004 and incorporated herein by reference.
10.9(1)	License Agreement between Antigenics and Duke University dated March 4, 1999. Filed as Exhibit 10.11 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.
10.10(1)	License Agreement between Antigenics and University of Miami dated April 12, 1999. Filed as Exhibit 10.12 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.
10.11*	Antigenics 401(k) Plan. Filed as Exhibit 10.17 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.
10.12*	Antigenics L.L.C. Incentive Equity Plan. Filed as Exhibit 10.18 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.



## **Table of Contents**

<b>Exhibit No.</b>	<b>Description</b>
10.13	Subscription Agreement dated May 18, 2000 between Antigenics and Applied Genomic Technology Capital Fund L.P. Filed as Exhibit 10.1 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended June 30, 2000 and incorporated herein by reference.
10.14	Lease Agreement by and between Aquila Biopharmaceuticals, Inc. and NDNE 9/90 Corporate Center LLC effective September 9, 1998. Filed as Exhibit 10.2 to Amendment No. 1 to registration statement on Form S-3 of Aquila Biopharmaceuticals, Inc. (File No. 333-46641) and incorporated herein by reference.
10.15(1)	Exclusive License Agreement, dated October 15, 1986, between Aronex Pharmaceuticals, Inc., The University of Texas System Board of Regents and The University of Texas M.D. Anderson  Cancer Center. Filed as Exhibit 10.8 to the registration statement on Form S-1 (File No. 333-47418) of Aronex Pharmaceuticals, Inc. and incorporated herein by reference.
10.16(1)	Exclusive License Agreement, dated July 1, 1988, between Aronex Pharmaceuticals, The University of Texas System Board of Regents and The University of Texas M.D. Anderson Cancer Center, together with amendments and extensions thereto. Filed as Exhibit 10.10 to the registration statement on Form S-1 (File No. 333-47418) of Aronex Pharmaceuticals, Inc. and incorporated herein by reference.
10.17(1)	Amendment No. 2 to Exclusive License Agreement, dated July 9, 1993, among Aronex Pharmaceuticals, The University of Texas System Board of Regents and The University of Texas  M.D. Anderson Cancer Center. Filed as Exhibit 10.20 to the registration statement on Form S-1 (File No. 333-71166) of Aronex Pharmaceuticals, Inc. and incorporated herein by reference.
10.18(1)	License Agreement, dated December 12, 2000 between Aronex Pharmaceuticals and Sumitomo Pharmaceuticals Co., Ltd. Filed as Exhibit 10.1 to the Current Report on Form 8-K (File No. 0-20111) of Aronex Pharmaceuticals, Inc. dated December 12, 2000 and incorporated herein by reference.
10.19	Sublease Agreement between Antigenics Inc., a Massachusetts corporation (formerly Aquila Biopharmaceuticals, Inc.) and wholly owned subsidiary of Antigenics, and GTC Biotherapeutics, Inc. dated July 16, 2002. Filed as Exhibit 10.1 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended June 30, 2002 and incorporated herein by reference.
10.20	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 Antigenics. Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) dated January 8, 2003 and incorporated herein by reference.
10.20.1	First Amendment of Lease dated as of August 15, 2003 from BHX, LLC as trustee of 3 Forbes Road Realty, to Antigenics 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.
10.21	Master Security Agreement dated July 17, 2003, between General Electric Capital Corporation and Antigenics Inc. Filed as Exhibit 10.1 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended June 30, 2003 and incorporated herein by reference.
10.22*	Antigenics Inc. Directors' Deferred Compensation Plan. Filed as Exhibit 4.2 to our Current Report on Form 8-K (File No. 0-29089) dated June 11, 2003 and incorporated herein by reference.
10.23(1)	Amendment to Founding Scientist's Agreement dated January 1, 2003. Filed as Exhibit 10.29 to our Annual Report on Form 10-K (File No. 0-29089) for the year ended December 31, 2002 and incorporated herein by reference.
10.24	Amendment No. 1 of Research Agreement between Antigenics and the University of Connecticut Health Center dated April 10, 2002. Filed as Exhibit 10.26 to our Annual Report on Form 10-K (File No. 0-29089) for the year ended December 31, 2004 and incorporated herein by reference.

