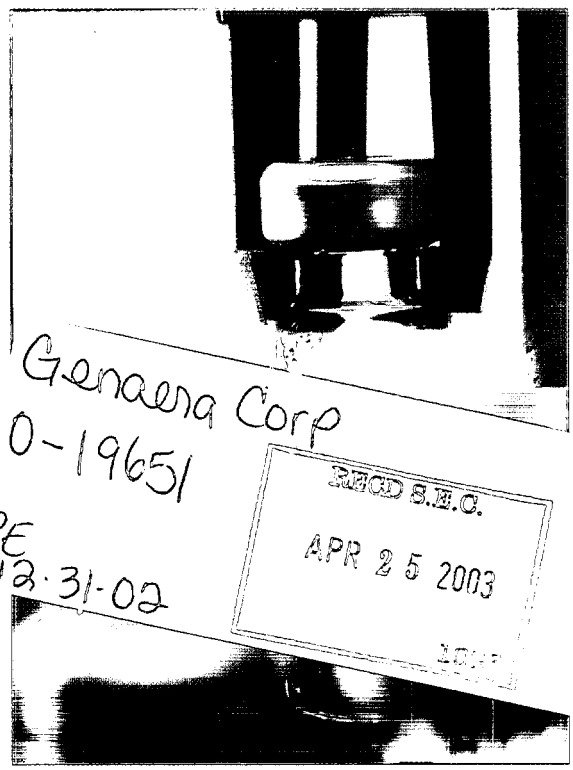

2002 ANNUAL REPORT

GENAERA

DEAR STOCKHOLDERS 2002

Mission

Genaera is focused on innovative therapeutic development for the treatment of serious illnesses. Our programs are derived from a rich history of cutting-edge scientific discovery providing novel insights into the genesis of human disorders and their potential treatments.

Review

In 2002, we responded to the challenges of positioning our business to withstand an historic downturn in the capital markets. Anticipating limited access to operating capital, we aggressively undertook a realignment of our operations to focus corporate resources on our later stage product development candidates and significantly reduce expenses. At the same time, we were able to accomplish a number of our critical product development milestones.

Anti-Angiogenesis Program

Squalamine is a potent direct acting anti-angiogenic small molecule with a unique intracellular mechanism inhibiting multiple growth factors' actions on endothelial cells, including vascular endothelial growth factor (VEGF). This mechanism may be broadly applicable in the treatment of abnormal angiogenesis associated with a variety of cancers, and eye diseases that lead to blindness, including "wet" age related macular degeneration (AMD). In May 2002, we announced positive results in squalamine's Phase 2 non-small cell lung cancer (NSCLC) trial and encouraging results in our Phase 2 recurrent advanced ovarian cancer trial. We also began a follow up Phase 2 study of squalamine with conventional chemotherapy for NSCLC with a weekly dosing regimen. The United States Department of Defense awarded a grant of $1.1 million for the first clinical trial of squalamine in the treatment of prostate cancer. Unfortunately, anti-angiogenesis therapy for cancer has in general been disappointing for companies involved in the area. Over the last year, we decided to decrease our investment in cancer indications for squalamine, and continue our initial investment in AMD. In 2002, we began our first clinical trial in AMD for squalamine. This Phase 1-2 open label, dose escalation clinical trial was designed to test squalamine as a single agent for the treatment of AMD while objectively assessing treatment response.

IL9 Program

Our first genomics-based therapeutics program is focused on developing a neutralizing antibody to interleukin-9 (IL9), our proprietary drug target and a potential root cause of asthma. We are pleased to report that MedImmune, Inc., our partner on this program, has moved a product candidate into development. MedImmune is responsible for all costs and activities related to development, manufacturing, marketing and sales of an IL9 related product. Genaera will receive up to $55 million in milestone payments with successful product development and commercialization efforts. We expect to receive our first milestone payment from MedImmune upon entering Phase 1 clinical testing.

Mucoregulator Program

With respect to our second genomics-based program, we announced positive results for LOMUCIN™, our oral mucoregulator therapy against our proprietary target hCLCA1, in its first clinical study in asthma. We also announced a grant award of up to $1.7 million from The Cystic Fibrosis Foundation for clinical development of LOMUCIN. Genaera also initiated a randomized double blind, placebo controlled Phase 2 trial for LOMUCIN to assess the preliminary effects of this treatment on respiratory symptoms and pulmonary function, as well as safety in people with cystic fibrosis.

Remarks

We believe Genaera is focused on important biopharmaceutical products that have the potential to transform medical practice. Pharmaceutical development is a long-term and expensive process with many associated challenges. Clearly, our squalamine, IL9 and mucoregulator programs matured in 2002, and we are committed to making steady progress and rebuilding value in 2003. I would like to thank our stockholders for their continued support. We look forward to communicating our progress as we expect data from our development programs throughout the year.

Sincerely,

Roy Clifford Levitt, M.D.
President and Chief Executive Officer

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2002

OR

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

For the transition period from _____ to _____

Commission File Number 0-19651

GENAERA CORPORATION

(Exact name of registrant as specified in its charter.)

Delaware	13-3445668
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
5110 Campus Drive, Plymouth Meeting, PA	19462
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (610) 941-4020

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

None	N/A
(Title of each class)	(Name of each exchange on which registered)

SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT:

Common Stock, $.002 par value per share

(Title of Class)

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 (the "Act") during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES ☒ NO ☐

Indicate by check mark whether the registrant is an accelerated filer (as defined by Rule 12b-2 of the Act). 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. ☐

The aggregate market value of common stock held by non-affiliates of the registrant was approximately $41,446,000 as of June 28, 2002, the last business day of the registrant's most recently completed second fiscal quarter. Such aggregate market value was computed by reference to the closing price of the common stock as reported on the National Market System of The Nasdaq Stock Market on June 28, 2002. For purposes of this calculation only, the registrant has defined affiliates as all directors and executive officers as of June 28, 2002 and any stockholder whose ownership exceeds 10% of the common stock outstanding as of June 28, 2002. The number of shares of the registrant's common stock outstanding as of June 28, 2002 was 35,626,241.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Definitive Proxy Statement for the Registrant's 2003 Annual Meeting of Stockholders to be filed within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K are incorporated by reference into Part III of this Form 10-K.

GENAERA CORPORATION

ANNUAL REPORT ON FORM 10-K

FOR THE YEAR ENDED DECEMBER 31, 2002

INDEX

PART I

ITEM 1. *Business*

Forward-Looking Statements

Our disclosure and analysis in this Annual Report on Form 10-K contains some forward-looking statements. Forward-looking statements give our current expectations or forecasts of future events. You can identify these statements by the fact that they do not relate strictly to historical or current facts. Such statements may include words such as "anticipate," "estimate," "expect," "project," "intend," "plan," "believe," "hope," and other words and terms of similar meaning in connection with any discussion of future operating or financial performance. In particular, these include statements relating to present or anticipated scientific progress, development of potential pharmaceutical products, future revenues, capital expenditures, research and development expenditures, future financing and collaborations, personnel, manufacturing requirements and capabilities, the impact of new accounting pronouncements, and other statements regarding matters that are not historical facts or statements of current condition.

There are important factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements, including those addressed below under "Risk Factors."

We undertake no obligation (and expressly disclaim any such obligation) to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. You are advised, however, to consult any further disclosures we make on related subjects in our filings with the United States Securities and Exchange Commission (SEC), all of which are available in the SEC EDGAR database at www.sec.gov and from us.

Overview

Genaera Corporation is a biopharmaceutical company committed to developing medicines for serious diseases from genomics and natural products. Our research and development efforts are focused on anti-angiogenesis and respiratory diseases. We were first incorporated in the State of Delaware in 1987 and are headquartered in Plymouth Meeting, Pennsylvania.

Research & Development Programs

Natural Products Development Programs

Anti-Angiogenesis Program

Within the human body, a network of arteries, capillaries and veins, known as the vasculature, functions to transport blood throughout the body. The basic network of the vasculature is developed through "angiogenesis," a fundamental process by which new blood vessels are formed. This embryonic vasculature is primarily developed through the first three months of fetal development. Once the general network of the blood vessels is completely developed, the balance of certain stimulatory and inhibitory factors stabilize new blood vessel formation associated with wound healing and reproduction. Abnormal angiogenesis occurs in several common diseases, including age-related macular degeneration, diabetic retinopathy and certain forms of cancer. Compounds that inhibit angiogenesis and that may be useful in the treatment of abnormal angiogenesis are referred to generally as "anti-angiogenic" substances.

Squalamine is a naturally occurring water-soluble small molecule and our lead anti-angiogenic development candidate. Squalamine was originally discovered by our founding scientist in the tissues of the dogfish shark and is one of the most abundant of a class of naturally occurring, pharmacologically active small molecules known as "aminosterols." The shark was initially examined because of its apparent resistance to infection and cancer. The chemical structure of squalamine uniquely combines a steroid and a polyamine, two classes of systemic agents that generally are well tolerated in humans. Squalamine has exhibited reproducible anti-angiogenic properties in

a number of *in vitro* and *in vivo* assays, including animal cancer and eye disease models, across multiple independent laboratories. Currently, our development efforts for this unique anti-angiogenic molecule are focused on serious diseases, including age-related macular degeneration and cancer.

Age-Related Macular Degeneration

Age-related macular degeneration (AMD), is the leading cause of legal blindness among adults age 50 or older in the Western world, affecting approximately 25 to 30 million people globally. This number is expected to triple over the next 25 years. AMD appears to come in two types: the "dry" form and the more severe "wet" form. Dry AMD, the more common and milder form of AMD, accounts for 85% to 90% of all cases and is characterized by the collection of small, round, white-yellow, fatty deposits called "drusen" in the central part of the retina. Dry AMD results in varying forms of sight loss and may or may not develop into the wet form. Currently, the more severe wet form of AMD impacts over 1 million people in the United States alone. We believe that the aging U.S. population will contribute to an increase in the incidence and prevalence of AMD. Patients with wet AMD have a much greater chance of severe sight loss than with dry AMD. Wet AMD is caused by the growth of abnormal blood vessels, or choroidal neovascularization, under the central part of the retina, termed the macula, which is required for fine (detailed) vision. It is responsible for 90% of severe vision loss associated with AMD. Approximately 500,000 new cases of wet AMD are diagnosed annually worldwide, of which approximately 200,000 cases are in North America.

Preclinical studies in angiogenic diseases of the eye have demonstrated that systematic squalamine administration in rodents and mammals, including primates, leads to inhibition of the development of ocular neovascularization (the growth of new vessels) and partial regression of abnormal blood vessels. Based on these results, we announced in August 2002 the initiation of a phase 1-2 clinical trial designed to test squalamine for the treatment of wet AMD. The study is an open label, dose escalation study, designed to evaluate 40 patients with AMD for safety and efficacy of squalamine treatment. Clinical testing is currently underway in patients with both classic forms of wet AMD, where verteporfin is currently the approved therapy, and in so-called "occult" forms of the disease where current therapy is less effective. In order to determine the effectiveness of squalamine in naïve, AMD patients, and to provide supporting data for proposing clinical trials comparing squalamine to current verteporfin, initial clinical studies will be performed outside the United States, in a setting where verteporfin is not commonly used. Patients enrolled will have careful angiographic and clinical documentation of their AMD at baseline. Enrollment will include AMD patients with each angiographic subtype of choroidal neovascularization, including classic, occult, and mixed angiographic abnormalities. Each patient will be treated with squalamine, once weekly for 4 weeks. Squalamine will be administered intravenously at doses of 25 or 50 mg/m^2. The study will be performed with leading ophthalmologists in Mexico, in consultation with several leading U.S. academic ophthalmologists. We currently anticipate completing this study by mid-year 2003.

Solid Cancers

Cancer is the second most common cause of death in the Western world. Cancer includes many different types of uncontrolled cellular growth. Clusters of cancer cells, referred to as tumors, may invade and destroy surrounding organs, impair physiological function and lead to death. To survive, cancer cells require oxygen and nutrients, which are received from the body's blood supply. In order to access this blood supply, cancer cells initiate a biochemical mechanism that stimulates angiogenesis, which provides the blood supply that nourishes the tumor. As cancer cells grow they require continuous angiogenesis. Anti-angiogenic substances are intended to inhibit the growth of new blood vessels and thereby suppress tumor growth.

Cancer patients usually are treated with a combination of surgery, radiation therapy and chemotherapy. Surgery and radiation therapy can be particularly effective in patients in which the disease has not yet spread to other tissue or organs. Chemotherapy is the principal treatment for tumors that have spread from primary to secondary sites, or metastasized. Chemotherapy involves the administration of cytotoxic drugs designed to kill cancer cells, or the administration of hormone analogues designed to either reduce the production of, or block the action of, certain hormones that affect tumor growth. Because chemotherapeutic agents generally attack rapidly dividing cells indiscriminately, damaging both normal and cancerous cells, chemotherapy patients often suffer serious side effects. Additionally, resistance to chemotherapy often occurs over time.

Squalamine is currently being evaluated in multiple Phase 2 clinical studies for the treatment of solid tumors. Specifically, we have ongoing clinical studies in non-small cell lung cancer and prostate cancer at multiple clinical sites. These cancer studies will evaluate intravenously administered squalamine in combination with leading chemotherapeutics or accepted interventions in each indication.

In May 2002, we released positive results on the first Phase 2 clinical trial in lung cancer, a multi-center open-label design that examined the preliminary efficacy and safety of squalamine, combined with first line standard chemotherapy of carboplatin and paclitaxel, in patients with Stage IIIB or Stage IV advanced disease. Interim results were presented previously at the May 2000 and May 2001 meetings of the American Society of Clinical Oncology. Overall, for all patients enrolled in the study, at all doses of squalamine, 27% of patients experienced an objective response (defined as a 50% or greater reduction in tumor size). Objective responses were observed in 29% of patients receiving the squalamine dose of 300 mg/m^2/day for one or more cycles of therapy. In comparison, an appropriate historical benchmark objective response rate for this group of patients treated with carboplatin and paclitaxel alone is 17%, as demonstrated in the large Eastern Cooperative Oncology Group (ECOG) first published in May 2000 with a similar design and patient population. The median survival time for all patients enrolled in our study was 10.0 months (95% confidence interval, 6.6 to 12.3 months). The median survival time for patients receiving the squalamine dose of 300 mg/m^2/day was 8.5 months (95% confidence interval, 6.6 to 17.8 months). In comparison, the historical benchmark objective median survival time for this group of patients treated with carboplatin and paclitaxel alone in the ECOG study was 8.1 months (95% confidence interval, 7.0 to 9.5 months). The median time to progression was 4.4 months (95% confidence interval, 3.1 to 6.9 months) for all patients in our study, 5.5 months for patients in the 300 mg/m^2/day group (95% confidence interval, 3.2 to 9.4 months), and in comparison for the ECOG study was 3.1 months (95% confidence interval, 2.8 to 3.9 months). In November 2001, we commenced a Phase 2b trial in non-small cell lung cancer investigating weekly dosing of squalamine in combination with the leading chemotherapeutics. Enrollment in this study was ended in January 2003 at 45 patients to conserve capital for other ongoing programs. Further funding for the development of squalamine as a first line therapy for non-small cell lung cancer will depend on the number and quality of treatment responses from our Phase 2b clinical trial that are expected in mid-year 2003 and survival data that are expected in mid-year 2004.

In May 2002, we also released positive results on our Phase 2 clinical trial in recurrent advanced ovarian cancer, a multi-center, open label design, evaluating squalamine in combination with carboplatin. In this study, 35% of evaluable patients (9 of 26) had an objective response to the study drug regimen of squalamine and carboplatin. The best response to our therapy has included five complete responses and four partial responses. Four of the responses were in patients enrolled with measurable disease, and five were in patients enrolled with rising and elevated levels of Ca-125 tumor marker, consistent with early ovarian cancer recurrence. For this study, squalamine was dosed at 200 mg/m^2/day, daily for five days, immediately following carboplatin infusion, every 3 weeks. During 2001, the U.S. Food and Drug Administration (FDA) granted squalamine Orphan Drug designation for the treatment of ovarian cancer. Orphan Drug designations are granted to applicants when the prevalence of the disease occurs in less than 200,000 patients in the United States and entitles applicants to certain exclusive marketing rights, tax credits and waivers on FDA user fees. In August 2002, we decided not to pursue additional studies of squalamine in advanced ovarian cancer in conjunction with the realignment of our operations and our intent to focus on later stage programs and reduce operating expenses.

In November 2002, we announced that a grant of $1.1 million had been awarded by the United States Department of Defense, Army Medical Research and Materiel Command, to the University of Chicago School of Medicine, for the first clinical trial of squalamine in the treatment of prostate cancer. The grant, entitled "Neoadjuvant Anti-Angiogenesis Therapy for Prostate Cancer", will support a Phase 2 clinical trial. The trial is designed as an open-label randomized study to evaluate the activity and tolerability of squalamine in conjunction with anti-androgen therapy in patients undergoing radical prostatectomy. Up to 132 patients will receive weekly dosing of squalamine (100 mg/m^2) for either 6 or 12 weeks.

Fibrodysplasia Ossificans Progressiva

We also are conducting a small Phase 1 clinical study in fibrodysplasia ossificans progressiva (FOP), which is a rare genetic disorder of the musculoskeletal system in which there is a poorly-understood inflammatory reaction leading to progressive formation of bone in the muscles and other soft tissues, resulting in progressive immobility and disability. Similar to cancer, this growth in the swollen tissues is nourished by a network of newly formed primitive blood vessels resulting from active angiogenesis in the lesions. There are no preclinical animal models of FOP. However, we believe that because squalamine has exhibited the ability to block the angiogenic process, it has the potential to inhibit the abnormal growth of bone in muscles and soft tissues of patients with FOP. Due to difficulties with patient enrollment given the small size of the patient population, no patients have been enrolled to date in this study.

Genomics-Based Development Programs

Respiratory Program

Since 1996, we have maintained a respiratory product development program designed to discover and develop treatment alternatives for respiratory diseases. These respiratory diseases have in common the over-production of mucus secretions and an underlying inflammatory process. Through genomics research, we have concentrated our efforts on determining the manner in which genes specifically impact respiratory disease. We believe that pharmaceutical products developed for use against these specific genomics-based targets have the potential for greater effectiveness and fewer side effects than pharmaceutical products developed through more traditional processes. More than 50 million patients in the United States suffer from some form of respiratory disease, including, respiratory allergies, asthma, chronic bronchitis, other chronic obstructive pulmonary diseases, and upper airway diseases such as chronic sinusitis.

IL9 Antibody Therapeutics

Our first genomics-based program is focused on the development of a blocking antibody to interleukin-9 (IL9) to treat a root cause of asthma. Genetic studies to identify one or more genetic factors important to the development of asthma, in both human families and animal models, have pinpointed IL9 as a mediator of asthma. Our functional genomic studies have demonstrated the broad role of IL9 as an etiologic agent in asthma. The IL9 gene varies in structure and function and as a result may have an important role in a genetic predisposition to asthma and allergic reactions. Our scientific studies and independent peer-reviewed publications indicate that IL9 controls other well-known factors involved in promoting lung inflammation in asthma, including a group of proteins that modulate the growth and functional activities of immune cells. Genaera has developed a patent position around IL9 having first discovered and documented a role for this cytokine in asthma, which is described below under "Patents, Licenses and Proprietary Rights."

