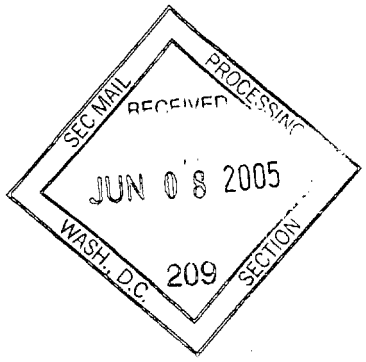
ARIAD

ARIAD PHARMACEUTICALS INC



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2004 Annual Report

www.ariad.com

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

FORM 10-K

(Mark One)

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2004

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 033-76414

ARIAD Pharmaceuticals, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**22-3106987**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

26 Landsdowne Street, Cambridge, Massachusetts 02139-4234
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (617) 494-0400

Securities registered pursuant to Section 12(b) of the Act: None

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

Common Stock, $.001 Par Value

Rights to Purchase Series A Preferred Stock

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes [X] No [ ]

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

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

Yes [X] No [ ]

The aggregate market value of the registrant's common stock held by nonaffiliates of the registrant (without admitting that any person whose shares are not included in such calculation is an affiliate), computed by reference to the price at which the common stock was last sold, as of the last business day of the registrant's most recently completed second fiscal quarter was $357 million.

As of February 17, 2005, the registrant had 52,824,783 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Not applicable.

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PART I

ITEM 1: BUSINESS

The following Business Section contains forward-looking statements, which involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors (see "Certain Factors That May Affect Future Results of Operations").

Corporate Overview

We are engaged in the discovery and development of breakthrough medicines to treat disease by regulating cell signaling with small molecules. Breakthrough medicines are products, created *de novo*, that may be used to treat diseases in innovative ways. Our initial disease focus is cancer, and we are developing a comprehensive approach that addresses the greatest medical need - novel therapies for aggressive and advanced-stage disease for which current treatments are inadequate. In oncology, our goal is to create a series of novel small-molecule product candidates that provide targeted and highly potent anti-cancer activity to treat both solid tumors and hematologic cancers, as well as the spread of primary tumors to distant sites.

Human cells - both healthy and malignant - share an elaborate system of molecular pathways that carry signals back and forth from the cell surface to the nucleus and within the cell. Such signaling is essential to cell functioning and viability. When disrupted or over-stimulated, such pathways may trigger diseases such as cancer. For example, growth and proliferation of cancer cells are dependent on signals from external growth factors, as well as signals indicating the availability of sufficient nutrients and blood supply. These signals are conveyed along well-defined pathways, several of which are regulated by a protein called the mammalian target of rapamycin ("mTOR").

AP23573, our lead cancer product candidate, is a potent mTOR inhibitor that starves cancer cells and shrinks tumors by regulating the response of tumor cells to nutrients and growth factors and by controlling tumor blood supply and angiogenesis through effects on vascular endothelial growth factor ("VEGF").

Currently, AP23573 is in multiple Phase 2 and 1b clinical trials at cancer centers in patients with various hematologic malignancies (*i.e.*, leukemias and lymphomas) and solid tumors (*i.e.*, sarcomas and glioblastoma multiforme), whose disease is recurrent and/or refractory. In 2005, we expect to initiate additional Phase 2 multi-center studies of AP23573 in patients with other solid tumors, including endometrial and prostate cancer, as well as Phase 1b studies of AP23573 in combination with other anti-cancer therapies - both chemotherapies and targeted therapies. In addition, we plan to file an investigational new drug (IND) application for, and initiate clinical trials of, an oral dosage form of AP23573. Finally, based on the progress we expect to achieve in the clinical development of AP23573, we anticipate arriving at the initial definition of the registration path for AP23573 in patients with cancer by the end of 2005.

In the malignant cells of many patients with the cancers we are studying in the AP23573 clinical trials, signaling along the mTOR pathway may be abnormal due to genetic mutations and/or alterations in the activity of key proteins upstream and downstream of mTOR itself. We believe these patients may be even more responsive to mTOR blockage. Our scientists and other investigators are leading the identification and development of biomarker assays to identify patients with tumors that harbor such alterations in the mTOR pathway, since these patients may be more likely to benefit from treatment with AP23573. In addition, our clinical development strategy includes extensive use of biomarkers and functional imaging technologies, such as positron emission tomography, to augment the assessment of the efficacy and safety of AP23573 in patients enrolled in our trials. Our use of pre- and post-treatment assays and assessment methods reflects a growing trend in the treatment of cancer and the development of such treatment options.

As an mTOR inhibitor, AP23573 has also been shown to potently block the growth, proliferation and migration of vascular smooth muscle cells, the primary cause of narrowing and blockage of injured vessels. In January 2005, we entered into a partnership with Medinol Ltd., one of the leading cardiovascular medical device companies, to develop and commercialize stents and other medical devices to deliver AP23573 to prevent reblockage of injured vessels following stent-assisted angioplasty, a common non-surgical procedure for dilating or opening narrowed arteries. By 2008, the drug-eluting stent market is expected to increase to over $6 billion.

Inhibition of the mTOR pathway may be useful for additional indications beyond oncology and drug-delivery stents, and we are actively evaluating such indications as part of the broader clinical development plan for AP23573.

Our oncology drug discovery pipeline includes a bone-targeted mTOR inhibitor program and an oncogenic kinase inhibitor program, both of which are in pre-clinical development.

In our bone-targeted mTOR inhibitor program, we are developing a novel and potent follow-on product candidate analogous to AP23573 – modified using our proprietary chemistry – to localize mTOR inhibition and its subsequent therapeutic effects to bone. This may provide a new treatment approach for primary bone cancers, as well as cancers that have spread to bone.

In our oncogenic kinase inhibitor program, we are developing potent inhibitors of enzymes involved in the growth, proliferation and spread of cancer. Our targets include (1) clinically relevant mutants of Abl, to block a signaling pathway that remains active in certain forms of leukemia that are resistant to Gleevec™ treatment and (2) Src, to block signaling pathways that control the migration of cancer cells from the primary tumor to distant sites. These programs are focused on biologically well-validated targets and are aimed at developing product candidates to address major unmet medical needs.

With respect to the development and commercialization of our lead product candidates, our business goals are to: (1) develop our oncology product candidates independently as far as possible before partnering them; (2) establish the commercial infrastructure to market our anti-cancer product candidates in the United States; (3) enter into partnerships with pharmaceutical or biotechnology companies after obtaining definitive clinical data, to assist in developing our cancer product candidates and commercializing them outside the United States; and (4) enter into up to an additional two worldwide partnerships with medical device companies to develop and commercialize our product candidate, AP23573, in drug-delivery stents and other medical devices to decrease reblockage of injured vessels following stent-assisted angioplasty.

We have an exclusive license to pioneering technology and patents related to certain NF-κB treatment methods, and the discovery, development and use of drugs to regulate NF-κB cell-signaling activity, which may be useful in treating certain diseases. We permit broad use of our NF-κB intellectual property at no cost by investigators at academic and not-for-profit institutions to conduct non-commercial research. Our goal is to license our NF-κB technology to pharmaceutical and biotechnology companies conducting research on the discovery of drugs that modulate NF-κB cell signaling and/or marketing such drugs. To date, we have entered into several research and development licenses for our NF-κB intellectual property.

We have also developed a proprietary portfolio of cell-signaling regulation technologies, our ARGENT technology, to control intracellular processes with small molecules, which provide versatile tools for applications in cell biology, functional genomics, proteomics and drug discovery research and are useful in regulated protein and cell therapy. We distribute our ARGENT technology at no cost to academic investigators in the form of our Regulation Kits. Over 800 academic investigators worldwide are using or have used this technology in diverse areas of research, and over 225 scientific papers describing their use have been published. Our goal is to license our ARGENT technology to pharmaceutical and biotechnology

companies to accelerate their drug discovery. To date, we have entered into several research and development licenses for use of our ARGENT technology.

Our research and development relating to product candidates based on our ARGENT cell-signaling regulation technology and our lead small-molecule mTOR inhibitors, for use in cancer and in the development of drug-delivery stents and other medical devices, derived from the ARGENT programs are conducted on behalf of our 80%-owned subsidiary, ARIAD Gene Therapeutics, Inc. ("AGTI"), which owns the intellectual property relating to these compounds and technology.

ARIAD was organized as a Delaware corporation in April 1991. Our principal executive offices are located at 26 Landsdowne Street, Cambridge, Massachusetts 02139-4234, and our telephone number is (617) 494-0400. We maintain an internet website at http://www.ariad.com, the contents of which are not incorporated herein. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K and all amendments to such reports are made available free of charge through the Investor Relations section of our website as soon as reasonably practicable after they have been filed or furnished with the SEC.

ARIAD and the ARIAD logo are our registered trademarks. ARGENT is our trademark. Other service marks, trademarks and trade names appearing in this report are the property of their respective owners.

Our Product Pipeline

All of our product development programs are focused on developing small-molecule drugs that regulate cell signaling. Many of the critical functions of cells, such as cell growth, differentiation, gene transcription, metabolism, motility and survival, are dependent on signals carried back and forth from the cell surface to the nucleus and within the cell through a system of molecular pathways. Disruption or over-stimulation of cell-signaling pathways has been implicated in many disease states. From our inception, our research has focused on exploring cell-signaling pathways, identifying their role in specific diseases, and discovering drug candidates to treat those diseases by interfering with the aberrant signaling pathways of cells. The specific cellular proteins blocked by our product candidates have been well characterized and validated as targets. All of our product candidates are developed in-house through the integrated use of structure-based drug design and computational chemistry, and their targets have been validated with techniques such as functional genomics, proteomics, and chemical genetics. We believe that our product candidates, if successfully developed, will serve large, unmet medical needs. In 2005, over 1.3 million people are expected to be diagnosed with cancer in the United States. Furthermore, the overall cost of the disease last year was close to $1.9 billion in direct and related healthcare costs.