## **Table of Contents**

<b>Exhibit No.</b>	<b>Description</b>
10.25(1)	Amendment No. 2 of Research Agreement between Antigenics and the University of Connecticut Health Center dated December 31, 2003. Filed as Exhibit 10.27 to our Annual Report on Form 10-K (File No. 0-29089) for the year ended December 31, 2003 and incorporated herein by reference.
10.26	Letter agreement, Additional Costs Approved Under Research Agreement between Antigenics and the University of Connecticut Health Center dated February 10, 2005. Filed as Exhibit 10.28 to our Annual Report on Form 10-K (File No. 0-29089) for the year ended December 31, 2004 and incorporated herein by reference.
10.27*	Employment Agreement Dated June 21, 2004 between Antigenics Inc. and Peter Thornton. Filed as Exhibit 10.1 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended June 30, 2004 and incorporated herein by reference.
10.27.1*	First Amendment to Employment Agreement Dated June 21, 2004 between Antigenics Inc. and Peter Thornton. Filed as Exhibit 10.2 to our Current Report on Form 8-K (File No. 0-29089) dated December 7, 2005 and incorporated herein by reference.
10.28*	Employment Agreement Dated July 26, 2004 between Antigenics Inc. and Roman Chicz. Filed as Exhibit 10.1 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended March 31, 2005 and incorporated herein by reference.
10.28.1*	First Amendment to Employment Agreement Dated July 26, 2004 between Antigenics Inc. and Roman Chicz. Filed as Exhibit 10.3 to our Current Report on Form 8-K (File No. 0-29089) dated December 7, 2005 and incorporated herein by reference.
10.29*	Employment Agreement Dated December 1, 2005 between Antigenics Inc. and Garo Armen. Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) dated December 7, 2005 and incorporated herein by reference.
10.30*	Employment Agreement Dated November 28, 2005 between Antigenics Inc. and Bruce Leicher. Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) dated December 2, 2005 and incorporated herein by reference.
10.31*	Executive Change of Control Plan. Filed as Exhibit 10.33 to our Annual Report on Form 10-K (File No. 0-29089) for the year ended December 31, 2005 and incorporated herein by reference.
10.32*	2003 Executive Incentive Plan. Filed as Exhibit 10.34 to our Annual Report on Form 10-K (File No. 0-29089) for the year ended December 31, 2005 and incorporated herein by reference.
10.33*	Consulting Agreement Dated March 28, 2006 between Antigenics Inc. and Pramod Srivastava. Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) dated March 27, 2006 and incorporated herein by reference.
10.34(1)	License Agreement By and Between Antigenics, 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.
10.35(1)	Manufacturing Technology Transfer and Supply Agreement By and Between Antigenics, Inc. and GlaxoSmithKline Biologicals SA dated July 6, 2006. Filed as Exhibit 10.2 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended June 30, 2006 and incorporated herein by reference.
10.36	Standard Form of Loft Lease effective October 24, 2006 between 162 Fifth Avenue Associates LLC and Antigenics Inc. Filed as Exhibit 10.1 to our Quarterly Report on Form 10-Q (File No. 0-29089) for the quarter ended September 30, 2006 and incorporated herein by reference.
21	Subsidiaries of Antigenics. Filed as Exhibit 21 to our Annual Report on Form 10-K (File No. 0-29089) for the year ended December 31, 2004 and incorporated herein by reference.

---

**Table of Contents**

<b>Exhibit No.</b>	<b>Description</b>
23	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 Chief 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(2)	Certification of Chief Executive Officer and Chief 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.

---

- \* Indicates a management contract or compensatory plan.
- (1) Certain confidential material contained in the document has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended or Rule 24b-2 of the Securities Exchange Act of 1934, as amended.
- (2) This certification accompanies the Annual Report on Form 10-K and is not filed as part of it.

**Table of Contents**

**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.

ANTIGENICS INC.

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

Dated: March 16, 2007

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 in the capacities indicated as of March 16, 2007.

<b>Signature</b>	<b>Title</b>
/s/ GARO H. ARMEN, PH.D.  <b>Garó H. Armen, Ph.D.</b>	Chief Executive Officer and Chairman of the Board of Directors (Principal Executive Officer)
/s/ SHALINI SHARP  <b>Shalini Sharp</b>	Vice President and Chief Financial Officer  (Principal Financial Officer)
/s/ CHRISTINE M. KLASKIN  <b>Christine M. Klaskin</b>	Vice President, Finance  (Principal Accounting Officer)
/s/ NOUBAR AFEYAN, PH.D.  <b>Noubar Afeyan, Ph.D.</b>	Director
/s/ FRANK V. ATLEE, III  <b>Frank V. AtLee, III</b>	Director
/s/ BRIAN CORVESE  <b>Brian Corvese</b>	Director
/s/ TOM DECHAENE  <b>Tom Dechaene</b>	Director
/s/ MARGARET EISEN  <b>Margaret Eisen</b>	Director

Edgar Filing: ANTIGENICS INC /DE/ - Form 10-K

/s/ WADIH JORDAN

Director

**Wadiah Jordan**

/s/ HYAM I. LEVITSKY, MD

Director

**Hyam I. Levitsky, MD**

/s/ PRAMOD SRIVASTAVA, PH.D.

Director

**Pramod Srivastava, Ph.D.**

/s/ PETER THORNTON

Director

**Peter Thornton**

/s/ TIMOTHY R. WRIGHT

Director

**Timothy R. Wright**