

---

---

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, 2002**

**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.)*

**630 Fifth Avenue, Suite 2100, New York, New York 10111**

*(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:**

**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 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 an accelerated filer (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 28, 2002 was: \$325,807,000. There were 39,383,149 shares of the registrant's Common Stock outstanding as of March 19, 2003.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the definitive proxy statement for the registrant's 2003 Annual Meeting of Shareholders to be held on June 10, 2003, which definitive proxy statement will be filed with the Securities and Exchange Commission not later than 120 days after the registrant's fiscal year of December 31, 2002, are incorporated by reference into Part III of this Annual Report on Form 10-K.

---

---

This Annual Report on Form 10-K contains forward-looking statements, including statements regarding the timing of clinical trials, the safety and efficacy of our product candidates, the goals of our research and development activities (including development of “next generation” Oncophage vaccine), estimates of the potential markets for our products, estimates of the capacity of manufacturing and other facilities to support our products, our expected future revenues, operations and expenditures, and projected cash needs. These statements are subject to risks and uncertainties that could cause our actual results to differ materially from those that are projected in these forward-looking statements. These risks and uncertainties include, among others:

- our ability to successfully complete pre-clinical and clinical development of our product candidates, which includes enrolling sufficient patients in our clinical trials and demonstrating the safety and efficacy of our product candidates in such trials;
- our ability to manufacture sufficient amounts of our product candidates for clinical trials and, if approved, products for commercialization activities;
- our ability to obtain, maintain and successfully enforce adequate patent and other proprietary rights protection of our products that are approved for sale;
- the content and timing of submissions to and decisions made by the FDA and other regulatory agencies, including demonstrating to the satisfaction of the FDA the safety and efficacy of our product candidates;
- our ability to develop a sales and marketing staff and the success of their selling efforts;
- the accuracy of our estimates of the size and characteristics of the markets to be addressed by our products;
- the success of our competitors;
- our ability to obtain reimbursement for our products that are approved for sale from third-party payers, and the extent of such coverage;
- the success of the development efforts of licensees of our technology;
- our ability to enter into additional collaborations and strategic alliances, of which, we currently have only a limited number;
- our ability to raise additional funds in the capital markets, through arrangements with corporate partners, or from other sources; and
- the potential temporary disruption of our business operations as a result of consolidating our Woburn, and Framingham, Massachusetts facilities into our new Lexington, Massachusetts facility.

We have included more detailed descriptions of these risks and uncertainties and other risks and uncertainties applicable to our business in Exhibit 99.1, “Risk Factors,” to this Annual Report on Form 10-K. We encourage you to read those descriptions carefully. We caution investors not to place undue reliance on forward-looking statements contained in this document; such statements need to be evaluated in light of all the information contained in the document. Furthermore, the statements speak only as of the date of this document, and we undertake no obligation to update or revise these statements.

## PART I

### Item 1. *Business*

#### **Our Business**

##### *Overview*

We are a biotechnology firm developing products to treat cancers, infectious diseases and autoimmune disorders. Our lead product candidates are: (i) Oncophage®, a personalized therapeutic cancer vaccine in Phase III clinical trials for the treatment of renal cell carcinoma and melanoma, (ii) Aroplatin™, a liposomal formulation of a third-generation platinum chemotherapeutic in a Phase II clinical trial for the treatment of colorectal cancer, (iii) AG-858, a personalized therapeutic cancer vaccine in a Phase I clinical trial for the treatment of chronic myelogenous leukemia, and (iv) AG-702/AG-70X, a therapeutic vaccine program in Phase I development for the treatment of genital herpes. Our related business activities include product research and development activities, regulatory and clinical affairs, establishing manufacturing capabilities, production for clinical trials, and administrative and corporate finance and development activities.

Three of our four lead programs — Oncophage, AG-858, and AG-702/AG-70X — are based on heat shock proteins, our founding technology platform. We have generated strong data in multiple human clinical trials using our heat shock protein product candidates, including data demonstrating complete clinical responses in a portion of patients with measurable metastatic disease in several types of cancer. Additionally, in a portion of patients who were rendered disease-free by surgery, we have observed prolonged disease-free survival in three different types of cancer. In our studies to date, virtually no toxicity has been observed. We believe that these human data further support the broad applicability and corresponding commercial potential of our heat shock protein product candidates.

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

##### *Introduction*

Through our internal discovery efforts and our acquisitions, we have developed a robust pipeline of product candidates for the treatment of cancers and infectious diseases. Our first lead product candidate, Oncophage, uses our proprietary heat shock protein, or HSP, technology to stimulate a powerful T-cell-based immune response capable of targeting and killing cancer cells. We believe that our HSP-based products will be able to treat all cancer types and several types of infectious diseases. We also believe that HSPs are applicable to the treatment of autoimmune disorders.

Oncophage is a personalized cancer vaccine based on a heat shock protein (gp 96) and is currently in Phase III trials for renal cell carcinoma and melanoma. We intend to initiate a different Phase III trial in melanoma in 2003. Oncophage is the first personalized therapeutic cancer vaccine to receive Fast Track designation from the U.S. Food and Drug Administration (FDA) and has received this designation for both renal cell carcinoma and for metastatic melanoma. Oncophage has also received Orphan Drug designation from the FDA for both renal cell carcinoma and metastatic melanoma.

Aroplatin is a liposomal formulation of a novel DACH platinum compound similar to Eloxatin™ (oxaliplatin, Sanofi-Synthelabo), a drug that received FDA approval in August 2002 for the treatment of advanced colorectal cancer. Aroplatin has been designed to overcome the resistance often associated with current platinum drugs as well as to improve the side effect profile. We initiated a Phase II clinical trial of Aroplatin in colorectal cancer in 2002. We plan to initiate additional Aroplatin clinical trials in 2003.

AG-858 is a personalized therapeutic vaccine based on another heat shock protein (HSP70). AG-858 has been tested in combination with Gleevec™ (imatinib mesylate, Novartis) in an ongoing pilot Phase I clinical trial for the treatment of chronic myelogenous leukemia (CML), a type of cancer characterized by the proliferation of abnormal white blood cells. We intend to initiate one or more Phase II trials of AG-858 in combination with Gleevec during 2003 in CML.

AG-702/AG-70X is our therapeutic HSP vaccine program for the treatment of genital herpes. Early studies in animals showed that HSPs induce disease-specific T-cell-mediated immune responses. We initiated a Phase I trial for AG-702 in the fourth quarter of 2001. While AG-702 consists of a recombinant heat shock protein complexed to a single peptide of herpes simplex virus-2 (HSV-2), AG-70X is a multivalent vaccine containing in excess of 30 HSV-2 peptides. We expect to initiate a Phase I/II clinical trial of AG-70X in 2003.

ATRA-IV is a liposomal, intravenous formulation of all-trans-retinoic acid or ATRA. ATRA is approved and marketed in an oral formulation called Vesanoid® (tretinoin, Roche) 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 evaluating several clinical strategies for ATRA-IV.

QS-21 is a natural product that is used as an adjuvant, or companion compound, in both therapeutic and prophylactic vaccines to significantly improve the quality of immune response. QS-21 is used in products being developed by a number of pharmaceutical and biotechnology companies for the treatment of several chronic and debilitating diseases including Alzheimer's disease, malaria, hepatitis B, melanoma and HIV. FeLV/QA-21, our feline leukemia product, is a recombinant subunit vaccine that uses an immune stimulant in the same family as QS-21 and is marketed outside the United States.

Through our discovery research programs, we intend to develop additional novel compounds that are designed to be efficacious and less toxic than conventional therapy. Our lead discovery program is focused on a "next-generation" Oncophage vaccine, which incorporates several important innovations. With these advances, we expect to be able to manufacture sufficient quantities of HSP-peptide complexes from much smaller tissue samples. Another of our discovery programs is focused on the CD91 receptor, the pathway through which heat shock proteins activate cellular immune response. We have initiated a screening program to identify antibodies and small molecule compounds that can regulate the interaction between HSPs and the CD91 receptor. Antibodies and compounds that block this interaction may represent a major advance in the development of new approaches to the treatment of autoimmune disorders such as arthritis, multiple sclerosis and diabetes.

We are also investigating an immune system pathway mediated by the CD1 receptor found on the surface of immune system cells. Recent discoveries have shown that lipid-based antigens are processed via the CD1 pathway, which stimulates the production of a specialized type of T-cell called natural killer cells. Implicated in many infectious diseases, cancers and autoimmune disorders, lipid antigens processed through the CD1 pathway may represent an entirely new approach to the development of immunotherapeutics.

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

Heat shock proteins are present in all cells of all organisms from bacteria to mammals, and their structure and function are similar across these diverse life forms. Heat shock proteins are a class of proteins that play a major role in transporting peptides, including antigenic peptides, within a cell and are thus often called chaperones. In this capacity, heat shock proteins bind to the broad antigenic repertoire or fingerprint of the cell in which they reside.

The ability of heat shock proteins to chaperone peptides is key to our technology. These characteristics of heat shock proteins allow us to produce a personalized vaccine containing all the antigenic peptides of a given disease. When we purify heat shock proteins from tumor cells or pathogen-infected cells, the heat shock proteins remain bound to the broad repertoire of peptides produced by the tumor or pathogen. Our core technology is premised on the ability of these purified heat shock protein-peptide complexes (HSPPCs), when injected into the skin, to stimulate a powerful T-cell-based immune response capable of targeting and killing the cancer cells or infected cells from which these complexes were derived.

For a vaccine that does not require personalization, as in the case of our AG-702/AG-70X program for genital herpes, we are able to attach, or complex, one or several defined antigenic peptides to a recombinant heat shock protein. This complexed HSPPC, when injected into the skin, may be able to stimulate a T-cell-

based immune response like that elicited by a purified HSPPC. These purified and complexed HSPPCs are the active component of three of our four lead products: Oncophage, AG-858 and AG-702/AG-70X.

### ***Product Development Portfolio***

Below is a list of the clinical status of our lead product candidates under development.

<b>Product</b>	<b>Status</b>		
	<b>Phase III</b>	<b>Phase II</b>	<b>Phase I</b>
Oncophage	Kidney cancer Melanoma	Colorectal cancer Gastric cancer Non-Hodgkin's lymphoma	Pancreatic cancer
AG-858		Chronic myelogenous leukemia <sup>(1)</sup>	
Aroplatin		Colorectal cancer	
AG-702/AG-70X			Genital herpes

(1) We expect to enroll the first patient in a Phase II trial during the second quarter of 2003.

## **ONCOPHAGE**

### ***Introduction***

Oncophage, our lead product candidate, is a personalized therapeutic cancer vaccine based on our pioneering work that demonstrated that HSPs activate T-cells. Oncophage consists of two components: (i) a variable component, consisting of fragments of proteins called peptides, which are necessary for the specific targeting of diseased cells, and (ii) a constant component, consisting of a heat shock protein that activates the targeted T-cell-based immune response.

We are evaluating Oncophage in six different cancers in nine separate clinical trials. Because cancer is a highly variable disease from one patient to another, we purify from each patient's tumor tissue heat shock proteins that are bound, or complexed, to peptides specific to each patient's cancer. Each Oncophage cancer product is therefore a personalized product. After a surgeon removes a patient's tumor, the hospital or clinic ships a frozen portion of the tumor tissue by overnight courier to our facility. In our current Phase III trials, we generally require seven grams of tumor tissue to yield a sufficient amount of Oncophage for a typical course of treatment.

We formulate Oncophage in sterile saline solution and package it in standard single injection vials in our manufacturing facility. We subject the final product to extensive quality control testing, including sterility testing of each lot. We ship the product frozen via overnight courier back to the hospital. We have developed sophisticated tracking systems and procedures designed to ensure correct delivery of Oncophage to the appropriate patient.

A medical professional initially administers Oncophage to a patient four to six weeks after a doctor surgically removes the patient's primary or metastatic tumor. The typical course of treatment consists of an injection into the skin administered once per week for four weeks and every other week thereafter. An oncologist may recommend treating a patient with more than one course of Oncophage.

Although we believe Oncophage will be able to treat all cancer types, our initial focus is on cancers that are resistant to available treatments and that typically yield tumors that physicians can surgically remove. Additionally, in order to complete clinical trials rapidly and file for regulatory approvals, we have selected cancers and stages of disease that allow us to evaluate Oncophage in clinical trials with near term endpoints.

We filed an investigational new drug (IND) application 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, over 500 cancer patients have been treated with Oncophage in our clinical trials.

We believe that the collective results from these clinical trials show that Oncophage is generally safe and well tolerated by patients with little side effects.

## **Oncophage Clinical Programs**

### ***Renal Cell Carcinoma***

*Background.* Renal cell carcinoma is the most common type of kidney cancer. The American Cancer Society estimates that physicians will diagnose about 31,900 new cases of kidney cancer in the United States in 2003 and that the disease will kill approximately 11,900 people in 2003. Approximately 70% of the 31,900 patients newly diagnosed with kidney cancer will have the specific type of kidney cancer known as renal cell carcinoma. By the time renal cell carcinoma is diagnosed in these patients, about one-third of them will have developed metastatic disease.

The median survival of patients with metastatic renal cell carcinoma is approximately 12 months. For patients with metastatic disease, the only FDA approved treatment is intravenous high-dose interleukin-2, a human cytokine. The response rate, which includes partial responses and complete responses, of patients who are treated with high-dose interleukin-2 is approximately 15%. Treatment with high-dose interleukin-2 often causes severe adverse side effects. These side effects often can lead to discontinuation of treatment. Although not FDA-approved for the treatment of renal cell carcinoma, a lower-dose of interleukin-2 injected underneath the skin, or subcutaneously, either alone or in combination with other cytokines, has become a treatment option. This treatment regimen has been the subject of a number of studies with widely varying outcomes, none of which, to our knowledge, have demonstrated any survival benefit.

*Clinical Trials.* In a Phase I/II trial conducted at M.D. Anderson Cancer Center, we enrolled patients with measurable metastatic renal cell carcinoma. Of the 38 treated patients, one patient had a complete response (which has been ongoing for more than four years) and three patients had partial responses. Another eight patients showed stabilization of their disease. No serious adverse events were associated with treatment with Oncophage.

A 60-patient Phase II trial for patients with metastatic renal cell carcinoma was initiated at M.D. Anderson Cancer Center in March 1999. We expect to present data from this trial in an abstract at the American Society of Clinical Oncology (ASCO) meeting in 2003.

Oncophage received Fast Track designation for the treatment of renal cell carcinoma in October 2001. Oncophage is the first personalized cancer vaccine to receive Fast Track designation. Oncophage also received Orphan Drug status in renal cell carcinoma from the FDA in May 2002.

In 2001, we initiated a Phase III, multicenter, international trial for renal cell carcinoma. At year-end 2001, patient enrollment in this trial was approximately 10% complete; as of year-end 2002, patient enrollment was approximately 65% complete. This increase in enrollment has allowed us to increase the statistical power of the study design yet still meet our original target for completed enrollment, which we expect to occur by mid-year 2003.

### ***Melanoma***

*Background.* Melanoma is the most serious form of skin cancer. The American Cancer Society estimates that physicians will diagnose about 54,200 new cases of melanoma in the United States in 2003 and that the disease will kill approximately 7,600 people in 2003. The incidence of melanoma is growing at a rate of 4-7% per year, which is substantially faster than the growth in incidence rates of most other cancers. Oncologists treat advanced or metastatic melanoma, also known as stage III or IV, with surgery, radiation therapy, immunotherapy, or chemotherapy depending on the case. Approximately 20% 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 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 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 have treated 36 patients in a Phase I/II clinical trial, evaluating Oncophage as a treatment for late stage III and early stage IV metastatic melanoma, as well as 42 patients in a Phase II clinical trial in patients with stage IV disease. In the Phase II trial, 28 patients had residual disease after surgery. Of these patients, five patients responded favorably to Oncophage including two in whom all evidence of melanoma disappeared for more than two years. Oncophage vaccination also generated anti-melanoma immune response in more than one-half of the patients. We presented the results of the Phase II trial both at the ASCO meeting in May 2001 and the American Association for Cancer Research (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 the American Society of Clinical Oncology.

In February 2002, Oncophage received Fast Track designation for the treatment of metastatic melanoma. Oncophage also received Orphan Drug status in metastatic melanoma from the FDA in July 2002.

We initiated a Phase III trial in metastatic melanoma in February 2002. At year-end 2002, patient enrollment in this trial was approximately 15% complete. We are in the final stages of trial design for a different Phase III trial in melanoma that we plan to start in 2003.

### ***Other Cancers***

*Colorectal.* We have completed enrollment of a 30 patient Phase II clinical trial evaluating Oncophage as a treatment for metastatic colorectal cancer. Interim data from 29 patients with advanced colon cancer that had spread to the liver indicates that Oncophage therapy generated anti-colon cancer immune response in close to half of the patients. Although the study was not designed to evaluate clinical effectiveness, a small group of patients with favorable prognostic factors who received Oncophage were cancer-free longer than expected. These data were presented in an abstract at the ASCO meeting in 2002.

*Gastric.* We completed enrollment of a 16 patient Phase I/II clinical trial evaluating Oncophage as a treatment for metastatic gastric cancer. We conducted this trial 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. Data from this trial were presented at the ASCO meeting in 2002.

*Pancreatic.* In early 1999, we completed a pilot Phase I clinical trial evaluating Oncophage as a treatment for resectable pancreatic cancer. We conducted the trial with clinical investigators at the Memorial Sloan-Kettering Cancer Center. Initially, five patients were treated. Two out of five of the initial patients generated a T-cell response to their tumor after treatment with Oncophage. Subsequently, five more patients were treated. We expect to complete the study report on this trial in 2003.

*Non-Hodgkin's Lymphoma.* We are enrolling patients in a 35 patient Phase II clinical trial evaluating Oncophage as a treatment for low-grade indolent non-Hodgkin's lymphoma. This trial is being conducted by clinical investigators at the M.D. Anderson Cancer Center. To date, ten patients have been treated and evaluated at an interim analysis. We expect to present this analysis as an abstract at the ASCO meeting in 2003.

### ***Manufacturing***

Oncophage is manufactured in a 58,725 square foot manufacturing and research and development facility located in Woburn, Massachusetts. The facility's manufacturing capacity, for Oncophage and AG-858 combined, is between 7,000 and 10,000 patient vaccine batches per year and on average, it takes less than eight hours of direct processing time to manufacture a patient batch of Oncophage. In late 2002, we signed a lease for a facility in Lexington, Massachusetts. We intend to consolidate our Woburn and Framingham, Massachusetts operations into this facility in phases over the next several years. The first phase, which we

intend to complete during 2003, will involve the transfer of our Woburn manufacturing operations, including the production of Oncophage, and administrative operations to the Lexington, Massachusetts facility.

After manufacturing, the product is fully tested and released by our quality systems staff. The quality control organization performs a series of release assays designed to ensure that the product meets all applicable specifications. Our quality assurance staff also reviews manufacturing and quality control records prior to batch release as part of our effort to assure conformance with Good Manufacturing Practices as mandated by the FDA and worldwide regulatory agencies.

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

### **AG-858**

AG-858 is a personalized therapeutic cancer vaccine also based on our heat shock protein technology for the treatment of chronic myelogenous leukemia (CML), a type of cancer characterized by the proliferation of abnormal white blood cells. AG-858 consists of purified HSPPCs based on a specific heat shock protein called HSP70. Because CML is a cancer of the blood, these heat shock proteins are purified from a patient's white blood cells, which are obtained through a blood filtering process called leukapheresis.

#### ***Clinical Trials***

In December 2002, we reported interim data from an ongoing pilot Phase I clinical trial combining AG-858 with Gleevec™ (imatinib mesylate, Novartis) for the treatment of CML. Four of the five evaluable patients in this study were deemed to be unresponsive to treatment with Gleevec alone. After treatment with AG-858, all five evaluable patients showed objective clinical responses, including two patients with complete molecular responses as determined by polymerase chain reaction (PCR), the most sensitive measure available to detect the presence of leukemia cells. In contrast, only 10% of patients treated with Gleevec alone achieve molecular responses as measured by PCR, based on previous reports. In this study, AG-858, like Oncophage, was generally safe and well tolerated. Based on these encouraging data, we intend to initiate one or more Phase II trials of AG-858 in combination with Gleevec during 2003 in CML.

#### ***Manufacturing***

The AG-858 doses for the pilot Phase I study are being manufactured at the University of Connecticut, where the study is being conducted. AG-858 for all additional trials will be manufactured in the same 58,725 square foot manufacturing and research and development facility used for the manufacture of Oncophage, located in Woburn, Massachusetts. The facility's manufacturing capacity for Oncophage and AG-858 combined is between 7,000 and 10,000 patient vaccine batches per year. We plan also to move the production of AG-858 to the new Lexington, Massachusetts facility during 2003.