In April 2001, we entered into a collaborative agreement with MedImmune, Inc. relating to the development of an IL9-based product for asthma, which is described below under "Commercial Arrangements—MedImmune."

Mucoregulators

Our second genomics-based program has focused on the fundamental biology of mucus overproduction in a large number of chronic respiratory patients worldwide. It is generally accepted that there is extensive unmet medical need for a novel therapy that can prevent abnormal mucus production. Chronic sinusitis is one of the most common reasons for physician visits in the United States, with approximately 35 million cases per year. It is believed that many of the symptoms of chronic sinusitis result from excess mucus production. Among other respiratory diseases, there are up to an estimated 50 million patients with conditions exacerbated by excess mucus production to whom mucoregulator therapy may be of benefit. Mucus overproduction and small airway plugging is one of the hallmarks of asthma and is a cause of death from asthma. Excess mucus production also is associated with chronic bronchitis, a common form of chronic obstructive pulmonary disease (COPD). Cystic fibrosis is the most common fatal genetic disease in the United States, affecting approximately 30,000 children and young adults. Cystic fibrosis causes the body to produce abnormally thick, sticky mucus, due to the faulty transport of sodium and chloride (salt) within cells lining organs such as the lungs, sinuses, and pancreas, to their outer surfaces. The thick cystic fibrosis mucus also obstructs the pancreas, preventing enzymes from reaching the

intestines to help break down and digest food. This orphan disease state is another unmet need where a mucoregulator therapy may be beneficial.

Efforts to identify specific gene targets, validate these targets for therapeutic development, and build an intellectual property position on these assets remain an important focus for our second genomics-based program. Our efforts led to the identification of small molecules, believed to be drug development candidates, to inhibit the overproduction of mucin. We believe small molecule therapeutics that decrease abnormal mucin production, so-called "mucoregulators," have the potential to yield novel therapeutics for mucus overproduction in a number of chronic diseases. We are also exploring biologics-based therapeutics, including antibodies, as mucoregulators.

In December 2001, our scientists announced a publication regarding the discovery of hCLCA1, a chloride channel found in humans, and mCLCA3, an equivalent chloride channel found in mice. A number of studies have shown expression of hCLCA1 localized to mucus producing cells in the respiratory epithelium. Research has further demonstrated a relationship between hCLCA1 and abnormal mucus production suggesting a mechanism for the abnormal mucus production in individuals suffering from a variety of chronic respiratory conditions. We believe that inhibition of this mucoregulator target, which regulates abnormal mucus production, has the potential to be an important new therapeutic target strategy for a variety of respiratory conditions including asthma, chronic bronchitis, chronic sinusitis and cystic fibrosis.

Based on the role of the hCLCA1 chloride channel in a variety of respiratory disorders characterized by mucus overproduction, we undertook the screening of known compounds that might potentially represent safe oral mucoregulator therapeutics for clinical development. This preliminary screening effort led to the identification of LOMUCIN™ (talniflumate) as an orally available small molecule inhibitor of the hCLCA1 channel and potential mucoregulator. In testing, LOMUCIN™ demonstrated a dose-dependent inhibition of mucin production, yet its toxicity was the lowest reported for the various compounds tested. While talniflumate is used commercially as a non-steroidal anti-inflammatory (NSAIDs), other popular NSAIDs for example, ibuprofen or diclofenac, are not mucoregulators. LOMUCIN™ is a known compound which was discovered, developed and marketed as an anti-inflammatory drug by Laboratorios Bago of Buenos Aires, Argentina, a leading independent pharmaceutical company in South America. Talniflumate has been approved and marketed for almost 20 years in Argentina, and selected other countries excluding the United States, Europe, and Japan. The effects of talniflumate in blocking hCLCA1 and mucus overproduction were discovered by Genaera scientists who have submitted patent applications protecting the novel uses of talniflumate as a mucoregulator. Genaera has an exclusive agreement with Laboratorios Bago to develop and commercialize LOMUCIN™ as a new chemical entity and mucoregulator drug in all major pharmaceutical markets including the United States, Europe, and Japan.

The first clinical trial for LOMUCIN™ in asthma, entitled "A Phase 4 Open-label, Randomized Gastrointestinal Tolerability Study of Talniflumate compared to Ibuprofen in Patients with Stable Chronic Persistent Asthma", was initiated in Mexico City during August 2001. The open-label, single-center, randomized study evaluated 63 patients with chronic asthma, to assess the gastrointestinal and respiratory tolerance of LOMUCIN™ oral tablets in patients with chronic asthma, as well as measure the preliminary effects on symptoms and pulmonary functions. The trial treated 42 patients with LOMUCIN™ and 21 with ibuprofen. Results of this study were announced in October 2002. As the primary outcome of the trial, LOMUCIN™ was well tolerated in asthma patients, with a trend of improved gastrointestinal tolerance compared to ibuprofen, and no serious adverse events. There were no significant effects on asthma symptoms compared to ibuprofen. A positive efficacy trend was observed among patients with moderate asthma treated with LOMUCIN™, indicated by increased residual volume at baseline (indicative of gas trapping in the lung). In these patients (half of the patients enrolled in the study) LOMUCIN™ significantly decreased residual volume by 28%, compared to 13% with ibuprofen. This efficacy trend may be due to LOMUCIN™ mucoregulator activity leading to decreased mucus production and the opening of small airways, allowing more air to be exhaled from the lung.

In October 2002, we announced that we had received regulatory approval from the Irish Medicines Board to begin a Phase 2 clinical trial for LOMUCIN™, its oral mucoregulator treatment, in patients with cystic fibrosis.

The double blind, placebo controlled, randomized study will evaluate 60 patients with cystic fibrosis. The study will assess the preliminary safety and efficacy of LOMUCIN™ oral tablets by evaluating the effects of LOMUCIN™ on respiratory symptoms and pulmonary function. Clinical development of LOMUCIN™ for cystic fibrosis is supported by program-specific funding through an initial Therapeutics Development Grant of up to $1.7 million from Cystic Fibrosis Foundation Therapeutics (CFFT), the nonprofit drug development affiliate of the Cystic Fibrosis Foundation (CFF). Our arrangement with CFF is described below under "Commercial Arrangements—Cystic Fibrosis Foundation." We anticipate reporting results from this trial in mid-year 2003. Genaera currently expects to focus its future clinical development efforts for LOMUCIN™ on the treatment of cystic fibrosis.

Other Development Programs

Obesity Therapeutic Program

Trodulamine, formerly known as produlestan, is another natural aminosterol product candidate. Our scientists have demonstrated the ability to reduce the weight of genetically altered mice, generally very obese mice about 10 times their normal size, to that of a normal healthy mouse. Body weights of healthy animals, including animals with diet-induced obesity, also have been reduced through the administration of trodulamine. Our researchers have shown preclinical efficacy with trodulamine, and demonstrated that animal food intake can be regulated in a reversible manner, leading to changes in body weight. Preclinical data on trodulamine demonstrate it is a potent appetite suppressant with the ability to normalize fasting blood sugar, as well as high blood cholesterol levels, resulting from weight loss in obese animals. With trodulamine, we are targeting the approximately 10 to 12 million Americans who are classified medically as significantly obese. While the trodulamine molecule is very different in function, it has a similar chemical structure to squalamine, and thus would enable us to make more efficient use of internal and external resources already utilized for squalamine in its development. Preclinical results with trodulamine suggest that additional work on formulation and delivery of this compound in a safer and more convenient fashion would be the next milestones for development, if a business partnership or program-specific funding can be obtained. Further preclinical development work will be needed before an Investigational New Drug application can be filed with the FDA. Due to the limitations of our current resources, we do not intend to actively pursue the development of this product candidate at this time but we continue to seek new opportunities that will enable us to capitalize on our past development efforts in this program.

Other Aminosterol Programs

In addition to squalamine, our discovery of natural aminosterols has been complemented by a combinatorial chemistry and biology program that has produced many synthetic aminosterols. These natural aminosterols and their synthetic analogues are being developed as a class of agents that are able to block cellular activation in specific cell types. Our lead compounds have demonstrated sufficient efficacy in preclinical models to encourage our pursuit of additional research that could lead to the development of a new treatment for inflammatory disorders. These anti-inflammatory aminosterols represent a novel class of compounds with significant potential for a wide range of systemic and topical anti-inflammatory indications. This research is supported in part by our Phase II Small Business Innovation Research program grant of $800,000 from the National Institutes of Health covering a two-year period beginning in February 2002.

Infectious Disease Program

We have conducted research and development in infectious diseases over many years. The magainin class of compounds, originally discovered in frogs, has been shown to have activity against a variety of pathogens, including bacteria, amoebae, fungi and parasites. Magainins are peptides. A peptide is a chain of 2 to 50 molecules, known as amino acids, which are considered to be one of the basic building blocks of the human body. Chains of more than 50 amino acids are referred to as proteins. We have modified natural peptides by rearranging the order and combination of amino acids, by substituting additional amino acids, and by deleting amino acids to produce magainins having a broader spectrum of therapeutic activity and improved potency.

Antibiotic resistance is the process by which antibiotics lose their effectiveness over time because bacteria, through mutation, develop the means to produce enzymes capable of diminishing the utility of an antibiotic. We have not noted the development of any antibiotic resistance to the magainins. We believe this is due to the unique mechanism of action of the magainins; magainins puncture the cell membrane and break down the integrity of the cell, killing bacteria differently than traditional antibiotics.

Prior to 2000, LOCILEX™ Cream, a topical cream antibiotic for the treatment of infection in diabetic foot ulcers, had been our lead product development candidate in the peptide program. LOCILEX™ Cream did not obtain approval from the FDA in July 1999, and we have since terminated our manufacturing agreements required to further develop this product candidate and refocused our near-term product development efforts on our other programs. Near-term commercialization of LOCILEX™ Cream will not occur, and we will generate no revenues from LOCILEX™ Cream in the near future. We continue to seek new opportunities that will enable us to capitalize on our past development efforts in this program.

Other

In prior years, we have conducted feasibility studies in a number of other areas, including animal-host defense systems and uses for magainin peptides other than in infectious diseases. In November 2002, we announced that we and E.I. du Pont de Nemours entered into a 3-year option agreement for certain of our antimicrobial peptide intellectual property. The agreement provides reimbursement to us for patent-related expenses. We no longer conduct significant research and development activities in these areas as a result of a reprioritization of our corporate goals. Any of these programs could become more significant over the next 12 months; however, there can be no assurance that any of these or our other programs will generate viable product opportunities.

Research and Development Costs

We have incurred costs of $10.7 million, $11.1 million and $10.1 million for research and development in the years ended December 31, 2002, 2001 and 2000, respectively.

Commercial Arrangements

We believe collaborations allow us to leverage our scientific and financial resources and gain access to markets and technologies that would not otherwise be available to us. In the long term, development and marketing arrangements with established companies in the markets in which our potential products will compete may provide us with more efficient development and marketing abilities and may, accordingly, conserve our resources. We expect that we will seek additional development and marketing arrangements for most of the products we may develop. From time to time, we hold discussions with various potential collaborators.

MedImmune

In April 2001, we entered into a research collaboration and licensing agreement with MedImmune, Inc. to develop and commercialize therapies related to our IL9 program. The companies also will collaborate on the creation of specific assays and respiratory disease models for use in assessing product candidates developed by MedImmune. MedImmune will be responsible for development, manufacturing, clinical testing, and marketing of any resulting product. Upon execution of the agreement, MedImmune purchased 10,000 shares of our Series B preferred stock in exchange for $10 million. MedImmune is expected to further fund at least $2.5 million, payable in eight quarterly installments, plus external cost reimbursements, for research and development activities at Genaera from April 2001 through April 2003. In addition to the research and development funding, MedImmune also will reimburse us for certain external costs we incur in connection with the IL9 research plan. Under the agreement, we could receive up to $55.0 million if future milestones are successfully achieved, plus royalties on any product resulting from this agreement. As result of our lack of control over the development plan and the timing of the milestones, we do not expect to complete a substantial portion of those milestones within the next five years. Each party has the right to terminate the agreement upon notice to the other party.

Cystic Fibrosis Foundation

In September 2001, we received a contingent award of up to $1.7 million from an affiliate of the Cystic Fibrosis Foundation under their Therapeutics Development Program to support early clinical evaluation of LOMUCIN™ involving patients with cystic fibrosis. This award has been granted and shall be paid to us from time to time upon the achievement of certain development milestones. Grant amounts received are refundable to the CFF upon marketing approval by the FDA or upon our election not to enter Phase 3 clinical trials or to commercialize the product within two years of milestone completion, assuming efficacy is demonstrated. The CFF is also due a royalty on net sales of any resultant product up to 1% based upon the amount of funding ultimately provided by the CFF through this award.

Laboratorios Bago

We have an exclusive agreement with Laboratorios Bago of Buenos Aires, Argentina, a leading independent pharmaceutical company in South America, to develop and commercialize LOMUCIN™ as a new chemical entity and mucoregulator drug in all major pharmaceutical markets including the United States, Europe, and Japan.

GlaxoSmithKline

In February 1997, we entered into a development, supply and distribution agreement in North America with GlaxoSmithKline for LOCILEX™ Cream. GlaxoSmithKline paid us $10 million under this agreement, which we received in 1997. At that time, we had hoped to commercialize LOCILEX™ Cream in the near-term. However, as a result of the FDA's decision in July 1999 not to approve LOCILEX™ Cream, near-term commercialization of LOCILEX™ Cream will not occur, and we will generate no revenues from LOCILEX™ Cream in the near future.

We have terminated our manufacturing agreements required to further develop this product candidate. The GlaxoSmithKline agreement also gives GlaxoSmithKline rights to terminate the arrangement, and, under certain conditions, the right to negotiate for rights to another Genaera product development candidate. GlaxoSmithKline remains our exclusive sales, marketing and distribution partner for the North American territory for LOCILEX™ Cream.

Contract Manufacturing

We have no current plans to establish a commercial manufacturing facility. We depend upon various contract manufacturers for clinical trial manufacturing of our proposed products and expect to continue to rely on third parties for any commercial-scale manufacturing. We require all of our third-party manufacturers to produce our active pharmaceutical ingredients and finished products in accordance with all applicable regulatory standards.

Government Regulation

Our development, manufacture, and potential sale of therapeutics are subject to extensive regulation by United States and foreign governmental authorities.

Regulation of Pharmaceutical Products in the United States

The FDA may regulate our product candidates currently being developed as drugs or biologics in the United States. New drugs are subject to regulation under the Federal Food, Drug, and Cosmetic Act, and biological products, in addition to being subject to certain provisions of that Act, are regulated under the Public Health Service Act. Both statutes and the regulations promulgated thereunder govern, among other things, the testing, manufacturing, safety, efficacy, labeling, storage, record keeping, and advertising and other promotional practices involving biologics or new drugs, as the case may be. FDA approval or other clearances must be obtained before clinical testing, and before manufacturing and marketing of new biologics and drugs.

Obtaining FDA approval historically has been a costly and time-consuming process. Generally, in order to gain FDA premarket approval, a developer first must conduct preclinical studies in the laboratory and in animal model systems to gain preliminary information on an agent's effectiveness and to identify any safety problems. The results of these studies are submitted as a part of an Investigational New Drug application (IND) for a drug or biologic which the FDA must review before human clinical trials of an investigational drug or device can begin. The IND includes a detailed description of the clinical investigations to be undertaken.

In order to commercialize any products, we or our collaborators must sponsor and file an IND and be responsible for initiating and overseeing the clinical studies to demonstrate the safety, effectiveness, and quality that are necessary to obtain FDA approval of any such products. For INDs sponsored by us or our collaborators, we or our collaborators will be required to select qualified investigators (usually physicians within medical institutions) to supervise the administration of the products, and ensure that the investigations are conducted and monitored in accordance with FDA regulations, including the general investigational plan and protocols contained in the IND.

Clinical trials of drugs normally are done in three phases, although the phases may overlap. Phase 1 trials are concerned primarily with the safety and preliminary effectiveness of the drug, involve a small group typically ranging from 15 – 40 subjects, and may take from six months to over one year to complete. Phase 2 trials normally involve 30 – 200 patients and are designed primarily to demonstrate effectiveness in treating or diagnosing the disease or condition for which the drug is intended, although short-term side effects and risks in people whose health is impaired may also be examined. Phase 3 trials are expanded clinical trials with larger numbers of patients which are intended to evaluate the overall benefit-risk relationship of the drug and to gather additional information for proper dosage and labeling of the drug. Phase 3 clinical trials generally take two to five years to complete, but may take longer. The FDA receives reports on the progress of each phase of clinical testing, and it may require the modification, suspension, or termination of clinical trials if it concludes that an unwarranted risk is presented to patients, or, in Phase 2 and 3, if it concludes that the study protocols are deficient in design to meet their stated objectives.

If clinical trials of a new product are completed successfully, the sponsor of the product may seek FDA marketing approval. If the product is regulated as a biologic, the FDA will require the submission and approval of a Biologics License Application (BLA) before commercial marketing of the biologic. If the product is classified as a new drug, an applicant must file a New Drug Application (NDA) with the FDA and receive approval before commercial marketing of the drug. The BLA or NDA must include detailed information about the product and its manufacture and the results of product development, preclinical studies and clinical trials.

The testing and approval processes require substantial time and effort and there can be no assurance that any approval will be granted on a timely basis, if at all. BLAs, and NDAs submitted to the FDA can take up to one to two years to receive approval. If questions arise during the FDA review process, approval can take more than five years. Notwithstanding the submission of relevant data, the FDA may ultimately decide that the BLA or NDA does not satisfy its regulatory criteria for approval and deny approval, require additional clinical studies, or require demonstration of compliance with Good Manufacturing Practices (GMPs). In addition, the FDA may condition marketing approval on the conduct of specific post-marketing studies to further evaluate safety and effectiveness. Even if FDA regulatory clearances are obtained, a marketed product is subject to continual regulatory requirements and review relating to GMPs, adverse event reporting, promotion and advertising, and other matters, and later discovery of previously unknown problems or failure to comply with the applicable regulatory requirements may result in restrictions on the marketing of a product or withdrawal of the product from the market as well as possible civil or criminal sanctions.

Orphan Drug Designation

During 2001, the FDA granted squalamine orphan drug designation for the treatment of ovarian cancer. We may request orphan drug designation for several indications for our other product candidates under development. Orphan drug designation may be granted to those products developed to treat diseases or conditions that affect fewer than 200,000 persons in the United States or that affect more than 200,000 persons in the United States and

for which there is no reasonable expectation that the cost of developing and making a drug in the United States for such disease or condition will be recovered from sales in the United States of such drug. Under the law, the developer of an orphan drug may be entitled to seven years of market exclusivity following the approval of the product by the FDA, exemption from user fee payments to the FDA and a tax credit for the amount of money spent on human clinical trials. However, we must be the first to receive FDA marketing approval to receive market exclusivity under the orphan drug statute should there be a competitor with a similar molecular entity pursuing the same intended clinical use. Although we may get market exclusivity under the Orphan Drug Act, the FDA will allow the sale of a molecularly equivalent drug, which is clinically superior to or a molecular entity different from another approved orphan drug, although for the same indication, during the seven-year exclusive marketing period. It is also possible that a competitor might try to undermine any exclusivity provided by promoting a product for an off-label use that is the otherwise protected product. We cannot be sure that any of our other product candidates under development will ultimately receive orphan drug designation, or that the benefits currently provided by this designation, if we were to receive it, will not subsequently be amended or eliminated. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

Regulation of Pharmaceutical Products Outside of the United States

The development and commercialization of our product candidates outside of the United States are subject to foreign local and national regulatory requirements. The requirements that we must satisfy to obtain regulatory approval by governmental agencies in other countries prior to commercialization of our products in such countries can be as rigorous, costly and uncertain. We are currently conducting clinical trials outside the United States in Ireland and Mexico.