Our product candidates, their targets, initial potential indications and development status are as follows:

Product/Program	Target	Potential Indications	Development Status
AP23573	mTOR	Leukemias and lymphomas	Phase 2
		Solid tumors*	Phase 2
		Glioblastoma multiforme	Phase 1b
		Restenosis following stent-assisted angioplasty	Preclinical
Bone-targeted mTOR inhibitor	mTOR	Cancer	Preclinical
Oncogenic kinase inhibitors	Abl, Abl mutants & Src**	Cancer	Preclinical

* Solid tumors include sarcomas, for which we have initiated a multicenter trial, and endometrial, prostate and breast cancer, for which multicenter trials are anticipated.

** Multi-target kinase specificity - the specific targets will be determined.

Our Clinical Development Programs

Oncology Indications of our mTOR Inhibitor, AP23573

Human cells - both healthy and malignant - share an elaborate system of molecular pathways that carry signals back and forth from the cell surface to the nucleus and within the cell. Such signaling is essential to cell functioning and viability. When disrupted or over-stimulated, such pathways may trigger diseases such as cancer. For example, growth and proliferation of cancer cells are dependent on signals from external growth factors, as well as signals indicating the availability of sufficient nutrients and blood supply. These signals are conveyed along well-defined pathways, several of which are regulated by a protein called the mammalian target of rapamycin ("mTOR").

AP23573, our lead cancer product candidate, is a potent mTOR inhibitor that starves cancer cells and shrinks tumors by regulating the response of tumor cells to nutrients and growth factors and by controlling tumor blood supply and angiogenesis through effects on vascular endothelial growth factor ("VEGF").

To date, we have studied AP23573 in two Phase 1 clinical trials in patients with recurrent and/or refractory disease. Preliminary results from these two trials were reported in June 2004 at the annual meeting of the American Society of Clinical Oncology ("ASCO") and in September 2004 at the annual meeting of the European Organization for the Research and Treatment of Cancer - National Cancer Institute - American Association of Cancer Research ("EORTC-NCI-AACR"). In the second report, of 49 evaluable patients, tumor regression was demonstrated in nine patients: four patients with partial responses defined by Response Evaluation Criteria in Solid Tumors ("RECIST") of at least a 30% reduction in tumor size and five patients with minor responses defined as 15% to 29% reduction in tumor size. In an additional 15 patients, sustained disease stabilization was achieved. Overall, 49% (24 of 49) of the patients in the two trials had documented anti-tumor responses (including partial and minor responses and stable disease), with a median response of 5 months in those demonstrating anti-tumor responses, extending to greater than 18 months - the longest treatment as of that analysis.

Anti-tumor responses were demonstrated in nine different refractory and/or relapsed cancers, including all evaluable patients with sarcoma (5 of 5), kidney cancer (7 of 7) and lymphoma (1 of 1), as well as 2 of 3 patients with non-small cell lung cancer ("NSCLC"). AP23573 has been well tolerated by patients in both Phase 1 trials, with generally mild or moderate, readily reversible adverse events.

Currently, AP23573 is in several multi-center Phase 2 and 1b clinical trials at cancer centers in patients with various hematologic malignancies (*i.e.*, leukemias and lymphomas) and solid tumors (*i.e.*, sarcomas and glioblastoma multiforme), whose disease is recurrent and/or refractory. In 2005, we expect to initiate Phase 2 multi-center studies of AP23573 in patients with additional solid tumors, including endometrial and prostate cancer, as well as Phase 1b studies of AP23573 in combination with other anti-cancer therapies - both chemotherapies and targeted therapies. In addition, we expect to file an investigational new drug (IND) application for, and initiate clinical trials of, an oral dosage form of AP23573. Finally, we anticipate arriving at initial definition of the registration path for AP23573 by the end of 2005.

In the malignant cells of many patients with the cancers we are studying in the AP23573 clinical trials, signaling along the mTOR pathway may be abnormal due to genetic mutations and/or alterations in the activity or expression of key proteins. These patients may be even more responsive to mTOR blockage than others. Our scientists and other investigators are leading the identification and development of biomarker assays to identify patients with tumors that harbor such alterations in the mTOR pathway, since these patients may be more likely to benefit from treatment with AP23573. In addition, our clinical development strategy includes extensive use of biomarkers and functional imaging technologies, such as positron emission tomography, to augment the assessment of the efficacy and safety of AP23573 in patients enrolled

in our trials. Our use of pre- and post-treatment assays and assessment methods reflects a growing trend in the treatment of cancer and the development of such treatment options.

Cardiovascular Indications of our mTOR Inhibitor, AP23573

As an mTOR inhibitor, AP23573 blocks the proliferation and migration of vascular smooth muscle cells, the primary cause of narrowing and blockage of injured arteries, and is an analog of sirolimus, another mTOR inhibitor that has been approved for use in drug-eluting stents. In January 2005, we entered into a partnership with Medinol Ltd., one of the leading cardiovascular medical device companies, to develop and commercialize stents and other medical devices to deliver AP23573 to prevent reblockage of injured vessels following stent-assisted angioplasty, a common non-surgical procedure for dilating or opening narrowed arteries.

Cardiovascular disease afflicts more than a quarter of the U.S. population and causes more than five million hospitalizations, over $300 billion in healthcare expenditures, and one million deaths annually. Products expected to have the most profound impact on coronary artery and myocardial disorders - including drug-eluting stents - have only recently been introduced into clinical practice. By 2008, the drug-eluting stent market is expected to increase to over $6 billion.

Numerous drugs, including many antiplatelet agents, anticoagulants, ACE inhibitors, and cytotoxic agents, administered to patients following coronary angioplasty have failed to significantly reduce the overall incidence of vascular reblockage, which runs as high as 30% in the first few months, depending on the configuration and location of the vascular lesion and other clinical factors, such as diabetes. Recent clinical studies have found lower reblockage rates in patients treated with stents that deliver small-molecule drugs, such as sirolimus, an mTOR inhibitor, or paclitaxel, a cytotoxic agent, locally to the site of vascular injury. Such stents have become the standard-of-care for patients undergoing interventional procedures to open narrowed coronary arteries.

Our partner, Medinol, is a leader in stent technology and the inventor, designer, and manufacturer of the NIR® line of stents, including the NIRFLEX™ stents. Medinol's stent technology provides simultaneous flexibility and support. Under a 2002 agreement, Medinol and W.L. Gore & Associates, a leading advanced technology company, are collaborating to develop innovative stenting solutions that incorporate key features of their respective technologies. Gore's technology in the polymer and biocompatible polymer areas should contribute to the design and development of the polymer layer used to control the release of the drug from the stent and the optimization of the delivery system that will allow easy and safe use of the new system in desired vascular sites.

We may grant up to two additional licenses, under our rights to AP23573, to medical device companies for their use in developing and commercializing drug-delivery stents and other medical devices to reduce reblockage of injured vessels following stent-assisted angioplasty.

Additional Non-Oncology Indications of our mTOR Inhibitor, AP23573

Inhibition of the mTOR pathway may be useful for additional indications beyond oncology and drug-delivery stents, and we are actively evaluating such indications as part of the broader clinical development plan for AP23573.

Our Preclinical Drug-discovery Programs

Bone-targeted mTOR Inhibitor Program

In our bone-targeted mTOR inhibitor program, we are developing a novel and potent, follow-on product candidate analogous to AP23573 - modified using our proprietary chemistry - to localize mTOR inhibition and its subsequent therapeutic effects to bone. This may provide a new treatment approach for primary bone cancers, as well as cancers that have spread to bone. A chemical tag attached to the mTOR inhibitor structure confers affinity for the unique surface features of bone. As a result, our bone-targeted drug candidate is designed to adhere to and concentrate in bone, leading to a local enhancement of the anti-tumor effects of the mTOR inhibitor. In addition, we believe our bone-targeted drug candidate may inhibit the activity of bone-destroying osteoclasts that normally exacerbates the growth of tumor cells in bone.

Oncogenic Kinase Inhibitor Program

Protein kinases are key signaling proteins, or enzymes, that control many properties of cells, including their growth, development, and survival. Abnormal activation of a key class of protein kinases, known as oncogenic kinases, can lead to uncontrolled cell proliferation and cancer. Such proteins represent highly attractive, well-defined targets for cancer therapies that directly address critical stages in the development of cancer.

In our oncogenic kinase inhibitor program, we are developing potent inhibitors of proteins involved in the growth, proliferation and spread of cancer. Our key targets include (1) clinically relevant mutants of Abl, to block a signaling pathway that remains active in certain forms of leukemia that are resistant to Gleevec™ (imatinib) treatment and (2) Src, to block signaling pathways that control the migration of cancer cells from the primary tumor to distant sites. The actual multi-target kinase specificity of product candidates will be determined as part of preclinical studies.

Abnormal Abl activity has been associated with certain types of leukemia, such as chronic myelogonous leukemia ("CML"). Agents such as Gleevec are effective in the treatment of CML. However, mounting resistance to the drug and other CML therapies has been reported and is now known to be due to the emergence of resistant mutations of the Abl kinase. The goal of our Abl oncogenic kinase inhibitor program is to develop a product candidate that would also be effective against the many mutant forms of Abl.

Src is involved in controlling the contacts between cells that maintain the integrity of normal tissues. Abnormal Src activity in tumor cells has been shown to lead to the breakdown of these contacts, releasing cancer cells to spread to distant sites, and to play a critical role in the establishment of tumor colonies - the process of metastasis. The goal of our Src oncogenic kinase program is to develop a product candidate that inhibits abnormal Src activity, providing an effective treatment that prevents the metastatic spread of solid tumors from primary to distant sites.

These preclinical programs are focused on biologically well-validated targets and are aimed at developing product candidates to address major unmet medical needs.

Our Scientific Approach

Our research and development programs are focused on discovering and developing small-molecule drugs that regulate cell signaling. Many of the critical functions of cells, such as cell growth, differentiation, gene transcription, metabolism, motility and survival, are dependent on signals carried back and forth from the cell surface to the nucleus and within the cell through a system of molecular pathways. When disrupted or over-stimulated, such pathways may trigger diseases such as cancer. From our inception, our research has focused on exploring cell-signaling pathways, identifying their role in specific diseases, and discovering

drug candidates to treat those diseases by interfering with the aberrant signaling pathways of cells. The specific cellular proteins blocked by our product candidates have been well characterized and validated as targets. All of our product candidates are developed in-house through the integrated use of structure-based drug design and computational chemistry, and their targets have been validated with techniques such as functional genomics, proteomics, and chemical genetics.