The manufacturing process for AG-858 is based on similar principles as those used for Oncophage. After manufacturing, the product will be fully tested and released by our quality systems staff. The quality control organization will perform a series of release assays designed to ensure that the product meets all applicable specifications. Our quality assurance staff will also review manufacturing and quality control records prior to batch release as part of our effort to assure conformance with Good Manufacturing Practices as mandated by the FDA and worldwide regulatory agencies.

Our AG-858 manufacturing staff will be rigorously trained and routinely evaluated for conformance to manufacturing procedures and quality standards. This oversight is designed to ensure compliance with FDA regulations and to provide consistent vaccine output. Our AG-858 quality control/quality assurance staff will be similarly trained and evaluated as part of our effort to ensure consistency in the testing and release of the product, materials, equipment and facilities.



## **AROPLATIN**

Aroplatin is a liposomal formulation of a novel third-generation platinum compound from the family of diaminocyclohexane, or DACH, platinum compounds.

Platinum compounds such as cisplatin and carboplatin are widely-used compounds in cancer chemotherapy. However, current platinum drugs are not always effective because tumors are resistant to these compounds at the outset of treatment or become resistant during treatment. We expect third-generation platinum chemotherapeutics, like Aroplatin, to overcome some of the resistance seen with earlier generations of platinum chemotherapeutics.

Aroplatin's chemical structure is similar to that of another DACH platinum product – Eloxatin™ (oxaliplatin, Sanofi-Synthelabo), which received FDA approval in August 2002 for the treatment of advanced colorectal cancer. Eloxatin has a significant limitation, however, in that treatment with Eloxatin is associated with significant neurotoxicity – a side effect of the nervous system that can cause pain and loss of sensory function in a patient's extremities. In contrast, virtually no neurotoxicity has been reported in clinical testing of Aroplatin. This may be because Aroplatin's active drug ingredient is encapsulated in a liposome. Drugs encapsulated in liposomes have been shown in certain cases to accumulate at the tumor, effecting a higher concentration and longer duration of drug action at the target site (where beneficial effects may occur) while maintaining a lower concentration and shorter duration at other sites (where side effects may occur). In addition, the liposomal delivery system helps to reduce the damaging effects of some drugs on healthy tissues, improving the drug's safety profile. We believe that Aroplatin's liposomal formulation offers a more favorable toxicity profile compared with that of other platinum drugs, including Eloxatin, and may increase the concentration and duration of the active drug ingredient at the tumor site.

With the recent approval of Eloxatin, we initiated a number of head-to-head preclinical experiments in which Aroplatin was compared to Eloxatin. In *in vivo* studies, Aroplatin had greater anti-tumor activity and, in certain *in vitro* models of colon and pancreatic cancer, had approximately three times more anti-tumor activity, than Eloxatin.

### **Aroplatin Clinical Program**

#### ***Colorectal Cancer***

*Background.* Colorectal cancer is cancer of the colon or rectum. The American Cancer Society estimates that physicians will diagnose about 147,500 new cases of colorectal cancer in the United States in 2003 and that this disease will kill approximately 57,100 people during 2003.

For patients whose disease has not spread to other parts of the body, surgery remains the most common treatment and can be curative in greater than two thirds of these cases. For patients whose disease has metastasized to other parts of the body, treatment options are limited, and the patients' prognoses are poor. Some patients with recurrence of advanced disease may have their metastatic lesions removed by surgery. The median survival for these patients is approximately twelve months. Conventional cancer treatments such as chemotherapy and radiation have shown limited benefit in treating colorectal cancer.

*Clinical Trials.* A previous Phase I study of Aroplatin demonstrated relatively fewer toxicities to the kidneys or nervous system than would be expected with a traditional platinum agent. The dose limiting side effect was bone marrow toxicity. Several patients in the early studies showed anti-tumor activity in a variety of tumor types, including breast and renal cell cancers and malignant mesothelioma. We initiated a Phase II trial in colorectal cancer in 2002. In addition, in January 2003 we initiated a Phase I/II trial in advanced solid tumors amenable to DACH platinum therapy. We plan to initiate additional Aroplatin clinical trials in 2003.

#### ***Manufacturing***

Aroplatin has been manufactured for us by contract manufacturers. These contract manufacturers also produce drug products for other pharmaceutical companies at clinical and commercial scale and are regularly

inspected and qualified by U.S. and foreign regulatory agencies. Due to the nature of our relationship with the contract manufacturers, we are free to qualify and use any contract manufacturer we choose.

Aroplatin has been formulated and filled for us at SP Pharmaceuticals, a division of Cardinal Health. We are in the process of identifying a new contract manufacturer for Aroplatin to replace SP Pharmaceuticals. In the meantime, we believe we have enough Aroplatin in stock to support our near-term clinical needs. Generally, we order Aroplatin in clinical lot sizes of up to 7,000 vials of 100 mg NDDP per vial and we believe we would be capable of scaling the process to commercial lot size.

#### **AG-702/AG-70X**

AG-702/AG-70X is our therapeutic vaccine program for the treatment of genital herpes based on our heat shock protein technology. AG-702 consists of HSPPCs that we manufacture by complexing a recombinant heat shock protein to a single peptide of herpes simplex virus-2 (HSV-2) and is referred to as a monovalent vaccine. In theory, a monovalent vaccine would only address approximately 40% of the patient population due to variances in patients' genetic makeup. AG-70X is a multivalent vaccine containing in excess of 30 HSV-2 peptides. We believe that by including additional peptides we can design an effective treatment for nearly all HSV-2 patients. AG-70X is an off-the-shelf product because the virus that causes genital herpes, HSV-2, is nearly identical in all patients so personalization of the product is not required.

*Background.* Genital herpes is caused by HSV-2, a contagious viral infection that affects an estimated 45 million Americans. Physicians estimate that up to 500,000 new cases may occur each year in the United States. Genital herpes is currently treated with palliative antiviral agents that reduce further replication of the virus. The challenge of antiviral therapy lies not only in treatment of the symptoms during the first and recurrent episodes but also in the long-term suppression of the herpes virus in patients with frequent recurrences.

*Clinical Trials.* We initiated a Phase I clinical trial of AG-702 as a proof of principal 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. To date, we have observed no significant toxicity related to the vaccine. We expect to initiate a Phase I/II clinical trial of AG-70X, our multivalent product, for the treatment of genital herpes in 2003.

#### ***Manufacturing***

The components of AG-702/AG-70X — recombinant heat shock protein and antigenic peptides — are manufactured for us by contract manufacturers. Clinical vials of AG-702/AG-70X are prepared in our 58,725 square foot manufacturing and research and development facility located in Woburn, Massachusetts. We anticipate moving the fill/finish operation involved in the preparation of AG-702/AG-70X to the new Lexington, Massachusetts facility during 2003.

#### **ATRA-IV**

ATRA-IV is a liposomal formulation of ATRA, all-*trans*-retinoic acid that can be given intravenously. ATRA is a derivative of retinol, otherwise known as vitamin A. We acquired ATRA-IV, formerly known as ATRAGEN, through our acquisition of Aronex Pharmaceuticals, Inc. in July 2001.

The oral formulation of ATRA has been proven to be active against a range of malignancies in isolated tissue culture systems and in human trials, but the duration of this effect has been transient. Recent evidence indicates that the basis for the limited duration of activity for oral tretinoin in one form of leukemia is a pharmacological adaptation that results in reduced blood levels of the drug after prolonged treatment. The development of ATRA-IV provides a formulation of ATRA therapy capable of sustaining blood concentration of tretinoin after prolonged courses of therapy.

ATRA-IV offers the advantage of decreased direct exposure of normal tissues to the active ingredient during circulation to levels below the orally administered toxic dosage. This effect has the potential to minimize or lessen the severity of toxicities associated with oral retinoid therapy.

The FDA has granted approval to a third party for an oral formulation of ATRA as a treatment for acute promyelocytic leukemia. Shortly after the acquisition of Aronex, based on our discussions with the FDA, we announced that an accelerated approval of ATRA-IV in acute promyelocytic leukemia was unlikely. As noted above, we are evaluating clinical development strategies for ATRA-IV in other indications that represent larger market opportunities.

### ***Manufacturing***

Like Aroplatin, ATRA-IV has been manufactured for us by contract manufacturers.

ATRA-IV has been formulated and filled for us by Ben Venue Laboratories or SP Pharmaceuticals, a division of Cardinal Health, at a scale of approximately 7,000 vials of 100 mg tretinoin per vial. We believe both Ben Venue Laboratories and SP Pharmaceuticals would be capable of producing commercial scale quantities of ATRA-IV.

## **QS-21 BASED PRODUCTS**

### ***Introduction***

QS-21 is best known for its ability to stimulate antibody, or humoral immune response, and has also been shown to activate cellular immunity. QS-21 is a natural product, a triterpene glycoside or saponin, purified from the bark of a South American tree called *Quillaja saponaria*. QS-21 is well 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 over 3,100 patients in more than 90 clinical trials and has proven to be significantly more effective in stimulating antibody responses than aluminum hydroxide or aluminum phosphate, the only adjuvants used in approved vaccines in the United States today.

Numerous studies have shown that the use of QS-21 adjuvant improves the quality of the immune response. Adding QS-21 to antigens generally broadens the type of antibodies produced and increases the titer or amount of antibodies produced. These properties are expected to provide better protection against certain pathogens for which no effective vaccine is available.

In addition to our research programs, we have six corporate partners that have licensed QS-21 for a variety of human diseases. Our QS-21 partners are Elan Corporation, plc, GlaxoSmithKline, P.L.C., Wyeth-Lederle Vaccines and Pediatrics, Aventis Pasteur, Progenics Pharmaceuticals, Inc., and Vaxgen, Inc. In return for rights to use QS-21, the corporate partners agreed to pay us license fees, milestone payments, and royalties on product sales. We have retained worldwide manufacturing rights for QS-21. In addition to our corporate partners, we have developed a number of academic collaborations to test new vaccine concepts and products containing QS-21.

### ***FeLV/QA-21 Vaccine***

Our FeLV vaccine is a recombinant subunit vaccine that uses the immune stimulant QA-21, which is in the same family as QS-21. The product is a prophylactic vaccine for feline leukemia, a highly contagious and commonly fatal disease in cats. The product was approved in 1990 in the United States and in 1991 in Europe and it represents 100% of our current product sales. We manufacture the product and sell it to Virbac S.A. and Virbac Australia, who market it in Europe, Australia, and Japan under their registered trademark Leucogen®. We manufacture formulated product for Virbac's Australian division and supply Virbac's European division with bulk FeLV antigen and QA-21 adjuvant for the European and Japanese markets. In 2002 we have only supplied product to Virbac S.A.

FeLV vaccine is provided to Virbac through two agreements: a license agreement and a supply agreement. The license agreement provides Virbac exclusive, perpetual, worldwide rights to market Leucogen. The supply agreement was up for renewal in July 2002, at which point we began to supply product to Virbac through month-to-month supply agreements. A long-term supply agreement is under negotiation.

We generated \$363,000, \$1,606,000, and \$2,627,000 in revenues from product sales outside of the United States in 2000, 2001, and 2002, respectively, compared with no revenues from product sales in the United States during the same periods. We have no material long-term assets located outside of the United States.

## **Partnered QS-21 Programs**

### ***GlaxoSmithKline***

GlaxoSmithKline has completed a number of clinical trials of product candidates containing QS-21 and is also investigating the use of combinations of different adjuvants that include QS-21. A study published in December 2001 in *The Lancet* reported that a GlaxoSmithKline malaria vaccine containing QS-21 showed protection against the most widespread and dangerous form of this disease. This was the first ever demonstration of significant protection against this disease in a field study.

GlaxoSmithKline is advancing a number of vaccine programs containing QS-21 through preclinical and clinical stages. To date, 15 indications are in, or have progressed through, the preclinical research phase. Eight of these have completed Phase I clinical studies and seven are undergoing or have completed Phase II studies. GlaxoSmithKline has informed us that two additional indications will commence Phase II studies in 2003.

### ***Wyeth-Lederle Vaccines and Pediatrics***

Wyeth-Lederle Vaccines and Pediatrics licensed QS-21 in 1992 for use in five vaccines. Wyeth-Lederle has completed a Phase I clinical trial of one of the vaccines using QS-21. Other Wyeth-Lederle indications are in preclinical development. Wyeth-Lederle has informed us that it intends to initiate an additional Phase I study in 2003.

### ***Aventis Pasteur***

Aventis Pasteur has licensed QS-21 for use in its HIV vaccine programs and has completed a number of clinical trials using different antigens. Phase I results were published in July 2001 in the journal *AIDS*, a leading peer reviewed HIV journal. Although this license is still active, we did not ship any QS-21 to Aventis Pasteur in 2002.

### ***Progenics Pharmaceuticals, Inc.***

Progenics Pharmaceuticals, Inc. has licensed QS-21 for use in certain therapeutic products for cancer including its GMK and MGv ganglioside vaccines. Progenics is completing a follow-up of a GMK Phase III clinical trial in melanoma with those at high risk of relapse. Progenics has also initiated a pivotal Phase III clinical trial of GMK in a different patient population, those at intermediate risk of recurrence of disease.

### ***Vaxgen, Inc.***

Vaxgen, Inc. has licensed QS-21 for use in its HIV-1 vaccine program. QS-21 is not used in Vaxgen's preventative AIDSVAX vaccine for HIV. In February 2003, Vaxgen announced that the Phase III data for AIDSVAX did not show a statistically significant reduction of HIV infection within the study population. Vaxgen has conducted a number of Phase I clinical trials in healthy volunteers with an HIV vaccine that is formulated with QS-21. In these trials, volunteers received very low doses of gp120 antigen combined with QS-21 and/or another adjuvant. These product formulations gave patients an immune response equal to or better than the high dose gp120 without QS-21.

### ***Elan Corporation***

Elan Corporation, plc, through its wholly owned subsidiary, Neuralab Limited, has licensed QS-21 for use with an antigen in the field of Alzheimer's disease. Elan initiated a multicenter Phase IIA trial of a product using QS-21, called AN-1792, in 2001. In March 2002, Elan halted dosing of patients with AN-1792 after several patients in this clinical trial experienced significant adverse events. These patients, however, are

being followed for further safety and efficacy data. Elan has also informed us that they intend to commence a Phase I trial of a different Alzheimer's vaccine that also utilizes QS-21 in late 2003.

### ***Manufacturing***

We manufacture QS-21 at a 40,000 square foot facility in Framingham, Massachusetts. We are capable of producing up to 2 million doses per batch at this facility. We believe that this production capacity could support initial, large-scale commercial production.

The FDA classifies QS-21 as a constituent material used in vaccine preparation. As a result, the FDA does not require licensure of the facilities used for the manufacture of QS-21. We believe that this classification affords flexibility in the timing of investment in commercial manufacturing facilities and will allow us to adjust the scale of manufacturing quickly if partner product candidates reach the market.

We also manufacture the FeLV vaccine antigen and the associated QA-21 adjuvant (a less pure formulation of QS-21) for our FeLV vaccine at our Framingham facility. We produce commercial quantities of this product at the 400-liter fermentation scale.

## **DISCOVERY PROGRAMS**

### ***Oncophage***<sup>NEXGEN</sup>

Building on the original, personalized application of the Antigenics HSP technology, we plan to file an investigational new drug (IND) application with the FDA in late 2003 for "next-generation" Oncophage, which incorporates several important innovations. With these advances, we expect to be able to manufacture sufficient quantities of HSP-peptide complexes from much smaller tissue samples — possibly as small as a single needle or core biopsy. As a result, patients with earlier stages of disease in a broader array of cancers may be able to benefit from immunotherapy with our personalized HSP-based products.

In December 2002, Pramod Srivastava, our founding scientist, published a paper in *Cancer Immunity* demonstrating that the next generation product is effective in preventing cancer in a mouse model. This was the same model, among many others, used previously to demonstrate that Oncophage was effective in eliciting a powerful immune response against cancer. Our scientists are currently testing the next-generation product in additional tumor models to determine optimal dosing and treatment regimen in preparation for the IND filing.

### ***CD91***

A natural extension of our HSP research and development has been our discovery of and work with the heat shock protein receptor CD91. Located on the surface of certain specialized immune cells, the CD91 receptor detects the presence of extracellular HSPs — a sign that nearby cells have become sick and undergone necrosis. Researchers believe that CD91 acts as a powerful on/off switch for the immune system, particularly the activation of 'killer' T-cells. Based on this discovery, we have initiated a carefully designed screening program to identify antibodies and small molecule compounds that can regulate the interaction between HSPs and the CD91 receptor. Antibodies and compounds that block this interaction may represent a major advance in the development of new approaches to the treatment of diseases such as arthritis, multiple sclerosis and diabetes.

### ***CD1***

We are also investigating an immune system pathway mediated by the CD1 receptor found on the surface of immune system cells such as macrophages and dendritic cells. Recent discoveries have shown that lipid-based antigens (as opposed to protein-based antigens) are processed via the CD1 pathway, which stimulates the production of a specialized type of T-cell called natural killer cells. Implicated in many infectious diseases, cancers and autoimmune disorders, lipid antigens processed through the CD1 pathway may represent an entirely new approach to the development of immunotherapeutics.



### ***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 74 issued United States patents and 112 foreign patents. We also have rights to 56 pending United States patent applications and 100 pending foreign patent applications. Our issued patents cover our core technologies including (i) HSP-based products such as Oncophage and AG-858 for treatment of cancers; (ii) HSP-based products such as AG-702 and AG-70X for treatment of infections; (iii) HSPs for treatment of autoimmune disorders; (iv) saponin adjuvants such as QS-21; and (v) liposomal drugs, including Aroplatin and ATRA-IV. Several patent applications are directed to the HSP receptor, CD91, one of our lead discovery programs.

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.

Generally, patents issued in the United States are effective for:

- the longer of 17 years from the date of issue or 20 years from the earliest effective filing date of the corresponding patent application if filed before June 8, 1995; and
- 20 years from the earliest filing date for patent applications filed on or after June 8, 1995.

The duration of foreign patents varies in accordance with applicable local law.

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 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.

### **Regulatory Considerations**

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 products. 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 post-marketing testing and 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 investigational new drug application, or 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” regulations. If the sponsor violates these regulations, in some cases, 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 I trials, the sponsor tests the product in a small number of patients or healthy volunteers, primarily for safety at one or more doses. In Phase II, in addition to safety, the sponsor evaluates the efficacy of the product in a patient population somewhat larger than Phase I trials. Phase III 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 institution 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 biologics license application. In a process which 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 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, the potential contribution that the compound will make in improving the treatment of the disease in question, and the workload at the FDA.

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 as well as a six-month review of marketing applications for the designated product. Our lead product, Oncophage, has been designated by the FDA as 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 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. 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 ATRA-IV in acute and chronic leukemia, for Aroplatin in malignant mesothelioma and for Oncophage in renal cell carcinoma and melanoma. In addition, we have submitted a request for and are actively negotiating orphan drug designation for ATRA-IV in lymphoma.

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 IV studies, and 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 biologics license application, the FDA will inspect the facilities at which the product is manufactured and will not approve the product unless the manufacturing facilities are in compliance with current Good Manufacturing Practices. 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 close 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.

Following approval, the manufacture, holding, and distribution of a product must be in compliance with current Good Manufacturing Practices. Manufacturers must expend time, money, and effort in the area of production and quality control and record keeping and reporting to ensure full compliance with those requirements. 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, 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.

We are also subject to regulation by the Occupational Safety and Health Administration and the Environmental Protection Agency and to regulation under the Toxic Substances Control Act, the Resource Conservation and Recovery Act and other regulatory statutes, and may in the future be subject to other federal, state or local regulations. Either or both OSHA and/or the EPA may promulgate regulations that may affect our research and development programs.

Sales of pharmaceutical products outside the United States are subject to foreign regulatory requirements that vary widely from country to country. Whether or not we have obtained FDA approval, we must obtain approval of a product by comparable regulatory authorities of foreign countries prior to the commencement of marketing the product in those countries. The time required to obtain this approval may be longer or shorter than that required for FDA approval.

## **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, infectious diseases, and autoimmune disorders. In addition, many competitors focus on immunotherapy as a treatment for cancer, infectious diseases, and autoimmune disorders. In particular, some of these companies are developing autologous cancer vaccines. Others are focusing on developing heat shock protein products. We compete for funding, access to licenses,

personnel, and third-party collaborations. In addition, 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. A competing company developing, or acquiring rights to, a more efficacious therapeutic product for the same diseases we are targeting, or one which offers 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 Biomira Inc., CancerVax Corporation, Cell Genesys Inc., Corixa Corporation, Dendreon Corporation and Genzyme Corporation, 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, Genentech, Roche, Merck, Schering-Plough, AstraZeneca, and Wyeth, have expertise in, and are developing products for the treatment of cancer, infectious diseases, and autoimmune disorders.