Other

In addition to the foregoing, our business is and will be subject to regulation under various state and federal environmental laws, including the Occupational Safety and Health Act, the Resource Conservation and Recovery Act and the Toxic Substance Control Act. These and other laws govern our use, handling and disposal of various biological, chemical and radioactive substances used in and wastes generated by our operations. We cannot predict whether state or federal regulators and agencies will impose new regulatory restrictions on the marketing of biotechnology products.

Patents, Licenses And Proprietary Rights

We actively seek to protect our product candidates and proprietary information by means of United States and foreign patents, trademarks and contractual arrangements. Our success depends, in part, on our ability to develop and maintain a strong patent position for our products and technologies both in the United States and certain other countries where patent laws are enforced and pharmaceutical markets are deemed to be meaningful to us and our current and future collaborators. As with most biotechnology and pharmaceutical companies, our patent position is highly uncertain and involves complex legal and factual questions.

To date, we own, co-own or have licensed on an exclusive basis a total of 76 patent applications and issued patents in the United States of which we own or co-own 60 and we license on an exclusive basis 16. We own, co-own or have licensed on an exclusive basis a total of 150 patent applications and issued patents in countries other than the United States.

We own several patents for the use of squalamine as an anti-angiogenic, including the patent to the compound's combination therapy with other anti-cancer agents, the earliest of which expires in 2017. We also own a patent regarding a specific component of the manufacturing process of squalamine and trodulamine which expires in 2017. We own a composition of matter patent for the trodulamine compound, which expires in 2014. We also own a patent for the use of trodulamine as an anti-obesity agent and other indications which expires in 2015. We own a patent for the use of anti-IL9 antibodies for the treatment of asthma and related disorders which expires in 2016. We have recently received a notice of allowance for a patent covering methods for screening for mucoregulator compounds.

The expiration date of each of these patents is subject to extension depending upon the future research and development program timelines. We have filed several other applications across our research and development programs and intend to file additional applications, as appropriate, for patents on new compounds, products or processes discovered or developed through the application of our technology.

We have rights to several patents and patent applications under certain license agreements pursuant to which we expect to owe royalties on sales of products that incorporate issued valid patent claims. In particular, we have licensed from the Ludwig Institute of Cancer Research specific technologies related to our IL9 program, the earliest of which expires in 2009, and have licensed from the Children's Hospital of Philadelphia the composition of matter patent for the squalamine compound, which expires in 2010. These patents are subject to extensions by their owners depending upon the future research and development program timelines. Additionally, certain of these agreements also provide that if we elect not to pursue the commercial development of any licensed technology, or do not adhere to an acceptable schedule of commercialization, then our exclusive rights to such technology may terminate. We also fund research at certain institutions, and these relationships may provide us with technology that is owned, licensed or for which we have an option to license.

In addition, we rely on unpatented proprietary technologies, unpatentable skills, knowledge and experience of our scientific and technical personnel, as well as those of our advisors, consultants and other contractors and other intellectual property ("know-how") in the development of our product candidates. To help protect our proprietary know-how that is not patentable, and for inventions for which patents may be difficult to enforce, we rely on trade secret protection and confidentiality agreements to protect our interests. To this end, we require employees, consultants and advisors to enter into agreements that prohibit the disclosure of confidential information and, where applicable, require disclosure and assignment to us of the ideas, developments, discoveries and inventions that arise from their activities for us. These confidentiality agreements require that our employees, consultants and advisors do not bring to us, or use without proper authorization, any third party's proprietary technology.

We have trademark protection for the product candidate names LOMUCIN™ and LOCILEX™ and are currently seeking U.S. registration of these trademarks.

Competition

The pharmaceutical industry is characterized by intense competition. Many companies, research institutions and universities are conducting research and development activities in a number of areas similar to our fields of interest. Most of these entities have substantially greater financial, technical, manufacturing, marketing, distribution and other resources. We also may face competition from companies using different or advanced techniques that could render our products obsolete.

We expect technological developments in the biopharmaceutical field to occur at a rapid rate and expect competition to intensify as advances in this field are made. Colleges, universities, governmental agencies and other public and private research organizations are becoming more active in seeking patent protection and licensing arrangements to collect royalties for use of technology that they have developed, some of which may be directly competitive with our technology. In addition, these institutions, along with pharmaceutical and specialized biotechnology companies, can be expected to compete with us in recruiting highly qualified scientific personnel.

Many companies are working to develop and market products intended for the disease areas being targeted by us, including cancer, AMD, and respiratory diseases. A number of major pharmaceutical companies have significant franchises in these disease areas, and can be expected to invest heavily to protect their interests. With respect to cancer, anti-angiogenic agents are under development at a number of biopharmaceutical companies, including EntreMed, Inc., Genentech, Inc., and Imclone Systems, Inc., as well as multiple large pharmaceutical companies. For AMD, anti-angiogenic agents are under development at a number of biopharmaceutical companies, including Alcon, Inc., Bausch & Lomb, Inc., Eyetech Pharmaceuticals, Genentech, Inc., Miravant Medical Technologies, and QLT, Inc., as well as multiple large pharmaceutical companies. In the respiratory

field, other biopharmaceutical companies also have reported the discovery of genes relating to asthma and other respiratory diseases, including Genentech, Inc., Immunex Corporation, and Vertex Pharmaceuticals, Inc., as well as multiple large pharmaceutical companies.

Executive Officers

Our current executive officers are as follows:

Name	Age	Position
Roy C. Levitt, M.D.	49	President and Chief Executive Officer
Kenneth J. Holroyd, M.D.	44	Executive Vice President and Chief Operating Officer
Christopher P. Schnittker	34	Senior Vice President and Chief Financial Officer
Angeline K. Shashlo	44	Senior Vice President, Regulatory Affairs, Quality Assurance and Project Management

Dr. Levitt has served as our President and Chief Executive Officer since November 2000. Prior to that, Dr. Levitt had served as our Executive Vice President and Chief Operating Officer since August 1998. Dr. Levitt was appointed our head of Research and Development and a Director in August 1997. Prior to joining us on a full-time basis in January 1996, Dr. Levitt served as a consultant to a number of biotechnology companies, including Genaera, beginning in 1995. Dr. Levitt served as a faculty member at Johns Hopkins University in the Department of Anesthesiology and Critical Care Medicine, from 1986 to 1995, in Neurological Surgery from 1995 to 1996 and in the Department of Environmental Health Sciences in the Johns Hopkins School of Public Health and Hygiene from 1988 to 1996. Dr. Levitt completed his residency training in internal medicine and anesthesiology and critical care medicine at the John Hopkins Medical Institutions and genetics training at the National Institutes of Health. He is board certified in anesthesiology and critical care medicine and internal medicine.

Dr. Holroyd was promoted to our Executive Vice President and Chief Operating Officer in February 2002. Prior to that, he had served as our Executive Vice President and Chief Business Officer since November 2000. Prior to that, Dr. Holroyd had served as our Senior Vice President, Clinical Research and Regulatory Affairs since June 1998. Dr. Holroyd has held various positions, including Vice President of Respiratory Discovery Research, Product Development and Business Development, since joining us in February 1997. Prior to joining us, Dr. Holroyd was a faculty member and head of respiratory care services at Johns Hopkins University School of Medicine and Hospital in the Departments of Medicine, and Anesthesiology and Critical Care Medicine. Dr. Holroyd earned his M.D. and M.B.A. from Johns Hopkins in 1984 and 2000, respectively, and completed his residency training at Johns Hopkins and at the National Heart, Lung and Blood Institute.

Mr. Schnittker has served as our Senior Vice President and Chief Financial Officer since December 2002. Prior to that, Mr. Schnittker served as Vice President and Chief Financial Officer since joining us in June 2000. Prior to joining us, Mr. Schnittker served as Director of Finance from August 1999 to May 2000 and Controller from December 1997 to August 1999 at Global Sports, Inc. From June 1995 to December 1997, Mr. Schnittker held the positions of Manager, Finance Policies and Procedures and Senior Accountant, External Reporting at Rhône-Poulenc Rorer, Inc. Prior to that, Mr. Schnittker held various positions at Price Waterhouse LLP (now PricewaterhouseCoopers LLP) from 1990 to 1995. Mr. Schnittker is a certified public accountant.

Ms. Shashlo has served as our Senior Vice President, Regulatory Affairs, Quality Assurance and Project Management since December 2002. Prior to that, Ms. Shashlo served as our Vice President, Regulatory Affairs and Project Management since joining us in June 2002. Prior to Genaera, Ms. Shashlo served as a worldwide regulatory consultant from September 2001 to May 2002, including a brief tenure as Vice President, Regulatory Affairs for Medinox, Inc. From May 2000 to August 2001, Ms. Shashlo served as Vice President, Regulatory

Affairs and Quality Assurance for Vitagen Incorporated. Prior to that, Ms. Shashlo served as Director, Regulatory Affairs and Compliance at Ligand Pharmaceuticals, Inc. from August 1997 to May 2000. From September 1993 to August 1997, Ms. Shashlo held the position of Associate Director International Regulatory Affairs, Worldwide Regulatory Affairs Division for Wyeth-Ayerst Research. Ms. Shashlo received her B.S. Pharmacy degree from the University of Michigan and is a registered pharmacist licensed by the State of Michigan.

Officers are elected or appointed by the board of directors to serve until the appointment or election and qualification of their successors or their earlier termination or resignation.

Employees

As of December 31, 2002, we had 22 full-time employees. No employees are covered by collective bargaining agreements, and we consider relations with our employees to be good.

Available Information

We make available free of charge on or through our internet website at www.genaera.com our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable after we electronically file such material with, or furnish it to, the United States Securities and Exchange Commission.

Risk Factors Related To Our Business

Any investment in shares of our common stock involves a high degree of risk. You should carefully consider the following risk factors, together with the other information presented in this Annual Report on Form 10-K.

If we do not raise additional capital, we may not be able to continue our research and development programs and may never commercialize any products.

We maintained cash and investments of $9.4 million at December 31, 2002. At December 31, 2002, we had current liabilities of $3.9 million, long-term liabilities of $1.7 million and redeemable convertible preferred stock of $1.1million. We believe these resources are sufficient to meet our research and development goals and sustain operations through 2003. However, we will need to raise substantial additional funds in the future to continue our research and development programs and to commercialize our potential products. If we are unable to raise such funds, we may be unable to complete our development activities for any of our proposed products.

We regularly explore alternative means of financing our operations and seek funding through various sources, including public and private securities offerings, collaborative arrangements with third parties and other strategic alliances and business transactions. We currently do not have any commitments to provide additional funds, and may be unable to obtain sufficient funding in the future on acceptable terms, if at all. If we cannot obtain funding, we will need to delay, scale back or eliminate research and development programs or enter into collaborations with third parties to commercialize potential products or technologies that we might otherwise seek to develop or commercialize ourselves, or seek other arrangements. If we raise additional capital by issuing equity or securities convertible into equity, our stockholders may experience dilution and our share price may decline. Any debt financing may result in restrictions on spending or payment of dividends. If we engage in collaborations, we will receive lower consideration upon commercialization of such products than if we had not entered into such arrangements, or if we entered into such arrangements at later stages in the product development process.

We expect to continue to incur substantial losses in the foreseeable future and may never generate revenues or become profitable.

To date, we have engaged primarily in the research and development of drug candidates. We have not generated any revenues from product sales and have incurred losses in each year since our inception. As of December 31, 2002, we had an accumulated deficit of approximately $182.8 million.

Our proposed products are in a relatively early developmental stage and will require significant research, development and testing. We must obtain regulatory approvals for any proposed product prior to commercialization of the product. Our operations also are subject to various competitive and regulatory risks. As a result, we are unable to predict when or if we will achieve any product revenues or become profitable. We expect to experience substantial losses in the foreseeable future as we continue our research, development and testing efforts.

We may be unable to maintain the standards for listing on the Nasdaq SmallCap Market, which could adversely affect the liquidity of our common stock and could subject our common stock to the "penny stock" rules.

Our common stock is currently listed on the Nasdaq SmallCap Market. There are several requirements that we must satisfy in order for our common stock to continue to be listed on the Nasdaq SmallCap Market. These requirements include, but are not limited to, maintaining a minimum per share price on our common stock of one dollar. The per share price of our common stock does not currently satisfy requirements to remain listed on the Nasdaq SmallCap Market. We have received notification from The Nasdaq Stock Market, Inc. that our common stock will be delisted from the Nasdaq SmallCap Market unless the stock closes at or above one dollar per share for at least ten consecutive days by September 18, 2003. In addition, in the future we may not comply with other listing requirements, which might result in the delisting of our common stock. Delisting from the Nasdaq SmallCap Market could also adversely affect the liquidity and the price of our common stock and could have a long-term adverse impact on our ability to raise future capital through a sale of our common stock.

If our common stock were delisted, our common stock would then be traded on an electronic bulletin board established for securities that are not included in Nasdaq or traded on a national securities exchange or in quotations published by the National Quotation Bureau, Inc. that are commonly referred to as the "pink sheets." If this occurs, it could be more difficult to sell our securities or obtain the same level of market information as to the price of our common stock as is currently available.

In addition, if our common stock were delisted, it would be subject to the so-called "penny stock" rules. The Securities and Exchange Commission has adopted regulations that define a "penny stock" to be any equity security that has a market price of less than $5.00 per share, subject to certain exceptions, such as any securities listed on a national securities exchange or quoted on Nasdaq. For any transaction involving a "penny stock," unless exempt, the rules impose additional sales practice requirements on broker-dealers, subject to certain exceptions.

For transactions covered by the "penny stock" rules, a broker-dealer must make a special suitability determination for the purchaser and must have received the purchaser's written consent to the transaction prior to the transaction. The "penny stock" rules also require broker-dealers to deliver monthly statements to "penny stock" investors disclosing recent price information for the "penny stock" held in the account, and information on the limited market in "penny stocks." Prior to the transaction, a broker-dealer must provide a disclosure schedule relating to the "penny stock" market. In addition, the broker-dealer must disclose the following:

- commissions payable to the broker-dealer and the registered representative; and
- current quotations for the security as mandated by the applicable regulations.

If our common stock were delisted and determined to be a "penny stock," a broker-dealer may find it more difficult to trade our common stock and an investor may find it more difficult to acquire or dispose of our common stock in the secondary market.

Development and commercial introduction of our products will take several more years and may not be successful.

We are dedicating substantially all of our resources to research and development, do not have any marketed products, and have not generated any product revenue. Because substantially all of our potential products currently are in research, preclinical development or the early and middle stages of clinical testing, revenues from sales of any products will not occur for at least the next several years, if at all. Our technologies are relatively new fields and may not lead to commercially viable pharmaceutical products. Before we can commercially introduce any products, we will likely incur substantial expense for, and devote a significant amount of time to, preclinical testing and clinical trials. We cannot apply for regulatory approval of our potential products until we have performed additional research and development testing and demonstrated in preclinical testing and clinical trials that our product candidates are safe and effective for use in humans. Some of our product candidates are in the early stages of research and development, and we may abandon further development efforts on these product candidates before they reach clinical trials. Conducting clinical trials is a lengthy, time-consuming and expensive process. Our clinical trials may not demonstrate the safety and efficacy of our potential products, and we may encounter unacceptable side effects or other problems in the clinical trials. Should this occur, we may have to delay or discontinue development of the potential products. Further, even if we believe that any product is safe or effective, we may not obtain the required regulatory approvals, be able to manufacture our products in commercial quantities or be able to market any product successfully.

If we do not obtain required regulatory approvals, we will not be able to commercialize any of our product candidates.

Numerous governmental authorities, including the FDA in the United States, regulate our business and activities. Federal, state and foreign government agencies impose rigorous preclinical and clinical testing and approval requirements on our product candidates. In general, the process of obtaining government approval for pharmaceutical products is time consuming and costly.

Governmental authorities may delay or deny the approval of any of our drug candidates. In addition, governmental authorities may enact new legislation or regulations that could limit or restrict our efforts. A delay or denial of regulatory approval for any of our drug candidates, such as that which occurred for LOCILEX™ Cream, will have a material adverse effect on our business. Even if we receive approval of a product candidate, approval may be conditioned upon certain limitations and restrictions as to the drugs used and may be subject to continuous review. If we fail to comply with any applicable regulatory requirements, we could be subject to penalties, including warning letters, fines, withdrawal of regulatory approval, product recalls, operating restrictions, injunctions, and criminal prosecution.

We expect to rely on third parties to market any products we develop and expect to rely on third parties in connection with the development of our products; if these parties do not perform as expected, we may never successfully commercialize our products.

We do not have our own sales and marketing staff. In order to successfully develop and market our future products, we must enter into marketing and distribution arrangements with third parties. We also expect to delegate the responsibility for all, or a significant portion, of the development and regulatory approval for certain products to third parties. If these parties do not develop an approvable or marketable product or do not market a product successfully, we may never generate revenue or become profitable. Additionally, we may be unable to enter into successful arrangements with other parties for such products.

We do not have control over the amount and timing of resources to be devoted to our products by our collaborative partners. Our collaborators may not place a high priority on their contractual arrangements with us. Collaborators may develop products independently or through third parties that could compete with our proposed products. For example, GlaxoSmithKline, a current collaborative partner, which entered into an agreement with us relating to the development of LOCILEX™ Cream, maintains a significant presence in the antibiotic area and

currently sells a topical antibiotic product indicated for the treatment of certain skin infections. In addition, a collaborator may decide to end a relationship with us. For example, in December 2000, Genentech provided notice to us of its election to terminate the collaboration agreement covering the IL9 antibody development program and related respiratory technology.

We also may decide to establish our own sales force to market and sell certain products. Although some members of our management have limited experience in marketing pharmaceutical products, we have no experience with respect to marketing our products. If we choose to pursue this alternative, we will need to spend significant additional funds and devote significant management resources and time to establish a successful sales force. This effort may not be successful. Moreover, because our financial resources are limited, our sales and marketing expenditures in this area would likely be modest compared to our competitors.

We face formidable competition with respect to the products we are seeking to develop and the recruitment of highly trained personnel.

The pharmaceutical industry is characterized by intense competition. Many companies, research institutions and universities are conducting research and development activities in our fields of interest. Some of these companies are currently involved in research and development activities focused on the pathogenesis of disease, and the competition among companies attempting to find genes responsible for disease is intense. In addition, we are aware that research on compounds derived from animal host-defense systems is being conducted by others. We also may face competition from companies using different or advanced techniques that could render our future products obsolete. Most of these entities have substantially greater financial, technical, manufacturing, marketing, distribution and other resources than we have.