Structure-based drug design is a computational approach used to design small organic drug molecules that bind specifically to a particular protein, for example, the critical molecular target in a cell-signaling pathway known to be linked to a disease. Using the target protein's three-dimensional atomic structure, drugs can be designed and optimized to bind both tightly and selectively to the target, which should lead to more potent drugs with fewer side effects. Structure-based drug design integrates structural biology and computer-assisted molecular modeling methods and has been applied directly to validated molecular targets in our cell-signaling programs to discover and optimize lead compounds. Chemo-informatic techniques and virtual screening further expand the utility of structural methods in drug discovery.

Our Proprietary Technologies

NF-κB Cell-signaling Technology

Dr. David Baltimore, formerly director of the Whitehead Institute for Biomedical Research, Dr. Phillip Sharp of the Massachusetts Institute of Technology, and Dr. Thomas Maniatis of Harvard University, together with a team of scientists in their respective laboratories, discovered a family of genes that encode proteins they called NF-κB and I-κB, its inhibitor; the critical role played by NF-κB cell signaling in regulating cellular processes involved in various difficult-to-treat diseases; methods to identify compounds to regulate NF-κB cell-signaling activity; and methods of treating disease by inhibiting NF-κB. NF-κB can be generally thought of as a "biological switch" that can be turned off using these methods to treat disorders, such as inflammation, cancer, sepsis and osteoporosis.

We have an exclusive license to pioneering technology and patents related to certain NF-κB treatment methods, and the discovery and development of drugs to regulate NF-κB cell-signaling activity, which may be useful in treating certain diseases. We have a program to license this technology to pharmaceutical and biotechnology companies conducting research on the discovery of drugs that modulate NF-κB cell-signaling and/or marketing such drugs.

ARGENT Cell-signaling Regulation Technology

Our proprietary portfolio of cell-signaling regulation technologies includes the ARGENT signaling and transcription technologies. Our ARGENT technologies allow intracellular processes to be controlled with small molecules and provide versatile tools for applications in cell biology, functional genomics, proteomics, and drug-discovery research, including three-hybrid screening approaches to discover and characterize targets and lead molecules. To maximize their use by the scientific community, we distribute our technologies at no cost to academic investigators in the form of our Regulation Kits. Over 800 investigators worldwide are using or have used our Regulation Kits in diverse areas of research, and over 225 scientific papers describing their use have been published. For researchers in pharmaceutical and biotechnology companies, we have established an alternative licensing program to provide them with access to our cell-signaling regulation technologies on commercial terms.

Our Business Strategy

Our business strategy aims to balance independent product development and commercialization with near-term revenues from product partnering and technology licensing. Our goals are to:

- Build a comprehensive cancer-focused franchise;
- Develop our oncology product candidates independently as far as possible before partnering them;
- Establish the commercial infrastructure to market our cancer product candidates in the United States;
- Enter into partnerships with major pharmaceutical or biotechnology companies, after obtaining definitive clinical data, to assist in developing our cancer product candidates and commercializing them outside the United States;
- Enter into up to an additional two worldwide partnerships with medical device companies to develop and commercialize our product candidate, AP23573, in drug-delivery stents and other medical devices to decrease reblockage of injured arteries following stent-assisted angioplasty;
- Permit broad use of our NF-κB and ARGENT technologies at no cost by investigators at academic and not-for-profit institutions to conduct non-commercial research;
- License our NF-κB technology to pharmaceutical and biotechnology companies conducting research on the discovery of drugs that modulate NF-κB cell signaling and/or marketing such drugs; and
- License our ARGENT cell-signaling regulation technology to pharmaceutical and biotechnology companies to accelerate their drug discovery.

Our Intellectual Property

Patents and other intellectual property rights are essential to our business. We file patent applications to protect our technology, inventions and improvements to our inventions that are considered important to the development of our business.

As of February 11, 2005 we have 97 patents and pending patent applications in the United States, of which 35 are owned, co-owned or exclusively licensed by us and 62 are owned, co-owned or exclusively licensed by our subsidiary, ARIAD Gene Therapeutics, Inc. ("AGTI"). In addition, we have filed foreign counterparts, as appropriate. We also have several nonexclusive technology licenses from certain institutions in support of our research programs. We anticipate that we will continue to seek licenses from universities and others where applicable technology complements our research and development efforts.

Many of the patents and patent applications in our portfolio cover our ARGENT cell-signaling regulation technologies. These patents and pending applications cover regulatory technologies, specialized variants of the technologies, critical nucleic acid components, small-molecule drugs, the identification and use of dimerizer hormone mimetics, and various uses of the technologies in health care and drug discovery. Patents issued to date include 32 patents covering our cell-signaling regulation technologies. These patents were issued in the United States beginning in November 1998.

Our patent portfolio also covers research tools and methods used in our drug discovery programs, as well as multiple classes of small-molecule drug candidates discovered in those programs. We also have a number of issued patents and pending applications relating to cell-signaling proteins and their use in drug discovery and therapeutics.

We also rely on unpatented trade secrets and proprietary know-how. However, trade secrets are difficult to protect. We enter into confidentiality agreements with our employees, consultants and collaborators. In addition, we believe that certain technologies utilized in our research and development programs are in the public domain. Accordingly, we do not believe that patent or other protection is available for these technologies.

Our Technology Licenses to Third Parties

We have a program to license our NF-κB cell-signaling technology to pharmaceutical and biotechnology companies conducting research on the discovery of drugs that modulate NF-κB cell-signaling and/or marketing such drugs. To date, we have entered into several licenses for this technology.

We also have a program to license our ARGENT cell-signaling regulation technology to pharmaceutical and biotechnology companies. To date, we have entered into several licenses for this technology. In addition, several biotechnology companies are conducting collaborative studies of this technology.

In January 2005, we and our subsidiary, AGTI, entered into non-exclusive license and supply agreements with Medinol Ltd. ("Medinol") for the development and commercialization of stents and other medical devices to deliver our mTOR inhibitor, AP23573, to prevent reblockage of injured vessels following stent-assisted angioplasty. The license agreement provides for the payment by Medinol to us of an upfront license fee, payments based on achievement of development, regulatory, and commercial milestones, and royalties based on commercial sales of products, if any, developed by Medinol. We are required to provide Medinol, and Medinol is required to purchase from us, agreed upon quantities of AP23573.

Our Licenses from Third Parties

We and our subsidiary, AGTI, have entered into license agreements with various research institutions and universities pursuant to which we and/or AGTI are the licensee of certain technologies upon which some of our product candidates are based.

We have agreed to pay royalties to our licensors on sales of certain products based on the licensed technologies, as well as, in some instances, milestone payments and patent filing and prosecution costs. The licenses also impose various milestones, commercialization, sublicensing, royalty as well as insurance and other obligations. Failure by us to comply with these requirements could result in the termination of the applicable agreement, which could have a material adverse effect on our business, financial condition, and results of operations.

Research and Development Spending

During each of the three years ended December 31, 2004, 2003, and 2002, we spent approximately $27.7 million, $14.9 million, and $23.0 million respectively, on our research and development activities.

Manufacturing

When advantageous, we intend to rely on strategic partners or third-party contractors for manufacturing cGMP material to be used in our product candidates. We believe that our small-molecule drugs can be produced in commercial quantities through conventional synthetic and natural-product fermentation techniques. Thus far, we have contracted with various commercial entities to assist in the development and optimization of our manufacturing methods, but we have not entered into any formal manufacturing agreements adequate to produce our product candidates for large-scale clinical trials or commercial use.

Our Board of Scientific and Medical Advisors

We have assembled a Board of Scientific and Medical Advisors that currently consists of experts in the fields of molecular and cellular biology, biochemistry, immunology, and organic, physical, and computational chemistry, and clinical medicine. Our Board of Scientific and Medical Advisors is chaired by Dr. Stuart L. Schreiber, Morris Loeb Professor of Chemistry and Chemical Biology; Co-Director, Institute of Chemistry and Cell Biology; Director, Center for Chemical Methodology and Library Development, and Scientific Co-director, Bauer Center for Genomics Research at Harvard University; a founding member of the Eli & Edythe L. Broad Institute; and an Investigator of the Howard Hughes Medical Institute. Dr. Schreiber is one of our scientific founders.

Competition

The pharmaceutical and biotechnology industries are intensely competitive. We compete directly and indirectly with other pharmaceutical companies, biotechnology companies and academic and research organizations, many of whom have greater resources than us. We compete with companies who have products on the market or in development for the same indications as our product candidates. We also complete with organizations that are developing similar technology platforms.

In the area of oncology, pharmaceutical and biotechnology companies such as Amgen Inc., AstraZeneca PLC, Bristol-Myers Squibb Company, Eli Lilly and Company, Genentech, Inc., GlaxoSmithKline plc, Hoffmann LaRoche & Co., Merck KGaA, Novartis AG, Pfizer, Inc., and Wyeth Corp. are developing and marketing drugs to treat cancer, including mTOR inhibitors. Biotechnology companies such as Amgen Inc., ImClone Systems, Inc., Ligand Pharmaceuticals, Inc., Millennium Pharmaceuticals, Inc., Onyx Pharmaceuticals, Inc., OSI Pharmaceuticals, Inc., Telik, Inc., and Vertex Pharmaceuticals, Inc. are developing drugs to treat various diseases, including cancer, by inhibiting cell-signaling pathways. Other companies have products on the market or in development against which our products may have to compete. We may also experience competition from companies that have acquired or may acquire technology from companies, universities, and other research institutions. As these companies develop their technologies, they may develop proprietary positions that may materially and adversely affect us.