Certain of our corporate partners have also partnered with direct competitors in the vaccine adjuvant market, such as Coley Pharmaceutical Group, Corixa Corporation 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 February 28, 2003, we had 212 employees, of whom 33 have Ph.D.s and 5 have M.D.s. 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.

### **Available Information**

You may obtain a free copy of our annual report on Form 10-K, our quarterly reports on Form 10-Q and current reports on Form 8-K, and amendments to these reports, as soon as reasonably practicable after we file them with the SEC through our website at <http://www.antigenics.com>. The reference to our website is not intended to incorporate information on our website into this document.

**Item 1A. Directors and Executive Officers of the Registrant**

Set forth below is certain information regarding our executive officers, certain key employees, and directors, including their age as of March 27, 2003:

<u>Name</u>	<u>Age</u>	<u>Title</u>
Garo H. Armen, Ph.D. ....	50	Chairman of the Board and Chief Executive Officer
Pramod K. Srivastava, Ph.D. ....	47	Director, Founding Scientist and Chairman of the Scientific Advisory Board
Elma S. Hawkins, Ph.D. ....	46	Vice Chairman
Russell H. Herndon ....	44	President and Chief Operating Officer
Jonathan Lewis, MD, Ph.D. ....	44	Chief Medical Officer
Jeff D. Clark ....	30	Chief Financial Officer
Neal Gordon, Ph.D. ....	41	Senior Vice President of Manufacturing Operations
Noubar Afeyan, Ph.D.(3) ....	40	Director
Frank V. AtLee III(2)(3) ....	61	Director
Gamil G. de Chadarevian ....	51	Director, Vice Chairman of the Board
Tom Dechaene(2) ....	43	Director
Margaret Eisen(1)(2) ....	49	Director
Wadih (Bill) Jordan(1) ....	68	Director
Mark Kessel(3) ....	61	Director
Martin Taylor ....	50	Director

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

*Garo H. Armen, Ph.D.* co-founded Antigenics in 1994 and has been the Chairman of the Board and Chief Executive Officer since inception. Dr. Armen was previously a Senior Vice President of Research for Dean Witter Reynolds, focusing on the chemical and pharmaceutical industries. Dr. Armen has also served as an Associate Professor at the Merchant Marine Academy and as a research associate at the Brookhaven National Laboratory. He currently serves as non-executive Chairman of Elan Corporation, plc and a director of Color Kinetics Inc. Dr. Armen received his Ph.D. in physical chemistry from the City University of New York in 1979. Since 1990, Dr. Armen has been the managing general partner of Armen Partners, L.P., an investment partnership specializing in public and private healthcare and biotechnology investments.

*Pramod K. Srivastava, Ph.D.* is the scientific founder of Antigenics, and has served as the Chairman of our Scientific Advisory Board since inception. Dr. Srivastava is a Professor of Immunology at the University of Connecticut where he holds an endowed chair in cancer immunology and is the Director of the Center for Immunotherapy of Cancer and Infectious Diseases. Dr. Srivastava earned his Ph.D. in Biochemistry from the Centre for Cellular and Molecular Biology, Hyderabad, India and received postdoctoral training at Yale University and the Sloan-Kettering Institute for Cancer Research. He has held faculty positions at Fordham University and at Mount Sinai School of Medicine in New York. Dr. Srivastava serves on the Scientific Advisory Council of the Cancer Research Institute, New York, and was a member of the Experimental Immunology Study Section of the National Institutes of Health of the United States Government from 1994 until 1999. He has been inducted into the Roll of Honor of the International Union against Cancer and is listed in several Who's Who's. He is among the founding members of the Academy of Cancer Immunology. Dr. Srivastava serves on the board of directors of Ikonisys, Inc. and CambriaTech Holding S.A.

*Elma S. Hawkins, Ph.D.* has served as our Vice Chairman since January 2001 and as our Senior Vice President from August 1998 until January 2001. From July 1996 through August 1998, Dr. Hawkins served as our Chief Operating Officer. Prior to her employment with us, Dr. Hawkins served in a number of senior positions at Genzyme Corporation, including Director of Corporate Development. Dr. Hawkins has also held positions in preclinical and clinical research at Warner-Lambert/Parke-Davis and at the Center for the Study of Drug Development at Tufts Medical School. Dr. Hawkins holds a Ph.D. in medicinal chemistry from the University of Alabama and an M.B.A. from Boston University.

*Russell H. Herndon* has served as our President since January 2002 and as our Chief Operating Officer since January 2001. Mr. Herndon was with Genzyme Corporation from 1989 through 2000, holding various management positions including, most recently, President of the Genzyme Tissue Repair Division and, from 1997 to 1999, Senior Vice President of Genzyme. During his tenure at Genzyme, Mr. Herndon identified and organized major programs to streamline and improve operations, implement cost reductions and flexibly and efficiently expand production capacity. Mr. Herndon received a Bachelor's Degree in biology from Barton College and attended Harvard Business School for its Program in Management and Development.

*Dr. Jonathan Lewis, M.D., Ph.D.* has been our chief medical officer and chairman of the medical board since June 2000. Dr. Lewis joined the company from Memorial Sloan-Kettering Cancer Center in New York, where he was an attending surgeon in the department of surgery and an attending physician in the department of medicine. He was also a professor at Weill Medical College of Cornell University. Dr. Lewis obtained his M.D. from Witwatersrand University in Johannesburg, and his Ph.D. from Yale University. He has also trained at The Royal College of Surgeons in Edinburgh, Cambridge University, and Memorial Sloan-Kettering Cancer Center.

*Jeff D. Clark* joined Antigenics as Director, Strategic Planning in 2001 and was appointed Chief Financial Officer in March 2003. Mr. Clark's professional experience includes several years at Price-waterhouseCoopers, where he worked in the firm's tax mergers and acquisitions consulting practice and advised clients on structuring and due diligence matters for numerous corporate transactions. Prior to joining Antigenics in 2001, he was Vice President of Finance and Controller for PrimeStreet Corporation, an Internet firm that specialized in small business financing, where he built and led the finance and accounting function and was a key member of the firm's senior management team. Mr. Clark, a certified public accountant, began his career at Coopers & Lybrand LLP, and earned his bachelor's and master's degrees from the University of Texas School of Business in Austin, Texas.

*Neal Gordon, Ph.D.* has served as Antigenics' Senior Vice President of Manufacturing Operations since January 2001. Prior to this position he served as Vice President of Operations from May 1999 and as our Vice President of Process Development from July 1998. Dr. Gordon joined Antigenics in 1998, following ten years at PerSeptive Biosystems, a division of PE Corp. Most recently, he was Senior Director of Chromatography Research and Development, involved in the development and application of innovative technologies for the purification and analysis of biopolymers. Earlier he was a product development engineer at Proctor & Gamble. In 1983, Dr. Gordon obtained a Bachelors Degree in chemical engineering from McGill University, and a Ph.D. in biochemical engineering from the Massachusetts Institute of Technology in 1989.

*Noubar Afeyan, Ph.D.* has been a director since 1998. Dr. Afeyan is Senior Managing Director and CEO of Flagship Ventures, an entrepreneurship and venture capital firm he co-founded in 1999. He is also a Senior Lecturer at MIT's Sloan School of Management. Until August 1999, Dr. Afeyan was Senior Vice President and Chief Business Officer of Applera Corporation (previously PE Corp.). Until 1997, Dr. Afeyan was the Chairman and CEO of PerSeptive Biosystems, a leading firm in the bio-instrumentation field that he founded in 1987 and led until its merger with PE Corp. Dr. Afeyan has been a founding team member, investor and active board member/advisor for several other high-tech startups and currently serves on the board of several private companies. In addition, he is a member of the Board of Governors of Boston University Medical School, the Board of Advisors for the Whitehead Institute at MIT, and the Advisory Council of the McGowan Institute for Regenerative Medicine. He has authored numerous scientific publications and patents. Dr. Afeyan earned his undergraduate degree in chemical engineering from McGill University in Montreal and his Ph.D. in biochemical engineering from the Massachusetts Institute of Technology.



*Frank V. AtLee III* has been a director since July 2002. Mr. AtLee has been Chairman of the Board of the new Monsanto Company since October 2000, when Pharmacia Corporation made an initial public offering of Monsanto stock. Mr. AtLee is also on the board of Nereus Pharmaceuticals Inc. and serves as Chairman of the Advisory Board for Arizona BioDesign Institute (AzBio), a research initiative at Arizona State University. Prior to becoming Monsanto's Chairman, he spent 28 years with American Cyanamid before retiring as President and Chairman of Cyanamid International. In his years with American Cyanamid, Mr. AtLee had a broad range of responsibilities including leadership of the worldwide medical business, marketing and sales management in industrial chemicals, vice president for the company's agricultural division, worldwide leadership of the organic chemicals group, vice president of Lederle Laboratories, and president of Cyanamid's Europe/Mideast/Africa division. Mr. AtLee is a native of Richmond, Virginia, who graduated from Lynchburg (VA) College with a bachelor's degree in biology and chemistry. He served three years as an officer in the U.S. Marine Corps.

*Gamil G. de Chadarevian* has served as Vice Chairman of the Board since 1995 and served as Executive Vice President International from 1998 to 2001. Until April of 1998, he was Managing Director of Special Projects at Alza International, responsible for creating new business opportunities in Europe. From 1992 to 1993, Mr. de Chadarevian was the Vice President of Corporate Development for Corange London Limited. Prior to 1992, Mr. de Chadarevian held positions at Pasfin Servizi Finanziaria SpA, GEA Consulenza and Credit Suisse. He is also co-founder and serves as an advisor to several private health care companies in the United States and Europe. Mr. de Chadarevian is the co-founder of Ikonisys, Inc. and CambriaTech Holding S.A., which are privately held companies. He also serves on the Advisory Board of Syntek Capital AG and serves as a consultant to Ivax Corporation. Mr. de Chadarevian received a Lic. Oec. Publ. Degree from the University of Zurich in Switzerland.

*Tom Dechaene* has been a director since 1999. From 2000 to 2002 Mr. Dechaene was the Chief Financial Officer of SurfCast, Inc. He was with Deutsche Bank from 1991 through 1999, most recently as a director in the Principal Investments Group within the Equity Capital Markets division. Mr. Dechaene holds a law degree from Ghent University, Belgium, a degree in Applied Economics from the University of Antwerp and an M.B.A. from INSEAD, France.

*Margaret Eisen* has been a director since March 2003. Ms. Eisen was Managing Director of DeGuardiola Advisors, an investment bank specializing in mergers and acquisitions of investment management firms, and has served in such position from 2001 to 2002. Ms. Eisen was Managing Director of North American Equities of General Motors Investment Management Corporation, a registered investment advisor. Ms. Eisen serves on the board of Global Financial Group and the board of trustees of the Acorn Family of Mutual Funds of Asset Management. Ms. Eisen received a bachelor's degree in government from Smith College, a master's degree in education from Lesley College, and an M.B.A. from Babson College.

*Wadih (Bill) Jordan* has been a director since March 2003. Mr. Jordan is President of NearEast Pharma, a company marketing pharmaceuticals in near east markets, and has served in such position since 1996. From 1993 to 1995, Mr. Jordan served as a Vice President of Cyanamid International, a research-based life sciences company, and from 1976 to 1993 Mr. Jordan served as a Managing Director within Cyanamid International. Mr. Jordan received a bachelor's degree in agriculture at the American University of Beirut, Lebanon and a certificate in international business from Columbia University.

*Mark Kessel* has been a director since March 2003. Mr. Kessel is currently managing director of Symphony Capital, a merchant banking firm specializing in life science and health care companies that he co-founded in 2002. He was formerly the managing partner and head of the corporate finance group at the leading international law firm Shearman & Sterling. Mr. Kessel received a bachelor's degree in economics from the City College of New York and a law degree from Syracuse University.

*Martin Taylor* has been a director since June 1999. From 1993 until 1998, Mr. Taylor held the position of Chief Executive Officer of Barclays Bank plc. Mr. Taylor was for some years a member of the UK Government's Council for Science and Technology and, since November 1999, has been Chairman of W.H. Smith plc and an advisor to Goldman Sachs International. He is also a member of the board of directors of Syngenta AG and RTL SA. Mr. Taylor was educated at Balliol College, Oxford University.



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

We lease approximately 58,725 square feet of manufacturing, research and development, and office space in Woburn, Massachusetts under a lease agreement that terminates in November 2003. We have an option to renew this lease until January 2004. We have signed a lease agreement, effective August 2003, for a 160,000 square foot facility in Lexington, Massachusetts, which terminates in July 2013. We have an option to renew this lease for two additional ten-year periods. We will occupy this new facility, which is intended to be our commercial launch facility, in phases as needed beginning in 2003. We also lease approximately 40,000 square feet of laboratory, manufacturing, research and development, and office space in Framingham, Massachusetts under a lease agreement that terminates in July 2010. We have an option to renew the lease for two additional five-year periods. In addition, through our acquisition of Aronex Pharmaceuticals, we lease 30,000 square feet of laboratory and office space in The Woodlands, Texas, a suburb of Houston, under a lease that expires in January 2008. We are not actively using this facility and have sublet the majority of this facility to other tenants. We lease office space in the Netherlands under a lease agreement terminating in September 2004. We no longer have operations in the Netherlands. In addition, we maintain our executive offices in New York, New York, in an office building in which we lease approximately 10,000 square feet. Our New York lease terminates in December 2006.

## **Item 3. *Legal Proceedings***

Antigenics, our Chairman and Chief Executive Officer Garo Armen, 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 300 other issuers, their underwriters, and 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 in the other 300 initial public offering cases. 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 Defendant's 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 our motion to dismiss the Rule 10(b)-5 and Section 20 claims with leave to amend and denied our motion to dismiss the Section 11 and Section 15 claims. We expect that the plaintiffs will file an amended complaint.

On February 11, 2003, we filed a complaint for undisclosed damages in the Federal District Court in the Southern District of New York against U.S. Bancorp Piper Jaffray for breach of fiduciary duty and breach of contract, and against Scott Beardsley and Peter Ginsburg for libel and intentional interference with economic relations in connection with our January 2002 follow-on stock offering. The suit alleges that, in retaliation for not being named lead underwriter of the follow-on offering, U.S. Bancorp Piper Jaffray dropped its research coverage and Peter Ginsburg and Scott Beardsley made false and defamatory statements about Antigenics

with the purpose of harming our reputation and interfering with the follow-on stock offering. As part of its regulatory focus on investment banking and research analyst conflicts, the National Association of Securities Dealers (NASD) found that Scott Beardsley threatened to discontinue research coverage and stop making a market in our stock if we did not select U.S. Bancorp Piper Jaffray as lead underwriter for the secondary offering. As part of a settlement with NASD, U.S. Bancorp Piper Jaffray and Scott Beardsley were censured and fined \$250,000 and \$50,000, respectively.

In February 2001 we filed a complaint in the Superior Court of Middlesex County, Massachusetts, against 8 Cabot Road Inc. and 12 Cabot Road Inc. for breach of contract and against Susan F. Brand for breach of fiduciary duty for failure to return a \$350,000 deposit held in escrow in connection with a purchase and sale agreement for property to expand our Woburn, Massachusetts facility. On March 26, 2003, the parties reached an agreement that extends the current lease term of our Woburn facility, at our current monthly rental rate, from August 2003 to November 2003 with an option to extend further to January 2004. Additionally, we have agreed to let the defendants keep the \$350,000 security deposit and they will pay us the interest income that has been earned on the deposit to date.

A Notice of Arbitration was filed in the International Chamber of Commerce Arbitration by DeLaval AB to resolve disputes between the parties concerning certain milestone payments under a License Agreement. The License Agreement at issue related to technology for the development of a vaccine against bovine mastitis. As of July 12, 2002, the parties have reached an agreement that resolves these proceedings to the satisfaction of all parties concerned. The amount of the settlement was covered by existing accruals for the amounts being disputed.

We currently are a party to other legal proceedings as well. While our management currently believes 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 2002.

#### **Item 5. *Market for the Registrant's Common Stock and Related Stockholder Matters***

Our common stock has been traded on The Nasdaq National Market under the symbol "AGEN" since February 4, 2000.

The following table sets forth the range of the high and low per share sales prices for our common stock for the quarterly periods indicated:

	<u>High</u>	<u>Low</u>
2001		
First Quarter . . . . .	\$18.19	\$10.50
Second Quarter . . . . .	21.38	12.50
Third Quarter . . . . .	19.65	11.05
Fourth Quarter . . . . .	18.20	12.54
2002		
First Quarter . . . . .	16.87	11.01
Second Quarter . . . . .	14.30	8.45
Third Quarter . . . . .	11.00	6.60
Fourth Quarter . . . . .	12.50	6.73
2003		
First Quarter (through March 19, 2003) . . . . .	11.88	7.08

As of March 19, 2003, there were approximately 2,100 holders of record and approximately 26,993 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, to fund the development of our business.

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

We have derived the consolidated balance sheet data set forth below as of December 31, 2001 and 2002, and the consolidated statement of operations data for each of the years in the three-year period ended December 31, 2002, from our audited consolidated financial statements included elsewhere in this annual report. We have derived the consolidated balance sheet data as of December 31, 1998, 1999, and 2000 and the consolidated statement of operations data for the years ended December 31, 1998 and 1999, from our audited consolidated financial statements, which are not included in this annual report. These consolidated financial statements have been audited by KPMG LLP, independent auditors.

You should read the selected consolidated financial data in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements and the notes to those consolidated financial statements included elsewhere in this report.

Given our history of incurring operating losses, management believes that it is more likely than not that any deferred tax assets, net of deferred tax liabilities, will not be realized. Therefore, there is no income tax benefit in the consolidated financial statements for periods ended after February 2000 because of a loss before income taxes and the need to recognize a valuation allowance on net deferred tax assets.

Changes in cash, cash equivalents and marketable securities, total current assets, total assets, and stockholders’ equity in the periods presented below include the effects of the receipt of net proceeds from our equity offerings, the exercise of stock options and warrants, and employee stock purchases that totaled approximately \$18.0 million, \$41.1 million, \$66.8 million, \$0.9 million and \$56.9 million in 1998, 1999, 2000, 2001 and 2002.

	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>
	(In thousands, except per share data)				
<b>Consolidated Statement of Operations Data:</b>					
Revenue .....	\$ —	\$ 581	\$ 443	\$ 4,555	\$ 3,412
Operating Expenses:					
Cost of goods sold .....	—	—	(363)	(1,064)	(1,337)
Research and development .....	(5,947)	(11,958)	(17,575)	(31,357)	(39,983)
General and administrative .....	(3,693)	(7,480)	(9,190)	(13,762)	(19,467)
Acquired in-process research and development(1) .....	<u>—</u>	<u>—</u>	<u>(25,800)</u>	<u>(34,596)</u>	<u>—</u>
Loss from operations .....	(9,640)	(18,857)	(52,485)	(76,224)	(57,375)
Interest income, net .....	736	723	5,756	2,683	1,225
Non-operating income .....	<u>—</u>	<u>10</u>	<u>—</u>	<u>—</u>	<u>272</u>
Net loss(2) (3) .....	<u>\$(8,904)</u>	<u>\$(18,124)</u>	<u>\$(46,729)</u>	<u>\$(73,541)</u>	<u>\$(55,878)</u>
Net loss per share, basic and diluted .....	<u>\$ (0.54)</u>	<u>\$ (1.00)</u>	<u>\$ (1.90)</u>	<u>\$ (2.61)</u>	<u>\$ (1.70)</u>
Weighted average number of shares outstanding, basic and diluted .....	<u>16,459</u>	<u>18,144</u>	<u>24,659</u>	<u>28,143</u>	<u>32,905</u>
<b>Consolidated Balance Sheet Data:</b>					
Cash, cash equivalents and short-term investments .....	\$22,168	\$ 46,418	\$ 99,139	\$ 60,868	\$ 58,725
Total current assets .....	22,447	47,672	101,593	63,987	63,400
Total assets .....	26,636	56,004	127,966	93,546	89,063
Total current liabilities .....	2,285	2,171	8,611	16,208	9,971
Long-term liabilities, less current portion . . .	709	2,155	2,651	1,414	1,335
Stockholders' equity .....	23,641	51,678	116,703	75,925	77,757

- (1) We recorded charges to operations for the write-off of in-process research and development acquired in our mergers with Aquila Biopharmaceuticals Inc. in November 2000 and with Aronex Pharmaceuticals Inc. in July 2001.
- (2) Prior to our conversion from a limited liability company to a corporation in February 2000, in accordance with federal, state, and local income tax regulations which provide that no income taxes are levied on United States limited liability companies, each member of the limited liability company was individually responsible for reporting his share of the company's net income or loss. Accordingly, we have not provided for income taxes in our consolidated financial statements for periods before February 2000. Given our history of incurring operating losses, no income tax benefit is recognized in our consolidated financial statements for periods after February 2000 because of a loss before income taxes and the need to recognize a valuation allowance on net deferred tax assets.
- (3) Effective July 1, 2002, we adopted Statement of Financial Accounting Standards (SFAS) No. 141, "Business Combinations" and effective January 1, 2002 adopted SFAS No. 142, "Goodwill and Other Intangibles." As a result, we have ceased amortization of all goodwill beginning January 1, 2002. Had

SFAS No. 142 been adopted by us effective January 1, 2000, net loss and net loss per share, basic and diluted, would have been as follows (in thousands, except per share data):

	<u>2000</u>	<u>2001</u>
Net loss, as reported .....	\$(46,729)	\$(73,541)
Goodwill and assembled workforce amortization .....	<u>39</u>	<u>480</u>
Pro forma net loss .....	<u><u>\$(46,690)</u></u>	<u><u>\$(73,061)</u></u>
Basic and diluted net loss per share:		
As reported .....	\$ (1.90)	\$ (2.61)
Pro forma .....	(1.89)	(2.60)

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

### **Overview**

We are currently developing products to treat cancers, infectious diseases and autoimmune disorders. Since our inception in March 1994, our activities have primarily been associated with the development of our heat shock protein technology and our flagship product candidate, Oncophage. Our business activities have included product research and development, intellectual property prosecution, manufacturing therapeutic vaccines for clinical trials, regulatory and clinical affairs, and integration of our acquisitions.