Many companies are working to develop and market products intended for the additional disease areas being targeted by us, including cancer, AMD and chronic obstructive respiratory diseases. A number of major pharmaceutical companies have significant franchises in these disease areas, and can be expected to invest heavily to protect their interests. With respect to cancer and AMD, anti-angiogenic agents are under development at a number of companies. In the respiratory field, other biopharmaceutical companies also have reported the discovery of genes relating to asthma and other respiratory diseases.

Many of the companies developing or marketing competing products have significantly more experience than we in undertaking preclinical testing and human clinical trials of new or improved therapeutic products and obtaining regulatory approvals of such products. Some of these companies may be in advanced phases of clinical testing of various drugs that may be competitive with our proposed products.

We expect technological developments in the biopharmaceutical field to occur at a rapid rate and expect competition to intensify as advances in this field are made. Accordingly, we must continue to devote substantial resources and efforts to research and development activities in order to maintain a competitive position in this field. Our efforts may not be successful.

Colleges, universities, governmental agencies and other public and private research organizations are becoming more active in seeking patent protection and licensing arrangements to collect royalties for use of technology that they have developed, some of which may be directly competitive with our technology. In addition, these institutions, along with pharmaceutical and specialized biotechnology companies, can be expected to compete with us in recruiting highly qualified scientific personnel.

If we do not develop and maintain relationships with contract manufacturers, we may not successfully commercialize our products.

We currently do not have the resources, facilities, or technical capabilities to manufacture any of our proposed products in the quantities and quality required for commercial sale. We have no plans to establish a manufacturing facility. We expect to depend upon contract manufacturers for commercial scale manufacturing of

our proposed products in accordance with regulatory standards. For example, we are currently working with outside contractors for the chemical production of squalamine. This dependence on contract manufacturers may restrict our ability to develop and deliver products on a timely, profitable and competitive basis especially because the number of companies capable of producing our proposed products is limited. These contract manufacturers generally have multiple projects and they may give ours a lower priority. As a result of contract manufacture mishaps, our product could be lost or delivered late delaying our clinical and preclinical programs, or may not be produced in accordance with all current applicable regulatory standards. Product not produced in accordance with all current applicable regulatory standards may lead to adverse outcomes for patients and/or product recalls. Furthermore, the development of a robust, low-cost manufacturing process for the commercial production of squalamine and other proposed products will require significant time and expenditure by us. We may be unable to maintain arrangements with qualified outside contractors to manufacture materials at costs that are affordable to us, if at all.

Contract manufacturers may utilize their own technology, our technology, or technology acquired or licensed from third parties in developing a manufacturing process. In order to engage another manufacturer, we may need to obtain a license or other technology transfer from the original contract manufacturer. Even if a license is available from the original contract manufacturer on acceptable terms, we may be unable to successfully effect the transfer of the technology to the new contract manufacturer. Any such technology transfer also may require the transfer of requisite data for regulatory purposes, including information contained in a proprietary drug master file held by a contract manufacturer. If we rely on a contract manufacturer that owns the drug master file, our ability to change contract manufacturers may be more limited.

We depend on our intellectual property and, if we are unable to protect our intellectual property, our business may be harmed.

Patents

Our success depends, in part, on our ability to develop and maintain a strong patent position for our products and technologies, both in the United States and other countries. As with most biotechnology and pharmaceutical companies, our patent position is highly uncertain and involves complex legal and factual questions. Without patent and other protections, other companies could offer substantially identical products for sale without incurring the sizeable development and testing costs that we have incurred. As a result, our ability to recover these expenditures and realize profits upon commercialization likely would be diminished.

The process of obtaining patents can be time consuming and expensive. Even after significant expenditure, a patent may not issue. We can never be certain that we were the first to develop the technology or that we were the first to file a patent application for the particular technology because U.S. patent applications are maintained in secrecy by the U.S. Patent and Trademark Office until a patent issues, and publications in the scientific or patent literature concerning new technologies occur some time after actual discoveries of the technologies are made.

We cannot be certain that:

- patents will issue from any of our patent applications;
- our patent rights will be sufficient to protect our technology;
- others may not file patents ahead of us in time and prevent the issuing of our patent claims;
- others will not design around the patented aspects of our technology;
- our patents will not be successfully challenged or circumvented by our competitors; or
- an adverse outcome in a suit challenging our patents would not subject us to significant liabilities to third parties, require rights to be licensed from third parties, or require us to cease using such technology.

The cost of litigation related to patents can be substantial, regardless of the outcome.

Other Intellectual Property

In order to protect our proprietary technology and processes, we also rely on trade secrets and confidentiality agreements with our employees, consultants, outside scientific collaborators, and other advisors. We may find that these agreements will be breached, or that our trade secrets have otherwise become known or independently developed or discovered by our competitors.

Certain of our exclusive rights to patents and patent applications are governed by contract. Generally, these contracts require that we pay royalties on sales of any products that are covered by patent claims. If we are unable to pay the royalties, we may lose our patent rights. Additionally, some of these agreements also require that we develop the licensed technology under certain timelines. If we do not adhere to an acceptable schedule of commercialization, we may lose our rights.

Potential Ownership Disputes

Disputes may arise as to the ownership of our technology. Most of our research and development personnel previously worked at other biotechnology companies, pharmaceutical companies, universities, or research institutions. These entities may raise questions as to when technology was developed, and assert rights to the technology. These kinds of disputes have occurred in the past and were resolved. However, we may not prevail in any such disputes.

Similar technology ownership disputes may arise in the context of consultants, vendors or third parties, such as contract manufacturers. For example, our consultants are employed by or have consulting agreements with third parties. There may be disputes as to the capacity in which consultants are operating when they make certain discoveries. We may not prevail in any such disputes.

If we cannot recruit and retain qualified management, we may not be able to successfully develop and commercialize our products.

We depend to a considerable degree on a limited number of key personnel. Most significant responsibilities have been assigned to a relatively small number of individuals. We do not maintain "key man" insurance on any of our employees. The loss of certain management and technical personnel could adversely affect our ability to develop and commercialize products.

We are subject to potential product liability claims that could result in significant costs.

We are subject to significant potential product liability risks inherent in the testing, manufacturing and marketing of human therapeutic products, including the risk that:

- our proposed products cause some undesirable side effects or injury during clinical trials;
- our products cause undesirable side effects or injury in the market; or
- third parties that we have agreed to indemnify incur liability.

While we carry insurance, this coverage is expensive and we may be unable to maintain adequate coverage on acceptable terms.

If we do not receive adequate third-party reimbursement for any of our drug candidates, some patients may be unable to afford our products and sales could suffer.

In both the United States and elsewhere, the availability of reimbursement from third-party payers, such as government health administration authorities, private health insurers and other organizations, can impact prescription pharmaceutical sales. These organizations are increasingly challenging the prices charged for medical products and services, particularly where they believe that there is only an incremental therapeutic

benefit that does not justify the additional cost. If any of our products ever obtain marketing approval, coverage and reimbursement may not be available for these products, or, if available, may not be adequate. Without insurance coverage, many patients may be unable to afford our products, in which case sales of the products would be adversely affected.

There also has been a trend toward government reforms intended to contain or reduce the cost of health care. In certain foreign markets, pricing or profitability of prescription pharmaceuticals is subject to government control. In the United States, there have been a number of federal and state proposals to implement similar government control. We expect this trend to continue, but we cannot predict the nature or extent of any reform that results. These reforms could adversely affect our ability to obtain financing for the continued development of our proposed products or market any of our products that are successfully developed. Furthermore, reforms could have a broader impact by limiting overall growth of health care spending, such as Medicare and Medicaid spending, which could also adversely affect our business.

The FDA has deemed our NDA for LOCILEX™ Cream to be not approvable, and the product may never be approved.

In July 1999, we received notification from the FDA that our NDA for LOCILEX™ Cream had been deemed not approvable. LOCILEX™ Cream, a topical cream antibiotic for the treatment of infection in diabetic foot ulcers, had been our lead product development candidate. As a result of the FDA's decision, near-term commercialization of LOCILEX™ Cream will not occur, and we will generate no revenues from LOCILEX™ Cream in the near future, if ever.

In order to again seek approval of LOCILEX™ Cream, the FDA has indicated that we must conduct further development activities, including clinical and manufacturing activities. As a result of its review of manufacturing of the cream product, the FDA issued certain observations of deficiencies in compliance with their current good manufacturing procedures regulations. The Company will need to initiate new manufacturing relationships to conduct further development activities. Any additional manufacturing batches of the active ingredient and cream product that must be manufactured must meet strict product specifications in compliance with FDA-determined current GMPs. The time required to conduct such further clinical and manufacturing development efforts may be lengthy and costly, and the results may ultimately prove unsuccessful.

Our stock price is extremely volatile, and your investment in our stock could decline in value. We may become involved in securities class action litigation.

The market prices and trading volumes for securities of biopharmaceutical and biotechnology companies, including ours, have historically been, and will likely continue to be, highly volatile. Future events affecting our business, or that of our competitors, may have a significant impact on our stock price. Among these events are the following:

- product testing results from us or our competitors;
- technological innovations by us or our competitors;
- new commercial products from us or our competitors;
- regulatory developments in the Untied States and foreign countries;
- developments concerning proprietary rights, including patents;
- regulatory actions;
- litigation;
- economic and other external factors or other disasters or crises;
- period-to-period fluctuations in our financial results; and
- the general performance of the equity markets and, in particular, the biotechnology sector of the equity markets.

In the past, following periods of volatility in the market price of a particular company's securities, securities class action litigation has often been brought against that company. We may become involved in this type of litigation in the future. Litigation of this type is often extremely expensive and diverts management's attention and resources.

The exercise of options and warrants and other issuances of shares will likely have a dilutive effect on our stock price.

As of December 31, 2002, there were outstanding options to purchase an aggregate of approximately 4,214,000 shares of our common stock at prices ranging from $0.40 per share to $16.75 per share, of which approximately options to purchase 2,422,000 shares were exercisable as of such date. As of December 31, 2002, there were outstanding warrants to purchase 217,166 shares of our common stock, of which warrants to purchase 167,166 shares of our common stock are currently exercisable at $3.50 per share and warrants to purchase 50,000 shares are currently exercisable at $3.79 per share, all subject to adjustment under the anti-dilution provisions of the warrants. In connection with an April 2002 private placement of our common stock, we granted to the placement agent warrants to purchase 100,000 shares of our common stock at an exercise price of $2.75 per share. As of December 31, 2002, these warrants have not yet been issued.

The exercise of options and warrants at prices below the market price of our common stock could adversely affect the price of our common stock. Additional dilution may result from the issuance of shares of our capital stock in connection with collaborations or manufacturing arrangements or in connection with other financing efforts.

Our certificate of incorporation and Delaware law contain provisions that could discourage a takeover.

Our certificate of incorporation provides our board of directors the power to issue shares of preferred stock without stockholder approval. This preferred stock could have voting rights, including voting rights that could be superior to that of our common stock. In addition, Section 203 of the Delaware General Corporation Law contains provisions that impose restrictions on stockholder action to acquire control of Genaera. The effect of these provisions of our certificate of incorporation and Delaware law provisions could discourage third parties from seeking to obtain control, even though the price at which such third parties seek to acquire our common stock is in excess of the market price for our stock.

ITEM 2. *Properties*

We lease approximately 21,000 square feet of office and laboratory space in a single building in Plymouth Meeting, Pennsylvania. This lease provides for minimum annual payments of approximately $0.4 million in 2003 and is subject to certain annual increases thereafter. This lease expires in December 2007.

ITEM 3. *Legal Proceedings*

We are not a party to any material litigation.

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

No matters were submitted to a vote of our stockholders during the last quarter of the year ended December 31, 2002.

PART II

ITEM 5. *Market for Registrant's Common Equity and Related Stockholder Matters*

Our common stock currently trades on the National Association of Securities Dealers Automated Quotation System (Nasdaq) SmallCap Market under the symbol "GENR." From December 12, 1991, the date of our initial public offering, until March 9, 2001 our common stock was included for quotation on the Nasdaq National Market under the symbol "MAGN". On March 9, 2001, we changed our name to Genaera Corporation and, on March 12, 2001, our common stock began inclusion for quotation on the Nasdaq National Market under the symbol "GENR". Our common stock was included for quotation under the Nasdaq National Market through October 30, 2002, when we elected to begin trading on the Nasdaq SmallCap Market effective with the opening of trading on October 31, 2002.

The quarterly ranges of high and low closing bid prices per share of our common stock are shown below.

Year Ended December 31, 2001	High	Low
1st Quarter	$3.06	$1.91
2nd Quarter	$4.79	$1.82
3rd Quarter	$4.65	$2.05
4th Quarter	$4.10	$2.11

Year Ended December 31, 2002	High	Low
1st Quarter	$3.90	$2.50
2nd Quarter	$3.18	$1.78
3rd Quarter	$1.90	$0.46
4th Quarter	$0.68	$0.32

As of March 20, 2003, the last reported bid price for our common stock on the Nasdaq SmallCap Market was $0.28 per share.

There are several requirements that we must satisfy in order for our common stock to continue to be listed on the Nasdaq SmallCap Market. These requirements include, but are not limited to, maintaining a minimum per share price on our common stock of one dollar. The per share price of our common stock does not currently satisfy requirements to remain listed on the Nasdaq SmallCap Market. We have received notification from The Nasdaq Stock Market, Inc. that our common stock will be delisted from the Nasdaq SmallCap Market unless the stock closes at or above one dollar per share for at least ten consecutive days by September 18, 2003. In addition, in the future we may not comply with other listing requirements, which might result in the delisting of our common stock. If we are unable to maintain these listing requirements, our common stock would be delisted. Our common stock would then be traded on an electronic bulletin board established for securities that are not included in the Nasdaq or traded on a national securities exchange or in quotations published by the National Quotation Bureau, Inc. that are commonly referred to as "pink sheets." If this occurs, it could be more difficult for investors to sell our securities or obtain the same level of market information as to the price of our common stock as is currently available. Delisting from the Nasdaq SmallCap Market could adversely affect the liquidity and the price of our common stock and could have a long-term adverse impact on our ability to raise future capital through a sale of our common stock.

Dividends

We have not paid any cash dividends since our inception, and we do not anticipate paying any cash dividends in the foreseeable future. It is the present policy of the board of directors to retain all earnings, if any, to finance the development of our business.

Number of Holders of Common Stock

At March 20, 2003, there were approximately 370 stockholders of record and approximately 8,873 beneficial owners of our common stock.

ITEM 6. *Selected Financial Data*

The following tables summarize certain selected financial data and are derived from our audited financial statements. The selected financial data below should be read in conjunction with our financial statements and notes thereto, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the other financial information included herein.

	Year Ended December 31,				
	2002	2001	2000	1999	1998
	(In thousands, except per share amounts)				
Statement of Operations Data:					
Revenues:					
Collaborative research agreement	$ 1,517	$ 1,038	$ —	$ —	$ —
Costs and expenses:					
Research and development	10,691	11,132	10,074	9,876	21,456
General and administrative	3,085	3,423	2,583	2,870	3,292
	13,776	14,555	12,657	12,746	24,748
Loss from operations	(12,259)	(13,517)	(12,657)	(12,746)	(24,748)
Interest income	259	849	883	755	1,640
Interest expense	(156)	(244)	(605)	(225)	(196)
Net loss	(12,156)	(12,912)	(12,379)	(12,216)	(23,304)
Dividends on preferred stock	73	111	45	—	—
Net loss applicable to common stockholders	$(12,229)	$(13,023)	$(12,424)	$(12,216)	$(23,304)
Net loss applicable to common stockholders per share—basic and diluted	$ (0.35)	$ (0.40)	$ (0.42)	$ (0.52)	$ (1.05)
Weighted average shares outstanding—basic and diluted	34,894	32,711	29,375	23,706	22,235

	December 31,				
	2002	2001	2000	1999	1998
	(In thousands)				
Balance Sheet Data:					
Cash and investments	$ 9,400	$ 16,078	$ 19,033	$ 10,644	$ 22,871
Total assets	11,191	17,816	20,701	12,731	25,891
Long-term liabilities	1,704	1,579	2,010	3,015	58
Redeemable convertible preferred stock	1,117	1,044	1,233	—	—
Accumulated deficit	(182,819)	(170,591)	(157,568)	(145,144)	(132,928)
Stockholders' equity	4,511	9,610	11,473	6,552	14,680
Other Data:					
Working capital	5,727	10,713	13,393	7,608	11,897

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

Overview

Genaera Corporation is a biopharmaceutical company committed to developing medicines for serious diseases from genomics and natural products. Our research and development efforts are focused on anti-angiogenesis and respiratory diseases.

Since commencing operations in 1988, we have not generated any revenue from product sales, and we have funded operations primarily from the proceeds of public and private placements of securities and research and development collaboration payments and related equity investments. We have incurred a loss in each year since our inception, and we expect to incur substantial additional losses for at least the next several years. We expect that losses may fluctuate, and that such fluctuations may be substantial. At December 31, 2002, our accumulated deficit was approximately $182.8 million. We will need to raise additional funds in the future to continue our operations.

On August 14, 2002, we announced a realignment of operations intended to focus our resources on our most advanced product development programs and reduce our expenses. Under the realignment plan, we reduced our headcount by approximately 35%, primarily impacting unsupported preclinical research programs. On November 7, 2002, we announced a further realignment of operations to continue our cost containment efforts. Under this realignment plan, we reduced our headcount by approximately 32%.

The following discussion is included to describe our financial position and results of operations for each of the previous three years in the period ended December 31, 2002. The Consolidated Financial Statements and Notes thereto contain detailed information that should be referred to in conjunction with this discussion.

Critical Accounting Policies and Estimates

The preparation of our financial statements in conformity with accounting principles generally accepted in the U.S. requires management to make estimates and assumptions that affect the amounts reported in our financial statements and accompanying notes. Actual results could differ materially from those estimates. The following are critical accounting policies important to our financial condition and results of operations presented in our financial statements and require management to make judgments, assumptions and estimates that are inherently uncertain:

Revenue Recognition

Contract revenue for research and development is recorded as earned based on the performance requirements of the contract. Non-refundable contract fees for which no further performance obligations exist, and for which there is no continuing involvement by us, are recognized on the earlier of when the payments are received or when collection is assured. Revenue from non-refundable upfront license fees and certain guaranteed payments where we continue involvement through development collaboration is recognized on a straight-line basis over the development period. Revenue associated with performance milestones is recognized based upon the achievement of the milestones, as defined in the respective agreements. Revenue under research and development cost reimbursement contracts is recognized as the related costs are incurred. Advance payments received in excess of amounts earned are classified as liabilities until earned. Payments received that are refundable also are classified as liabilities until the refund provision expires. We make an estimate as to the appropriate deferral period for recognition of revenue on any collaborative fees received. Changes in these estimates, due to the evolution of the development program, can have a significant effect on the timing of revenue recorded.

Research and Development Expenses

Research and development expenses include related salaries, contractor fees, and facility costs. Research and development expenses consist of independent research and development contract costs, contract manufacturing costs and costs associated with collaborative research and development arrangements. In addition, we fund research and development at other research institutions under agreements that are generally cancelable.