Government Regulation

Our ongoing research and development activities, our clinical trials, the manufacturing and testing procedures and the marketing of our product candidates, if they are approved, all are subject to extensive regulation by numerous governmental authorities in the United States and other countries. Any drug or device developed by us and/or a partner must undergo rigorous preclinical studies and clinical testing and extensive regulatory review administered by the United States Food and Drug Administration ("FDA") under the federal Food, Drug and Cosmetic Act prior to marketing in the United States. Satisfaction of such regulatory requirements, which includes demonstrating that a product is both safe and effective for its intended indications for use, typically takes several years or more depending upon the type, complexity and novelty of the product and requires the expenditure of substantial resources. Preclinical studies must be conducted in conformance with FDA regulations, including its current Good Laboratory Practices ("cGLP") regulations. Before commencing clinical trials in the United States, we must submit extensive information about the results of preclinical studies, toxicity, manufacturing and control procedures and our proposed clinical research protocol to the FDA in an Investigational New Drug ("IND") application, or an Investigational Device Exemption ("IDE"), as the case may be. If the FDA does not respond with any questions on the IND, we can commence clinical trials thirty days after the submission. In addition, an independent institutional review board ("IRB") at each institution at which any clinical trial is being performed, must review and approve the clinical protocol before clinical testing may begin, and it will have ongoing overview of the clinical trial at that institution. With respect to an IDE for certain medical devices,

such as drug-delivery stents, clinical trials may not begin until both the FDA and an IRB approve. There can be no assurance that submission of an IND or IDE will result in the commencement of such clinical trials.

We have a limited history of conducting preclinical studies and the clinical trials necessary to obtain regulatory approval. Furthermore, we, the FDA or an IRB may suspend clinical trials at any time if we or they believe that the subjects participating in such trials are being exposed to unacceptable risks or if the FDA finds deficiencies in the conduct of the trials or other problems with our product under development.

Before receiving FDA approval to market a product, we will have to demonstrate that the product is safe and effective in the patients for whom the product is indicated. Data obtained from preclinical studies and clinical trials are susceptible to varying interpretations that could delay, limit or prevent regulatory clearances. In addition, delays or rejections may be encountered based upon additional government regulation from future legislation or administrative action or changes in FDA policy during the period of product development, clinical trials and FDA regulatory review. Similar or even more extensive delays also may be encountered in foreign countries. There can be no assurance that even after such time and expenditures, regulatory approval will be obtained for any product candidates developed by us, or, even if approval is obtained, that the approved indication and related labeling for such products will not limit the product's condition of use, which could materially impact the marketability and profitability of the product. If regulatory approval of a product is granted, such approval will be limited to those disease states and conditions for which the product has been shown useful, as demonstrated by clinical trials. Furthermore, approval may entail ongoing requirements for post-market studies. Even if such regulatory approval is obtained, a marketed product, its manufacturer and its manufacturing facilities and procedures are subject to continual review and periodic inspections by the FDA. Discovery of previously unknown problems with a product, manufacturer, manufacturing procedures or facility may result in restrictions on such product or manufacturer, including costly recalls, an injunction against continued marketing and manufacturing until the problems have been adequately addressed to the FDA's satisfaction or even withdrawal of the product from the market.

There can be no assurance that any compound developed by us alone or in conjunction with others will prove to be safe and efficacious in clinical trials and will meet all of the applicable regulatory requirements needed to receive and maintain marketing approval. Additionally, the marketing, labeling and advertising for an approved product is subject to ongoing FDA scrutiny and the failure to adhere to applicable requirements can result in regulatory action that could have a material adverse impact on the profitability of the product.

Outside the United States, our ability to market a product will be contingent upon receiving a marketing authorization from the appropriate regulatory authorities. The requirements governing the conduct of clinical trials, obtaining marketing authorization, and pricing and reimbursement vary widely from country to country. At present, foreign marketing authorizations are applied for at a national level, although within the European Union ("EU"), certain centralized and mutual recognition registration procedures are available to companies wishing to market a product in more than one Member State. These procedures alleviate the need to file a separate application in each EU country. If the regulatory authority is satisfied that adequate evidence of safety, quality and efficacy has been presented, a marketing authorization will be granted. This foreign regulatory approval process includes all of the risks associated with FDA clearance set forth above.

Our Employees

As of February 11, 2005, we had 72 employees, 38 of whom hold post-graduate degrees, including 24 with a Ph.D., M.D. or J.D. Most of our employees are engaged directly in research and development. We have entered into confidentiality and non-competition agreements with all of our employees. None of our employees are covered by a collective bargaining agreement, and we consider relations with our employees to be good.

RISK FACTORS

THE RISKS AND UNCERTAINTIES DESCRIBED BELOW ARE THOSE THAT WE CURRENTLY BELIEVE MAY MATERIALLY AFFECT OUR COMPANY. ADDITIONAL RISKS AND UNCERTAINTIES THAT WE ARE UNAWARE OF OR THAT WE CURRENTLY DEEM IMMATERIAL ALSO MAY BECOME IMPORTANT FACTORS THAT AFFECT OUR COMPANY.

Risks Relating to Our Business

We and our partners may never succeed in developing marketable products or generating product revenues.

We are a biopharmaceutical company focused on the discovery and development of drugs to provide therapeutic intervention in treating human diseases at the cellular level. As with all science, we face much trial and error, and we may fail at numerous stages along the way, which would inhibit us from successfully developing, manufacturing and marketing our drug candidates. Although our lead product candidate, AP23573, is currently in Phase 2 clinical trials for certain cancers, we do not currently have any products on the market and have no product revenues. We are also dependent upon the success of our medical device partner(s) in developing, manufacturing and marketing stents or other medical devices to deliver AP23573 to reduce reblockage of injured arteries following stent-assisted angioplasty. We and our partners, including our partner(s) responsible for developing medical devices delivering AP23573, may not succeed in developing or commercializing any products which will generate product revenues for our company. Other than AP23573, we do not have any product candidates in clinical development, and we have not designated any clinical candidates from our existing preclinical programs. We do not expect to have any products on the market before 2007, and, ultimately, we and our partner(s) may not have any products on the market for several years, if at all. If our medical device partner is not successful and/or if we are not able to enter into agreements with additional medical device companies experienced in the development, manufacture, and marketing of medical devices to deliver AP23573, we will not be able to generate product revenues from the marketing of stents or other medical devices that deliver AP23573. If we are not successful in developing or marketing AP23573 or other product candidates, and if our medical device partner(s) are not successful in developing or marketing stents or other medical devices that deliver AP23573, we will not be profitable.

We have incurred significant losses to date and may never be profitable.

We have incurred significant operating losses in each year since our formation in 1991 and have an accumulated deficit of $191.6 million from our operations through December 31, 2004. Losses have resulted principally from costs incurred in research and development of our product candidates, including clinical development of AP23573, our lead product candidate, and from general and administrative costs associated with our operations. It is likely that we will incur significant operating losses for the foreseeable future. We currently have no product revenues, limited license revenues and limited commitments for future licensing revenues, and may not be able to generate such revenues in the future. If our losses continue and we and our partner(s) are unable to successfully develop, commercialize, manufacture and market our product candidates and/or we are unable to enter into agreements and licenses of our intellectual property, we may never generate sufficient revenues to achieve profitability. Even if we and our partner(s) are able to commercialize products and we are able to enter into agreements or licenses in the future, we may never generate sufficient revenues to have profitable operations.

We have limited experience in manufacturing of our product candidates, which raises uncertainty as to our ability to develop and commercialize our product candidates.

We have limited experience in manufacturing any of our product candidates on a large scale. Our ability to conduct clinical trials and commercialize our product candidates will depend, in part, on our ability to manufacture our products on a large scale, either directly or through third parties, at a competitive cost and

in accordance with current Good Manufacturing Practices ("cGMP") and other regulatory requirements. We depend on third-party manufacturers or collaborative partners for the production of our product candidates for preclinical studies and clinical trials and intend to use third-party manufacturers to produce any products we may eventually commercialize. If we are not able to obtain contract manufacturing on commercially reasonable terms, obtain or develop the necessary materials and technologies for manufacturing, or obtain intellectual property rights necessary for manufacturing, we may not be able to conduct or complete clinical trials or commercialize our product candidates. There can be no assurance that we will be able to obtain such requisite terms, materials, technologies and intellectual property necessary to successfully manufacture our product candidates for clinical trials or commercialization.

We are dependent upon the ability of our medical device partner(s) to develop, manufacture, test and market stents or other medical devices to deliver AP23573.

We have no experience in the development of medical devices and will not ourselves develop stents or other medical devices to deliver AP23573. Instead, we have granted one license, and may grant up to two additional licenses, under our rights to AP23573 to medical device companies for their use in developing and commercializing such medical devices to reduce blockage of injured vessels following stent-assisted angioplasty.

While we expect to supply AP23573 to our medical device partner(s), we will be otherwise dependent upon them to develop and commercialize stents or other medical devices to deliver AP23573. Such medical device partner(s) will have various degrees of scientific, technical, medical and regulatory experience and resources to, directly or through third parties, develop, manufacture, test or market stents or other medical devices to deliver AP23573. Their ability to conduct clinical trials and commercialize such medical devices will be dependent on the safety profile of AP23573 and our ability to manufacture and supply AP23573, either directly or through third parties, at a competitive cost and in accordance with cGMP and other regulatory requirements. We depend upon third-party manufacturers or collaborative partners for the production of AP23573 for clinical trials and intend to use third-party manufacturers to produce AP23573 on commercial scale. Our reliance on third-party manufacturers and their potential inability to meet our supply commitments to one or more of our medical device licensees could adversely impact the ability of our medical device partner(s) to commercialize stents or other medical devices to deliver AP23573.

We anticipate that our medical device partner(s) will seek to develop and commercialize stents or other medical devices to deliver AP23573 that do not infringe third-party patents. However, there can be no assurance that the devices delivering AP23573 marketed by our medical device partner(s) will not be subject to third-party claims. Furthermore, the patents issued to us or our medical device partner(s) covering AP23573 and/or medical devices, including stents, may be subject to challenge and may be subsequently narrowed, invalidated or circumvented. Either such event would adversely impact the ability of one or more of our medical device partner(s) to market their stents or other medical devices to deliver AP23573.