We have incurred significant losses since our inception. To date, we have generated product sales revenues from one product. Our revenues from this product were \$1,606,000 and \$2,627,000 for the years ended December 31, 2001 and 2002, respectively. During the years ended December 31, 2001 and 2002, we also had revenues of \$2,949,000 and \$784,000, respectively, related to shipments of our QS-21 adjuvant to our research partners and grant payments earned. As of December 31, 2002, we had an accumulated deficit of \$213,764,000 inclusive of non-cash charges of \$60,396,000 for acquired in-process research and development and \$14,575,000 related to grants of stock options, warrants and common stock. We do not expect to generate significant revenues until 2005 and thus, we expect to continue to incur net losses as we complete our clinical trials, apply for regulatory approvals, build a sales force and marketing department, continue development of our technology and expand our operations. We continue to be dependent on equity and debt financings to fund our business activities.

### ***Forward-Looking Statements***

This report contains forward-looking statements, including the statements regarding the expected renewal of our agreement with Virbac S.A., the sufficiency of current working capital to fund operations into the third quarter of 2004, our ability to generate significant revenues from Oncophage during 2005, our ability to begin generating cash from operations in 2006, and other statements expressed in terms of our expectations, plans or goals. These statements are subject to risks and uncertainties that could cause actual results to differ materially from those indicated in these forward-looking statements. These risks and uncertainties include, among others, that we may not be able to enroll sufficient numbers of patients in our clinical trials; that our clinical trials may not demonstrate that our products are both safe and more effective than current standards of care; that we may be unable to obtain the regulatory approvals necessary to conduct additional clinical trials or to market products; that we may fail to adequately protect our intellectual property or that we are determined to infringe on the intellectual property of others; that Orphan Drug status may not be maintained in the event of legislative changes or introduction of a more efficacious product in this disease category; and the factors identified in Exhibit 99.1 of this report. We caution investors not to place undue reliance on the forward-looking statements contained in this report. These statements speak only as of the date of this report, and we undertake no obligation to update or revise these statements.

## Historical Results of Operations

### *Year Ended December 31, 2002 Compared To The Year Ended December 31, 2001*

**Revenue:** We generated \$1,606,000 and \$2,627,000 of product revenue during the years ended December 31, 2001 and 2002, respectively. We had \$2,949,000 and \$784,000 of research and development revenue during the years ended December 31, 2001 and 2002, respectively. Product revenues consist of sales of our feline leukemia vaccine through a supply agreement with our marketing partner Virbac S.A., a French company that has exclusive, perpetual, worldwide rights to market the product. The supply agreement was up for renewal in July 2002, at which point we began to supply product to Virbac S.A. through month-to-month supply agreements. A long-term supply agreement is under negotiation. If a long-term agreement is not executed, or if we cease to ship them product on a month-to-month basis, we may not generate further revenues from the sale of this product, the only product we currently sell. Revenues from research and development activities include shipments of adjuvant QS-21 to be used in clinical trials by our partners and grant payments earned, and in 2001, milestones earned. Under the terms of our license agreement with Neuralab Limited, a wholly owned subsidiary of Elan Corporation, plc, we received a \$1,000,000 milestone payment in 2001 related to the initiation of a Phase IIA clinical trial of a product using QS-21. In 2001, our adjuvant was shipped for use in this trial. In March 2002, Elan halted the dosing of patients with its product after several patients experienced significant adverse effects and no further shipments were made during 2002.

**Cost of Sales:** Cost of sales, which is related entirely to product revenue, was \$1,064,000 and \$1,337,000 for the years ended December 31, 2001 and 2002, respectively, representing 66% and 51% respectively, of product sales. Cost of sales in 2001 partially represented the cost of inventory acquired in our merger with Aquila Biopharmaceuticals, Inc. that was adjusted to its fair value as a result of the application of purchase accounting rules.

**Research and Development:** Research and development expense increased 28% to \$39,983,000 for the year ended December 31, 2002 from \$31,357,000 for the year ended December 31, 2001. The increase was primarily due to the costs associated with our Oncophage clinical trials that increased \$9,106,000 for the year ended December 31, 2002 over the same period in 2001 particularly due to the advancement of our Phase III clinical trial in kidney cancer, a \$492,000 increase in depreciation expense due to the non-renewal of our current lease of our Woburn, Massachusetts manufacturing facility, and \$284,000 due to the write-off of obsolete software. These increases are partially offset by a decrease in the non-cash charge for options granted and earned by outside advisors, directors and employees to \$621,000 for the year ended December 31, 2002 from \$783,000 for the year ended December 31, 2001, the decrease in research production costs of \$714,000, and a \$380,000 net decrease in other ongoing development activities during the year ended December 31, 2002 over the year ended December 31, 2001. Research and development expenses consist primarily of compensation for employees and outside advisors conducting research and development work, funding paid to conduct our clinical trials, funding paid to institutions, including the University of Connecticut where we sponsor research, costs associated with the operation of our manufacturing and laboratory facilities, and expenses related to grant revenue recognized.

**General and Administrative:** General and administrative expenses increased 41% to \$19,467,000 for the year ended December 31, 2002 from \$13,762,000 for the year ended December 31, 2001. The increase was primarily due to the increase in payroll related expenses for employees to support our expanded business operations which increased costs by \$2,933,000, increased legal fees of \$1,375,000, Aronex related administrative expenses of \$685,000, \$481,000 for long-term investment impairment charges, and other net increases in our general and administrative expenses, which were \$457,000 higher for the year ended December 31, 2002 over the year ended December 31, 2001. These increases were partially offset by the decrease in the non-cash charge for options granted and earned by outside advisors, directors, and employees to \$214,000 for the year ended December 31, 2002 from \$440,000 for the year ended December 31, 2001. General and administrative expenses consist primarily of personnel compensation, office expenses and professional fees.

**Acquired In-Process Research and Development:** Acquired in-process research and development of \$34,596,000 in 2001 was a non-cash charge related to our merger with Aronex Pharmaceuticals. A component of the total purchase price of the merger was allocated to incomplete acquired technologies under development



but not yet technologically feasible or commercialized and which had no alternative future uses, and were expensed at acquisition date. At the date of the acquisition, none of the products under development by Aronex Pharmaceuticals that were included in our in-process research and development charge had achieved technological feasibility and none were being sold on the market. There still remained substantial risks and significant uncertainty concerning the remaining course of technical development. We need to conduct extensive additional research, preclinical and clinical testing of these products, and obtain regulatory approval, prior to any commercialization. Because of the great uncertainty associated with these issues and the remaining effort associated with development of these products, the development projects had not established technological feasibility at the acquisition date. Further, these partially completed products had no alternative future uses at the valuation date if the contemplated programs were to fail, as the technology was highly specialized to the targeted products.

The acquired in-process research and development charge and related accounting is further described in Note 3 to our consolidated financial statements included in this annual report.

*Non-operating Income:* Non-operating income was \$272,000 for the year ended December 31, 2002 and represents rental income earned on the sublease of our Framingham, Massachusetts facility.

*Interest Income:* Interest income decreased 53% to \$1,590,000 for the year ended December 31, 2002 from \$3,374,000 for the year ended December 31, 2001. This decrease is attributable to declining interest rates during 2002. Our average interest rate decreased from 3.9% for the year ended December 31, 2001, to 1.9% for the year ended December 31, 2002.

*Interest Expense:* Interest expense decreased 47% to \$365,000 for the year ended December 31, 2002 from \$690,000 for the year ended December 31, 2001. The decrease is attributable to our reduced debt balance during the twelve-month period ended December 31, 2002.

#### ***Year Ended December 31, 2001 Compared to the Year Ended December 31, 2000***

*Revenue:* As a result of the acquisition of Aquila Biopharmaceuticals, Inc. in November 2000, we generated \$363,000 and \$1,606,000 of product revenue during the years ended December 31, 2000 and 2001. We had \$80,000 and \$2,949,000 of research and development revenue during the years ended December 31, 2000 and 2001. Product revenues consist of sales of our feline leukemia vaccine to our marketing partner Virbac S.A. Revenues from research and development activities consist of shipments of our adjuvant QS-21 to be used in clinical trials by our partners and, in 2001, milestone and grant payments earned.

*Cost of Sales:* Cost of sales, which is related entirely to product revenue, was \$1,064,000 for the year ended December 31, 2001. Cost of sales was \$363,000 for the year ended December 31, 2000. For the years ended December 31, 2000 and 2001, cost of sales were 100% and 66%, respectively, of product sales. Cost of sales in 2000 represented the cost of inventory acquired in our merger with Aquila that was adjusted to its fair value as a result of the application of purchase accounting rules.

*Research and Development:* Research and development expense increased 78% to \$31,357,000 for the year ended December 31, 2001 from \$17,575,000 for the year ended December 31, 2000. The Aquila and Aronex Pharmaceuticals acquisitions increased research costs by \$6,855,000 for the year ended December 31, 2001. The increase was also due to the costs associated with our Oncophage clinical trials that increased \$3,345,000 over the year ended December 31, 2000 particularly due to the initiation of our Phase III clinical trial in kidney cancer. Increases in our staff to support our expanded research and development activities resulted in increasing costs by \$3,052,000. Other ongoing development activities were \$844,000 higher than in 2000. These increases were partially offset by the decrease in the non-cash charge for options granted and earned by outside advisors, directors, and employees from \$1,097,000 for the year ended December 31, 2000 to \$783,000 for the year ended December 31, 2001. Research and development expenses consist primarily of compensation for employees and outside advisors conducting research and development work, funding paid to conduct our clinical trials, funding paid to institutions, including the University of Connecticut where we sponsor research, costs associated with the operation of our manufacturing and research and development

facilities, expenses related to grant revenue recognized, and the cost of clinical materials shipped to our research partners.

*Acquired In-Process Research and Development:* Acquired in-process research and development of \$25,800,000 in 2000 was a non-cash charge related to our merger with Aquila. A component of the total purchase price of the merger was allocated to incomplete acquired technologies under development but not yet technologically feasible or commercialized and expensed at acquisition date. At the date of the acquisition, none of the products under development by Aquila that were included in our in-process research and development charge had achieved technological feasibility and none were being sold on the market. There still remained substantial risks and significant uncertainty concerning the remaining course of technical development. We need to conduct extensive additional research, preclinical and clinical testing of these products, and obtain regulatory approval, prior to any commercialization. Because of the great uncertainty associated with these issues and the remaining effort associated with development of these products, the development projects had not established technological feasibility at the acquisition date. Further, these partially completed products had no alternative future uses at the valuation date if the contemplated programs were to fail, as the technology was highly specialized to the targeted products.

*General and Administrative:* General and administrative expenses increased 50% to \$13,762,000 for the year ended December 31, 2001 from \$9,190,000 for the year ended December 31, 2000. The Aquila and Aronex Pharmaceuticals acquisitions increased general and administrative costs by \$2,252,000 for the year ended December 31, 2001. The increase was also due to the growth in the number of employees to support our expanded business operations which increased costs by \$2,013,000, increased corporate office expenses related to this growth of \$485,000, increased legal fees of \$350,000, and other increases in our general and administrative expenses, which were \$400,000 higher for the year ended December 31, 2001 than for the same period in 2000. These increases were partially offset by the decrease in the non-cash charge for options granted and earned by outside advisors, directors, and employees to \$440,000 for the year ended December 31, 2001 from \$1,368,000 for the year ended December 31, 2000. General and administrative expenses consist primarily of personnel compensation, office expenses and professional fees.

*Interest Income:* Interest income decreased 45% to \$3,374,000 for the year ended December 31, 2001 from \$6,181,000 for the year ended December 31, 2000. This decrease is attributable to declining interest rates during 2001, as well as decreasing average cash and cash equivalents and interest-bearing marketable securities balances during the year ended December 31, 2001 as compared to the year ended December 31, 2000. Our average interest rate decreased from 6.12% for the year ended December 31, 2000, to 3.90% for the year ended December 31, 2001.

*Interest Expense:* Interest expense increased 62% to \$690,000 for the year ended December 31, 2001 from \$425,000 for the year ended December 31, 2000 due to the additional borrowings we assumed in the Aquila and Aronex Pharmaceuticals acquisitions.

### **Liquidity and Capital Resources**

We have incurred annual operating losses since inception, and, as of December 31, 2002, we have incurred an accumulated deficit of \$213,764,000 inclusive of non-cash charges of \$60,396,000 for acquired in-process research and development and \$14,574,000 related to grants of stock options, warrants, and common stock. Since our inception, we have financed our operations primarily through the sale of equity, interest income earned on cash, cash equivalents, and short-term investment balances and debt provided through a credit line secured by some of our manufacturing and laboratory assets. From our inception through December 31, 2002, we raised aggregate net proceeds of \$203,744,000 through the sale of equity and the exercise of stock options and warrants, and borrowed \$3,481,000 under our \$5,000,000 credit facility. We also assumed term loan agreements and a convertible note payable with combined outstanding balances, at the respective merger dates, of \$6,159,000 in connection with the acquisitions of Aquila and Aronex Pharmaceuticals. In the Fall of 2001, we filed a Form S-3 shelf registration statement with the Securities and Exchange Commission for the registration and potential issuance of up to \$100 million of our securities. In January 2002, we sold 4,000,000 shares of our common stock for net proceeds of \$56,139,000. In the Summer of 2002, we filed another registration statement to return the aggregate amount of securities registered for potential

issuance back to \$100 million. In January 2003, we sold 6,250,000 shares of our common stock for net proceeds of approximately \$59,600,000. We expect that we will be able to fund our capital expenditures and growing operations with our current working capital into the third quarter of 2004. In order to fund our needs subsequently, we will need to raise additional money and may be able to do so by: (i) completing an equity offering, (ii) out-licensing technologies or products to one or more corporate partners, (iii) renegotiating license agreements with current corporate partners, (iv) completing an outright sale of assets that are not core to our business strategy or (v) securing additional debt financing. Our ability to successfully enter into any arrangements is uncertain and if funds are not available, we may be required to revise our planned clinical trials and other development activities and capital expenditure requirements. We expect to attempt to raise additional funds substantially in advance of depleting our current funds; however, there are no assurances that we will be able to raise funds or raise amounts sufficient to meet the long term needs of the business. Satisfying long-term liquidity needs will require the successful commercialization of Oncophage or other products and may require additional capital as discussed above. Please see the "Forward-Looking Statements" section and the factors highlighted in that section that may cause actual results to differ materially from the forward-looking statements made herein.

Our future cash requirements include, but are not limited to, supporting our clinical trial efforts and continuing our other research and development programs, including increased expenses associated with the development of the technologies and products acquired as a result of our acquisitions. Since inception we have entered into various agreements with institutions and contract 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, at December 31, 2002, we have estimated our payments to be approximately \$37,800,000 over the term of the studies. Through December 31, 2002, approximately \$12,100,000 has been expensed as research and development expenses in the accompanying consolidated statements of operations and \$9,300,000 has been paid related to these clinical studies. The timing of our 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. As we expand our clinical studies we will enter into additional agreements and significant additional expenditures will be required as we complete our clinical trials, apply for regulatory approvals, continue development of our technologies and expand our operations and bring our products to market. In addition, we have entered into research agreements related to our products that require payments of approximately \$2,800,000, of which \$1,700,000 has been paid through December 31, 2002. Part of our strategy is to develop and commercialize some of our lead products by continuing our existing collaborative arrangements and by entering into new collaborations. As a result of collaborative agreements, we may not completely control the nature, timing or cost of bringing those products to market. In addition, we have various comprehensive agreements with corporate partners that allow the partners to use 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. The agreements call for royalties to be paid to us by the partner on its future sales of licensed vaccines that include QS-21, which may or may not be achieved.

Our cash, cash equivalents and short-term investments at December 31, 2002 were \$58,725,000, a decrease of \$2,142,000 from December 31, 2001. During the year ended December 31, 2002, we used cash primarily to finance operations, including our Oncophage clinical trials. Net cash used in operating activities for the years ended December 31, 2001 and 2002 was \$36,826,000 and \$50,834,000, respectively. The increase resulted from the increase in the activity of our Oncophage clinical trials, on-going development activities, development of acquired technologies and the general expansion of our research and administrative operations. As we develop our technologies and further our clinical trials we expect to increase our spending. Our future ability to generate cash from operations will depend on achieving regulatory approval of our products, market acceptance of such products, achieving benchmarks as defined in existing collaborative agreements, and our ability to enter into new collaborations. We expect to first generate significant revenues from our flagship product candidate Oncophage during 2005, and first generate cash from operations in 2006. Please see the "Forward-Looking Statements" section and the factors highlighted in that section that may cause actual results to differ materially from the forward-looking statements made herein.

Net cash provided by investing activities for the year ended December 31, 2001 was \$2,990,000 as compared to net cash used in investing activities of \$28,172,000 for the year ended December 31, 2002. Included in our investing activities for the year ended December 31, 2002 is the net investment of \$25,564,000 in short-term investments. For the year ended December 31, 2002, we invested \$2,308,000 for the purchase of equipment, furniture and fixtures and an additional \$300,000 was contributed to a limited partnership. Our remaining commitment to this limited partnership on December 31, 2002 was \$1,875,000 with contributions made as authorized by the general partner. During February 2003, an additional \$300,000 was contributed to this partnership. We anticipate additional capital expenditures ranging from \$12,000,000 to \$17,000,000 in 2003, primarily related to the build-out of our new research and manufacturing facility in Lexington, Massachusetts.

Net cash used in financing activities was \$1,439,000 for the year ended December 31, 2001 as compared to net cash provided by financing activities of \$51,268,000 for the year ended December 31, 2002. Since inception, our primary source of financing has been from equity sales. During the years ended December 31, 2001 and 2002, sales of equity and exercises of stock options totaled approximately \$920,000 and \$56,749,000, respectively. At December 31, 2002, we had outstanding \$551,000 under our credit facilities, which were used to finance the construction of our Woburn, Massachusetts manufacturing and research and development facilities and to purchase related equipment. Loans that were drawn down on the credit facilities are secured by specific assets, including leasehold improvements, which they finance. During the year ended December 31, 2002, \$2,500,000 outstanding under a convertible note payable matured and was paid. In addition, during the year ended 2002 we made other debt repayments of \$3,045,000. On December 6, 2002 we entered into a lease agreement with respect to a 160,000 square foot facility in Lexington, Massachusetts. We intend to consolidate our Woburn and Framingham, Massachusetts operations into this facility over the next several years. The first phase, which we intend to complete during 2003, will involve the transfer of our Woburn operations to the Lexington facility. Our future minimum payments on non-cancelable leases, before any sub-lease income are in 2003 — \$3,564,000; in 2004 — \$3,210,000; in 2005 — \$3,307,000; in 2006 — \$3,879,000; in 2007 — \$3,536,000 and thereafter — \$13,787,000. Effective July 19, 2002 we sublet part of our Framingham manufacturing, research and development, and office space and we have leased related leasehold improvements and equipment under agreements which expire in December 2006 with an option to extend until September 2010. Under the terms of our original lease, we are obligated to pay our landlord approximately 7% of our rental income. In addition, beginning in 2003, we sublet part of our Texas and New York facilities under agreements that expire in 2008 and 2004 respectively. We are entitled to receive rental income of approximately \$892,000 in 2003; \$886,000 in 2004; \$833,000 in 2005; \$911,000 in 2006; \$238,000 in 2007 and \$20,000 in 2008.