Research and development expenses also include external activities such as investigator-sponsored trials. All such costs are charged to research and development expense systematically as incurred, which may be measured by percentage of completion, contract milestones, patient enrollment or the passage of time. At the initiation of certain contracts, we must make an estimate as to the duration and expected completion date of the contract, which may require a change due to accelerations, delays or other adjustments to the contract period or work performed. Changes in these estimates could have a significant effect on the amount of research and development costs in a specific period.

Stock-Based Compensation

We account for stock-based employee compensation under the intrinsic value-based method set forth by Accounting Principles Board (APB) Opinion No. 25, *Accounting for Stock Issued to Employees*, and related interpretations. Effective January 1, 1996, we adopted the disclosure-only provisions of Statement of Financial Accounting Standards (SFAS) No. 123, *Accounting for Stock-Based Compensation* (SFAS 123). Stock or other equity-based compensation for non-employees must be accounted for under the fair value-based method as required by SFAS 123 and Emerging Issues Task Force (EITF) No. 96-18, *Accounting for Equity Instruments that are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*, and other related interpretations. Under this method, the equity-based instrument is valued at either the fair value of the consideration received or the equity instrument issued on the date of grant. The resulting compensation cost is recognized and charged to operations over the service period, which is usually the vesting period. Estimating the fair value of equity securities involves a number of judgments and variables that are subject to significant change. A change in the fair value estimate could have a significant effect on the amount of compensation cost.

Results of Operations—2002 vs. 2001

Revenues

We have received no revenues to date from product sales. Revenues recorded to date have consisted principally of revenues recognized under collaborations with third parties. In April 2001, we entered into a research collaboration and licensing agreement with MedImmune, Inc. to develop and commercialize therapies related to our IL9 program. MedImmune is expected to fund at least $2.5 million, payable in eight equal quarterly installments, plus external cost reimbursements for our research and development activities through April 2003. For the years ended December 31, 2002 and 2001, we recognized $1.5 million and $1.0 million, respectively, in revenue related to this agreement, of which $0.2 million and $0.1 million, respectively, related to external cost reimbursements.

Research and Development Expenses

We recognized research and development expenses of $10.7 million and $11.1 million in 2002 and 2001, respectively. Research and development expenses consist principally of personnel costs, contract research, development and manufacturing costs and facility costs. Research and development expenses have decreased marginally in the year ended December 31, 2002, as compared to the same period a year ago, due to reduced squalamine manufacturing and trodulamine development efforts. These reductions were partially offset by the $498,000 and $183,000 accruals of research and development employee severance and related costs associated with our realignment of operations in August and November of 2002, respectively. The level of research and development expenses in future periods will depend principally upon the progress of our research and development programs and our capital resources.

General and Administrative Expenses

We recognized general and administrative expenses of $3.1 million and $3.4 million in 2002 and 2001, respectively. General and administrative expenses consist principally of personnel costs, professional fees and public company expenses. Such expenses decreased in the year ended December 31, 2002, as compared to the same period a year ago, due principally to decreases in personnel related to general corporate activities. These reductions were partially offset by the $8,000 and $134,000 accruals of general and administrative employee

severance and related costs associated with our realignment of operations in August and November of 2002, respectively.

Interest Income and Expense

We recognized interest income of $0.3 million and $0.8 million in 2002 and 2001, respectively. We recognized interest expense of $0.2 million in 2002 and 2001. Interest income is primarily comprised of income generated from cash and investments. Interest expense is primarily comprised of expense related to our indebtedness to a bank. Interest income decreased during the year ended December 31, 2002, as compared to the same period a year ago, due to declining investment interest yields and lower average investment balances.

Results of Operations—2001 vs. 2000

Revenues

We received no revenues from product sales for the years ended December 31, 2001 and 2000. Revenues recorded have consisted principally of revenues recognized under collaborations with third parties. In April 2001, we entered into a research collaboration and licensing agreement with MedImmune to develop and commercialize therapies related to our IL9 program. MedImmune is expected to fund at least $2.5 million, payable in eight equal quarterly installments, plus external cost reimbursements, for our research and development activities through April 2003. For the year ended December 31, 2001, we recognized $1.0 million in revenue related to this agreement, of which $0.1 million related to external cost reimbursements.

Research and Development Expenses

We recognized research and development expenses of $11.1 million and $10.1 million in 2001 and 2000, respectively. Research and development expenses consist principally of personnel costs, contract research, development and manufacturing costs and facility costs. Research and development expenses increased in the year ended December 31, 2001, as compared to the prior year, due to ongoing squalamine development efforts as well as additional preclinical and development activities in our trodulamine, IL9 antibody and mucoregulator programs. The level of research and development expenses in future periods will depend principally upon the progress of our research and development programs and our capital resources.

General and Administrative Expenses

We recognized general and administrative expenses of $3.4 million and $2.6 million in 2001 and 2000, respectively. General and administrative expenses consist principally of personnel costs, professional fees and public company expenses. Such expenses increased in the year ended December 31, 2001, as compared to the prior year, due principally to increases in personnel related to general corporate activities, including business development.

Interest Income and Expense

We recognized interest income of $0.8 million and $0.9 million in 2001 and 2000, respectively. We recognized interest expense of $0.2 million and $0.6 million in 2001 and 2000, respectively. Interest income is primarily comprised of income generated from cash and investments. Interest expense is primarily comprised of expense related to our indebtedness to a bank and, through February 2001, the recognition of expense on the accretion from a discounted value to face value of our long-term obligation to Abbott Laboratories. Interest income decreased marginally during the year ended December 31, 2001, as compared to the prior year, due to declining investment interest yields, substantially offset by higher average investment balances. Interest expense decreased during the year ended December 31, 2001, as compared to the prior year, due to rate decreases and our no longer recognizing additional interest expense on the long-term obligation to Abbott subsequent to February 2001. This obligation is now recorded at its face value.

Liquidity and Capital Resources

Cash and investments were $9.4 million at December 31, 2002 as compared to $16.1 million at December 31, 2001. The primary use of cash was to finance our research and development operations.

Since inception, we have funded our operations primarily from the proceeds of public and private placements of our securities totaling approximately $167.8 million since our initial public offering in December 1991 and including the proceeds from the following private placements of our securities, net of costs, in 2000, 2001 and 2002:

- $ 5.4 million—May 2000;
- $11.7 million—August 2000;
- $ 0.7 million—December 2000;
- $ 9.9 million—April 2001; and
- $ 6.9 million—April 2002.

In addition to the above, we have funded our operations from contract and grant revenues, research and development expense reimbursements, interest income, lease financing and debt financing.

Our goal is to conduct significant research, pre-clinical development, clinical testing and manufacturing activities over the next several years. We expect that these activities, together with projected general and administrative expenses, will result in continued and significant losses.

Current liabilities decreased by $1.7 million from $5.6 million at December 31, 2001 to $3.9 million at December 31, 2002, due primarily to the $.5 million payment of our short-term obligation to Abbott in the first quarter of 2002 and a decrease in accounts payable and accrued expenses resulting from the timing and magnitude of our current development contracts. Prior to 1999, we had an agreement with Abbott providing for the purchase of approximately $10.0 million of bulk drug substance for LOCILEX™ Cream. As FDA approval of LOCILEX™ Cream did not occur, we renegotiated this agreement with Abbott in 1999, paying Abbott $4.2 million and receiving partial delivery of material. An additional $3.4 million was due to Abbott and payable if we receive in excess of $10.0 million of additional funds in any year beginning in 2000, in which case 15% of such excess over $10.0 million shall be payable to Abbott. We have no further purchase commitments to Abbott, and Abbott has no further supply requirements to us. As a result of our financing activities during 2000 and other cash inflows, $1.4 million of this liability was payable and paid to Abbott on March 1, 2001. As a result of our financing activities during 2001 and other cash inflows, $.5 million of this liability was payable and paid to Abbott on March 1, 2002 and thus had been included in current liabilities at December 31, 2001. The remaining amount of $1.5 million due to Abbott is included in long-term liabilities as of December 31, 2002 as we did not receive in excess of $10.0 million of cash inflows for the year ended December 31, 2002.

Under the terms of our $2.5 million bank debt, we make monthly interest-only payments at an annual rate of 5.346%, with principal due in June 2003. We maintain cash and investments of $2.8 million as collateral for the obligation.

Our capital expenditure requirements will depend upon numerous factors, including the progress of our research and development programs, the time and cost required to obtain regulatory approvals, our ability to enter into additional collaborative arrangements, the demand for products based on our technology, if and when such products are approved, and possible acquisitions of products, technologies and companies. We had no significant capital commitments as of December 31, 2002.

In April 2001, we entered into a research collaboration and licensing agreement and a preferred stock purchase agreement with MedImmune pursuant to which we received $10.0 million. MedImmune is expected to fund at least $2.5 million plus external cost reimbursements for our research and development activities through April 2003. During 2002 and 2001, funding of $1.5 million and $1.0 million, respectively, had been received

from MedImmune. Of that amount, $1.3 million and $0.8 million during 2002 and 2001, respectively, was specifically related to the $2.5 million research and development funding, with the remainder comprised of external cost reimbursements.

We expect our level of research and development spending in 2003 to be substantially reduced from spending in 2002. After considering the MedImmune transaction, and in the absence of raising additional funds or significantly reducing expenses further, we believe we will have sufficient resources to sustain operations through 2003. However, we will need to raise substantial additional funds in the future to continue our research and development programs beyond 2003 and to commercialize our potential products. If we are unable to raise such funds, we may be unable to complete our development activities for any of our proposed products.

We regularly explore alternative means of financing our operations and seek funding through various sources, including public and private securities offerings, collaborative arrangements with third parties and other strategic alliances and business transactions. We currently do not have any commitments to obtain additional funds, and may be unable to obtain sufficient funding in the future on acceptable terms. If we cannot obtain funding, we will need to delay, scale back or eliminate research and development programs or enter into collaborations with third parties to commercialize potential products or technologies that we might otherwise seek to develop or commercialize ourselves, or seek other arrangements. If we engage in collaborations, we may receive lower consideration upon commercialization of such products than if we had not entered into such arrangements, or if we entered into such arrangements at later stages in the product development process. Additional factors that may impact our ability to raise capital are described under "Risk Factors Related to Our Business."

Contractual Cash Obligations

The table below sets forth our contractual obligations at December 31, 2002 (in thousands):

		Cash Payments Due by Period			
Contractual Cash Obligations	Total	Less than 1 year	1-3 years	4-5 years	After 5 years
Bank debt[1]	$2,500	$2,500	$ —	$ —	$ —
Abbott settlement[2]	1,529	—	1,529	—	—
Operating lease on building[3]	1,885	358	754	773	—
Operating leases and maintenance contracts on equipment	351	185	150	16	—
R&D contracts	229	152	77	—	—
Clinical trial contracts	622	622	—	—	—
Manufacturing contracts	16	16	—	—	—
Total contractual cash obligations	$7,132	$3,833	$2,510	$789	$ —

1 We maintain cash and investments of $2.8 million as collateral for this obligation.

2 Payable if we receive in excess of $10 million of additional funds in any year beginning in 2000, in which case 15% of such excess over $10 million shall be payable to Abbott.

3 The lease provides for escalations relating to increases in the Consumer Price Index not to exceed 7% but no less than 3.5% beginning in December 2002. We have assumed a minimum lease payment escalation of 3.5% for the purposes of this table.

New Accounting Pronouncements

In June 2002, the FASB issued SFAS No. 146, *Accounting for Costs Associated with Exit or Disposal Activities*, ("SFAS 146"). This statement addresses financial accounting and reporting for costs associated with exit or disposal activities and nullifies Emerging Issues Task Force Issue 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"). This statement requires that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred. Under EITF 94-3, a liability for an exit cost, as defined, was recognized at the date of an entity's commitment to an exit plan. The provisions of this statement are effective for exit or disposal activities that are initiated after December 31, 2002.

ITEM 7A. *Quantitative and Qualitative Disclosures About Market Risk*

We are exposed to risks associated with interest rate changes. Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio. We invest in only U.S. government debt instruments that meet high quality credit standards, as specified in our investment policy. The policy also limits the amount of credit exposure we may have to any one issue, issuer or type of investment.

As of December 31, 2002, our portfolio investments consisted of $1.4 million in cash and $8.0 million in U.S. government or U.S. government agency debt instruments having a maturity of less than one year. Due to the nature of our investment portfolio, management believes that a sudden change in interest rates would not have a material effect on the value of the portfolio. Management estimates that if the average annualized yield of our investments had decreased by 100 basis points, our interest income for the year ended December 31, 2002 would have decreased by approximately $132,000. This estimate assumes that the decrease occurred on the first day of 2002 and reduced the annualized yield of each investment instrument by 100 basis points. Correspondingly, if the average annualized yield of our investments had increased by 100 basis points, our interest income for the year ended December 31, 2002 would have increased by $132,000. This estimate assumes that the increase occurred on the first day of 2002 and increased the annualized yield of each investment instrument by 100 basis points. The impact on our future interest income will depend largely on the gross amount of our investment portfolio.

We do not currently have any significant direct foreign currency exchange rate risk.

ITEM 8. *Financial Statements and Supplementary Data*

See the Consolidated Financial Statements beginning on page F-1.

ITEM 9. *Changes In and Disagreements With Accountants on Accounting and Financial Disclosure*

Not applicable.

PART III

This Part incorporates certain information from our Proxy Statement for the 2003 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K. Notwithstanding such incorporation, the sections of our 2003 Proxy Statement entitled "Report of the Compensation Committee" and "Performance Graph" shall not be deemed to be "filed" as part of this Annual Report.

ITEM 10. *Directors and Executive Officers of the Registrant*

Information required by this item concerning our directors is incorporated herein by reference to the section entitled "Nominees for Election" in our Proxy Statement for the 2003 Annual Meeting of Stockholders. Information required by this item concerning our executive officers is included in Part I of this Annual Report.

ITEM 11. *Executive Compensation*

Information required by this item is incorporated herein by reference to the section entitled "Compensation of Executive Officers and Directors" in our Proxy Statement for the 2003 Annual Meeting of Stockholders.

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

Information required by this item is incorporated herein by reference to the section entitled "Security Ownership of Certain Beneficial Owners and Management" in our Proxy Statement for the 2003 Annual Meeting of Stockholders.

ITEM 13. *Certain Relationships and Related Transactions*

Information required by this item is incorporated herein by reference to the section entitled "Certain Relationships and Related Transactions" in our Proxy Statement for the 2003 Annual Meeting of Stockholders

ITEM 14. *Controls and Procedures*

(a) Evaluation of disclosure controls and procedures: For the quarterly period ended December 31, 2002, we carried out an evaluation, under the supervision and with the participation of our management, including our President and Chief Executive Officer and our Senior Vice President and Chief Financial Officer (the principal finance and accounting officer), of the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Rules 13a-14 and 15d-14 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Based upon this evaluation, our President and Chief Executive Officer and our Senior Vice President and Chief Financial Officer concluded that, as of December 31, 2002, our disclosure controls and procedures were adequate to ensure that information required to be disclosed by us in the reports filed or submitted by us under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission.

(b) Changes in internal controls: Our President and Chief Executive Officer and our Senior Vice President and Chief Financial Officer determined that there were no significant changes in our internal controls or other factors that could significantly affect those controls subsequent to the date of their evaluation.

PART IV

ITEM 15. *Exhibits, Financial Statement Schedules and Reports on Form 8-K*

(a) The following documents are filed as a part of this Annual Report:

1. *Index to Consolidated Financial Statements*

2. *Financial Statement Schedules*

All schedules have been omitted because they are not applicable or not required or the information is shown in the Consolidated Financial Statements or Notes thereto.

3. *Exhibits*

The following is a list of exhibits filed as part of this Annual Report on Form 10-K. Where so indicated, exhibits that were previously filed are incorporated by reference. For exhibits incorporated by reference, the location of the exhibit in the previous filing is indicated parenthetically.

Exhibit No.	
3.1	Second Restated Certificate of Incorporation of Genaera Corporation (Incorporated by reference to Exhibit 3.1 filed with the Company's Quarterly Report on Form 10-Q for June 30, 2002)
3.2	Certificate of Designations, Preferences and Rights of Series A Preferred Stock of Genaera Corporation dated May 8, 2000 (Incorporated by reference to Exhibit 10.2 filed with the Company's Quarterly Report on Form 10-Q for June 30, 2000)
3.3	Certificate of Ownership and Merger Merging M Merger Sub, Inc. with and into Magainin Pharmaceuticals Inc. dated March 9, 2001 (Incorporated by reference to Exhibit 3.5 filed with the Company's Quarterly Report on Form 10-Q for March 31, 2001)
3.4	Certificate of Designations, Preferences and Rights of Series B Preferred Stock of Genaera Corporation dated April 19, 2001 (Incorporated by reference to Exhibit 3.7 filed with the Company's Quarterly Report on Form 10-Q for March 31, 2001)
3.5	By-laws of Genaera Corporation, as Amended and Restated on May 16, 2002 (Incorporated by reference to Exhibit 3.2 filed with the Company's Quarterly Report on Form 10-Q for June 30, 2002)
4.1	Specimen copy of stock certificate for shares of Common Stock of Genaera Corporation (Incorporated by reference to Exhibit 4.1 filed with the Company's Quarterly Report on Form 10-Q for March 31, 2001)
10.1#	1992 Stock Option Plan of the Registrant, as amended (Incorporated by reference to Exhibit A filed with the Company's Proxy Statement for the 1996 Annual Meeting of Stockholders)
10.2#	Amended 1998 Equity Compensation Plan, as Amended and Restated on July 22, 2002 (Incorporated by reference to Exhibit 3.2 filed with the Company's Quarterly Report on Form 10-Q for June 30, 2002)