Our existing license agreement with our medical device partner allows either party to terminate under certain circumstances, including such partner's reasonable business judgment that development of a medical device to deliver AP23573 is not feasible. Accordingly, our medical device partner may be unable to develop a medical device to deliver AP23573 and we may also not be able to enter into any additional licensing agreements with any medical device company to develop such devices on terms which are acceptable to us, or at all. Our inability to enter into such transactions, or the inability of one or more of our medical device partner(s) to develop or commercialize stents or other medical devices to deliver AP23573 for any reason, will adversely impact our ability to generate revenues from any licenses of AP23573.

The loss of key members of our scientific and management staff could delay and may prevent the achievement of our research, development and business objectives.

Our performance as a specialized scientific business is substantially dependent on our key officers and members of our scientific staff responsible for areas such as drug development, clinical trials, regulatory affairs, drug discovery, manufacturing, marketing, business development and intellectual property protection and licensing. We also are dependent upon a few of our scientific advisors to assist in formulating our research and development strategy. While we have entered into employment agreements with all of our executive officers, these officers may not remain with us. The loss of, and failure to promptly replace, any member of our management team could significantly delay and may prevent the achievement of our research, development and business objectives.

Insufficient funding may jeopardize our research and development programs and may prevent commercialization of our products and technologies.

We have funded our operations to date through sales of equity securities, debt and operating revenue. Most of our operating revenue to date has been generated through previous collaborative research and development agreements and existing licenses. We currently do not have any committed funding from any pharmaceutical company to advance any of our product development programs. Although we believe that our current available funds will be adequate to satisfy our capital and operating requirements into the fourth quarter of 2006, we will require substantial additional funding for our research and development programs (including pre-clinical development and clinical trials), for operating expenses (including intellectual property protection and enforcement), for the pursuit of regulatory approvals and for establishing manufacturing, marketing and sales capabilities. We received net proceeds of $40 million from the sale of 5,060,000 shares of our common stock during fiscal 2004, we have an effective shelf registration statement on file with the Securities and Exchange Commission under which we can sell up to 1,940,000 shares of our common stock, and we anticipate filing in early 2005 a new shelf registration statement with the Securities and Exchange Commission under which we may register for sale additional shares of our common stock. To the extent such registration statements are effective, we may sell part or all of the shares eligible for sale under effective registration statements at our discretion, subject to certain limitations under federal securities laws and the rules of the Nasdaq National Market. While we intend to seek additional funding from product-based collaborations, technology licensing, and public or private financings, such additional funding may not be available on terms acceptable to us, or at all. Accordingly, we may not be able to secure the significant funding which is required to maintain and continue each of our research and development programs at their current levels or at levels that may be required in the future. If we cannot secure adequate financing, we may be required to delay, scale back, eliminate or terminate clinical trials and/or seeking marketing approval for AP23573 for one or more indications, to delay, scale back or eliminate one or more of our research and development programs, or to enter into license or other arrangements with third parties to purchase, commercialize or otherwise obtain rights in products or technologies that we would otherwise seek to develop ourselves.

We will continue to expend significant resources on the enforcement and licensing of our NF-κB patent portfolio and may be unable to generate material revenues from these efforts, if we are unable to enforce against, or license our NF-κB patents to, pharmaceutical and biotechnology companies.

We are the exclusive licensee of a family of patents, three in the U.S. and one in Europe, including a pioneering U.S. patent covering methods of treating human disease by regulating NF-κB cell-signaling activity (the "NF-κB '516 Patent"), awarded to a team of inventors from The Whitehead Institute for Biomedical Research, Massachusetts Institute of Technology and Harvard University. We have initiated a licensing program to generate revenues from the discovery, development, manufacture and sale of products covered by our NF-κB patent portfolio. These patents may be challenged and subsequently narrowed,

invalidated, or circumvented, any of which could materially impact our ability to generate licensing revenues from them.

On June 25, 2002, we, together with these academic institutions, filed a lawsuit in the United States District Court for the District of Massachusetts, or the U.S. District Court, against Eli Lilly and Company ("Lilly"), alleging infringement upon issuance of certain claims of the NF-κB '516 Patent (the "NF-κB '516 Claims") through sales of Lilly's osteoporosis drug, Evista®, and its septic shock drug, Xigris® (the "Lilly litigation"). As exclusive licensee of this patent, we are obligated for the costs expended for its enforcement in the Lilly litigation and otherwise. A trial date has not been set by the U.S. District Court in this case. Therefore, we will continue to expend, significant capital and management resources pursuing the Lilly litigation for an indeterminate period, and the outcome is uncertain. Several cases have been decided by the U.S. Court of Appeals and the Supreme Court addressing issues pertinent to the Lilly litigation since its inception. If the NF-κB '516 Claims are invalidated or found not to be infringed in the Lilly litigation, we will not realize any revenues on sales of Evista or Xigris, and could be liable under certain limited circumstances for Lilly's litigation costs and potentially attorneys' fees. Invalidation of the NF-κB '516 Claims would have a significant adverse impact on our ability to generate revenues from our NF-κB licensing program. Moreover, significant expenditures to enforce these patent rights without generating revenues or accessing additional capital could adversely impact our ability to further our clinical programs and our research and development programs at the current levels or at levels that may be required in the future.

Because we do not own all of the outstanding stock of our subsidiary, ARIAD Gene Therapeutics, Inc. ("AGTI"), we may not realize all of the potential future economic benefit from products developed based on technology licensed to or owned by our subsidiary.

Our majority-owned subsidiary, AGTI, holds licenses from Harvard University, Stanford University and other universities relating to our ARGENT cell-signaling regulation technology, and owns the intellectual property on our mTOR inhibitors derived from our ARGENT programs - including AP23573, which is in Phase 2 clinical trials for use in cancer and in development for use in drug-delivery stents and other medical devices, and our bone-targeted mTOR inhibitor program. The two directors of AGTI are also members of the Board of Directors of the Company. Minority stockholders of AGTI, including Harvard University, Stanford University, several of our scientific advisors, and several current and former members of our management and Board of Directors, own 20% of the issued and outstanding common stock of AGTI. We own the remaining 80% of the issued and outstanding common stock of AGTI.

We do not currently have a license agreement with AGTI that provides us with rights to commercialize product candidates, based on our ARGENT cell-signaling regulation technology or mTOR inhibitors derived from our ARGENT programs, solely for our own benefit, as opposed to for the benefit of AGTI. If we determine it to be in the best interests of our stockholders to commercialize these product candidates solely for our own benefit, we may negotiate with AGTI to obtain a license on terms to be determined granting us the sole rights to commercialize such product candidates. If we enter into such a license, the future economic benefit to our stockholders from our commercialization of such products, if any, will be diminished by any royalties or other payments paid under a future agreement with AGTI. If we do not enter into such a license, then the future economic benefit to our stockholders from our commercialization of such products on behalf of AGTI would be in the form of a dividend or other payments received in respect of our 80% interest in AGTI.

Alternatively, if we determine it to be in the best interests of our stockholders, we may seek to acquire some or all of the interests of the minority stockholders in AGTI for cash, shares of our common stock or other securities in a merger, exchange offer or other transaction. If we acquire all of the interests of the minority stockholders in AGTI, then our stockholders will receive all of the future economic benefit from our commercialization of such products on our own behalf. If we acquire these minority interests, we anticipate

that this transaction will result in dilution to our stockholders and will require our incurrence of significant transaction costs, which are currently unknown. On January 13, 2004, we acquired an additional 351,909 shares of AGTI common stock, representing approximately 6% of AGTI's outstanding common stock, for a total purchase price of approximately $8.8 million, effected through the reduction of intercompany debt, subject to adjustment in certain circumstances, in order to maintain our 80% interest in AGTI. While such valuation was based on a good-faith determination made by the independent members of our Board of Directors as of that date, the economic value of the minority stockholders' interests is difficult to quantify in the absence of a public market. If we acquire all of the interests of the minority stockholders in AGTI, a variety of valuation methodologies may be employed to determine the value per share of AGTI common stock. Factors impacting this valuation would include the progress, likelihood and cost of development and commercialization of product candidates, potential future income streams therefrom, availability of funding and other factors. If we acquire the minority interests for consideration valued in excess of the value implicitly attributed to such AGTI shares by the market, this could result in a decline in our stock price. If we choose to acquire some or all of these minority interests through a merger in which we do not solicit the consent of the minority stockholders of AGTI, we could become subject to litigation or an appraisal procedure, which would result in additional expense and diversion of management resources.

There can be no assurance that we will, at any time, enter into a license with AGTI or acquire some or all of the interests of the minority stockholders in AGTI. If we pursue either of these alternatives, there can be no assurance as to the timing of any such transaction, the form of such transaction, the particular transaction terms such as the form or amount of consideration offered or provided by us, or the consequences of any such proposed or completed transaction to us or the AGTI minority stockholders.

Because members of our management team and/or Board of Directors beneficially own a material percentage of the capital stock of our subsidiary, AGTI, and we have agreements with AGTI, there are conflicts of interest present in dealings between ARIAD and AGTI.

Four members of our management team and/or Board of Directors own approximately 5.6% of the outstanding capital stock of AGTI. Harvey J. Berger, M.D., our Chairman, and Chief Executive Officer, owns 3.2%, David L. Berstein, Esq., our Senior Vice President and Chief Patent Counsel, owns 0.2%, John D. Iuliucci, Ph.D., our Senior Vice President and Chief Development Officer, owns 0.6% and Jay R. LaMarche, one of our directors, owns 1.6%. These same individuals beneficially own an aggregate of approximately 5.5% of our outstanding common stock. Additionally, Dr. Berger and Mr. LaMarche are the two members comprising the Board of Directors of AGTI. As part of the formation of AGTI, we entered into certain agreements with AGTI to provide for the operations of AGTI. As a result, conflicts of interest exist in dealings between AGTI and us. AGTI is the exclusive licensee of the ARGENT cell-signaling intellectual property from Harvard University and Stanford University and of related technologies from other universities, and owns the intellectual property on our mTOR inhibitors derived from our ARGENT programs, including AP23573, which is in Phase 2 clinical trials for use in cancer and in development for use in drug delivery stents and other medical devices, and our bone-targeted mTOR inhibitor program. Because of the apparent conflicts of interest, the market may be more inclined to perceive the terms of any transaction between us and AGTI as being unfair to us.