We are currently involved in certain legal proceedings as detailed in Item 3 above and Note 16 to our consolidated financial statements. We do not believe these proceedings will have a material adverse effect on our consolidated financial position.

### ***Related Parties***

We have invested \$1,125,000 in a limited partnership. One of our directors is the Chairman and Senior Managing Director and CEO of a partnership of funds that include the general partner of the limited partnership. For details refer to Note 5 to our consolidated financial statements.

As detailed in Note 11 to the consolidated financial statements, our predecessor company, which remains a significant shareholder, approved a stock option plan pursuant to which our officers, directors, employees and consultants may be granted options in the predecessor company. In accordance with generally accepted accounting principles, options granted under this plan are accounted for as compensation expense by us and treated as a contribution to stockholders' equity.

At December 31, 2001 and 2002, affiliates are indebted to us for approximately \$12,000 and \$17,000, respectively, for certain expenses paid by us on their behalf (see Note 13).

## ***Risk Factors***

Our future operating results could differ materially from the results described above due to the risks and uncertainties described in Exhibit 99.1 to this Annual Report on Form 10-K.

## ***Critical Accounting Policies and Use of Estimates***

The Securities and Exchange Commission (SEC) defines “critical accounting policies” as those that require 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 following listing is not intended to be a comprehensive list of all of our accounting policies. Our significant accounting policies are more fully described in Note 2 to our consolidated financial statements. In many cases, the accounting treatment of a particular transaction is dictated by generally accepted accounting principles, with no need for management’s judgment in their application. There are also areas in which management’s 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, investments, revenue recognition, and stock option accounting.

Research and development expenses include the costs associated with our internal research and development activities including, salaries and benefits, occupancy costs, clinical manufacturing costs, and administrative costs, and research and development conducted for us by outside advisors, such as sponsored university-based research partners, and clinical study partners. In addition, research and development expenses include expenses related to grant revenue and the cost of clinical trial materials shipped to our research 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 as we estimate when the patient receives treatment, beginning when the patient enrolls in the trial. 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 actual costs become known to us, we adjust our accrual; such changes in estimate may be a material change in our clinical study accrual, which could also materially affect our results of operations. Research and development costs are expensed as incurred and were \$17,575,000, \$31,357,000 and \$39,983,000 for the years ended December 31, 2000, 2001, and 2002.

We classify investments in marketable securities at the time of purchase. At December 31, 2002, all marketable securities were classified as available-for-sale and as such, changes in the fair value of the available-for-sale securities are reported as a separate component of accumulated other comprehensive income 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, accumulated other comprehensive income is reduced and the impairment is charged to operations. During 2002, we recognized a charge of \$360,000 for this type of investment impairment as more fully described in Note 5 to our consolidated financial statements.

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. Pursuant to this method, we currently account for our investment in a limited partnership under the cost method and, as of December 31, 2001 and 2002, we have included it in non-current other assets on the consolidated balance sheet, as more fully disclosed in Note 5 to our consolidated financial statements. The general partner of the limited partnership determines the timing of our additional contributions. Our investment represents an approximate ownership of 2%. We continue to 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: (i) the carrying value of the limited partnership’s investments in its portfolio companies, (ii) how recently the investments in the portfolio companies had been made, (iii) the post-financing valuations of those investments, (iv) the level of un-invested capital held by the limited partnership, and (v) the overall trend in venture capital valuations. Based on this analysis, during the



year ended December 31, 2002, we concluded that an other than temporary decline occurred and have reduced the carrying value of this investment by \$121,000.

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, milestones are achieved, or clinical trial materials are provided.

We account 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 expense is recorded on fixed stock option grants only if the current fair value of the underlying stock exceeds the exercise price of the option at the date of grant and it is recognized on a straight-line basis over the vesting period. We account for stock options granted to non-employees on a fair-value basis in accordance with Statement of Financial Accounting Standards (SFAS) No. 123, *Accounting for Stock-Based Compensation* and Emerging Issues Task Force 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 by changes in the fair value of our common stock. As required, we also provide pro forma net loss and pro forma net loss per common share disclosures for employee and director stock option grants as if the fair-value-based method defined in SFAS No. 123 had been applied (see Note 10 to our consolidated financial statements).

The preparation of consolidated financial statements in conformity with generally accepted accounting principles requires management 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. Management bases its estimates on historical experience and on various assumptions that are believed to be reasonable under the circumstances. Actual results could differ from those estimates.

#### ***Recently Issued Accounting Standards***

In June 2001, Financial Accounting Standards Board (FASB) issued SFAS No. 143, *Accounting for Asset Retirement Obligations*. SFAS No. 143 requires us to record the fair value of an asset retirement obligation as a liability in the period in which it incurs 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. 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 and changes in the estimated future cash flows underlying the obligation. We are required to adopt SFAS No. 143 on January 1, 2003. We have not yet determined the impact, if any, of the adoption of SFAS No. 143 on our consolidated financial statements.

In July 2002, the FASB issued SFAS No. 146, *Accounting for Costs Associated with Exit or Disposal Activities*. SFAS No. 146 reconsiders all of the guidance contained in Emerging Issues Task Force No. 94-3, *Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)* (EITF 94-3). SFAS No. 146 applies to costs associated with (a) certain termination benefits (so-called one-time termination benefits), (b) costs to terminate a contract that is not a capital lease and (c) other associated costs including costs to consolidate facilities or relocate employees. SFAS No. 146 requires companies to recognize costs associated with exit or disposal activities when they are incurred rather than at the date of commitment to an exit or disposal plan. We are required to adopt SFAS No. 146 for any future exit or disposal activities approved on or after January 1, 2003. This statement will be applied prospectively and will depend on future actions. Consequently, we cannot determine the impact, if any, that the adoption of SFAS No. 146 will have on our consolidated financial statements.



**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 to make capital expenditures, and foreign currency exchange 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 our interest rate or currency exposures. Our currency exposures vary, but are primarily concentrated in the Euro. 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, 2002. Fair values included herein have been estimated taking into consideration the nature and terms of each instrument and the prevailing economic and market conditions at December 31, 2002. The table presents cash flows by year of maturity and related interest rates based on the terms of the debt.

	<u>Estimated Fair Value</u>	<u>Carrying Amount December 31, 2002</u>	<u>Year of Maturity</u>	
			<u>2003</u>	<u>2004</u>
Long-term debt(1) .....	\$711,000	\$551,000	\$539,000	\$12,000

(1) Fixed interest rates from 10.38% to 15.084%

In addition, we have cash equivalents and marketable securities at December 31, 2002, which are exposed to the impact of interest rate changes and our interest income fluctuates as our 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, the carrying value of our cash equivalents and marketable securities approximate their fair value at December 31, 2002.

We maintain an investment portfolio 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 own derivative financial instruments in our investment portfolio. 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.

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

**INDEX TO CONSOLIDATED FINANCIAL STATEMENTS**

Independent Auditors' Report .....	35
Consolidated Balance Sheets as of December 31, 2001 and 2002 .....	36
Consolidated Statements of Operations for the years ended December 31, 2000, 2001 and 2002 .....	37
Consolidated Statements of Stockholders' Equity for the years ended December 31, 2000, 2001, and 2002 .....	38
Consolidated Statements of Cash Flows for the years ended December 31, 2000, 2001, and 2002 .....	39
Notes to Consolidated Financial Statements .....	40

## INDEPENDENT AUDITORS' REPORT

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, 2001 and 2002, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2002. 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 auditing standards generally accepted in the United States of America. 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, 2001 and 2002 and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2002, in conformity with accounting principles generally accepted in the United States of America.

As discussed in Notes 2(p) and 7 to the consolidated financial statements, the Company adopted Statements of Financial Accounting Standards No. 141, Business Combinations, for purchase method business combinations completed after June 30, 2001 and No. 142, Goodwill and Other Intangible Assets, effective January 1, 2002.

/s/ KPMG LLP

Short Hills, New Jersey  
February 17, 2003  
except as to the first  
paragraph of Note 16,  
which is as of  
March 26, 2003

**ANTIGENICS INC. AND SUBSIDIARIES**  
**CONSOLIDATED BALANCE SHEETS**  
**December 31, 2001 and 2002**

	<u>2001</u>	<u>2002</u>
<b>ASSETS</b>		
Cash and cash equivalents .....	\$ 60,867,508	\$ 33,130,176
Short-term investments .....	—	25,595,082
Accounts receivable .....	487,382	1,115,793
Inventories .....	1,372,229	971,016
Prepaid expenses .....	641,326	1,698,330
Deferred offering costs .....	128,334	63,662
Other current assets .....	<u>490,371</u>	<u>825,536</u>
Total current assets .....	63,987,150	63,399,595
Plant and equipment, net .....	13,934,154	11,369,525
Goodwill, net of accumulated amortization of \$334,825 at December 31, 2001 .....	2,755,870	3,081,703
Core and developed technology, net of accumulated amortization of \$894,443 and \$2,001,714 at December 31, 2001 and 2002, respectively .....	10,178,130	9,070,859
Assembled workforce, net of accumulated amortization of \$184,167 at December 31, 2001 .....	325,833	—
Other assets .....	<u>2,365,292</u>	<u>2,140,936</u>
Total assets .....	<u>\$ 93,546,429</u>	<u>\$ 89,062,618</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Accounts payable .....	\$ 2,948,417	\$ 1,435,090
Accrued liabilities .....	7,357,434	7,996,437
Current portion, long-term debt .....	<u>5,901,816</u>	<u>539,370</u>
Total current liabilities .....	16,207,667	9,970,897
Long-term debt .....	194,407	11,509
Other long-term liabilities .....	1,219,237	1,323,272
Commitments and contingencies .....		
<b>STOCKHOLDERS' EQUITY</b>		
Preferred stock, par value \$0.01 per share, 25,000,000 shares authorized; no shares issued and outstanding .....	—	—
Common stock, par value \$0.01 per share, 100,000,000 shares authorized; 29,014,616 and 33,113,099 shares issued and outstanding at December 31, 2001 and 2002, respectively .....	290,145	331,130
Additional paid-in capital .....	234,238,809	291,363,260
Deferred compensation .....	(529,547)	(111,017)
Accumulated other comprehensive loss .....	(187,706)	(61,945)
Accumulated deficit .....	<u>(157,886,583)</u>	<u>(213,764,488)</u>
Total stockholders' equity .....	<u>75,925,118</u>	<u>77,756,940</u>
Total liabilities and stockholders' equity .....	<u>\$ 93,546,429</u>	<u>\$ 89,062,618</u>

See accompanying notes to consolidated financial statements.

**ANTIGENICS INC. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
**For the Years Ended December 31, 2000, 2001 and 2002**

	<u>2000</u>	<u>2001</u>	<u>2002</u>
Revenue			
Product sales.....	\$ 363,202	\$ 1,605,722	\$ 2,627,241
Research and development .....	<u>79,425</u>	<u>2,949,239</u>	<u>784,277</u>
Total revenues .....	<u>442,627</u>	<u>4,554,961</u>	<u>3,411,518</u>
Expenses:			
Cost of sales .....	<u>(363,202)</u>	<u>(1,064,381)</u>	<u>(1,337,197)</u>
Research and development:			
Related party .....	(61,066)	—	—
Other .....	<u>(17,514,078)</u>	<u>(31,357,223)</u>	<u>(39,982,656)</u>
	<u>(17,575,144)</u>	<u>(31,357,223)</u>	<u>(39,982,656)</u>
General and administrative:			
Related party .....	(207,457)	—	—
Other .....	<u>(8,982,150)</u>	<u>(13,761,628)</u>	<u>(19,466,501)</u>
	<u>(9,189,607)</u>	<u>(13,761,628)</u>	<u>(19,466,501)</u>
Acquired in-process research and development .....	<u>(25,800,000)</u>	<u>(34,595,747)</u>	<u>—</u>
Operating loss .....	(52,485,326)	(76,224,018)	(57,374,836)
Other income:			
Non-operating income .....	—	—	272,064
Interest income .....	6,180,798	3,373,824	1,590,033
Interest expense .....	<u>(424,646)</u>	<u>(690,462)</u>	<u>(365,166)</u>
Net loss .....	<u><u>\$ (46,729,174)</u></u>	<u><u>\$ (73,540,656)</u></u>	<u><u>\$ (55,877,905)</u></u>
Net loss per common share, basic and diluted .....	<u><u>\$ (1.90)</u></u>	<u><u>\$ (2.61)</u></u>	<u><u>\$ (1.70)</u></u>
Weighted average number of common shares outstanding, basic and diluted .....	<u><u>24,658,802</u></u>	<u><u>28,142,598</u></u>	<u><u>32,905,314</u></u>

See accompanying notes to consolidated financial statements.

**ANTIGENICS INC. AND SUBSIDIARIES**

**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**  
**For the Years Ended December 31, 2000, 2001 and 2002**

	Common Stock		Additional Paid-In Capital	Deferred Compensation	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total
	Number of Shares	Par Value					
Balance at December 31, 1999	20,715,942	\$207,159	\$ 89,747,036	\$ (659,081)	\$ —	\$ (37,616,753)	\$ 51,678,361
Comprehensive loss							
Net loss	—	—	—	—	—	—	—
Unrealized loss on marketable securities, net	—	—	—	—	(199,711)	(46,729,174)	(46,729,174)
Comprehensive loss	—	—	—	—	—	—	—
							\$ (46,928,885)
Deferred compensation on stock options	—	—	1,148,487	(1,148,487)	—	—	—
Grant and recognition of stock options and warrants	—	—	1,935,606	530,211	—	—	2,465,817
Exercise of stock options and warrants	66,637	666	499,288	—	—	—	499,954
Issuance of common stock in initial public offering on February 9, 2000, \$18.00 per share (net of issuance costs of \$6,220,830)	4,025,000	40,250	66,188,911	—	—	—	66,229,161
Issuance of common stock in merger on November 16, 2000, \$15.98 per share	2,497,934	24,979	39,910,741	—	—	—	39,935,720
Stock options and warrants exchanged in merger on November 16, 2000	—	—	2,721,968	—	—	—	2,721,968
Employee stock purchases	10,782	108	101,277	—	—	—	101,385
Balance at December 31, 2000	27,316,295	273,162	202,253,314	(1,277,357)	(199,711)	(84,345,927)	116,703,481
Comprehensive loss							
Net loss	—	—	—	—	—	—	—
Unrealized gain on marketable securities, net	—	—	—	—	12,005	(73,540,656)	(73,540,656)
Comprehensive loss	—	—	—	—	—	—	—
							12,005
Grant and recognition of stock options	—	—	474,529	747,810	—	—	\$ (73,528,651)
Exercise of stock options and warrants	130,786	1,308	699,362	—	—	—	1,222,339
Issuance of common stock in merger on July 12, 2001, \$18.505 per share	1,547,824	15,478	28,627,004	—	—	—	700,670
Stock options and warrants exchanged in merger on July 12, 2001	—	—	1,965,909	—	—	—	28,642,482
Employee stock purchases	19,711	197	218,691	—	—	—	1,965,909
Balance at December 31, 2001	29,014,616	290,145	234,238,809	(529,547)	(187,706)	(157,886,583)	218,888
Comprehensive loss							
Net loss	—	—	—	—	—	—	—
Unrealized gain on marketable securities, net	—	—	—	—	125,761	(55,877,905)	(55,877,905)
Comprehensive loss	—	—	—	—	—	—	—
							125,761
Grant and recognition of stock options	—	—	416,731	418,530	—	—	\$ (55,752,144)
Exercise of stock options	77,496	775	561,809	—	—	—	835,261
Issuance of common stock in follow-on offering on January 16, 2002, \$15.00 per share (net of issuance costs of \$3,989,000)	4,000,000	40,000	55,971,000	—	—	—	562,584
Employee stock purchases	20,987	210	174,911	—	—	—	835,261
Balance at December 31, 2002	33,113,099	\$331,130	\$291,363,260	\$ (111,017)	\$ (61,945)	\$(213,764,488)	\$ 77,756,940

See accompanying notes to consolidated financial statements.



**ANTIGENICS INC. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**For the Years Ended December 31, 2000, 2001 and 2002**

	<u>2000</u>	<u>2001</u>	<u>2002</u>
Cash flows from operating activities:			
Net loss .....	\$(46,729,174)	\$(73,540,656)	\$(55,877,905)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization .....	1,675,816	4,149,456	5,466,145
Stock options and warrants .....	2,465,817	1,222,339	835,261
Acquired in-process research and development .....	25,800,000	34,595,747	—
Write-down of inventory and investments .....	—	—	1,040,941
Write-down of fixed assets .....	—	—	513,605
Changes in operating assets and liabilities:			
Accounts receivable .....	(10,157)	45,514	(628,411)
Inventories .....	219,562	(702,611)	(158,418)
Prepaid expenses .....	(284,921)	103,507	(1,057,004)
Accounts payable .....	1,203,848	(1,027,694)	(1,513,327)
Accrued liabilities .....	372,177	(2,085,600)	685,447
Other operating assets and liabilities .....	152,800	413,551	(139,923)
Due from related party, net .....	(136)	—	—
Net cash used in operating activities .....	<u>(15,134,368)</u>	<u>(36,826,447)</u>	<u>(50,833,589)</u>
Cash flows from investing activities:			
Purchase of plant and equipment .....	(2,641,852)	(1,665,468)	(2,307,850)
Purchases of available for sale securities .....	—	—	(46,064,626)
Proceeds from marketable securities .....	—	2,996,750	20,500,700
Investment in AGTC .....	(300,000)	(525,000)	(300,000)
Net cash acquired in merger .....	<u>1,316,733</u>	<u>2,184,165</u>	<u>—</u>
Net cash (used in) provided by investing activities .....	<u>(1,625,119)</u>	<u>2,990,447</u>	<u>(28,171,776)</u>
Cash flows from financing activities:			
Net proceeds from sale of equity .....	66,788,578	—	56,139,334
Exercise of stock options and warrants .....	499,954	700,670	562,584
Deferred public offering costs .....	—	(128,334)	(63,662)
Employee stock purchase plan .....	101,385	218,888	175,121
Payments of long-term debt .....	<u>(905,646)</u>	<u>(2,230,442)</u>	<u>(5,545,344)</u>
Net cash provided by (used in) financing activities: .....	<u>66,484,271</u>	<u>(1,439,218)</u>	<u>51,268,033</u>
Net increase (decrease) in cash and cash equivalents ....	49,724,784	(35,275,218)	(27,737,332)
Cash and cash equivalents at beginning of period .....	<u>46,417,942</u>	<u>96,142,726</u>	<u>60,867,508</u>
Cash and cash equivalents at end of period .....	<u>\$ 96,142,726</u>	<u>\$ 60,867,508</u>	<u>\$ 33,130,176</u>
Supplemental cash flow information:			
Cash paid for interest .....	<u>\$ 409,001</u>	<u>\$ 660,507</u>	<u>\$ 470,794</u>
Non-cash investing and financing activities:			
Issuance of equity for mergers .....	<u>\$ 42,657,688</u>	<u>\$ 30,608,391</u>	<u>\$ —</u>

See accompanying notes to consolidated financial statements.

**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 L.L.C. (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 owned a significant portion of our common stock. As of December 31, 2002, Founder Holdings Inc. owns approximately 79% of Antigenics Holdings LLC that in turn owns approximately 34% of our outstanding common stock. Certain of our board members and executive officers own significant interests in these related parties.

We are a biotechnology firm developing products to treat cancers, infectious diseases and autoimmune disorders. Our lead product candidates are: (i) Oncophage®, a personalized therapeutic cancer vaccine in Phase III clinical trials for the treatment of renal cell carcinoma and melanoma, (ii) AG-858, a personalized therapeutic cancer vaccine in a Phase I clinical trial for the treatment of chronic myelogenous leukemia, (iii) Aroplatin™, a liposomal formulation of a third-generation platinum chemotherapeutic in a Phase II clinical trial for the treatment of colorectal cancer, and (iv) AG-702/AG-70X, a therapeutic vaccine program in Phase I development for the treatment of genital herpes. Our related business activities include product research and development activities, regulatory and clinical affairs, establishing manufacturing capabilities, production for clinical trials, and administrative and corporate development activities.