Exhibit No.	
10.3#	Form of Stock Option Agreement under Stock Option Plans (Incorporated by reference to Exhibit 4.6 filed with the Company's Registration Statement No. 33-43579 on Form S-1)
10.4#	Amended and Restated Consulting Agreement with Michael A. Zasloff, M.D., Ph.D. (Incorporated by reference to Exhibit 10.5 filed with the Company's Annual Report on Form 10-K for December 31, 2001)
10.5#+	Employment Agreement with Roy C. Levitt, M.D. (Incorporated by reference to Exhibit 10.24 filed with the Company's Annual Report on Form 10-K for December 31, 1995)
10.6#	Employment Agreement with Kenneth J. Holroyd, M.D. (Incorporated by reference to Exhibit 10.12 filed with the Company's Annual Report on Form 10-K/A for December 31, 1998)
10.7#	Employment Agreement with Christopher P. Schnittker (Incorporated by reference to Exhibit 10.13 filed with the Company's Annual Report on Form 10-K for December 31, 2000)
10.8#	Employment Agreement with Sean M. Johnston, Ph.D. (Incorporated by reference to Exhibit 10.14 filed with the Company's Annual Report on Form 10-K for December 31, 2000)
10.9#	Employment Agreement with Angeline K. Shashlo (Incorporated by reference to Exhibit 10.3 filed with the Company's Quarterly Report on Form 10-Q for June 30, 2002)
10.10#	Form and Schedule of Stock Awards to Executive Officers (Incorporated by reference to Exhibit 4.7 filed with the Company's Registration Statement No. 333-62073 on Form S-8)
10.11	Lease with respect to Plymouth Meeting, Pennsylvania office and laboratory space dated December 13, 2001 (Incorporated by reference to Exhibit 10.12 filed with the Company's Annual Report on Form 10-K for December 31, 2001)
10.12	Patent License Agreement and Sponsored Research Agreement with The Children's Hospital of Philadelphia (Incorporated by reference to Exhibit 10.15 filed with the Company's Registration Statement No. 33-43579 on Form S-1)
10.13	License Agreement with Multiple Peptide Systems, Inc. (Incorporated by reference to Exhibit 10.12 filed with the Company's Registration Statement No. 33-43579 on Form S-1)
10.14	Second Amendment to License Agreement with Multiple Peptide Systems, Inc. (Incorporated by reference to Exhibit 10.30 filed with the Company's Quarterly Report on Form 10-Q for September 30, 1996)
10.15+	Assignment Agreement between Genaera Corporation, Roy C. Levitt, M.D. and GeneQuest, Inc. (Incorporated by reference to Exhibit 10.25 filed with the Company's Annual Report on Form 10-K for December 31, 1995)
10.16+	Development, Supply and Distribution Agreement, effective as of February 12, 1997, with SmithKline Beecham Corporation (Incorporated by reference to Exhibit 10.29 filed with the Company's Annual Report on Form 10-K for December 31, 1996)
10.17	Settlement and Termination Agreement between Abbott Laboratories Inc. and Magainin Pharmaceuticals Inc., effective September 8, 1999 (Incorporated by reference to Exhibit 99.1 filed with the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 28, 1999)
10.18	Registration Rights Agreement between Genaera Corporation and Genentech, Inc. dated April 28, 2000 (Incorporated by reference to Exhibit 10.4 filed with the Company's Quarterly Report on Form 10-Q for June 30, 2000)
10.19+	Amended License Agreement between Genaera Corporation and Ludwig Institute for Cancer Research dated December 20, 1999 (Incorporated by reference to Exhibit 10.1 filed with the Company's Quarterly Report on Form 10-Q for March 31, 2001)

Exhibit No.	
10.20+	Second Research Agreement between Genaera Corporation and Ludwig Institute for Cancer Research dated December 20, 1999 (Incorporated by reference to Exhibit 10.2 filed with the Company's Quarterly Report on Form 10-Q for March 31, 2001)
10.21+	Notice of Renewal of Second Research Agreement between Genaera Corporation and Ludwig Institute for Cancer Research dated October 31, 2001 (Incorporated by reference to Exhibit 10.22 filed with the Company's Annual Report on Form 10-K for December 31, 2001)
10.22	Settlement Agreement between Genaera Corporation and Genentech, Inc. dated April 18, 2001 (Incorporated by reference to Exhibit 10.3 filed with the Company's Quarterly Report on Form 10-Q for March 31, 2001)
10.23+	Collaboration and License Agreement between Genaera Corporation and MedImmune, Inc. dated April 19, 2001 (Incorporated by reference to Exhibit 10.4 filed with the Company's Quarterly Report on Form 10-Q for March 31, 2001)
10.24	Amendment to Collaboration and License Agreement between Genaera Corporation and MedImmune, Inc. effective April 19, 2001 (Incorporated by reference to Exhibit 10.25 filed with the Company's Annual Report on Form 10-K for December 31, 2001)
10.25	Preferred Stock Purchase Agreement between Genaera Corporation and MedImmune, Inc. dated April 19, 2001 (Incorporated by reference to Exhibit 10.5 filed with the Company's Quarterly Report on Form 10-Q for March 31, 2001)
10.26	Warrants to purchase shares of Genaera Corporation Common Stock by Ladenburg Thalmann dated December 12, 2001 (Incorporated by reference to Exhibit 10.27 filed with the Company's Annual Report on Form 10-K for December 31, 2001)
10.27	Placement Agency Agreement dated April 5, 2002 by and between Genaera Corporation and Wells Fargo Securities, LLC (Incorporated by reference to Exhibit 10.1 filed with the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on April 8, 2002)
10.28+	License, Development and Commercialization Agreement Between Genaera Corporation and Laboratorios Bago SA (Incorporated by reference to Exhibit 10.1 filed with the Company's Quarterly Report on Form 10-Q for September 30, 2002)
23.1*	Consent of KPMG LLP
24.1*	Power of Attorney (Included on signature page of this Annual Report on Form 10-K)
99.1*	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley Act of 2002
99.2*	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley Act of 2002

Explanation of Footnotes to Listing of Exhibits:

* Filed herewith.

\# Compensation plan or arrangement in which directors or executive officers are eligible to participate.

\+ Portions of this Exhibit were omitted and filed separately with the Securities and Exchange Commission pursuant to an order granting confidential treatment.

(b) Reports on Form 8-K:

We filed a Current Report on Form 8-K on October 18, 2002 incorporating two press releases regarding data on our LOMUCIN™ Asthma Clinical Trial and the initiation of our Phase 2 Cystic Fibrosis Clinical Trial for LOMUCIN™.

We filed a Current Report on Form 8-K on October 30, 2002 incorporating a press release regarding the approval of our transfer to the NASDAQ SmallCap Market.

We filed a Current Report on Form 8-K on November 4, 2002 incorporating a press release regarding a $1.1 million grant which was awarded to study squalamine in prostate cancer.

We filed a Current Report on Form 8-K on November 7, 2002 incorporating a press release regarding our third quarter 2002 financial results and a further realignment of operations.

We filed a Current Report on Form 8-K on November 13, 2002 regarding our CEO/CFO certifications pursuant to 18 U.S.C. Section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley Act of 2002.

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.

Date: March 31, 2003

GENAERA CORPORATION

By: /s/ ROY C. LEVITT
Roy C. Levitt, M.D.
President, Chief Executive Officer and Director

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 and on the dates indicated.

Each person whose signature appears below in so signing also makes, constitutes and appoints Roy C. Levitt, M.D., President and Chief Executive Officer, his true and lawful attorney-in-fact, in his name, place and stead to execute and cause to be filed with the Securities and Exchange Commission any or all amendments to this report.

Signature	Title	Date
/s/ MICHAEL R. DOUGHERTY Michael R. Dougherty	Director	March 31, 2003
/s/ R. FRANK ECOCK R. Frank Ecock	Director	March 31, 2003
/s/ ZOLA P. HOROVITZ Zola P. Horovitz, Ph.D.	Director	March 31, 2003
/s/ ROY C. LEVITT Roy C. Levitt, M.D.	President, Chief Executive Officer and Director (Principal Executive Officer)	March 31, 2003
/s/ CHARLES A. SANDERS Charles A. Sanders, M.D.	Director	March 31, 2003
/s/ CHRISTOPHER P. SCHNITTKER Christopher P. Schnittker	Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	March 31, 2003
/s/ ROBERT F. SHAPIRO Robert F. Shapiro	Director	March 31, 2003
/s/ JAMES B. WYNGAARDEN James B. Wyngaarden, M.D.	Director	March 31, 2003

CERTIFICATION

I, Roy C. Levitt, M.D., certify that:

1. I have reviewed this annual report on Form 10-K of Genaera Corporation;

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 officers 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 officers 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 function):

   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 officers and I have indicated in this annual report whether or not 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.

Date: March 31, 2003

/s/ ROY C. LEVITT

Roy C. Levitt, M.D.
President and Chief Executive Officer

CERTIFICATION

I, Christopher P. Schnittker, certify that:

1. I have reviewed this annual report on Form 10-K of Genaera Corporation;

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 officers 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 officers 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 function):

   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 officers and I have indicated in this annual report whether or not 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.

Date: March 31, 2003

/s/ CHRISTOPHER P. SCHNITTKER

Christopher P. Schnittker

Senior Vice President and Chief Financial Officer

GENAERA CORPORATION

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

INDEPENDENT AUDITORS' REPORT

The Board of Directors and Stockholders
Genaera Corporation:

We have audited the accompanying consolidated balance sheets of Genaera Corporation (formerly Magainin Pharmaceuticals Inc.) and subsidiary as of December 31, 2002 and 2001, and the related consolidated statements of operations, changes in stockholders' equity and comprehensive loss, 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 Genaera Corporation and subsidiary as of December 31, 2002 and 2001, 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.

/s/ KPMG LLP

Princeton, New Jersey
February 14, 2003

GENAERA CORPORATION AND SUBSIDIARY

CONSOLIDATED BALANCE SHEETS
(In thousands, except per share amounts)

	December 31, 2002	December 31, 2001
ASSETS		
Current assets:		
Cash and cash equivalents	$ 1,368	$ 1,973
Short-term investments (NOTES 3 and 6)	8,032	14,105
Prepaid expenses and other	186	218
Total current assets	9,586	16,296
Fixed assets, net (NOTE 4)	1,541	1,456
Other assets	64	64
Total assets	$ 11,191	$ 17,816
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses (NOTE 5)	$ 1,302	$ 2,521
Notes payable (NOTE 6)	2,500	2,500
Accrued development expense—short-term (NOTE 15)	—	480
Other current liabilities	57	82
Total current liabilities	3,859	5,583
Accrued development expense—long-term (NOTE 15)	1,529	1,529
Other liabilities	175	50
Series A redeemable convertible preferred stock (liquidation value of $1,117 and $1,044 at December 31, 2002 and December 31, 2001, respectively) (NOTE 7)	1,117	1,044
Commitments, contingencies and other matters (NOTE 15)		
Stockholders' equity:		
Preferred stock—$.001 par value; 9,211 shares authorized; 0.888 shares issued and outstanding as Series A redeemable convertible preferred stock at December 31, 2002 and 2001; 10.0 shares issued and outstanding as Series B convertible preferred stock at December 31, 2002 and 2001 (liquidation value of $10,000)	—	—
Common stock—$.002 par value; 75,000 shares authorized; 35,666 and 32,864 shares issued and outstanding at December 31, 2002 and 2001, respectively	71	66
Additional paid-in capital	187,258	180,112
Accumulated other comprehensive income—unrealized gain on investments	1	23
Accumulated deficit	(182,819)	(170,591)
Total stockholders' equity	4,511	9,610
Total liabilities and stockholders' equity	$ 11,191	$ 17,816

See accompanying notes to financial statements.

GENAERA CORPORATION AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share amounts)

	Year Ended December 31,		
	2002	2001	2000
Collaborative research agreement revenues	$ 1,517	$ 1,038	$ —
Costs and expenses:			
Research and development	10,691	11,132	10,074
General and administrative	3,085	3,423	2,583
	13,776	14,555	12,657
Loss from operations	(12,259)	(13,517)	(12,657)
Interest income	259	849	883
Interest expense	(156)	(244)	(605)
Net loss	(12,156)	(12,912)	(12,379)
Dividends on preferred stock	73	111	45
Net loss applicable to common stockholders	$(12,229)	$(13,023)	$(12,424)
Net loss applicable to common stockholders per share—basic and diluted	$ (0.35)	$ (0.40)	$ (0.42)
Weighted average shares outstanding—basic and diluted	34,894	32,711	29,375

See accompanying notes to financial statements.

GENAERA CORPORATION AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY AND COMPREHENSIVE LOSS
(In thousands)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stock-holders' Equity
	Number of Shares	Amount				
Balance at December 31, 1999	26,943	$54	$151,655	$(13)	$(145,144)	$ 6,552
Exercise of stock options and compensation expense under option grants and stock awards	211	1	697	—	—	698
Common stock issued pursuant to collaboration agreement	1,086	2	4,945	—	—	4,947
Common stock issued pursuant to private placement	4,153	8	11,670	—	—	11,678
Dividends on preferred stock	—	—	—	—	(45)	(45)
Comprehensive loss:						
Net loss	—	—	—	—	(12,379)	(12,379)
Carrying value adjustment	—	—	—	22	—	22
Total comprehensive loss	—	—	—	—	—	(12,357)
Balance at December 31, 2000	32,393	65	168,967	9	(157,568)	11,473
Exercise of stock options and compensation expense under option grants and stock awards	471	1	1,237	—	—	1,238
Convertible preferred stock issued	—	—	9,908	—	—	9,908
Dividends on preferred stock	—	—	—	—	(111)	(111)
Comprehensive loss:						
Net loss	—	—	—	—	(12,912)	(12,912)
Carrying value adjustment	—	—	—	14	—	14
Total comprehensive loss	—	—	—	—	—	(12,898)
Balance at December 31, 2001	32,864	66	180,112	23	(170,591)	9,610
Exercise of stock options and compensation expense under option grants and stock awards	43	—	208	—	—	208
Common stock issued pursuant to private placement	2,759	5	6,938	—	—	6,943
Dividends on preferred stock	—	—	—	—	(72)	(72)
Comprehensive loss:						
Net loss	—	—	—	—	(12,156)	(12,156)
Carrying value adjustment	—	—	—	(22)	—	(22)
Total comprehensive loss	—	—	—	—	—	(12,178)
Balance at December 31, 2002	35,666	$71	$187,258	$ 1	$(182,819)	$ 4,511

See accompanying notes to financial statements.

GENAERA CORPORATION AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31,		
	2002	2001	2000
Cash Flows From Operating Activities:			
Net loss	$(12,156)	$(12,912)	$(12,379)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	510	838	920
Amortization of investment discounts/premiums	(232)	(663)	(654)
Compensation expense on option grants and equity awards	204	373	248
Receipt and retirement of Series A redeemable convertible preferred stock	—	(300)	—
Changes in operating assets and liabilities:			
Prepaid expenses and other	32	242	(230)
Accounts payable and accrued expenses	(1,219)	428	1,429
Accrued development expenses	(480)	(1,350)	397
Other liabilities	100	89	(10)
Net cash used in operating activities	(13,241)	(13,255)	(10,279)
Cash Flows From Investing Activities:			
Purchase of investments	(26,967)	(34,173)	(30,574)
Proceeds from maturities of investments	33,250	39,179	21,025
Capital expenditures	(595)	(1,150)	(271)
Net cash provided by (used in) investing activities	5,688	3,856	(9,820)
Cash Flows From Financing Activities:			
Proceeds from issuance of Series A redeemable convertible preferred stock	—	—	1,188
Net proceeds from issuance of Series B convertible preferred stock	—	9,908	—
Net proceeds from issuance of common stock	6,943	—	16,625
Proceeds from exercise of options	5	865	450
Net cash provided by financing activities	6,948	10,773	18,263
Net increase (decrease) in cash and cash equivalents	(605)	1,374	(1,836)
Cash and cash equivalents at beginning of period	1,973	599	2,435
Cash and cash equivalents at end of period	$ 1,368	$ 1,973	$ 599
Supplemental Cash Flow Information:			
Cash paid during the period for interest	$ 160	$ 208	$ 205

See accompanying notes to financial statements.

NOTE 1. The Company

Genaera Corporation ("Genaera" or the "Company"), a Delaware corporation, was incorporated on June 29, 1987. Genaera is a biopharmaceutical company committed to developing medicines for serious diseases from genomics and natural products. The Company's research and development efforts are focused on anti-angiogenesis and respiratory diseases. On March 9, 2001, the Company changed its name from Magainin Pharmaceuticals Inc. to Genaera Corporation.

The Company is managed and operated as one business. A single management team that reports to the Chief Executive Officer comprehensively manages the entire business. Accordingly, the Company does not prepare discrete financial information with respect to separate product areas or by location, and does 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.*

NOTE 2. Summary of Significant Accounting Policies

Use of Estimates—The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and related notes. Actual results could differ from those estimates

Cash and Cash Equivalents—The Company considers all highly liquid investment instruments purchased with a maturity of three months or less to be cash equivalents.

Investments—Investments purchased with a maturity of more than three months, and that mature less than twelve months from the balance sheet date, are classified as short-term investments. Long-term investments are those with maturities greater than twelve months from the balance sheet date. The Company generally holds investments to maturity; however, since the Company may, from time to time, sell securities to meet cash requirements, the Company classifies its investments as available-for-sale as defined by SFAS No. 115, *Accounting for Certain Investments in Debt and Equity Securities*. Available-for-sale securities are carried at market value with unrealized gains and losses, which are temporary, reported as a separate component of stockholders' equity. Gross realized gains and losses on the sales of investment securities are determined on the specific identification method.

Fixed Assets and Depreciation—Fixed assets are recorded at cost and depreciated using the straight-line method over the estimated useful lives of the assets including: three (3) years for computers and software, five (5) years for laboratory and office equipment, and seven (7) years for furniture and fixtures. Leasehold improvements are amortized using the straight-line method over the term of the respective lease, or their estimated useful lives, whichever is shorter. Expenditures for maintenance and repairs are charged to expense as incurred.

Revenue Recognition— In December 1999, the staff of the United States Securities and Exchange Commission ("SEC") issued Staff Accounting Bulletin ("SAB") No. 101, *Revenue Recognition in Financial Statements* ("SAB 101"). SAB 101 summarizes certain of the staff's views in applying accounting principles generally accepted in the United States of America to revenue recognition in financial statements, including the recognition of non-refundable fees received upon entering into arrangements ("up-front fees"). In previous years, prior to SAB 101, the Company recognized up-front fees in the period in which they were received. Post implementation of SAB 101, any revenues from research and development arrangements are recognized in accordance with the terms of the related agreements, either as services are performed or as milestones are

achieved. Revenues related to up-front fees are now deferred and recognized over specified future performance periods. The Company implemented SAB 101, as amended, effective January 1, 2000.

In January 2002, the Emerging Issues Task Force ("EITF") issued Emerging Issues Task Force No. 01-14, *Income Statement Characterization of Reimbursements received for "Out-of-Pocket" Expenses Incurred*, ("EITF 01-14"). EITF 01-14 states that reimbursements received for out-of-pocket expenses should be characterized as revenue in the income statement in financial periods beginning after December 15, 2001. As a result of EITF 01-14, $158,000, originally recorded as research and development offsets for the year ended December 31, 2001, has been reclassified as revenues in the accompanying financial statements.

Research and Development—Research and development ("R&D") expenses include related salaries, contractor fees, and facility costs. R&D expenses consist of independent R&D contract costs, contract manufacturing costs and costs associated with collaborative R&D arrangements. In addition, the Company funds R&D at other research institutions under agreements that are generally cancelable. R&D expenses also include external activities such as investigator-sponsored trials. All such costs are charged to R&D expense systematically as incurred, which may be measured by contract milestones, patient enrollment or the passage of time.

Patent Costs—Patent-related costs, including professional fees and filing fees, are expensed as incurred.

Lease Expense—Expense related to the facility lease is recorded on a straight-line basis over the lease term. The difference between rent expense incurred and the amount paid is recorded as deferred rent and is amortized over the lease term. Unamortized deferred rent is classified under "Other Liabilities" on the balance sheet.