We may not be able to protect our intellectual property relating to our research programs, technologies and products.

We and our licensors have issued patents and pending patent applications covering research methods useful in drug discovery, new chemical compounds discovered in our drug discovery programs, certain components, configurations and uses of our cell-signaling regulation technologies and products-in-development, methods and materials for manufacturing our products-in-development and other pharmaceutical products and methods and materials for conducting pharmaceutical research. We have an ongoing licensing program to generate revenues from the use of our ARGENT cell-signaling regulation

technologies and our NF-κB intellectual property. Pending patent applications may not issue as patents and may not issue in all countries in which we develop, manufacture or sell our products or in countries where others develop, manufacture and sell products using our technologies. In addition, patents issued to us or our licensors may be challenged and subsequently narrowed, invalidated or circumvented. In that event, such patents may not afford meaningful protection for our technologies or product candidates, which would materially impact our ability to develop and market our product candidates and to generate licensing revenues from our patent portfolio. Certain technologies utilized in our research and development programs are already in the public domain. Moreover, a number of our competitors have developed technologies, filed patent applications or obtained patents on technologies and compositions that are related to our business and may cover or conflict with our patent applications. Such conflicts could limit the scope of the patents that we may be able to obtain or may result in the denial of our patent applications. If a third party were to obtain intellectual proprietary protection for any of these technologies, we may be required to challenge such protections, terminate or modify our programs that rely on such technologies or obtain licenses for use of these technologies.

We may be unable to develop or commercialize our product candidates, if we are unable to obtain or maintain certain licenses on commercial terms or at all.

We have entered, and will continue to enter, into agreements, either directly or through AGTI, with third parties to test compounds, blood and tissue samples, which testing may yield new discoveries requiring us to obtain licenses in order to exclusively develop or market new products, alone or in combination with our product candidates, or to develop or market our product candidates for new indications. We have also entered into license agreements for some of our technologies, either directly or through AGTI. We use gene sequences or proteins encoded by those sequences and other biological materials in each of our research programs which are, or may become, patented by others and to which we would be required to obtain licenses in order to develop or market our product candidates. Our inability to obtain any one or more of these licenses, on commercially reasonable terms, or at all, or to circumvent the need for any such license, could cause significant delays and cost increases and materially affect our ability to develop and commercialize our product candidates. Obtaining licenses for these discoveries and technologies may require us to make cumulative royalty payments or other payments to several third parties, potentially reducing amounts paid to us or making the cost of our products commercially prohibitive. Manufacturing of our products may also require licensing technologies and intellectual property from third parties.

Some of our licenses obligate us to exercise diligence in pursuing the development of product candidates, to make specified milestone payments and to pay royalties. In some instances, we are responsible for the costs of filing and prosecuting patent applications. These licenses generally expire upon the earlier of a fixed term of years after the date of the license or the expiration of the applicable patents, but each license is also terminable by the other party upon default by us of our obligations. Our inability or failure to meet our diligence requirements or make any payments required under these licenses would result in a reversion to the licensor of the rights granted which, with respect to the licenses pursuant to which we have obtained exclusive rights, would materially and adversely affect our ability to develop and market products based on our licensed technologies.

Competing technologies may render some or all of our programs or future products noncompetitive or obsolete.

Many well-known pharmaceutical, healthcare and biotechnology companies, academic and research institutions and government agencies, which have substantially greater capital, research and development capabilities and experience than us or our potential partner(s), are presently engaged in one or more of the following activities:

- developing products based on cell signaling, genomics, proteomics, computational chemistry and protein and cellular therapies;

- conducting research and development programs for the treatment of each of the disease areas in which we are focused; and

- manufacturing, promoting, marketing and selling pharmaceutical or medical device products for treatment of diseases in all of the disease areas in which we or our partner(s) are focused.

Some of these entities already have competitive products on the market or product candidates in clinical trials or in more advanced preclinical studies than we do. By virtue of having or introducing competitive products on the market before us, these entities may gain a competitive advantage. Competing technologies may render some or all of our programs or future products noncompetitive or obsolete, and we may not be able to make the enhancements to our technology necessary to compete successfully with newly emerging technologies. If we are unable to successfully compete in our chosen markets, we will not become profitable.

If our product candidates are not accepted by patients, physicians and insurers, we will not be successful.

Our success is dependent on the acceptance of our product candidates. Our product candidates may not achieve significant market acceptance among patients, physicians or third-party payors, even if we obtain necessary regulatory and reimbursement approvals. Physicians and health care payors may conclude that any of our product candidates are not safe. Failure to achieve significant market acceptance of our product candidates will harm our business. We believe that recommendations by physicians and health care payors will be essential for market acceptance of any product candidates.

If we are unable to establish sales, marketing and distribution capabilities or to enter into agreements with third parties to do so, we may be unable to successfully market and sell any products.

We currently have no sales, marketing or distribution capabilities. If we are unable to establish sales, marketing or distribution capabilities either by developing our own sales, marketing and distribution organization or by entering into agreements with others, we may be unable to successfully sell any products that we are able to begin to commercialize. If we are unable to effectively sell our products, our ability to generate revenues will be harmed. We may not be able to hire, in a timely manner, the qualified sales and marketing personnel we need, if at all. In addition, we may not be able to enter into any marketing or distribution agreements on acceptable terms, if at all. If we cannot establish sales, marketing and distribution capabilities as we intend, either by developing our own capabilities or entering into agreements with third parties, sales of future products, if any, may be harmed.

If we develop a product for commercial use, a subsequent product liability-related claim or recall could have an adverse effect on our business.

Our business exposes us to potential product liability risks inherent in the testing, manufacturing and marketing of pharmaceutical products. Prior to obtaining regulatory approval to market our products, we are required to test such products in human clinical trials at health care institutions pursuant to agreements which indemnify such institutions in case of harm caused to patients by our products. We may not be able to avoid significant product liability exposure resulting from use of our products. A product liability-related claim or recall could be detrimental to our business. In addition, except for insurance covering product use in our clinical trials, we do not currently have any product liability insurance, and we may not be able to obtain or maintain such insurance on acceptable terms, or we may not be able to obtain any insurance to provide adequate coverage against potential liabilities. Our inability to obtain sufficient insurance coverage at an acceptable cost or otherwise to protect against potential product liability claims could prevent or limit the commercialization of any products that we develop.

Significant additional losses or insufficient funding may cause us to default on certain covenants of our loan documents.

At December 31, 2004, we had $9.6 million outstanding under a term loan agreement with a bank, pursuant to which we are required to maintain certain financial and non-financial covenants, including minimum cash, cash equivalents and investments of $13 million, a default of any of which would allow the bank to demand payment of its loan. We currently maintain sufficient liquidity to fund payment of this loan if demand for payment were made. However, if we are unable to raise adequate financing to fund continuing operations or otherwise to refinance our loan, we may not be able to maintain compliance with loan covenants, may be required to pay off the loan and may be required to reduce our spending on operations.

Risks Relating to Governmental Approvals

We have limited experience in conducting clinical trials, which may cause delays in commencing and completing clinical trials of our product candidates.

Clinical trials must meet FDA and foreign regulatory requirements. We have limited experience in designing, conducting and managing the preclinical studies and clinical trials necessary to obtain regulatory approval for our product candidates in any country. We or our medical device partner(s) may encounter problems in clinical trials that may cause us or the FDA or foreign regulatory agencies to delay, suspend or terminate our clinical trials at any phase. These problems could include the possibility that we may not be able to manufacture sufficient quantities of cGMP materials for use in our clinical trials, conduct clinical trials at our preferred sites, enroll a sufficient number of patients for our clinical trials at one or more sites or begin or successfully complete clinical trials in a timely fashion, if at all. Furthermore, we, the FDA or foreign regulatory agencies may suspend clinical trials of our product candidates at any time if we or they believe the subjects participating in the trials are being exposed to unacceptable health risks as a result of adverse events occurring in our trials or if we or they find deficiencies in the clinical trial process or conduct of the investigation. With respect to AP23573, the FDA or foreign regulatory agencies may also suspend our clinical trials if we or they believe the subjects participating in the trials are being exposed to unacceptable health risks as a result of adverse events occurring in the trials of medical devices delivering AP23573 sponsored by our medical device partner(s). If clinical trials of any of our product candidates fail, we will not be able to market the product candidate which is the subject of the failed clinical trials. The FDA and foreign regulatory agencies could also require additional clinical trials before or after granting of marketing approval for any of our products, which would result in increased costs and significant delays in the development and commercialization of our products and could result in the withdrawal of our products from the market after obtaining marketing approval. Our failure to adequately demonstrate the safety and efficacy of a product candidate in clinical development could delay or prevent obtaining marketing approval of the product candidate and, after obtaining marketing approval, could result in the product being withdrawn from the market, either of which would likely have a material adverse effect on our business.

We may not be able to obtain government regulatory approval for our product candidates prior to marketing.

To date, we have not submitted a marketing application for any product candidate to the FDA or any foreign regulatory agency, and none of our product candidates has been approved for commercialization in any country. Prior to commercialization, each product candidate would be subject to an extensive and lengthy governmental regulatory approval process in the United States and in other countries. We or our medical device partner(s) may not be able to obtain regulatory approval for any product candidates, or even if approval is obtained, the labeling for such products may place restrictions on their use that could materially impact the marketability and profitability of the product subject to such restrictions. We and our medical device partner(s) have limited experience in designing, conducting and managing the clinical testing necessary to obtain such regulatory approval. Satisfaction of these regulatory requirements, which includes

satisfying the FDA and foreign regulatory authorities that the product is both safe and effective for its intended uses, typically takes several years or more depending upon the type, complexity and novelty of the product and requires the expenditure of substantial resources. Furthermore, the regulatory requirements governing our product candidates are uncertain. Uncertainty with respect to the regulatory requirements for all of our product candidates may result in excessive costs or extensive delays in the regulatory approval process, adding to the already lengthy review process. If regulatory approval of a product is granted, such approval will be limited to those disease states and conditions for which the product is proven safe and effective, as demonstrated by clinical trials, and our products will be subject to ongoing regulatory reviews. Even if we obtain orphan drug designation by the FDA for one or more of our product candidates, this designation may be challenged by others or may prove to be of no practical benefit.