We have incurred annual operating losses since inception and, as a result, at December 31, 2002 have an accumulated deficit of \$213,764,000 inclusive of non-cash charges of \$60,396,000 for acquired in-process research and development and \$14,574,000 related to grants of stock options, warrants and common stock. Our operations have been funded principally by sales of equity. We believe that our current working capital resources, in addition to the net proceeds received from our offering in January 2003 (see Note 18), are sufficient to satisfy our liquidity requirements into the third quarter of 2004. Satisfying our long-term liquidity needs will require the successful commercialization of Oncophage or other products and may require additional capital.

Our 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 products 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, 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 accounting principles generally accepted in the United States of America and include the accounts of Antigenics Inc. and our wholly owned subsidiaries. All significant intercompany transactions and accounts have been eliminated in consolidation. Certain amounts in the prior year consolidated financial statements have been reclassified to conform to the 2002 financial statement presentation.

**ANTIGENICS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

***(b) Segment Information***

We are managed and operated as one business. The entire business is managed by a single management team 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 generally accepted accounting principles requires management 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. Management bases its estimates on historical experience and on various assumptions that are believed to be reasonable under the circumstances. Actual results could differ from those estimates.

***(d) Cash and Cash Equivalents***

We consider all highly liquid investments purchased with maturities at acquisition of three months or less to be cash equivalents. Cash equivalents at December 31, 2001 consist primarily of investments in money market funds, commercial paper and government-backed securities. At December 31, 2002, cash equivalents consist primarily of money market funds and auction rate paper.

***(e) Investments***

We classify investments in marketable securities at the time of purchase. At December 31, 2001 and 2002, all marketable securities are classified as available-for-sale. 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. Pursuant to this method, we record our investment at cost and recognize dividends received as income. The carrying values of investments are periodically reviewed to determine whether a decline in value is other than temporary. Other than temporary declines in the value of available-for-sale securities are charged to operations.

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

Financial instruments that potentially subject us to concentration 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. 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

**ANTIGENICS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

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.

***(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 due to their short-term maturity. 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. The carrying amount of debt, including current portions, is approximately \$6,096,000 and \$551,000 at December 31, 2001 and 2002, respectively; and the fair value is estimated to be approximately \$6,235,000 and \$711,000 at December 31, 2001 and 2002, 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. For the years ended December 31, 2000, 2001 and 2002, all of our product sales were to one customer. For the year ended December 31, 2000, one research partner represented all of our research and development revenue, while for the year ended December 31, 2001 three partners represented 13%, 34% and 35% of research and development revenue, and for the year ended December 31, 2002, two partners represented 50% and 35% of total research and development revenues.

***(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 and administrative costs, and research and development conducted for us by outside advisors, sponsored research partners, clinical research organizations (CROs) and clinical investigators and institutions. 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. All research and development costs are expensed as incurred.

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

We account 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 expense is recorded on fixed stock option grants only if the current fair value of the underlying stock exceeds the exercise price of the option at the date of grant and it is recognized on a straight-line basis over the vesting period.

We account for stock options granted to non-employees on a fair-value basis in accordance with SFAS No. 123, *Accounting for Stock-Based Compensation*, and Emerging Issues Task Force 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 by changes in the fair value of our common stock.

**ANTIGENICS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

In December 2002, the Financial Accounting Standards Board (FASB) issued SFAS No. 148, *Accounting for Stock Based Compensation — Transition and Disclosure*, an amendment of SFAS No. 123. This Statement amends SFAS No. 123 to provide alternative methods of transition for a voluntary change to the fair value method of accounting for stock-based employee compensation. In addition, this Statement amends the disclosure requirements of SFAS No. 123 to require prominent disclosures in both annual and interim financial statements. Certain of the disclosure modifications are required for fiscal years ending after December 15, 2002 and are included below. Other than the disclosure modification, SFAS No. 148 did not have a material effect on our consolidated financial statements.

The following table illustrates the effect on net loss and net loss per common share had compensation cost for options granted to employees and directors by Antigenics and Founder Holdings Inc. and common stock purchased by employees through our employee stock purchase plan been determined consistent with the fair value method of SFAS No. 123 (in thousands except per share data):

	Year Ended December 31,		
	2000	2001	2002
Net loss, as reported .....	\$(46,729)	\$(73,541)	\$(55,878)
Add: stock-based compensation recognized under APB Opinion No. 25 .....	530	653	482
Deduct: total stock-based compensation expense determined under fair value based method for all awards .....	(2,356)	(3,231)	(3,935)
Pro-forma net income .....	<u>\$(48,555)</u>	<u>\$(76,119)</u>	<u>\$(59,331)</u>
Net loss per common share:			
As reported .....	\$ (1.90)	\$ (2.61)	\$ (1.70)
Pro-forma .....	\$ (1.97)	\$ (2.70)	\$ (1.80)

The effects of applying SFAS No. 123, for either recognizing or disclosing compensation cost under such pronouncement, may not be representative of the effects on reported net income or loss for future years. The fair value of each option and employee stock purchase rights granted is estimated on the date of grant using an option-pricing model with the following weighted average assumptions:

	2000	2001	2002
Estimated volatility .....	74%	68%	63%
Expected life in years — employee and director options .....	6	6	6
Expected life in years — employee stock purchase rights .....	1	1	1
Risk-free interest rate .....	5.3%	4.0%	2.4%
Dividend yield .....	0%	0%	0%

Prior to our IPO, we estimated volatility for purposes of computing compensation expense on outside advisor options and for disclosure purposes using the volatility of public companies that we considered comparable. The expected life used to estimate the fair value of outside advisor options is equal to the contractual life of the option granted.

**(m) Income Taxes**

Prior to converting to a corporation, as a Delaware limited liability company, no federal, state and local income taxes were levied on the Company. Each member of the Company was individually responsible for reporting his or her share of our net income or loss on their personal tax returns. Therefore, no provision for

**ANTIGENICS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

income tax is recognized in the accompanying consolidated financial statements for the periods prior to February 9, 2000.

Beginning February 9, 2000, 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. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences 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 able to be realized.

**(n) Net Loss Per Share**

Basic earnings or loss per share (EPS) is computed using the weighted average number of shares of common stock outstanding during the period being reported on. Diluted EPS reflects the potential dilution that could occur if securities or other contracts to issue shares were exercised or converted into common stock at the beginning of the period being reported on and the effect was dilutive. Net loss and weighted average common stock used for computing diluted EPS were the same as those used for computing basic EPS for each of the years ended December 31, 2000, 2001 and 2002 because the inclusion of our stock options and warrants in the calculation would be antidilutive.

**(o) Derivatives**

In June 1998, the FASB issued SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*. This statement, as amended, establishes accounting and reporting standards for derivative instruments, including certain derivative instruments embedded in other contracts, and for hedging activities. We adopted SFAS No. 133, as amended, beginning January 1, 2001. The adoption of SFAS No. 133 did not have an effect on our financial position or our results of operations as we had no derivatives or hedging transactions at the adoption date and have not entered into any derivatives during the years ended December 31, 2001 and 2002.

**(p) Goodwill and Acquired Intangible Assets**

Goodwill represents the excess of cost over the fair value of net assets of businesses acquired. We adopted the provisions of SFAS No. 141, *Business Combinations*, as of July 1, 2001 and SFAS No. 142, *Goodwill and Other Intangible Assets*, as of January 1, 2002. SFAS No. 141 requires that the purchase method of accounting be used for all business combinations and specifies the criteria that intangible assets acquired in a business combination must meet to be recognized and reported separately from goodwill. In accordance with 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 Impairment or Disposal of Long-Lived Assets*.

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 or about October 31 of each year. We consider ourselves as a single reporting unit for purposes of the impairment test. We determine our fair value using the quoted market price of our common stock and compare it to the carrying amount of our net book value at the date of our evaluation. To the extent the carrying amount 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.



**ANTIGENICS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

Goodwill from our acquisition of Aquila in November 2000 (see Note 3) was amortized on a straight-line basis over ten years.

Identifiable intangible assets deemed to have an indefinite life are tested annually for impairment, or more frequently if events and circumstances indicate that the asset might be impaired during the year. An impairment loss is recognized to the extent that the carrying amount exceeds the asset's fair value as determined based on discounted cash flows associated with the asset. We have not identified any indefinite life intangible assets.

Our assembled workforce intangible was presented at estimated fair value at the acquisition date and, through December 31, 2001, was amortized over its estimate useful life of three years. As described in Note 7, the assembled workforce intangible was reclassified to goodwill effective January 1, 2002. The costs of core and developed technology are presented at estimated fair value at acquisition date. These costs are amortized on a straight-line basis over their estimated useful lives of ten years.

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

Effective January 1, 2002, we adopted SFAS No. 144. This Statement requires that long-lived assets, except those addressed by SFAS No. 142, 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. The adoption of SFAS No. 144 did not have any impact on our consolidated financial statements because the impairment assessment under SFAS No. 144 is largely unchanged from the our previous policy.

Through December 31, 2001, the carrying values of long-lived assets and goodwill were reviewed for impairment whenever events or changes in circumstances occurred that indicated that the net carrying amount would not be recoverable. The review was based on comparing the carrying amount of the long-lived assets to the undiscounted estimated cash flows over their remaining useful lives. If the sum of the expected undiscounted future cash flows was less than the carrying amount of the assets, we would recognize an impairment loss. The impairment loss, if determined to be necessary, would be measured as the amount by which the carrying amount of the asset exceeds the fair value of the asset. Assets to be disposed of were reported at the lower of the carrying amount or fair value, less cost to sell.

***(r) Recent Accounting Pronouncements***

In June 2001, FASB issued SFAS No. 143, *Accounting for Asset Retirement Obligations*. SFAS No. 143 requires us to record the fair value of an asset retirement obligation as a liability in the period in which it incurs 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. 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 and changes in the estimated future cash flows underlying the obligation. We are required to adopt SFAS No. 143 on January 1, 2003. We have not yet determined the impact, if any, of the adoption of SFAS No. 143 on our consolidated financial statements.

**ANTIGENICS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

In July 2002, the FASB issued SFAS No. 146, *Accounting for Costs Associated with Exit or Disposal Activities*. SFAS No. 146 reconsiders all of the guidance contained in Emerging Issues Task Force No. 94-3, *Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)* (EITF 94-3). SFAS No. 146 applies to costs associated with (a) certain termination benefits (so-called one-time termination benefits), (b) costs to terminate a contract that is not a capital lease and (c) other associated costs including costs to consolidate facilities or relocate employees. SFAS No. 146 requires companies to recognize costs associated with exit or disposal activities when they are incurred rather than at the date of commitment to an exit or disposal plan. We are required to adopt SFAS No. 146 for any future exit or disposal activities approved on or after January 1, 2003. This statement will be applied prospectively and will depend on future actions. Consequently, we cannot determine the impact, if any, that the adoption of SFAS No. 146 will have on our consolidated financial statements.

**(3) Mergers**

On July 12, 2001, we completed our acquisition of Aronex Pharmaceuticals, Inc., a biopharmaceutical company engaged in the identification and development of proprietary innovative medicines to treat cancers and infectious diseases. The acquisition was structured as a merger of a wholly owned subsidiary of Antigenics with and into Aronex Pharmaceuticals pursuant to an Agreement and Plan of Merger. The merger was a tax-free reorganization and is being accounted for as a purchase in accordance with SFAS No. 141. Through this merger we acquired two products that fit our long-term goal of creating novel therapies for serious diseases that represent advanced alternatives to conventional cancer treatments.

As consideration for the merger, in exchange for each of their shares of Aronex Pharmaceuticals common stock, the stockholders of Aronex Pharmaceuticals received (i) 0.0594 shares of Antigenics common stock and (ii) a contingent value right to receive additional shares of Antigenics common stock in the event the U.S. Food and Drug Administration (FDA) granted final approval of a New Drug Application, on or before July 6, 2002, for ATRA-IV as a treatment for acute promyelocytic leukemia (APL). Cash was payable in lieu of any fractional shares of Antigenics' common stock otherwise issuable in the merger for a price equal to the fraction times \$17.41, the closing price of Antigenics' common stock on July 12, 2001. All outstanding options and warrants to purchase shares of Aronex Pharmaceuticals common stock were automatically converted into warrants and options to purchase Antigenics common stock at the exchange ratio described above. Additionally, a then outstanding \$2.5 million note previously convertible into shares of Aronex Pharmaceuticals common stock was convertible into shares of Antigenics common stock at a rate adjusted in accordance with the exchange ratio described above. This note became due and was paid in May 2002. In September 2001, based on the results of our meetings with the FDA we determined that approval of ATRA-IV in APL was unlikely and we have focused our development strategy for ATRA-IV on other cancer indications. As a result, no shares of Antigenics common stock were issued for the contingent value rights.

The purchase price of \$31,171,000 is the sum of (i) \$28,642,000 representing the issuance of approximately 1,548,000 shares of Antigenics common stock valued at \$18.505 per share, which represents the average closing price per share of Antigenics' common stock for the ten trading days ending the second trading day before July 12, 2001, which were issued in accordance with the exchange ratio of 0.0594 shares of Antigenics' common stock for each of the then outstanding shares of Aronex Pharmaceuticals common stock as of July 11, 2001, (ii) \$1,966,000 representing the fair value of options and warrants to acquire Aronex Pharmaceuticals common stock which vested upon the consummation of the merger and exchanged for options and warrants to purchase 283,000 shares of Antigenics common stock and (iii) an estimated \$563,000 for fractional shares and Antigenics' costs of the merger. The exchange ratio was agreed to in arm's-length negotiations between representatives of both companies with the benefit of advice from their respective financial advisors. The fair value of the options and warrants was calculated using an option pricing model with the following weighted average assumptions: life of the option or warrant: employees and directors options —

## ANTIGENICS INC. AND SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

4 years and non-employee options and warrants — remaining contractual life of 6 years; dividend yield — nil; risk-free interest rate — 5.50%; price volatility — 74.0%.

The merger was accounted for under the purchase method of accounting, which means the purchase price was allocated to the assets and liabilities of Aronex Pharmaceuticals, including its intangible assets, based upon their fair values. Valuations of specifically identifiable intangible assets and acquired in-process research and development were completed. The valuation of acquired in-process research and development (\$37,643,000) represented the estimated fair value of products under development at Aronex Pharmaceuticals calculated using an income approach. This approach involves estimating the fair value of the acquired in-process research and development using the present value of the estimated after-tax cash flows expected to be generated by the purchased in-process research and development projects. The risk adjusted discount rates range from 45% to 55%, depending on the risks associated with each specific project. Cash inflows from projects were estimated to begin primarily in 2005 and 2006, the expected dates of product approvals. Gross margins on products are estimated at levels consistent with industry expectations. The fair values of the acquired intangible non-current assets (\$5,290,000) and acquired in-process research and development have been proportionately reduced by the amount that the estimated fair value of the net assets acquired exceeded the estimated purchase price (negative goodwill) resulting in intangible non-current assets of \$4,872,000 (to be amortized over ten years) and acquired in-process research and development of \$34,596,000. We assumed liabilities of \$11,625,000 consisting of accounts payable and accrued expenses of \$8,276,000 and debt valued at \$3,349,000. Included in the accrued expenses are restructuring costs of approximately \$2,491,000 for the estimated net future lease payments related to the non-cancelable lease of the manufacturing and office facility located in The Woodlands, Texas, a portion of which we have sublet, and \$1,900,000 of costs to relocate or terminate Aronex Pharmaceuticals employees. In determining the lease related costs management has made certain estimates regarding the timing of and amount of any potential sublease agreement. A portion of the Texas facility remains unoccupied at December 31, 2002 due to an unfavorable subleasing market. During 2002, we recognized an additional loss on the non-cancelable lease and charged such amount to general and administrative expense.

The following represents the condensed balance sheet of Aronex Pharmaceuticals at the closing of the merger, July 12, 2001 (in thousands):

Cash and cash equivalents .....	\$ 2,747
Other current assets .....	126
Acquired in-process research and development .....	34,596
Core and developed technology .....	4,872
Other assets .....	455
Total assets .....	<u>42,796</u>
Current liabilities .....	9,423
Long-term debt .....	501
Other liabilities .....	1,701
Total liabilities .....	<u>11,625</u>
Net assets acquired .....	<u>\$31,171</u>

The results of operations and cash flows of Aronex Pharmaceuticals have been included in our consolidated financial statements prospectively as of the closing of the merger. In addition, we have recognized a non-recurring charge to operations of \$34,596,000 on July 12, 2001, for the immediate write-off of the acquired in-process research and development.

**ANTIGENICS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

On November 16, 2000, we acquired all of the outstanding common stock, options and warrants of Aquila Biopharmaceuticals Inc. (Aquila), a biotechnology company engaged in the discovery, product development, and commercialization of products to prevent, treat, or control, infectious diseases, autoimmune disorders, and cancers. The results of operations of Aquila have been included in our consolidated financial statements from the date of acquisition.

The purchase price of \$44,819,000 is the sum of (i) \$39,936,000 representing approximately 2,498,000 shares of our common stock valued at approximately \$15.98 per share, which represents the average closing price per share of our common stock for the five days before and after the announcement of the merger on August 18, 2000, issued at an exchange ratio of 0.2898 shares of our common stock for each of the 8,619,000 outstanding shares of Aquila stock as of November 16, 2000 (the consummation date of the merger), (ii) \$2,722,000 representing the fair value of Aquila options and warrants to acquire Aquila stock which were vested upon the consummation of the merger and exchanged for options and warrants to purchase 264,000 shares of our common stock and (iii) an estimated \$2,161,000 of our costs of the merger and the cost to sever the employment of Aquila's president. The fair value of the Aquila options and warrants was calculated using an option pricing model with the following weighted average assumptions: life of the options — 6 years; dividend yield — nil; risk-free interest rate — 5.50%; price volatility — 74.0%.

The acquisition was accounted for using the purchase method of accounting. Accordingly, a portion of the purchase price was allocated to the identifiable net assets acquired based on their estimated fair values. The fair values of the tangible assets acquired and liabilities assumed were \$14,628,000 and \$5,306,000, respectively. In addition, \$25,800,000 of the purchase price was allocated to in-process research and development projects as described below; such amount was charged to operations at the date of acquisition. The balance of the purchase price was allocated as follows: core and developed technology of \$6,200,000, assembled workforce of \$510,000 and goodwill of \$2,987,000. Such intangible assets were amortized on a straight-line basis over their estimated useful lives of ten years, three years, and ten years, respectively until the adoption of SFAS No. 142. The value of acquired in-process research and development related to this acquisition represented the fair value of Aquila's products under development. These products are associated with Aquila's proprietary core technologies — the Stimulon family of adjuvants, including QS-21. The Stimulon family of adjuvants allows scientists to design products that can activate specific antibody and T-cell responses with the objective of creating new, highly effective vaccines for both therapeutic and prophylactic applications. The value of the in-process research and development projects was determined using an income approach that involves projecting the expected completion costs for the development projects as well as projected cash flows resulting from their commercialization. A risk-adjusted discount rate of 60% was utilized for each specific product. Cash inflows from projects were estimated to begin primarily in 2003 and 2004, the projected dates of product approvals. Gross margins on products are estimated at levels consistent with industry expectations.

Through our merger with Aronex Pharmaceuticals we acquired, among other developmental products, Aroplatin and ATRA-IV, which are unique liposomal formulations that increase the distribution and metabolism of drugs in a patient's body. Through our merger with Aquila we acquired, among other developmental products, QS-21, an adjuvant used in vaccines intended to significantly improve the quality of immune response. At the date of the acquisitions, none of the products under development by Aronex Pharmaceuticals or Aquila that were included in our in-process research and development charges had achieved technological feasibility and none were being sold on the market. There still remained substantial risks and significant uncertainty concerning the remaining course of technical development. We need to conduct extensive additional research, preclinical and clinical testing of these products, and obtain regulatory approval, prior to any commercialization. Because of the great uncertainty associated with these issues and the remaining effort associated with development of these products, the development projects had not established technological feasibility at the acquisition dates. Further, these partially completed products had no alternative

**ANTIGENICS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

future uses at the valuation date if the contemplated programs were to fail, as the technology was highly specialized to the targeted products.

The following table reflects unaudited pro forma combined results of operations of Antigenics, Aronex Pharmaceuticals and Aquila as if such mergers had occurred as of January 1, 2000 and 2001, respectively (in thousands except per share data):

	<u>2000</u>	<u>2001</u>
Revenues .....	\$ 7,762	\$ 4,647
Loss, before non-recurring charges for write-off of acquired in-process research and development .....	\$(44,952)	\$(47,601)
Loss, before non-recurring charges for write-off of acquired in-process research and development, per common share, basic and diluted .....	\$ (1.58)	\$ (1.64)

These unaudited pro forma combined results have been prepared for comparative purposes only and include certain adjustments, such as additional amortization expense as a result of the new basis in fixed and intangible assets. These unaudited pro forma combined results exclude the related acquired in-process research and development charges. These results do not purport to be indicative of the results of operations which actually would have occurred had the mergers been consummated at the beginning of 2000 and 2001, or of future results of operations of the consolidated company.