Stock-Based Compensation—The Company accounts for its fixed-plan stock options under the intrinsic-value-based method set forth by Accounting Principles Board ("APB") Opinion No. 25, *Accounting for Stock Issued to Employees*, ("APB 25"), and related interpretations including FASB Interpretation No. 44, *Accounting for Certain Transactions involving Stock Compensation, an interpretation of APB No. 25*, issued in March 2000. Under this method, compensation expense is recorded on the date of grant only if the current market price of the underlying stock exceeded the exercise price. SFAS No. 123, *Accounting for Stock-Based Compensation*, ("SFAS 123") established accounting and disclosure requirements using a fair-value-based method of accounting for stock-based employee compensation. Stock or other equity-based compensation for non-employees must be accounted for under the fair value-based method as required by SFAS 123 and EITF No. 96-18, *Accounting for Equity Instruments that are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*, and other related interpretations. Under this method, the equity-based instrument is valued at either the fair value of the consideration received or the equity instrument issued on the date of grant. The resulting compensation cost is recognized and charged to operations over the service period, which is usually the vesting period. As allowed by SFAS 123, the Company has elected to continue to apply the intrinsic-value-based method of accounting described above, and has adopted only the disclosure requirements of SFAS 123. The following table illustrates the effect on net loss applicable to common stockholders if the fair-value-based method had been applied to all outstanding and unvested stock-based awards in each period.

	2002	2001	2000
Net loss applicable to common stockholders, as reported	$(12,229)	$(13,023)	$(12,424)
Add: Stock-based employee compensation expense included in reported net loss applicable to common stockholders, net of related tax effects	204	373	248
Deduct: Total stock-based employee compensation expense determined under fair-value-based method for all stock-based awards, net of related tax effects	(2,495)	(3,149)	(2,815)
Pro forma net loss applicable to common stockholders	$(14,520)	$(15,799)	$(14,991)
Net loss applicable to common stockholders per share—basic and diluted:			
As reported	$ (0.35)	$ (0.40)	$ (0.42)
Pro forma	$ (0.42)	$ (0.48)	$ (0.51)

The resulting effect on pro forma net loss applicable to common stockholders and pro forma net loss applicable to common stockholders per share disclosed above may not be representative of the effects on a pro forma basis in future years. The fair value of each option grant is estimated on the date of grant using the Black-Scholes option-pricing model with the following assumptions:

	2002	2001	2000
Range of risk free interest rates	3.6%—4.9%	4.2%—5.2%	5.4%—6.7%
Dividend yield	0%	0%	0%
Volatility factor	110%	100%	100%
Weighted average expected life of options (in years)	7.5	7.0	7.3
Weighted average fair value of options granted during the year	$0.99	$2.81	$3.32

Income Taxes—The Company accounts for income taxes using the asset and liability method as prescribed by SFAS No. 109, *Accounting for Income Taxes*. Deferred tax assets and liabilities are determined based on differences between the financial reporting and tax bases of assets and liabilities, and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The measurement of deferred tax assets is reduced, if necessary, by a valuation allowance for any tax benefits that are not expected to be realized. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the period in which tax rate changes are enacted.

Loss Per Share—The Company calculates loss per share under the provisions of SFAS No. 128, *Earnings Per Share*, ("SFAS 128"). SFAS 128 requires a dual presentation of "basic" and "diluted" loss per share on the face of the income statement. Basic loss per share is computed by dividing the net loss applicable to common stockholders by the weighted average number of shares of common stock outstanding during each period. Diluted loss per share includes the dilutive effect, if any, from the potential exercise or conversion of securities, such as stock options and warrants, which would result in the issuance of shares of common stock. Basic and diluted loss per share amounts are the same as the Company reported a loss for all periods presented.

Comprehensive Income—SFAS No. 130, *Reporting Comprehensive Income*, establishes standards for the reporting of comprehensive income and its components. Comprehensive income consists of reported net income or loss and "other comprehensive income" (i.e., other gains and losses affecting stockholders' equity that, under accounting principles generally accepted in the United States of America, are excluded from net income or loss as reported on the statement of operations). With regard to the Company, other comprehensive income consists of unrealized gains and losses on marketable securities.

New Accounting Pronouncements—In June 2001, the Financial Accounting Standards Board ("FASB") issued two statements as a result of its deliberations on the business combinations project, SFAS No. 141, *Business Combinations*, ("SFAS 141") and SFAS No. 142, *Goodwill and Other Intangible Assets,* ("SFAS 142"). SFAS 141, which eliminates the use of the pooling-of-interests method of accounting, is effective for any business combinations initiated after June 30, 2001 and also includes the criteria for the recognition of intangible assets separately from goodwill. SFAS 142 is effective for fiscal years beginning after December 15, 2001 and will require that goodwill and certain intangibles not be amortized, but rather be subject to an impairment test at least annually. SFAS 141 and SFAS 142 did not have an impact on the Company's historical financial statements at adoption as the Company currently does not have any intangible assets or goodwill.

On January 1, 2002, the Company adopted SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, ("SFAS 144"). SFAS 144 supercedes SFAS No. 121, *Accounting for the Impairment of Long-Lived Assets and Assets to be Disposed Of*, and the accounting and reporting provisions of APB No. 30, *Reporting Results of Operations—Reporting the Effects of a Disposal of a Segment of Business, and Extraordinary, Unusual, and Infrequently Occurring Events and Transactions*, ("APB 30"). SFAS 144 requires that the same accounting model be used for long-lived assets to be disposed of by sale, whether previously held and used or newly acquired, and it broadens the presentation of discontinued operations to include more disposal transactions. The adoption of SFAS 144 did not have a material impact on the Company's financial statements.

In June 2002, the FASB issued SFAS No. 146, *Accounting for Costs Associated with Exit or Disposal Activities*, ("SFAS 146"). This statement addresses financial accounting and reporting for costs associated with exit or disposal activities and nullifies Emerging Issues Task Force Issue 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"). This statement requires that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred. Under EITF 94-3, a liability for an exit cost, as defined, was recognized at the date of an entity's commitment to an exit plan. The provisions of this statement are effective for exit or disposal activities that are initiated after December 31, 2002 as the Company did not elect to adopt it earlier.

NOTE 3. Investments

The Company invests in securities of the U.S. Treasury and U.S. government agencies. Excess cash is invested on a short-term basis in U.S. government-based money market funds. The Company had unrealized gains of $1,000 and $23,000 at December 31, 2002 and 2001, respectively. The Company has not realized any losses on its investments during the years ended December 31, 2002, 2001 or 2000.

NOTE 4. Fixed Assets

Fixed assets are summarized as follows (in thousands):

	December 31, 2002	December 31, 2001
Equipment	$ 4,239	$ 3,862
Leasehold improvements	1,471	1,437
Construction in progress	483	430
	6,193	5,729
Less accumulated depreciation and amortization	(4,652)	(4,273)
	$ 1,541	$ 1,456

NOTE 5. Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses consist of the following (in thousands):

	December 31, 2002	December 31, 2001
Accounts payable	$ 159	$ 476
Clinical and regulatory costs	622	481
Professional fees	183	249
Realignment costs (NOTE 16)	175	—
Preclinical costs	101	237
Employee compensation	27	463
Manufacturing development costs	16	549
Other	19	66
	$1,302	$2,521

NOTE 6. Note Payable

In the second quarter of 2002, the Company refinanced its $2,500,000 note payable with Merrill Lynch Bank USA. Under the terms of this note payable, the Company makes monthly interest-only payments at an annual rate of 5.346%, with principal due in June 2003. The Company maintains cash and investments of approximately $2,800,000 as collateral for this note payable. Interest expense related to this note payable for the years ended December 31, 2002, 2001 and 2000 was $150,000, $196,000 and $208,000, respectively.

NOTE 7. Preferred Stock

The Company's certificate of incorporation provides the board of directors the power to issue shares of preferred stock without stockholder approval. This preferred stock could have voting rights, including voting rights that could be superior to that of the Company's common stock, and the board of directors has the power to determine these voting rights. As of December 31, 2002, the Company's board of directors has designated 80,000 shares of preferred stock as Series A redeemable convertible preferred stock (the "Series A Preferred Stock"), 888 shares of which are outstanding and issued to Genentech, Inc., ("Genentech"), and 10,000 shares of preferred stock as Series B convertible preferred stock (the "Series B Preferred Stock"), all of which are outstanding and

issued to MedImmune, Inc. ("MedImmune"). The issuances to both Genentech and MedImmune were in connection with collaborative agreements (see "NOTE 12. Collaborative Agreements").

The Series A Preferred Stock is convertible, in whole or in part, at the Company's (subject to defined limitations) or holder's option, into shares of the Company's common stock at a conversion rate determined by dividing the original issue price of $1,000 per share ("Original Issue Price") by the 5-day average closing price of the common stock as of the conversion date. Shares of the Series A Preferred Stock issued before May 10, 2005 are convertible at any one date during the six-month period beginning on May 10, 2005. Shares of the Series A Preferred Stock issued on or after May 10, 2005 are convertible at any one date during the six-month period beginning on December 31, 2008. In addition, the Series A Preferred Stock is convertible at the holder's option (1) in the event of a merger, consolidation or sale of substantially all of the assets of the Company or (2) at any time following the first date when the total number of common shares outstanding, on a fully-diluted and as-converted basis, multiplied by the preceding 10-day average closing price of such date, is less than 500% of the aggregate Original Issue Price plus accrued and unpaid cumulative dividends on the Series A Preferred Stock. In any event, the aggregate number of common shares issued upon conversion of the shares of Series A Preferred Stock shall not exceed 5,388,595 shares nor shall such aggregate conversions result in Genentech beneficially owning more than 10% of the Company's common stock. In the event of a conversion that would exceed these limits, the Company would be required to redeem such shares at a cash redemption price of $1,000 per share plus accrued and unpaid cumulative dividends to the date of conversion. The Series A Preferred Stock may also be redeemed, in whole or in part, at any time at the Company's option at a cash redemption price of $1,000 per share plus accrued and unpaid cumulative dividends to the date of redemption. The Series A Preferred Stock ranks senior to the Company's common stock as to liquidation and dividend rights. In the event of any liquidation, dissolution or winding up of the Company, the Series A Preferred Stock has a liquidation preference of $1,000 per share plus accumulated and unpaid cumulative dividends to the date of liquidation. Cumulative preferred dividends under the Series A Preferred Stock are payable in arrears on a quarterly basis at an annual rate of the prime rate plus 2%. Preferred dividends of $229,000 have been accrued but not paid as of December 31, 2002 on the Series A Preferred Stock and are included in the Series A redeemable convertible preferred stock on the balance sheet. Holders of the Series A Preferred Shares have limited voting rights and generally do not have the right to vote on matters submitted to the holders of the Company's common stock.

The Series B Preferred Stock is convertible prior to April 19, 2006, in whole or in part, at the holder's option, into shares of the Company's common stock at a conversion rate of 200 shares of common stock for each share of Series B Preferred Stock. The maximum aggregate number of common shares issued upon a conversion of all of the shares of Series B Preferred Stock before April 19, 2006 is 2,000,000 shares. The Series B Preferred Stock is convertible after April 19, 2006, in whole or in part, at the Company's or holder's option, into shares of the Company's common stock at a conversion rate determined by dividing the original issue price of $1,000 per share by the lesser of (i) $5.00 or (ii) the 20-day average closing price of the common stock as of the conversion date (the "Post-April 19, 2006 Conversion Rate"). However, the Company may not exercise its option to convert if the closing price of the common stock is less than $2.15 per share on the day prior to notice of conversion. In addition, the Series B Preferred Stock shall be automatically convertible at any time in the event of a merger, consolidation or sale of substantially all of the assets of the Company (a "Merger Event"), at the Post-April 19, 2006 Conversion Rate. The maximum aggregate number of common shares issued upon conversion of all of the shares of Series B Preferred Stock after April 19, 2006 or at any time as a result of a Merger Event is 4,642,741 shares of common stock. The Series B Preferred Stock may also be redeemed, in whole or in part, at any time at the Company's option at a cash redemption price of $1,000 per share plus accrued and unpaid cumulative dividends to the date of redemption. Holders of the Series B Preferred Stock have no rights to dividends other than the right to participate in any dividends that may be declared on the Company's common stock based on the

conversion of such Series B Preferred Stock shares into common stock. With respect to liquidation and dividend rights, the Series B Preferred Stock ranks senior to the Company's common stock and junior to the Company's Series A Preferred Stock. In the event of any liquidation, dissolution or winding up of the Company, the Series B Preferred Stock has a liquidation preference of $1,000 per share plus accrued and unpaid cumulative dividends to the date of liquidation. Holders of the Series B Preferred Shares have limited voting rights and generally do not have the right to vote on matters submitted to the holders of the Company's common stock.

NOTE 8. Common Stock

In May 2000, the Company issued 1,085,973 shares of its common stock to Genentech for $5,000,000 less issuance costs.

In August 2000, the Company sold 4,153,196 shares of its common stock, through a private placement, at a price of $3.00 per share. Net proceeds to the Company from the offering totaled $11,678,000, after offering costs, which included a cash fee paid and warrants (see "NOTE 9. Warrants").

In May 2001, the Company increased the number of shares of its authorized common stock to 75,000,000 shares.

In April 2002, the Company sold 2,758,855 shares of its common stock, through a private placement, at $2.75 per share. The shares were sold to three of its larger current institutional shareholders: Wellington Management Company, LLC, the State of Wisconsin Investment Board ("SWIB"), and Caxton Associates, LLC. Wells Fargo Securities, LLC acted as a placement agent for 1,813,400 of the shares sold. Net proceeds to the Company from the offering were $6,943,000 after offering costs paid in cash. Also, the Company is required to issue warrants to the placement agent (See "NOTE 9. Warrants"). As a condition of SWIB's purchase of its shares, the Company amended its outstanding stock option plans and its corporate by-laws to, in general, prohibit the Company from, among other things, issuing options with exercise prices below fair market value, from reducing the exercise price of issued options, from canceling and re-granting options at lower exercise prices and from issuing certain convertible securities, each without requisite stockholder approval.

NOTE 9. Common Stock Warrants

In connection with its August 2000 private placement, the Company granted to the placement agent warrants to purchase 167,166 shares of the Company's common stock at an exercise price of $3.50 per share. These warrants expire on August 17, 2007 and are subject to adjustment under certain circumstances. Such circumstances include the issuance of shares of common stock by the Company for a consideration per share less than the exercise price of the warrants, and the issuance by the Company of securities convertible into shares of common stock for which the exercise or conversion price, when added to the purchase price of such convertible securities, is less than the exercise price of the warrants. All such warrants are currently exercisable.

In connection with the execution of an agreement with an investment bank to provide future financing to the Company, on December 12, 2001, the Company granted to the investment bank two separate warrants to purchase 50,000 shares and 200,000 shares of the Company's common stock at an exercise price of $3.79 per share. The warrant to purchase 50,000 shares vests either (i) equally in four installments on the first through fourth 3-month anniversaries of the date of grant or (ii) entirely upon the closing of a financing with aggregate gross proceeds of not less than $15,000,000. The warrant to purchase 200,000 shares was cancelled without vesting subsequent to December 31, 2001 as a result of the investment bank's termination by the Company. The warrant to purchase 50,000 shares of common stock expires on December 12, 2006. The compensation expense

for the warrant to purchase 50,000 shares of common stock granted to this investment bank was recognized over the respective service period in accordance with vesting provisions. Compensation expense related to this warrant for the years ended December 31, 2002 and 2001 were $72,000 and $13,000, respectively, determined using a Black-Scholes valuation model.

In connection with its April 2002 private placement, the Company granted to the placement agent warrants to purchase 100,000 shares of the Company's common stock at an exercise price of $2.75 per share. When issued, these warrants will be fully exercisable and have a term of 5 years from the date of the transaction and will be subject to adjustment under certain circumstances. Such circumstances include the issuance of shares of common stock by the Company for a consideration per share less than the exercise price of the warrants, and the issuance by the Company of securities convertible into shares of common stock for which the exercise or conversion price, when added to the purchase price of such convertible securities, is less than the exercise price of the warrants.

NOTE 10. Common Stock Options and Restricted Common Stock Awards

In May 1996, the stockholders approved the amended 1992 Stock Option Plan (the "1992 Plan") which provides for the granting of options for the purchase of up to 2,500,000 shares of common stock. The 1992 Plan expired in May 2002. In May 1998, the stockholders approved the 1998 Equity Compensation Plan (the "1998 Plan") which provides for the granting of options and stock awards of up to 1,500,000 shares of common stock. In May 2001, the stockholders approved an amendment to the Company's Amended 1998 Equity Compensation Plan to increase the number of shares of common stock issuable thereunder to 3,500,000 shares.

The plans provide for the granting of incentive stock options and nonqualified stock options and are administered by a committee of the Company's board of directors. The committee has the authority to determine the term during which an option may be exercised (provided that no option may have a term of more than 10 years), the exercise price of an option, and the rate at which options may be exercised. Incentive stock options may be granted only to employees of the Company. Nonqualified stock options may be granted to employees, directors or consultants of the Company. The exercise price of options under the 1992 Plan and the 1998 Plan cannot be less than the fair market value of the underlying common stock on the date of the grant.

A summary of the status of the Company's stock options as of December 31, 2002, 2001 and 2000, and changes during the years ended on those dates, is presented below (in thousands, except per share data):

	2002		2001		2000	
	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Outstanding at beginning of year	3,745	$4.62	3,680	$4.51	3,662	$4.70
Granted	1,306	$1.12	832	$3.36	760	$3.89
Exercised	(3)	$1.88	(424)	$2.05	(171)	$2.63
Forfeited	(834)	$3.42	(343)	$3.63	(571)	$5.67
Outstanding at end of year	4,214	$3.77	3,745	$4.62	3,680	$4.51
Exercisable at end of year	2,422	$5.19	2,057	$5.70	2,109	$5.28

The following table summarizes information about stock options outstanding and exercisable as of December 31, 2002 (in thousands, except per share data):

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Shares Outstanding	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Shares Exercisable	Weighted Average Exercise Price
$0.40—$ 1.03	687	8.7 Years	$0.61	178	$1.01
$1.14—$ 2.72	926	8.5 Years	$1.61	233	$2.46
$2.97—$ 3.61	978	7.4 Years	$3.33	558	$3.27
$3.63—$ 5.00	731	5.2 Years	$4.17	561	$4.15
$5.56—$16.75	892	3.8 Years	$8.60	892	$8.60
$0.40—$16.75	4,214	6.7 Years	$3.77	2,422	$5.19

The 1998 Plan also provides for the issuance of common stock awards, up to a maximum of 375,000 shares. Such awards shall be made subject to such performance requirements, vesting provisions, transfer restrictions or other restrictions and conditions as a committee of the Company's board of directors may determine. As of December 31, 2002, a total of 206,000 shares have been awarded under the 1998 Plan, vesting over a four-year period from the award date. The cost of these awards will be recognized as expense over the vesting period. As of December 31, 2002, 157,875 shares have been issued pursuant to the vesting of these awards. Compensation expense related to these stock awards for the years ended December 31, 2002, 2001 and 2000 was $144,000, $209,000 and $194,000, respectively.

The Company granted options to purchase 20,000 and 25,000 shares of the Company's common stock to consultants in the years ended December 31, 2002 and 2000, respectively. No options were granted to consultants in 2001. The compensation expense for options granted to consultants is recognized over the respective service periods ranging up to one year or in accordance with vesting provisions. Compensation expense related to these options for the years ended December 31, 2002, 2001 and 2000 was $37,000, $95,000 and $18,000, respectively. The amount of compensation expense recognized in future years is subject to adjustment based upon changes in the price of the Company's common stock and other assumptions used to calculate fair value.