We will not be able to sell our product candidates, if we or our third-party manufacturers fail to comply with FDA manufacturing regulations.

Before we can begin to commercially manufacture our product candidates, we must either secure manufacturing in an approved manufacturing facility or obtain regulatory approval of our own manufacturing facility and processes. In addition, the manufacturing of our product candidates must comply with cGMP requirements of the FDA and requirements by regulatory agencies in other countries. These requirements govern, among other things, quality control and documentation procedures. We, or any third-party manufacturer of our product candidates, may not be able to comply with these requirements, which would prevent us from selling such products. Material changes to the manufacturing processes of our products after approvals have been granted are also subject to review and approval by the FDA or other regulatory agencies.

Even if we bring products to market, we may be unable to effectively price our products or obtain adequate reimbursement for sales of our products, which would prevent our products from becoming profitable.

If we succeed in bringing our product candidates to the market, they may not be considered cost-effective, and coverage and adequate payments may not be available or may not be sufficient to allow us to sell our products on a competitive basis. In both the United States and elsewhere, sales of medical products and treatments are dependent, in part, on the availability of reimbursement from third-party payors, such as health maintenance organizations and other private insurance plans and governmental programs such as Medicare. Third-party payors are increasingly challenging the prices charged for pharmaceutical products and services. Our business is affected by the efforts of government and third-party payors to contain or reduce the cost of health care through various means. In the United States, there have been and will continue to be a number of federal and state proposals to implement government controls on pricing. Similar government pricing controls exist in varying degrees in other countries. In addition, the emphasis on managed care in the United States has increased and will continue to increase the pressure on the pricing of pharmaceutical products. We cannot predict whether any legislative or regulatory proposals will be adopted or the effect these proposals or managed care efforts may have on our business.

Risks Relating to Our Common Stock

Results of our operations and general market conditions for biotechnology stocks could result in the sudden change in the value of our stock.

As a biopharmaceutical company, we have experienced significant volatility in our common stock. Fluctuations in our operating results and general market conditions for biotechnology stocks could have a significant impact on the volatility of our common stock price. In 2004, our stock price ranged from a high of $13.74 to a low of $3.70. Factors contributing to such volatility include: results and timing of preclinical studies and clinical trials; evidence of the safety or efficacy of pharmaceutical products; the results and timing of product development of stents or other medical devices to deliver AP23573 by our medical device

partner(s); announcements of new collaborations; announcements of new equity or debt financings; failure to enter into collaborations; our funding requirements; announcements of technological innovations or new therapeutic products; developments relating to intellectual property rights, including licensing and litigation, including our litigation with Eli Lilly and Company; governmental regulation; healthcare or cost-containment legislation; general market trends for the biotechnology industry and related high-technology industries; the impact of exchange rates for the U.S. Dollar; the impact of changing interest rates and policies of the Federal Reserve; and public policy pronouncements.

ITEM 2: PROPERTIES

We have leased approximately 100,000 square feet (approximately 34,000 square feet currently under sublease to a third party) of laboratory and office space at 26 Landsdowne Street, located at University Park at Massachusetts Institute of Technology in Cambridge, Massachusetts. The lease originally had a ten-year term, which ended in July of 2002, with two consecutive five-year renewal options. We have extended the lease for the first five-year option period through July of 2007. We believe that our currently leased facility will, in large part, be adequate for our research and development activities at least through the year 2007. We believe that any additional space we may require will be available on commercially reasonable terms.

ITEM 3: LEGAL PROCEEDINGS

NF-κB Patent Infringement Litigation

On June 25, 2002, we, together with Massachusetts Institute of Technology, The Whitehead Institute for Biomedical Research and Harvard University (collectively, the "Plaintiffs") filed a lawsuit in the United States District Court for the District of Massachusetts (the "U.S. District Court") against Eli Lilly and Company ("Lilly") alleging infringement upon issuance of certain claims of the Plaintiffs' U.S. patent covering methods of treating human disease by regulating NF-κB cell-signaling activity (the "NF-κB '516 Claims") through sales of Lilly's osteoporosis drug, Evista®, and Lilly's septic shock drug, Xigris®, and seeking monetary damages from Lilly.

On August 26, 2002, Lilly filed a motion to dismiss or, alternatively, for summary judgment ("Lilly's Combined Motion") challenging the validity of the NF-κB '516 Claims. On May 12, 2003, the U.S. District Court issued a Memorandum of Decision and Order denying Lilly's Combined Motion.

Lilly's Answer to Plaintiffs' Complaint and Counterclaims was filed with the U.S. District Court on May 27, 2003. On June 19, 2003, the Plaintiffs' Answer to Lilly's Answer and Counterclaims was filed and a trial scheduling conference pursuant to Rule 16(b) of the Federal Rules of Civil Procedure occurred in order for the case to proceed to the discovery phase leading to trial.

On August 13, 2003, the U.S. District Court denied a motion filed by Lilly on June 17, 2003 to disqualify the Plaintiffs' counsel from representing them with respect to the Plaintiffs' NF-κB patent portfolio. On May 24, 2004, the U.S. District Court made a ruling to resolve the terms of a protective order by denying the Company's request to allow its Chief Executive Officer access to Lilly's confidential technical documents. The U.S. District Court entered a protective order on July 14, 2004. On January 12, 2005, the U.S. District Court denied Plaintiff's motion to compel certain discovery, but also ruled that Lilly shall be limited in its presentation of evidence concerning the factual basis underlying Lilly's claims of invalidity of the NF-κB '516 Claims to certain matters already disclosed in the discovery process.

On March 3, 2004, a Memorandum Decision and Order was issued by the U.S. District Court, which defined certain patent claims, following a hearing held on January 13, 2004.

A trial date for this case remains to be set by the U.S. District Court. The ultimate outcome of the litigation cannot be determined at this time, and, as a result, an estimate of a damage award or range of awards, if any, cannot be made.

ITEM 4: SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

No matters were submitted to a vote of security holders during the quarter ended December 31, 2004.

PART II

ITEM 5: MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our common stock is traded on the Nasdaq National Market under the symbol "ARIA". The following table sets forth the high and low sales prices of our common stock as quoted on the Nasdaq National Market for the periods indicated.

2004:	High	Low
First Quarter	$ 11.32	$ 6.96
Second Quarter	13.74	6.75
Third Quarter	7.50	3.70
Fourth Quarter	7.63	5.25
2003:		
First Quarter	$ 2.75	$ 1.20
Second Quarter	4.84	1.25
Third Quarter	7.48	3.50
Fourth Quarter	8.80	6.00

On February 17, 2005, the last reported sale price of our common stock was $6.71.

Stockholders

The approximate number of holders of record of our common stock as of February 17, 2005 was 490, and the approximate total number of beneficial holders of our common stock as of February 17, 2005 was 25,000.

Dividends

We have not declared or paid dividends on our common stock in the past and do not intend to declare or pay such dividends in the foreseeable future. Our long-term debt agreement prohibits the payment of cash dividends.

Unregistered Sales of Securities

Not applicable.

Issuer Purchases of Equity Securities

Not applicable.

ITEM 6: SELECTED FINANCIAL DATA

The selected financial data set forth below as of December 31, 2004, 2003, 2002, 2001 and 2000 and for each of the years then ended have been derived from the audited consolidated financial statements of the Company, of which the financial statements as of December 31, 2004 and 2003 and for the years ended December 31, 2004, 2003 and 2002 are included elsewhere in this Annual Report on Form 10-K, and are qualified by reference to such financial statements. The information set forth below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the audited consolidated financial statements, and the notes thereto, and other financial information included herein.

	Years Ended December 31,				
In thousands, except share and per share data	2004	2003	2002	2001	2000
Consolidated Statements of Operations Data:					
Revenue	$ 742	$ 660	$ 67	$ 4	$ 128
Operating expenses:					
Research and development	27,711	14,889	23,018	16,587	12,467
General and administrative	9,442	5,547	5,718	4,469	3,318
Operating expenses	37,153	20,436	28,736	21,056	15,785
Loss from operations	(36,411)	(19,776)	(28,669)	(21,052)	(15,657)
Other income (expense):					
Interest income	1,110	353	615	1,578	2,050
Interest expense	(272)	(303)	(323)	(285)	(225)
Other income - tax refund			534		
Other income (expense), net	838	50	826	1,293	1,825
Net loss	$ (35,573)	$ (19,726)	$ (27,843)	$ (19,759)	$ (13,832)
Net loss per share	$ (0.69)	$ (0.51)	$ (0.86)	$ (0.68)	$ (0.53)
Weighted average number of shares of common stock outstanding	51,294,160	39,036,073	32,475,083	29,256,767	25,875,663

	As of December 31,				
In thousands	2004	2003	2002	2001	2000
Consolidated Balance Sheet Data:					
Cash, cash equivalents and marketable securities	$ 75,506	$ 66,740	$ 26,850	$ 47,186	$ 39,781
Working capital	68,874	61,587	21,126	43,249	37,165
Total assets	87,189	74,284	35,104	55,361	48,813
Long-term debt	7,655	6,575	5,437	6,847	3,700
Accumulated deficit	(191,616)	(156,043)	(136,317)	(108,474)	(88,715)
Stockholders' equity	67,440	59,326	21,852	43,093	40,851

ITEM 7: MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis in conjunction with "Selected Financial Data" and our consolidated financial statements and the related notes included elsewhere in this report.

Overview

We are engaged in the discovery and development of breakthrough medicines to treat disease by regulating cell signaling with small molecules. Breakthrough medicines are products, created *de novo,* that may be used to treat diseases in innovative ways. Our initial disease focus is cancer, and we are developing a comprehensive approach that addresses the greatest medical need - novel therapies for aggressive and advanced-stage disease for which current treatments are inadequate. In oncology, our goal is to create a series of novel small-molecule product candidates to provide targeted and highly potent anti-cancer activity to treat both solid tumors and hematologic cancers, as well as the spread of primary tumors to distant sites. Medinol Ltd. is also developing stents to deliver our lead cancer product candidate to prevent reblockage at sites of vascular injury following stent-assisted angioplasty. We also have an exclusive license to pioneering technology and patents related to certain NF-κB cell-signaling activity, which may be useful in treating certain diseases. Additionally, we have developed a proprietary portfolio of cell-signaling regulation technologies, our ARGENT technology, to control intracellular processes with small molecules, providing versatile tools for use in cell biology, functional genomics, proteomics and drug discovery research and useful in regulated protein and cell therapy.