**(4) Inventories**

Inventories consist of the following at December 31, 2001, and 2002 (in thousands):

	<u>2001</u>	<u>2002</u>
Finished goods .....	\$1,058	\$730
Work-in-process .....	236	138
Raw materials and supplies .....	<u>78</u>	<u>103</u>
	<u>\$1,372</u>	<u>\$971</u>

During the year ended December 31, 2002, we wrote off finished goods inventory of approximately \$560,000 representing the cost of research and development product we may not realize. The inventory write-off was charged to research and development expenses.

**ANTIGENICS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

**(5) Investments**

***Cash Equivalents and Marketable Securities***

We have classified all of our short-term investments as available-for-sale securities. Available-for-sale securities are carried at fair value with interest on these securities included in interest income. Available-for-sale securities consisted of the following at December 31, 2001 and 2002 (in thousands):

	<b>2001</b>		<b>2002</b>	
	<u>Cost</u>	<u>Estimated Fair Value</u>	<u>Cost</u>	<u>Estimated Fair Value</u>
Institutional money market funds . . . . .	\$ 4,222	\$ 4,222	\$19,101	\$19,101
Corporate debt securities . . . . .	—	—	16,548	16,211
Taxable auction preferreds . . . . .	—	—	15,025	15,025
Government-backed securities . . . . .	40,990	40,990	5,000	5,004
Certificates of deposit . . . . .	—	—	1,005	1,005
Short-term municipals . . . . .	—	—	1,000	1,000
Commercial paper . . . . .	<u>15,394</u>	<u>15,394</u>	<u>—</u>	<u>—</u>
	<u>\$60,606</u>	<u>\$60,606</u>	<u>\$57,680</u>	<u>\$57,346</u>

\$33,130,000 and \$25,595,000 are classified as cash equivalents and short-term investments, respectively, at December 31, 2002. All cash equivalents are classified as cash and cash equivalents at December 31, 2001.

***Long-term Investments***

On May 18, 2000, we committed \$3,000,000 to become a limited partner in a limited partnership, called Applied Genomic Technology Capital Fund (AGTC), which will invest 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 authorized by the general partner. As of December 31, 2002, we have invested \$1,125,000 (\$825,000 as of December 31, 2001) and have included this amount in non-current other assets. This investment is accounted for under the cost method as our ownership 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: (i) the carrying value of the limited partnership's investments in its portfolio companies, (ii) how recently the investments in the portfolio companies have been made, (iii) the post-financing valuations of those investments, (iv) the level of un-invested capital held by the limited partnership and (v) the overall trend in venture capital valuations. Based on these analyses, during the year ended December 31, 2002, we concluded that an other than temporary decline in the value of this investment has occurred and have reduced the carrying value (the cost of our investment in this partnership) by \$121,000. The general partner of the limited partnership is AGTC Partners, L.P. and NewcoGen Group Inc. is the general partner of AGTC Partners, L.P. Noubar Afeyan, Ph.D., who is one of our directors, is the Chairman and Senior Managing Director and CEO of Flagship Ventures, a partnership of funds including NewcoGen Group Inc. and AGTC. In addition, Garo H. Armen, Ph.D. our chairman and chief executive officer, is a director of NewcoGen Group Inc.

Other non-current assets also include 22,500 shares of restricted common stock of Progenics Pharmaceuticals, Inc. that are classified as available-for-sale securities and carried at their market price at December 31, 2001 and 2002 of approximately \$416,000 and \$150,000, respectively. During the year ended December 31, 2002, we concluded that an other than temporary decline in the value of this investment had occurred and have recognized a loss of \$360,000. This amount was charged to general and administrative expenses in the consolidated statement of operations for the year ended December 31, 2002.



**ANTIGENICS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

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

Plant and equipment, net at December 31, 2001 and 2002 consists of the following (in thousands):

	<u>2001</u>	<u>2002</u>	<u>Estimated Depreciable Lives</u>
Furniture, fixtures and other .....	\$ 252	\$ 517	3 to 10 years
Laboratory and manufacturing equipment .....	7,926	8,679	3 to 10 years
Leasehold improvements .....	9,417	9,758	2 to 12 years
Software and computer equipment .....	<u>2,108</u>	<u>2,541</u>	3 years
	\$19,703	\$21,495	
Less accumulated depreciation and amortization .....	<u>5,769</u>	<u>10,125</u>	
	<u><u>\$13,934</u></u>	<u><u>\$11,370</u></u>	

Plant and equipment retired and removed from the accounts aggregated \$514,000 for the year ended December 31, 2002.

**(7) Goodwill and Other Intangible Assets**

Effective July 1, 2001 and January 1, 2002 we adopted the provisions of SFAS No. 141 and SFAS No. 142, respectively. In connection with the initial adoption of SFAS No. 142, we performed a transitional impairment evaluation of goodwill and concluded that there was no indication of impairment as of January 1, 2002. Upon adoption of SFAS No. 142, we evaluated our existing intangible assets and goodwill and reclassified our workforce intangible of \$326,000 to goodwill in order to conform with the classification criteria in SFAS No. 141. We also assessed the useful lives and residual values of all amortizable intangible assets and determined that no adjustments were necessary.

Amortization expense related to goodwill was \$25,000 and \$310,000 for the years ended December 31, 2000 and 2001, respectively, and amortization expense related to the assembled workforce intangible was \$14,000 and \$170,000 for the years ended December 31, 2000 and 2001, respectively. Net loss and basic and diluted net loss per share, adjusted to exclude amounts no longer amortized, as if the provisions of SFAS No. 142 had been adopted on January 1, 2000 are as follows (amounts in thousands, except per share data):

	<u>Year Ended December 31,</u>	
	<u>2000</u>	<u>2001</u>
Net loss, as reported .....	\$(46,729)	\$(73,541)
Plus: Goodwill and assembled workforce amortization .....	<u>39</u>	<u>480</u>
Adjusted net income (loss) .....	<u><u>\$(46,690)</u></u>	<u><u>\$(73,061)</u></u>
Net loss per share:		
Basic and diluted — as reported .....	<u><u>\$ (1.90)</u></u>	<u><u>\$ (2.61)</u></u>
Basic and diluted — as adjusted .....	<u><u>\$ (1.89)</u></u>	<u><u>\$ (2.60)</u></u>

The Company performed its annual impairment test as of October 31, 2002 and no indications of goodwill impairment were noted.

# ANTIGENICS INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The following table presents (in thousands) certain information on our intangible assets as of December 31, 2002. All intangibles assets are being amortized over their estimated useful lives, as indicated below, with no estimated residual values.

	Weighted Average Amortization Period	As of December 31, 2002		
		Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Amortizing intangible assets:				
Core and developed technology . . . . .	10 yrs	\$11,073	\$2,002	\$9,071

Amortization expense related to core and developed technology amounted to \$52,000, \$843,000 and \$1,107,000 for 2000, 2001 and 2002, respectively. Amortization expense with respect to intangible assets is estimated as \$1,107,000 for each of the years 2003 through 2007 and \$3,536,000 thereafter.

### (8) Income Taxes

As of December 31, 2002, we have available net operating loss carry-forwards of approximately \$195,000,000 and \$89,998,000 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 2022, and 2004 and 2009, respectively. These net operating loss carry-forwards include approximately \$111,515,000 for federal and state income tax purposes, acquired in our mergers with Aquila and Aronex Pharmaceuticals. Our ability to use such net operating losses is limited by change in control provisions under Internal Revenue Code Section 382 or may expire unused. In filing our 2001 consolidated federal tax return, we made an election to waive a portion of the acquired Aquila and Aronex federal net operating loss carryforwards to prevent the reduction of the tax basis of our investments in Aquila and Aronex that would have occurred if these net operating loss carryforwards were to expire unused. Our related deferred tax asset and valuation allowance were reduced in 2002 to recognize the effect of this election.

The tax effect of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities as of December 31, 2001 and 2002, are presented below (in thousands):

	2001	2002
Net operating loss carryforwards . . . . .	\$ 99,523	\$ 74,747
Start-up expenses . . . . .	1,987	1,654
Research and development tax credit . . . . .	3,323	4,826
Other temporary differences . . . . .	609	258
Sub-total . . . . .	105,442	81,485
Less: valuation allowance . . . . .	(105,442)	(81,485)
Net deferred tax asset . . . . .	\$ —	\$ —

We have assessed the evidence relating to recoverability of the deferred tax assets and have determined that it is more likely than not that the deferred tax assets will not be realized due to the uncertainty of future earnings. Accordingly, a valuation allowance has been established for the full amount of the deferred tax assets. Of the deferred tax assets related to the federal and state net operating loss carryforwards, approximately \$24,969,000 and \$17,617,000 relates to Aquila and Aronex Pharmaceuticals net operating loss carryforwards, respectively. If adjustments are made to the valuation allowance related to the net operating loss carryforward assets acquired from Aquila and Aronex Pharmaceuticals, such adjustments will result in reductions to our goodwill and other acquired intangible assets.

**ANTIGENICS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

**(9) Accrued Liabilities**

Accrued liabilities consist of the following at December 31, 2001, and 2002 (in thousands):

	<u>2001</u>	<u>2002</u>
Clinical studies .....	\$1,502	\$3,712
Professional fees .....	595	678
Vacation .....	202	205
Sponsored research .....	841	241
Payroll .....	1,101	1,764
Loss on Aronex Pharmaceuticals lease .....	986	577
Aronex Pharmaceuticals severance and relocation .....	885	—
Other .....	<u>1,245</u>	<u>819</u>
	<u>\$7,357</u>	<u>\$7,996</u>

**(10) Equity**

Prior to our conversion to a corporation in February 2000, we had one class of members' equity. All members voted their equity interests in proportion to their respective unit interest in the Company. Our net profits and losses for each fiscal year were allocated to the capital accounts of the members as described in the limited liability company agreement, generally in proportion to their respective unit ownership interests. No members were liable for any of our obligations or were required to contribute any additional capital related to the deficits incurred.

On February 9, 2000, we completed the initial public offering (IPO) of 4,025,000 shares of common stock at \$18 per share and received net proceeds of approximately \$66.2 million. Concurrent with the completion of the IPO, we converted from a limited liability company to a corporation. All members of the limited liability company exchanged their respective member interests for shares of common stock in the corporation based on an exchange ratio of 172.0336 shares of common stock for each member's equity unit. The consolidated financial statements have been retroactively restated to reflect the change from a limited liability company to a corporation and the exchange of members' equity units for common stock.

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.

During 2000 we issued warrants to purchase approximately 31,000 shares of our common stock at a weighted average exercise price per share of \$13.96 to outside advisors. Compensation expense recognized with respect to such warrants totaled \$355,000. We also assumed a warrant to purchase shares of our common stock in the Aquila merger that will continue to be governed by the same terms and conditions as were applicable to the Aquila warrant. The assumed warrant, which expires July 2003, is exercisable for approximately 18,000 shares of our common stock with an exercise price per share of \$14.22. In addition, as part of the Aronex Pharmaceuticals merger in 2001, we assumed warrants to purchase our common stock that are exercisable for approximately 105,000 shares of our common stock with a weighted average exercise price of \$52.94 per share of which approximately 38,000 expire during 2004, 57,000 expire in 2005, and 9,000 expire in 2007.

In December 2001, we filed a Form S-3 universal registration statement with the Securities and Exchange Commission for the registration and potential issuance of up to \$100 million of our securities. In January 2002, we sold 4,000,000 shares of our common stock, \$0.01 par value, at \$15.00 per share and

**ANTIGENICS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

received net proceeds of approximately \$56 million. In August 2002 we filed another registration statement to return the aggregate amount of securities registered for potential issuance back up to \$100 million (see Note 18).

**(11) Stock-Based Compensation Plans**

In March 1996, the board of directors approved an equity-based incentive compensation plan (the 1996 Plan). Pursuant to the provisions of the 1996 Plan, the board of directors may grant options to directors, employees, and outside advisors to purchase our common stock. At the date of grant, the board of directors sets the terms of the options including the exercise price and vesting period. The options granted have vesting periods ranging up to five years. Options generally have a contractual life of ten years. Options outstanding under our 1996 Plan were exchanged for stock options under the 1999 equity plan at the closing of the IPO.

In connection with the IPO, the board of directors approved the 1999 Equity Incentive Plan (the 1999 equity plan). Our stockholders approved the plan in May 2000. Our 1999 equity plan authorizes the grant of incentive stock options within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended, and non-qualified stock options for the purchase of an aggregate of 4,800,000 shares of common stock (subject to adjustment for stock splits and similar capital changes and exclusive of options exchanged at the consummation of the Aquila and Aronex Pharmaceuticals mergers) to employees and, in the case of non-qualified stock options, to consultants and directors as defined in the equity plan. The board of directors has appointed the compensation committee to administer the 1999 equity plan.

The following summarizes activity for options granted to directors and employees, including those with an exercise price equal to the fair value of the underlying shares of common stock at the date of grant (“at-the-money exercise price”), those with an exercise price greater than the fair value of the underlying share of common stock at the date of grant (“out-of-the-money exercise price”), and those with an exercise price less than the fair value of the underlying share of common stock at the date of grant (“in-the-money exercise price”):

	<u>Options</u>	<u>Options Exercisable at End of Year</u>	<u>Weighted Average Grant-Date Fair Value</u>	<u>Weighted Average Exercise Price</u>
Outstanding December 31, 1999 .....	828,339	<u>500,101</u>		
Granted:				
In-the-money exercise price .....	202,370		\$13.87	\$10.74
At-the-money exercise price .....	561,322		8.91	12.91
Exercised .....	(17,203)		—	1.45
Forfeited .....	(113,066)		—	9.07
Aquila options exchanged .....	<u>264,520</u>		10.29	11.92
Outstanding December 31, 2000 .....	1,726,282	<u>840,973</u>		

**ANTIGENICS INC. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

	<u>Options</u>	<u>Options Exercisable at End of Year</u>	<u>Weighted Average Grant-Date Fair Value</u>	<u>Weighted Average Exercise Price</u>
Granted:				
In-the-money exercise price .....	37,200		9.65	13.27
At-the-money exercise price .....	783,246		8.97	14.05
Exercised .....	(84,143)		—	7.10
Forfeited .....	(212,839)		—	20.17
Aronex Pharmaceuticals options exchanged...	<u>178,251</u>		7.68	57.57
Outstanding December 31, 2001 .....	2,427,997	<u>1,160,736</u>		
Granted: At-the-money exercise price .....	936,150		6.92	11.72
Exercised .....	(29,328)		—	8.70
Forfeited .....	<u>(320,307)</u>		—	15.61
Outstanding December 31, 2002 .....	<u>3,014,512</u>	<u>1,492,230</u>		

During 2000, 2001, and 2002, 202,370, 37,200, and 0 options, respectively, were granted to employees and directors at exercise prices, which were less than the fair value of the shares of common stock on the grant date. Compensation expense recognized with respect to such options totaled approximately \$530,000, \$653,000, and \$482,000 for the years ended December 31, 2000, 2001, and 2002, respectively. Deferred compensation at December 31, 2002 of \$111,000 will be recognized over the remaining vesting period of the options.

The table above includes the options exchanged for Aquila and Aronex Pharmaceuticals options at the consummation of the mergers. Each exchanged option will continue to be governed by the same terms and conditions of the applicable stock option plans that were in effect immediately prior to the consummation of the mergers, except that each option will be exercisable for our common stock at an exchange ratio of 0.2898 for the Aquila options and 0.0594 for the Aronex Pharmaceuticals options and all outstanding options were immediately vested and exercisable.

The following summarizes activity for options granted to outside advisors:

	<u>Options</u>	<u>Options Exercisable at End of Year</u>	<u>Weighted Average Grant-Date Fair Value</u>	<u>Weighted Average Exercise Price</u>
Outstanding December 31, 1999 .....	779,140	<u>611,579</u>		
Granted .....	115,925		\$12.72	\$13.44
Exercised .....	<u>(17,203)</u>		—	1.45
Outstanding December 31, 2000 .....	877,862	<u>820,194</u>		
Granted .....	27,300		11.38	14.14
Exercised .....	<u>(43,813)</u>		—	1.45
Outstanding December 31, 2001 .....	861,349	<u>860,594</u>		
Granted .....	115,288		8.26	12.98
Exercised .....	<u>(48,168)</u>		—	6.38
Outstanding December 31, 2002 .....	<u>928,469</u>	<u>846,288</u>		



**ANTIGENICS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

The outstanding options exclude 88,941 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 vest; 41,289 of these unvested options were cancelled during the year ended December 31, 2000. The remaining 47,652 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.

The charge to operations related to options we granted to outside advisors totaled approximately, \$1,936,000, \$569,000, and \$353,000 for the years ended December 31, 2000, 2001, and 2002, respectively.

At December 31, 2002, 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 \$485,000; such amount is subject to change each reporting period based upon changes in the fair value of our common stock, estimated 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, 2002, follows:

Range of Exercise Prices	Number outstanding	Options Outstanding		Options Exercisable	
		Weighted Average Remaining Life (Years)	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price
\$ 1.45 - \$ 5.00	768,874	3.8	\$ 1.80	763,372	\$ 1.79
\$ 5.01 - \$10.00	613,395	6.9	8.08	235,683	8.00
\$10.01 - \$15.00	2,076,192	7.4	12.71	969,591	12.14
\$15.01 - \$20.00	381,297	6	16.52	218,997	16.41
\$20.01 - \$25.00	8,694	7.2	20.92	8,694	20.92
\$25.01 - \$30.00	289	1.1	25.47	289	25.47
	<u>3,848,741</u>			<u>2,196,626</u>	

The preceding table excludes 141,892 options assumed in our merger with Aronex Pharmaceuticals, Inc. As of December 31, 2002, all of these options were outstanding and exercisable with a weighted average remaining life of 0.2 years and a weighted average exercise price of \$52.13 per share.

Since the 1995 reorganization described in Note 1, Founder Holdings Inc. has directly or indirectly owned a significant portion of our common stock. During 1996, Founder Holdings Inc. approved a stock option plan (Founder's Plan). In accordance with generally accepted accounting principles, the Founder's Plan is accounted for as if it had been adopted by us and treated as a contribution to stockholders' equity. Pursuant to the provisions of the Founder's Plan, Founder Holdings Inc. may grant options to our officers, directors, employees, and consultants to purchase common stock of Founder Holdings Inc. The terms of the options, including exercise price and vesting period, are set at the date of grant. The options have a contractual life of ten years and may not have an exercise price less than the fair value of a share of common stock of Founder Holdings Inc. at date of grant. Options to purchase a maximum of 300 shares may be granted under the Founder's Plan.

During 1996, Founder Holdings Inc. granted options to purchase approximately 160 shares to directors and employees at a weighted average exercise price of \$9,006 per share and a weighted average grant-date fair value of approximately \$4,301 per share. During 1997, Founder Holdings Inc. granted options to purchase approximately 14 shares to a director at a weighted average grant-date fair value of \$16,407 per share. All the options are immediately vested and exercisable. All of the options remain outstanding and none have been exercised.

**ANTIGENICS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

During 1996, Founder Holdings Inc. granted options to purchase approximately 76 shares to consultants at a weighted average exercise price of \$9,006 per share and a weighted average grant-date fair value of approximately \$5,535 per share. All of the consultants' options are immediately vested and exercisable. All of the consultants' options remain outstanding and none have been exercised.

In connection with the IPO, the board of directors, and subsequently the stockholders, approved our 1999 Employee Stock Purchase Plan. Under the plan, 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 purchase plan. The purchase plan is intended to qualify as an employee stock purchase plan within the meaning of Section 423 of the Internal Revenue Code of 1986, as amended. Rights to purchase common stock under the purchase plan 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. As of December 31, 2002, 51,480 shares of common stock have been purchased under the plan.

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

In November 1994, Founder Holdings Inc. entered into a Patent License Agreement (Mount Sinai Agreement) with the Mount Sinai School of Medicine (Mount Sinai). Through the Mount Sinai Agreement, we obtained the exclusive licenses to the patent rights that resulted from the research and development performed by Dr. Pramod Srivastava, our founding scientist and one of our directors. Under the Mount Sinai Agreement, we agreed to pay Mount Sinai a nominal royalty on related product sales (as defined in the Mount Sinai Agreement) through the last expiration date of the patents under the Mount Sinai Agreement (2015). In addition to these royalty payments, Mount Sinai was issued a nominal equity interest.