In 2000, a former officer of the Company entered into a consulting contract with the Company subsequent to his employment and retained unvested options to purchase 97,500 shares of the Company's common stock after his transition to non-employee status. The Company recorded a reduction to compensation expense of $49,000 for the year ended December 31, 2002 and additional compensation expense of $56,000 and $36,000 for the years ended December 31, 2001 and 2000, respectively, related to these options. The amount of compensation expense recognized in future years on these unvested options is subject to adjustment based upon changes in the price of the Company's common stock and other assumptions used to calculate fair value.

NOTE 11. Income Taxes

As of December 31, 2002, the Company has $116,616,000 of net operating loss ("NOL") carryforwards for federal income tax purposes (expiring in years 2003 through 2022). In addition, the Company has NOL carryforwards for state income tax purposes of $81,619,000 (expiring in years 2005 through 2012). Pennsylvania has a $2,000,000 annual limitation on the utilization of NOL carryforwards, thus the Company is not likely to utilize most of its state NOL carryforwards. The Company also has $6,934,000 of research and development tax credits carryforwards available to offset future federal income tax liability (expiring in years 2005 through 2022). The NOL carryforward differs from the accumulated deficit principally due to differences in the recognition of

certain expenses between financial and federal tax reporting. Additionally, at December 31, 2002, the portion of the gross deferred tax asset attributable to stock option deductions for tax purposes will reduce equity to the extent that such assets are realized.

Under the Tax Reform Act of 1986, the utilization of a corporation's NOL carryforward and research and development tax credits are limited following a change in ownership of greater than 50% within a three-year period. Due to the Company's prior equity transactions, the Company's net operating loss and tax credit carryforwards may be subject to an annual limitation generally determined by multiplying the market value of the Company on the date of the ownership change by the federal long-term tax-exempt rate. Any amount exceeding the annual limitation may be carried forward to future years for the balance of the NOL and tax credit carryforward period.

Deferred income taxes reflect the net tax effects of temporary differences between carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon generation of future taxable income during the periods in which temporary differences representing net future deductible amounts become deductible. Due to the uncertainty of the Company's ability to realize the benefit of the deferred tax asset, the deferred tax assets are fully offset by a valuation allowance at December 31, 2002 and 2001. The net change in the valuation allowance for deferred tax assets at December 31, 2002 and 2001 was an increase of $3,095,000 and $3,856,000, respectively. The expected tax benefit calculated using a federal statutory tax rate of 35% has been reduced to an actual benefit of zero due primarily to the aforementioned valuation allowance.

Significant components of the net deferred tax assets as of December 31, 2002 and 2001 consists of the following (in thousands):

	2002	2001
Deferred tax assets:		
Net operating losses	$ 46,116	$ 42,507
Research credits	6,934	6,609
Capitalized research and development	27,860	28,485
Accrued expenses, reserves and other	870	902
Depreciation	61	243
	81,841	78,746
Valuation allowance	(81,841)	(78,746)
Deferred tax assets, net	$ —	$ —

NOTE 12. Collaborative Arrangements

In February 1997, the Company entered into a development, supply and distribution agreement in North America with GlaxoSmithKline for LOCILEX™ Cream (the "GlaxoSmithKline Agreement"). GlaxoSmithKline has paid the Company $10,000,000 under this agreement. The Company had hoped to commercialize LOCILEX™ Cream in the near-term. However, with the FDA's decision not to approve LOCILEX™ Cream, near-term commercialization will not occur, and the Company will generate no revenues from LOCILEX™ Cream in the near future. The GlaxoSmithKline Agreement also gives GlaxoSmithKline rights to terminate the arrangement, and, under certain conditions, the right to negotiate for rights to another Genaera product

development candidate. GlaxoSmithKline remains the Company's exclusive sales, marketing and distribution partner for the North American territory for LOCILEX™ Cream.

In May 2000, the Company entered into a research, development and commercialization collaboration agreement with Genentech Inc. related to the Company's IL9 antibody development program and related respiratory technology (the "Genentech Agreement"), which replaced a December 1998 collaboration agreement. The Company and Genentech simultaneously executed a Stock Purchase Agreement (the "Stock Purchase Agreement") pursuant to which the Company received from Genentech $5,000,000 in exchange for the issuance of 1,085,973 shares of its common stock and $500,000 for the issuance of 500 shares of its Series A Preferred Stock. In November 2000, the Company issued 688 of its Series A Preferred Stock to Genentech for $688,000, which represented further development funding. In December 2000, Genentech provided notice to the Company of its election to terminate the Genentech Agreement. In April 2001, Genentech and the Company executed a settlement agreement pursuant to which all licensed technology under the Genentech Agreement was returned to the Company. At that time, $300,000 in development expenditures owed to the Company by Genentech were settled by the return to the Company and cancellation of 300 shares of the Series A Preferred Stock previously issued to Genentech. This $300,000 was accounted for as a reduction to research and development expenses for the year ended December 31, 2001.

In April 2001, the Company entered into a research collaboration and licensing agreement with MedImmune to develop and commercialize therapies related to the Company's IL9 program. The companies also will collaborate on the creation of specific assays and respiratory disease models for use in assessing product candidates developed by MedImmune. MedImmune will be responsible for development, manufacturing, clinical testing, and marketing of any resulting product. Upon execution of the agreement, MedImmune purchased 10,000 shares of the Company's Series B preferred stock in exchange for $10,000,000. MedImmune is expected to fund at least $2,500,000 for research and development activities at the Company from April 2001 through April 2003 (the "R&D Funding"), which will be recognized by the Company as revenues on a straight-line basis over the two-year period. In addition to the R&D Funding, MedImmune will also reimburse the Company for certain external costs incurred by the Company in connection with the IL9 research plan, which will be recognized by the Company as revenues when the related expenses are incurred. For the years ended December 31, 2002 and 2001, the Company recognized $1,517,000 and $1,038,000, respectively, as revenue related to this agreement, which approximated the Company's costs to obtain that revenue, of which $267,000 and $158,000, respectively, relates to external cost reimbursements. The Company could receive up to $55,000,000 if future milestones are successfully achieved, plus royalties on any product resulting from this agreement.

In September 2001, the Company received a contingent award of up to $1,700,000 from an affiliate of the Cystic Fibrosis Foundation ("CFF") to support early clinical evaluation of LOMUCIN™ involving patients with cystic fibrosis. This award has been granted and shall be paid to the Company from time to time upon the achievement of certain development milestones. Of this grant, $125,000 and $50,000 was received as of December 31, 2002 and 2001, respectively, and was recorded as a long-term liability. The Company did not recognize these amounts as revenue as they are refundable to the CFF upon marketing approval by the FDA or if the Company elects not to enter Phase 3 clinical trials or to commercialize the product within two years of the satisfaction of development milestones. The CFF is also due a royalty on net sales of any resultant product up to 1% based upon the amount of funding ultimately provided by the CFF.

NOTE 13. 401(k) Plan

The Company maintains a 401(k) retirement plan available to all full-time, eligible employees. Employee contributions are voluntary and are determined on an individual basis, limited to the maximum amount allowable under federal tax regulations. The Company, at its discretion, may make certain contributions to the plan. No such Company contributions have been made during the years ended December 31, 2002, 2001 or 2000.

NOTE 14. Fair Value of Financial Instruments

The following disclosures of estimated fair value were determined by management, using available market information and valuation methodologies. Considerable judgment is necessary to interpret market data and develop estimated fair market value. Accordingly, the estimates presented herein are not necessarily indicative of the amounts the Company could realize on disposition of the financial instruments. The use of different market assumptions or estimation methodologies may have an effect on the estimated fair value amounts.

Cash equivalents, accounts payable and investments are carried at amounts that reasonably approximate their fair values due to the short-term nature of these instruments. The estimated fair value of the Company's note payable is estimated to be approximately equal to its carrying value of $2,500,000 at December 31, 2002, due to the short-term nature of this note.

NOTE 15. Commitments, Contingencies and Liquidity

Facility Lease

The Company has entered into an operating lease for its laboratory and corporate office facilities, which expires in December 2007. Minimum annual rent payments through 2007 are as follows (in thousands):

Year Ended December 31,	
2003	$ 358
2004	371
2005	383
2006	397
2007	376
	$1,885

The lease provides for rent escalations relating to increases in the Consumer Price Index not to exceed 7% but no less than 3.5%. For the purposes of the above table, the Company has assumed a minimum lease payment escalation of 3.5% for all future periods after November 2003. Rent expense, which includes the cost of common area maintenance and other building operating expenses paid to the landlord, was $425,000, $362,000 and $357,000 for the years ended December 31, 2002, 2001 and 2000, respectively.

Equipment Leases

The Company has entered into multiple operating leases for its laboratory and corporate office equipment. Minimum annual lease payments through 2008 are as follows (in thousands):

Year Ended December 31,	
2003	$172
2004	72
2005	52
2006	14
2007	3
2008	—
	$313

Equipment rental expense was $185,000, $240,000, and $151,000 for the years ended December 31, 2002, 2001 and 2000, respectively.

Manufacturing

In January 1999 and prior, the Company entered into several agreements with Abbott Laboratories providing for the purchase of approximately $10,000,000 of bulk drug substance to be used in the manufacturing process for LOCILEX™ Cream. As the FDA did not approve LOCILEX™ Cream, the Company renegotiated this agreement with Abbott in September 1999, paying Abbott $4,200,000 at that time and receiving partial delivery of material. An additional $3,400,000 was due to Abbott and payable if the Company receives in excess of $10,000,000 of additional funds (as defined in the agreement) in any year beginning in 2000, in which case the Company must pay 15% of such excess over $10,000,000 to Abbott. The Company recorded this conditional obligation as a liability in 1999 at its then present value. As a result of the Company's financing activities during 2000 and other cash inflows, $1,392,000 of this liability was payable and paid to Abbott on March 1, 2001. As a result of the Company's financing activities during 2001 and other cash inflows, $480,000 of this liability was payable and paid to Abbott on March 1, 2002. The remaining amount of $1,529,000 due to Abbott is included in long-term liabilities as of December 31, 2002, as the Company did not receive in excess of $10,000,000 of cash inflows during 2002.

Liquidity

The Company has not generated any revenues from product sales and has funded operations primarily from the proceeds of public and private placements of its securities. Substantial additional financing will be required by the Company in the near-term to fund its continuing research and development activities. No assurance can be given that any such financing will be available when needed or that the Company's research and development efforts will be successful.

The Company's common stock is currently listed on the Nasdaq SmallCap Market. There are several requirements that the Company must satisfy in order for its common stock to continue to be listed on the Nasdaq SmallCap Market. These requirements include, but are not limited to, maintaining a minimum per share price on its common stock of one dollar. The per share price of the Company's common stock does not currently satisfy requirements to remain listed on the Nasdaq SmallCap Market. The Company has received notification from The Nasdaq Stock Market, Inc. that its common stock will be delisted from the Nasdaq SmallCap Market unless the stock closes at or above one dollar per share for at least ten consecutive days by September 18, 2003. In addition, in the future the Company may not comply with other listing requirements, which might result in the delisting of its common stock. Delisting from the Nasdaq SmallCap Market could also adversely affect the liquidity and the price of the Company's common stock and could have a long-term adverse impact on its ability to raise future capital through a sale of its common stock.

Without raising additional funds or significantly reducing expenses, the Company believes it will have sufficient resources to sustain operations through 2003. The Company regularly explores alternative means of financing its operations and seeks funding through various sources, including public and private securities offerings, collaborative arrangements with third parties and other strategic alliances and business transactions. The Company currently does not have any commitments to obtain additional funds and may be unable to obtain sufficient funding in the future on acceptable terms, if at all. If the Company cannot obtain funding, it will need to delay, scale back or eliminate research and development programs or enter into collaborations with third parties to commercialize potential products or technologies that it might otherwise seek to develop or commercialize independently, or seek other arrangements. If the Company engages in collaborations, it will receive lower consideration upon commercialization of such products than if it had not entered into such arrangements or if it entered into such arrangements at later stages in the product development process.

NOTE 16. Realignment of Operations

On August 14, 2002, the Company announced that it implemented a realignment of operations intended to focus resources on its most advanced product development programs and reduce expenses. Under the realignment plan, the Company reduced its headcount by approximately 35%, or 23 employees, primarily impacting unsupported preclinical research programs. All of the employees affected by the workforce reduction were offered severance and outplacement support. The Company recorded a nonrecurring charge of $506,000 for the three-month period ended September 30, 2002, of which $498,000 and $8,000 are recorded in Research and Development Expense and General and Administrative Expense, respectively. As of December 31, 2002, the Company has paid $411,000 in cash severance and outplacement support against this accrual, leaving a remaining accrual of $95,000 at December 31, 2002.

On November 7, 2002, the Company announced a further realignment of operations in order to continue its cost containment efforts. Under this realignment plan, the Company reduced its headcount by approximately 32%, or 11 employees. All of the employees affected by the workforce reduction were offered severance and outplacement support. The Company recorded a nonrecurring charge of $317,000, of which $183,000 and $134,000 are recorded in Research and Development Expense and General and Administrative Expense, respectively. As of December 31, 2002, the Company has paid $238,000 in cash severance and outplacement support against this accrual, leaving a remaining accrual of $80,000 at December 31, 2002.

NOTE 17. Quarterly Results (Unaudited)

The following tables contain selected unaudited Statement of Operations information for each quarter of the fiscal years ended December 31, 2002 and 2001 (in thousands, except per share amounts). The Company believes that the following information reflects all normal recurring adjustments necessary for a fair presentation of the information for the periods presented. The operating results for any quarter are not necessarily indicative of results for any future period.

	Year Ended December 31, 2002			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Collaborative research agreement revenues	$ 436	$ 417	$ 349	$ 315
Net loss	$ (4,053)	$ (3,313)	$ (2,969)	$ (1,821)
Net loss applicable to common stockholders	$ (4,071)	$ (3,330)	$ (2,988)	$ (1,840)
Net loss applicable to common stockholders per share—basic and diluted	$ (.12)	$ (.09)	$ (.08)	$ (.05)
Weighted average shares outstanding—basic and diluted	32,866	35,353	35,652	35,666

	Year Ended December 31, 2001			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Collaborative research agreement revenues	$ —	$ 250	$ 455	$ 333
Net loss	$ (2,932)	$ (2,733)	$ (3,748)	$ (3,499)
Net loss applicable to common stockholders	$ (2,963)	$ (2,764)	$ (3,768)	$ (3,528)
Net loss applicable to common stockholders per share—basic and diluted	$ (.09)	$ (.08)	$ (.11)	$ (.11)
Weighted average shares outstanding—basic and diluted	32,397	32,737	32,841	32,863

EXHIBIT INDEX

Exhibit No.	
23.1	Consent of KPMG LLP
24.1	Power of Attorney (Included on signature page of this Annual Report on Form 10-K)
99.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley Act of 2002
99.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley Act of 2002

EXHIBIT 23.1

Independent Auditors' Consent

The Board of Directors
Genaera Corporation:

We consent to the incorporation by reference in the registration statement Nos. 33-52882, 33-71984, 333-10889, 333-62073, and 333-69824 on Form S-8 and registration statement Nos. 33-69544, 33-99528, 333-09927, 333-14555, 333-38271, 333-49681, 333-44312, 333-62040 and 333-73798 on Form S-3 of Genaera Corporation (formerly Magainin Pharmaceuticals Inc.) of our report dated February 14, 2003, with respect to the consolidated balance sheets of Genaera Corporation and subsidiary as of December 31, 2002 and 2001, and the related consolidated statements of operations, changes in stockholders' equity and comprehensive loss, and cash flows for each of the years in the three-year period ended December 31, 2002, which report appears in the December 31, 2002 Annual Report on Form 10-K of Genaera Corporation.

/s/ KPMG LLP

Princeton, New Jersey
March 31, 2003

EXHIBIT 99.1

GENAERA CORPORATION

CERTIFICATION OF
CHIEF EXECUTIVE OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Genaera Corporation (the "Company") on Form 10-K for the year ended December 31, 2002 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Roy C. Levitt, M.D., President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

March 31, 2003

/s/ ROY C. LEVITT

Roy C. Levitt, M.D.
President and Chief Executive Officer

EXHIBIT 99.2

GENAERA CORPORATION

CERTIFICATION OF
CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Genaera Corporation (the "Company") on Form 10-K for the year ended December 31, 2002 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Christopher P. Schnittker, Senior Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

March 31, 2003

/s/ CHRISTOPHER P. SCHNITTKER

Christopher P. Schnittker
Senior Vice President and Chief Financial Officer

Officers

Roy C. Levitt, M.D.
President and Chief Executive Officer

Kenneth J. Holroyd, M.D., MBA
Executive Vice President and
Chief Operating Officer

Christopher P. Schnittker, CPA
Senior Vice President and
Chief Financial Officer

Angeline K. Shashlo, R.Ph.
Senior Vice President, Regulatory Affairs,
Quality Assurance and Project Management

Board of Directors

Michael R. Dougherty
Senior Vice President, Commercial Operations
Adolor Corporation

R. Frank Ecock
Retired Vice President
Merck & Company, Inc.

Zola P. Horovitz, Ph.D.
Retired Vice President
Bristol-Myers Squibb Company

Roy C. Levitt, M.D.
President and Chief Executive Officer
Genaera Corporation

Charles A. Sanders, M.D.
Retired Chairman and Chief Executive Officer
Glaxo Inc.

Robert F. Shapiro
Vice Chairman and Partner
Klingenstein, Fields & Co., LLC
Former President and Co-Chairman
Wertheim Schroder & Co.

James B. Wyngaarden, M.D.
Emeritus Professor of Medicine
Duke University
Former Director
National Institutes of Health

Transfer Agent and Registrar

StockTrans, Inc.
44 West Lancaster Avenue
Ardmore, PA 19003
1-800-733-1121

Inquiries regarding transfer requirements, lost certificates and changes of address should be directed to the Company's Transfer Agent.

Counsel

Dechert LLP
4000 Bell Atlantic Tower
1717 Arch Street
Philadelphia, PA 19103-2793

Independent Auditors

KPMG LLP
Princeton Pike Corporate Center
989 Lenox Drive
Lawrenceville, NJ 08648

Common Stock Listing

Our common stock is traded on the NASDAQ SmallCap Market under the symbol "GENR."

Form 10-K

A copy of Genaera's Annual Report on Form 10-K for the fiscal year ended December 31, 2002 is included with this Annual Report. A copy of the Annual Report on Form 10-K, as filed with the Securities and Exchange Commission, is also available without charge from Genaera. Please contact: Genaera Corporation, Investor Relations, 5110 Campus Drive, Plymouth Meeting, PA 19462.

Annual Stockholders' Meeting

The next annual meeting of stockholders will be held on May 15, 2003 at 10:00 A.M. at the Summerfield Suites by Wyndam-Plymouth Meeting, 501 East Germantown Pike, East Norriton, PA 19401.

Investor Relations

Updated information about Genaera Corporation is available on the Company's home page located on the World Wide Web at www.genaera.com.

GENAERA

Corporate Headquarters

Genaera Corporation
5110 Campus Drive
Plymouth Meeting, PA 19462
Telephone: 610-941-4020
Facsimile: 610-941-5399
Website: www.genaera.com
Email: info@genaera.com

Designed by Curran & Connors, Inc. / www.curran-connors.com

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