During 1995, Dr. Srivastava moved his research to Fordham University (Fordham). Founder Holdings Inc. entered into a Patent License Agreement (Fordham Agreement) with Fordham, and agreed to reimburse Fordham for all approved costs incurred in the performance of research. Founder Holdings Inc. has also agreed to pay Fordham a nominal royalty on related product sales, as defined, through the last expiration date on the patents under the Fordham Agreement (2017). Dr. Srivastava moved his research to the University of Connecticut Health Center during 1997 and accordingly the agreement to reimburse Fordham for the performance of research was ended in mid-1997.

In February 1998, we entered into a research agreement with the University of Connecticut Health Center (UConn) and Dr. Srivastava. The agreement has a term of approximately five years and calls for payments to UConn totaling a minimum of \$5,000,000, payable quarterly at the rate of \$250,000 (contingent on the continuing employment of Dr. Srivastava by UConn). Research and development expense in the accompanying 2000, 2001 and 2002 consolidated statements of operations includes approximately \$1,000,000 in each of the respective years of costs incurred under the UConn agreement. Royalties at varying rates are due to UConn upon commercialization of a product utilizing technology discovered during the research agreement. This agreement was amended during 2002 and extended one year, terminating December 31, 2003, for a fee of \$1,200,000 payable quarterly at the rate of \$300,000 during 2003.

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 approximately \$37,800,000 over the term of the studies. For the years ended December 31, 2000, 2001 and 2002, approximately, \$409,000, \$686,000, and \$7,902,000, respectively, have been expensed in the accompanying consolidated statements of operations

## ANTIGENICS INC. AND SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

related to these clinical studies. Through December 31, 2002, approximately \$9,300,000 has been paid. The timing of our expense recognition and future payments related to these agreements is dependent on the enrollment of patients and documentation received from the institutions.

We entered into various research agreements with educational and medical institutions expiring between February 2001 and August 2005. These agreements require initial and quarterly payments totaling approximately \$2,800,000 (of which \$890,000 and \$426,000 was paid during the years ended December 31, 2001 and 2002 respectively, and \$1,147,000 remains committed).

We have various comprehensive agreements with corporate partners that allow the partners to use our QS-21 adjuvant 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. Additionally, we entered into a license agreement with Neuralab Limited, a wholly owned subsidiary of Elan Corporation, plc, that grants exclusive, worldwide rights to use QS-21 with an antigen in the field of Alzheimer's disease. We also signed a supply agreement for the adjuvant. Elan initiated a Phase IIA clinical trial of a product using QS-21 during 2001 and under the terms of our license agreement, we received a \$1,000,000 milestone payment. In March 2002, Elan halted the dosing of patients with its product after several patients experienced significant adverse events. These patients, however are being followed for further safety and efficacy data.

We have product development agreements and supply agreements with Virbac S.A. and a supply agreement with Virbac S.A.'s U.S. subsidiary that cover collaboration on the development of products for feline immune deficiency virus and the supply of vaccine and adjuvant for feline leukemia ("FeLV"). The supply agreement was up for renewal in July 2002, at which point we began to supply product to Virbac S.A. through month-to-month supply agreements. We are negotiating a long-term supply agreement. Sales related to shipment of this product were \$363,000, \$1,606,000 and \$2,627,000 for the years ended December 31, 2000, 2001 and 2002, respectively.

#### (13) Related Party Transactions

On August 24, 2000, we assumed the seven-year lease for our New York City headquarters (see Note 14) from an entity wholly owned by our chief executive officer. No consideration was paid or received as a result of our assumption of the lease. The lease for the New York City headquarters was signed in November 1999; prior to such time, we rented the headquarters space on a month-to-month basis from the same affiliate. Rent, recorded at the affiliate's cost, was allocated to us based on square footage and clerical staff usage, respectively, which management believes is reasonable. Such transactions amounted to approximately \$268,000 for the year ended December 31, 2000.

Periodically we pay certain administrative expenses on behalf of Founder Holdings Inc. and Antigenics Holdings L.L.C. Such transactions are recorded as a receivable from these affiliates. As of December 31, 2001 and 2002, these affiliates were indebted to us for approximately \$12,000 and \$17,000, respectively, for these expenses.

#### (14) Leases

We lease manufacturing, research and development, and office facilities under various long-term lease arrangements. Rent expense, exclusive of the amounts paid to the affiliate (see Note 12), was approximately, \$979,000, \$2,326,000 \$3,788,000 and for the years ended December 31, 2000, 2001, and 2002, respectively.

On December 6, 2002, we entered into a lease agreement to lease a 160,000 square foot facility in Lexington, Massachusetts. We intend to consolidate our Woburn, and Framingham, Massachusetts operations

**ANTIGENICS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

into this facility over the next several years. The first phase, which we intend to complete during 2003, will involve the transfer of our Woburn operations to the Lexington facility. The future minimum rental payments under our leases of our Woburn, Framingham, and Lexington facilities, which expire in 2003, 2010, and 2013, respectively, our Netherlands facility which expires 2004, our Texas facility which expires 2008, and our New York City headquarters, which expires in 2006, are as follows (in thousands):

Year ending December 31,	
2003 .....	\$ 3,864
2004 .....	3,210
2005 .....	3,307
2006 .....	3,879
2007 .....	3,536
Thereafter .....	<u>13,787</u>
	<u>\$31,283</u>

In connection with the New York City office space and the Framingham and Lexington facilities we maintain fully collateralized letters of credit of \$78,000, \$375,000 and \$1,005,000 respectively. No amounts have been drawn on the letters of credit as of December 31, 2002.

Included in accrued liabilities and other long-term liabilities on the consolidated balance sheet at December 31, 2002 are amounts due under our non-cancelable lease (net of estimated sub-lease income) of the manufacturing, research, and office facility located in The Woodlands, Texas assumed in the Aronex Pharmaceuticals merger (see Note 3). Remaining minimum payments (before sub-lease income) are: in 2003 through 2007 — \$755,000 per year; and thereafter — \$63,000.

Beginning in 2002, we have subleased part of our Framingham and Texas facilities through December 2006 and January 2008, respectively, and beginning in 2003, part of our New York office, through July 2004, and are currently entitled to receive income of approximately \$892,000, \$886,000, \$833,000, \$919,000, \$238,000 and \$20,000 for the years 2003, 2004, 2005, 2006, 2007 and thereafter, respectively. For the year ended December 31, 2002 we received \$187,000 of rent on our subleased facilities.

**(15) Debt**

As of December 31, 2002 we have approximately \$551,000 debt outstanding. The aggregate maturities of our outstanding debt for each of the years subsequent to December 31, 2002 are as follows 2003 — \$539,000, and 2004 — \$12,000.

We had a \$5 million credit facility from a financial institution pursuant to which we drew down amounts to make or refinance certain capital expenditures. As we utilized the credit facility, separate term notes were executed. Each term loan has a term of forty-two months and the interest rate is fixed at the closing of each term loan (13.95% to 15.08%). Each loan is collateralized by the equipment, fixtures, and improvements acquired with the proceeds of the loan. At December 31, 2002, approximately \$193,000 was due under this facility.

In connection with our mergers with Aquila and Aronex Pharmaceuticals (see Note 3) we assumed the liabilities of each company, including various existing debt agreements. Outstanding at the Aquila merger date were debentures of approximately \$204,000 with an interest rate of 7%, these debentures are callable and accordingly, are classified as part of our short-term debt (approximately \$146,000 remains outstanding at December 31, 2002). We also assumed term loan agreements with outstanding balances of approximately \$3,561,000 at the date of the mergers, of which approximately \$212,000 remains outstanding at December 31,

**ANTIGENICS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

2002. These loans call for interest at fixed interest rates ranging from 10.38% to 13% with monthly repayments. Collateral for the loans consists of equipment and leasehold improvements.

**(16) Contingencies**

In February 2001 we filed a complaint in the Superior Court of Middlesex County, Massachusetts, against 8 Cabot Road Inc. and 12 Cabot Road Inc. for breach of contract and against Susan F. Brand for breach of fiduciary duty for failure to return a \$350,000 deposit held in escrow in connection with a purchase and sale agreement for property to expand our Woburn facility. On March 26, 2003, the parties reached an agreement that extends the current lease term of our Woburn facility, at our current monthly rental rate, from August 2003 to November 2003 with an option to extend further to January 2004. Additionally, we have agreed to let the defendants keep the \$350,000 security deposit and they will pay us the interest income that has been earned on the deposit to-date. The deposit is included in other current assets in the accompanying consolidated balance sheets at December 31, 2001 and 2002 and beginning on March 26, 2003 will be charged to operations over the remaining life of the lease.

A Notice of Arbitration was filed in the International Chamber of Commerce Arbitration by deLaval AB to resolve disputes between the parties concerning certain milestone payments under a License Agreement. The License Agreement at issue related to technology for the development of a vaccine against bovine mastitis. On July 12, 2002, the parties reached an agreement that resolves these proceedings to the satisfaction of all parties concerned. The amount of the settlement was covered by existing accruals for the amounts being disputed.

Antigenics, our Chairman and Chief Executive Officer Garo Armen, 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 300 other issuers, their underwriters, and 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 in the other 300 initial public offering cases. 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 Defendant's 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 our motion to dismiss the Rule 10(b)-5 and Section 20 claims with leave to amend and denied our motion to dismiss the Section 11 and Section 15 claims. We expect that the plaintiffs will file an amended complaint.

**ANTIGENICS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

**(17) 401(k) Plan**

We sponsor a defined contribution 401(k) savings plan for all eligible employees, as defined. Participants may contribute up to 15% of their compensation, as defined, with a maximum of \$11,000 in 2002. Each participant is fully vested in his or her contributions and related earnings and losses. Prior to January 1, 2001 we matched 100% of the participant's contribution and at that time the matching was reduced to 75%. Such matching contributions vest over four years. For the years ended December 31, 2000, 2001, and 2002, we charged approximately \$204,000, \$464,000, and \$469,000 to operations for the 401(k) plan. Effective January 1, 2003, the percentage of participant compensation subject to our matching contribution was changed from 15% to 8% of compensation.

**(18) Subsequent Event**

In January 2003, pursuant to a Form S-3 Shelf Registration Statement filed in August 2002 with the Securities and Exchange Commission, we sold 6,250,000 shares of our common stock, \$0.01 par value. We received net proceeds of approximately \$59.6 million.

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

	Three Months Ended,			
	March 31	June 30	September 30	December 31
	(In thousands, except per share data)			
2002				
Net sales.....	\$ 858	\$ 779	\$ 970	\$ 805
Gross profit.....	567	409	639	459
Net loss .....	(11,889)	(14,105)	(13,556)	(16,329)
Net loss per share, basic and diluted .....	\$ (0.37)	\$ (0.43)	\$ (0.41)	\$ (0.49)

	Three Months Ended,			
	March 31	June 30	September 30	December 31
	(In thousands, except per share data)			
2001				
Net sales.....	\$ 883	\$ 1,278	\$ 794	\$ 1,600
Gross profit.....	658	923	687	1,223
Net loss .....	(7,307)	(8,425)	(44,003)	(13,806)
Net loss per share, basic and diluted .....	\$ (0.27)	\$ (0.31)	\$ (1.53)	\$ (0.48)



### **PART III**

#### **Item 10. *Directors and Executive Officers of the Registrant***

The response to this item is incorporated by reference into this Annual Report on Form 10-K from the discussion responsive thereto under the caption “Election of Directors” in our Proxy Statement relating to our 2003 Annual Meeting of Stockholders scheduled for June 10, 2003.

#### **Item 11. *Executive Compensation***

The response to this item is incorporated by reference into this Annual Report on Form 10-K from the discussion responsive thereto under the caption “Executive Compensation” in our Proxy Statement relating to our 2003 Annual Meeting of Stockholders scheduled for June 10, 2003.

#### **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 the discussion responsive thereto under the captions “Share Ownership” and “Equity Compensation Plan Information” in our Proxy Statement relating to our 2003 Annual Meeting of Stockholders scheduled for June 10, 2003.

#### **Item 13. *Certain Relationships and Related Transactions***

The response to this item is incorporated by reference into this Annual Report on Form 10-K from the discussion responsive thereto under the captions “Compensation Committee interlocks and Insider participation” and “Certain relationships and Related Transactions” in our Proxy Statement relating to our 2003 Annual Meeting of Stockholders scheduled for June 10, 2003.

#### **Item 14. *Controls and Procedures***

Within the 90 days prior to the filing date of this report, we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Exchange Act Rule 13a-14. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures are effective. There were no significant changes in our internal controls or in other factors that could significantly affect our disclosure of these controls and procedures subsequent to the date of their evaluation.

Disclosure controls and procedures are controls and other procedures that are designed to ensure that information required to be disclosed in reports we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed in reports we file under the Exchange Act is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

## PART IV

### Item 15. *Exhibits, Financial Statement Schedule and Reports on Form 8-K*

#### (a) 1. *Consolidated Financial Statements*

The consolidated financial statements are listed under Item 8 of this report.

#### 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 required information is shown in the consolidated financial statements or the footnotes thereto.

#### (b) *Reports on Form 8-K*

None.

#### (c) *Exhibits*

### Exhibit Index

<u>Exhibit No.</u>	<u>Description</u>
2.1	Agreement and Plan of Merger dated as of August 18, 2000, among Antigenics, St. Marks Acquisition Corp. and Aquila Biopharmaceuticals, Inc. Filed as Exhibit 99.1 to our Current Report on Form 8-K dated August 18, 2000 (File No. 000-29089) and incorporated herein by reference.
2.2	Agreement and Plan of Merger, dated as of April 23, 2001, among Antigenics, Nasa Merger Corp. and Aronex Pharmaceuticals, Inc. Filed as Exhibit 2.1 to our Current Report on Form 8-K (File No. 0-29089) dated April 23, 2001 and incorporated herein by reference.
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.
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	Form of Subscription Agreement, as amended, together with a list of parties thereto. Filed as Exhibit 4.3 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.
4.4	Form of Debenture. Filed as exhibit 4.1 to the Current Report on Form 8-K 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 April 17, 2000 and incorporated herein by reference.
4.6	Form of Common Stock Purchase Warrant. Filed as Exhibit 4.3 to the Current Report on Form 8-K (File No. 0-20111) of Aronex Pharmaceuticals, Inc. dated April 17, 2000 and incorporated herein by reference.
4.7	Registration Rights Agreement dated August 2, 1989 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.

<u>Exhibit No.</u>	<u>Description</u>
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 10.3 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 10.4 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 10.24 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	Form of Warrant to Purchase of Common Stock issued to Paramount Capital Inc. Filed as Exhibit 1.2 to the registration statement on Form S-1 (File No. 333-67599) of Aronex Pharmaceuticals, Inc. and incorporated herein by reference.
4.13	Common Stock Purchase Warrant issued to Genzyme Corporation. Filed as Exhibit 10.3 to Current Report on Form 8-K (File No. 0-20111) of Aronex Pharmaceuticals, Inc. dated June 4, 1999 and incorporated herein by reference.
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.
10.2*	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	Lease Agreement between Antigenics and Cummings Property Management, Inc. dated May 28, 1998, as amended on December 10, 1998. Filed as Exhibit 10.5 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.
10.6	License Agreement between GHA Management Corporation and Antigenics dated November 12, 1999. Filed as Exhibit 10.6 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.
10.7	Master Loan and Security Agreement between Antigenics and Finova Technology Finance, Inc. dated November 19, 1998. Filed as Exhibit 10.7 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.
10.8(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.
10.9(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.

<u>Exhibit No.</u>	<u>Description</u>
10.10(1)	Research Agreement between Antigenics and The University of Connecticut Health Center dated February 18, 1998. Filed as Exhibit 10.10 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.
10.11(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.
10.12(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.
10.13(1)	Letter Agreement between Antigenics and Sigma-Tau Industrie Farmaceutiche Riunite SpA dated June 3, 1998. Filed as Exhibit 10.13 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.
10.14	Letter Agreement between Antigenics and Medison Pharma Ltd. dated November 15, 1999. Filed as Exhibit 10.14 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.
10.15	Amendment to Letter Agreement between Antigenics and Sigma-Tau Industrie Farmaceutiche Riunite SpA dated October 20, 1999. Filed as Exhibit 10.15 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.
10.16*	Employment Agreement between Antigenics and Elma Hawkins, Ph.D. dated June 1, 1998. Filed as Exhibit 10.16 to our registration statement on Form S-1 (File No. 333-91747) and incorporated herein by reference.
10.17*	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.
10.18*	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.
10.19	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.
10.20	Assignment Agreement among RCPI Trust, GHA Management Corporation and Antigenics dated August 24, 2000. Filed as Exhibit 10.20 to our registration statement on Form S-4 (File No. 333-46168) and incorporated herein by reference.
10.21	Master Loan and Security Agreement dated July 15, 1998 by and between Aquila Biopharmaceuticals, Inc. and Transamerica Business Credit Corporation. Filed as Exhibit 4.3 to the Annual Report on Form 10-K for the year ended December 31, 1998 of Aquila Biopharmaceuticals, Inc. (File No. 0-2081) and incorporated herein by reference.
10.22	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.
10.23(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.
10.24(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.

<u>Exhibit No.</u>	<u>Description</u>
10.25(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.
10.26(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.
10.27	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.
10.28	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 Filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 0-29089) dated December 6, 2002 and incorporated herein by reference.
10.29(1)	Amendment of Founding Scientist's Agreement dated January 1, 2003. Filed herewith.
10.30(1)	Amendment No. 1 of Research Agreement between Antigenics and the University of Connecticut Health Center dated April 10, 2002. Filed herewith.
21	Subsidiaries of Antigenics. Filed herewith.
23	Consent of KPMG LLP, independent accountants. Filed herewith.
99.1	Risk Factors. Filed herewith.
99.2	Section 906 Certification — Garo H. Armen.
99.3	Section 906 Certification — Jeff D. Clark.

---

\* 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.

## 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.  
Name: Garo H. Armen, Ph.D.  
Title: *Chief Executive Officer and  
Chairman of the Board*

Dated: March 26, 2003

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 26, 2003.

<u>Signature</u>	<u>Title</u>
<u>/s/ GARO H. ARMEN, PH.D.</u> Garo H. Armen, Ph.D.	Chief Executive Officer and Chairman of the Board of Directors (Principal Executive Officer)
<u>/s/ JEFF D. CLARK</u> Jeff D. Clark	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ NOUBAR AFEYAN, PH.D.</u> Noubar Afeyan, Ph.D	Director
<u>/s/ FRANK ATLEE III</u> Frank AtLee	Director
<u>/s/ GAMIL DE CHADAREVIAN</u> Gamil de Chadarevian	Director, Vice Chairman of the Board
<u>/s/ TOM DECHAENE</u> Tom Dechaene	Director
<u>/s/ MARGARET EISEN</u> Margaret Eisen	Director
<u>/s/ WADIH JORDAN</u> Wadih Jordan	Director
<u>/s/ MARK KESSEL</u> Mark Kessel	Director



Signature

/s/ PRAMOD SRIVASTAVA

---

Pramod Srivastava

/s/ MARTIN TAYLOR

---

Martin Taylor

Title

Director

Director

## CERTIFICATIONS

I, Garo H. Armen, certify that:

1. I have reviewed this annual report on Form 10-K of Antigenics Inc. (the “Registrant”);
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this annual report;
4. The Registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the Registrant and have:
  - a) designed such disclosure controls and procedures to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) evaluated the effectiveness of the Registrant’s disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the “Evaluation Date”); and
  - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The Registrant’s other certifying officer and I have disclosed, based on our most recent evaluation, to the Registrant’s auditors and the audit committee of Registrant’s board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the Registrant’s ability to record, process, summarize and report financial data and have identified for the Registrant’s auditors any material weaknesses in internal controls; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal controls; and
6. The Registrant’s other certifying officer and I have indicated in this annual report whether there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

/s/ GARO H. ARMEN, PH.D.

---

Garo H. Armen, Ph.D.  
*Chairman and Chief Executive Officer*

Date: March 27, 2003

I, Jeff D. Clark, certify that:

1. I have reviewed this annual report on Form 10-K of Antigenics Inc. (the "Registrant");
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this annual report;
4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the Registrant and have:
  - a) designed such disclosure controls and procedures to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) evaluated the effectiveness of the Registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
  - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation, to the Registrant's auditors and the audit committee of Registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the Registrant's ability to record, process, summarize and report financial data and have identified for the Registrant's auditors any material weaknesses in internal controls; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The Registrant's other certifying officer and I have indicated in this annual report whether there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

/s/ JEFF D. CLARK

---

Jeff D. Clark  
*Chief Financial Officer*

Date: March 27, 2003