Since our inception in 1991, we have devoted substantially all of our resources to our research and development programs. We receive no revenue from the sale of pharmaceutical products, and most of our revenue to date has been received in connection with our past relationship with Aventis Pharmaceuticals, Inc. ("Aventis"), which is now part of the Sanofi-Aventis Group. Except for the gain on the sale of our fifty percent interest in the Hoechst-ARIAD Genomics Center LLC to Aventis in December 1999, which resulted in net income for fiscal 1999, we have not been profitable since inception. We expect to incur substantial operating losses for the foreseeable future, primarily due to costs associated with our pharmaceutical product development programs, including costs for clinical trials and product manufacturing, personnel and our intellectual property. We expect that losses will fluctuate from quarter to quarter and that these fluctuations may be substantial. As of December 31, 2004, we had an accumulated deficit of $191.6 million and cash, cash equivalents and marketable securities of $75.5 million and working capital of $68.9 million.

General

Our operating losses are primarily due to the costs associated with our pharmaceutical product development programs, personnel and intellectual property. As our product development programs progress, we incur significant costs for toxicology and pharmacology studies, product development, manufacturing, clinical trials and regulatory support. These costs can vary significantly from quarter to quarter depending on the number of product candidates in development, the stage of development of each product candidate, the number of patients enrolled in and complexity of clinical trials and other factors. Costs associated with our intellectual property include legal fees and other costs to prosecute, maintain, protect and enforce our intellectual property, which can fluctuate from quarter to quarter depending on the status of patent issues being pursued.

Because we currently receive no revenue from the sale of pharmaceutical products and receive only limited license revenue, we have, most recently, relied primarily on the capital markets as our source of funding. We also utilize long-term debt to supplement our funding, particularly as a means to fund investment in property and equipment and infrastructure needs. In addition, we may seek funding from collaborations with pharmaceutical, biotechnology and/or medical device companies for development and commercialization of our product candidates. These collaborations may take the form of licensing

arrangements, co-development or joint venture arrangements or other structures. If funding from these various sources is unavailable on reasonable terms, we may be required to reduce our operating expenses in order to conserve cash and capital by delaying, scaling back or eliminating one or more of our product development programs.

Critical Accounting Policies and Estimates

Our financial position and results of operations are affected by subjective and complex judgments, particularly in the areas of deferred compensation benefits for executives and key employees, stock-based compensation to consultants, and the carrying value of intangible assets.

In determining expense related to the deferred executive compensation plan and stock-based compensation to consultants, recorded balances are adjusted at each reporting period to reflect fair value utilizing the Black-Scholes option pricing model that takes into account, among other things, the price and volatility of our common stock or other underlying securities, a risk-free discount rate, and an estimate of the life of the option contract. Fluctuations in those factors can result in uneven expense charges or credits to our statements of operations. If, for example, the market prices of the underlying securities in our executive deferred compensation plan were 10% higher at December 31, 2004, we would have recognized an additional $379,000 in compensation expense in 2004. Similarly, if the price and volatility of our common stock were 10% greater as of December 31, 2004, we would have recognized an increase of $5,000 in stock-based compensation to consultants in 2004.

At December 31, 2004, we reported $4.7 million of intangible assets consisting of capitalized costs related primarily to purchased and issued patents, patent applications and licenses, net of accumulated amortization. These costs are being amortized over the estimated useful lives of the underlying patents or licenses. Changes in these lives or a decision to discontinue using the technologies could result in material changes to our balance sheet and statements of operations. For example, during 2004 and 2003, we expensed $87,000 and $520,000, respectively, of unamortized costs related to certain intangible assets which we are not actively pursuing any longer. We have concluded that the carrying value of our remaining intangible assets is not currently impaired because such assets are utilized in our product development programs and/or continue to be viable technologies for collaborations or licensing efforts which we continue to pursue. If we were to abandon the underlying technologies or terminate our efforts to pursue collaborations or license agreements, we may be required to write off a portion of the carrying value of our intangible assets.

Results of Operations

Years Ended December 31, 2004 and 2003

Revenue

We recognized license revenue of $742,000 for the year ended December 31, 2004 compared to $660,000 for the year ended December 31, 2003. The increase in license revenue was due to license agreements into which we have entered during this period related to our NF-κB technology and our ARGENT cell-signaling regulation technology.

Operating Expenses

Research and Development Expenses

Research and development expenses increased by $12.8 million, or 86%, from $14.9 million in 2003 to $27.7 million in 2004. The research and development process necessary to commercialize a pharmaceutical product is subject to extensive regulation by numerous governmental authorities in the United States and

other countries. This process typically takes years to complete and requires the expenditure of substantial resources. Current requirements include:

- preclinical toxicology, pharmacology and metabolism studies, as well as in vivo efficacy studies in relevant animal models of disease;
- manufacturing of drug product for preclinical studies and clinical trials and ultimately for commercial supply;
- submission of the results of preclinical studies and information regarding manufacturing and control and proposed clinical protocol to the FDA in an IND (or similar filings with regulatory agencies outside the United States);
- conduct of clinical trials designed to provide data and information regarding the safety and efficacy of the product candidate in humans; and
- submission of all the results of testing to the FDA in an NDA (or similar filings with regulatory agencies outside the United States).

Upon approval by the appropriate regulatory authorities, including in some countries, approval of product pricing, we may commence commercial marketing and distribution of the product.

We group our research and development expenses into two major categories: direct external expenses and all other R&D expenses. Direct external expenses consist of costs of outside parties to conduct laboratory studies, to develop manufacturing processes and manufacture the product candidate, to conduct and manage clinical trials and similar costs related to our clinical and preclinical studies. These costs are accumulated and tracked by product candidate. All other R&D expenses consist of costs to compensate personnel, to purchase lab supplies and services, to maintain our facility, equipment and overhead and similar costs of our research and development efforts. These costs apply to work on our clinical and preclinical candidates as well as our discovery research efforts. These costs are not tracked by product candidate because the number of product candidates and projects in R&D may vary from time to time and because we utilize internal resources across multiple projects at the same time.

Our research and development expenses for 2004 as compared to 2003 were as follows:

	Year ended December 31,		Increase/
In thousands	2004	2003	(decrease)
Direct external expenses:			
Clinical programs	$ 11,542	$ 2,540	$ 9,002
Preclinical programs	3,494	1,246	2,248
All other R&D expenses	12,675	11,103	1,572
	$ 27,711	$ 14,889	$ 12,822

Direct external expenses are further categorized as costs for clinical programs and costs for preclinical programs. Preclinical programs include product candidates undergoing toxicology, pharmacology, metabolism and efficacy studies and manufacturing process development required before testing in humans can begin. Product candidates are designated as clinical programs once we have filed an IND with the FDA, or a similar filing with regulatory agencies outside the United States, for the purpose of commencing clinical trials in humans.

AP23573, our lead product candidate which is in Phase 2 clinical trials, was our only clinical program in 2004 and 2003. Direct external expenses for AP23573 increased by $9.0 million in 2004 versus 2003 due primarily to increases in clinical trial costs ($3.3 million) and manufacturing-related costs ($4.6 million). In

2004, we continued to manage our ongoing Phase 1 trials of AP23573, initiated additional Phase 1 trials and commenced enrollment of patients in Phase 2 trials. The increase in clinical trial costs is directly related to the initiation of trials, increased enrollment, the costs of evaluating enrolled patients, the costs of managing the trials, laboratory costs and the costs of compiling and analyzing results obtained in the trials. Manufacturing costs include product and process development work, as well as the costs to produce drug product. Manufacturing costs for AP23573 increased significantly in 2004 due to an increase in the quantities of drug product manufactured for the clinical trials and investments in manufacturing process development. Through December 31, 2004, we have incurred a total of approximately $14.1 million in direct external expenses for AP 23573 as a clinical program. We expect that our direct external costs for AP23573 will increase in 2005 as we continue to expand our clinical trials on this product candidate and incur the related costs of manufacturing and other costs to support such trials.

Preclinical programs consist primarily of our oncogenic kinase inhibitor program and our bone-targeted mTOR inhibitor program. Direct external expenses on preclinical programs will increase or decrease over time depending on the status and number of programs in this stage of development. Direct external expenses for preclinical programs increased by $2.2 million in 2004 as compared to 2003 due to pharmacology and toxicology studies conducted by outside contract laboratories, particularly in the first half of 2004, as well as product and process development efforts for these product candidates. We expect that our direct external expenses for preclinical programs will increase in 2005, as resources allow, as we strive to move preclinical candidates into clinical development.

All other R&D expenses increased by $1.6 million in 2004 as compared to 2003 due to higher personnel and related costs ($1.4 million) as a result of an increase in the number of personnel and salary adjustments, and miscellaneous increases in supplies, consulting fees, equipment maintenance costs and travel-related expenses in support of our research and development programs. Increases in these expenses were partially offset by decreases in write-offs of capitalized license and patent costs ($433,000) and termination or buy-out of equipment leases in 2003 ($229,000). We expect that all other R&D expenses will increase in 2005 in support of our clinical and preclinical development programs.

The successful development of our products is uncertain and subject to a number of risks. We cannot be certain that any of our product candidates will prove to be safe and effective or will meet all of the applicable regulatory requirements needed to receive and maintain marketing approval. Data from preclinical studies and clinical trials are susceptible to varying interpretations that could delay, limit or prevent regulatory clearance. We, the FDA or other regulatory authorities may suspend clinical trials at any time if we or they believe that the subjects participating in such trials are being exposed to unacceptable risks or if such regulatory agencies find deficiencies in the conduct of the trials or other problems with our products under development. Delays or rejections may be encountered based on additional governmental regulation, legislation, administrative action or changes in FDA or other regulatory policy during development or the review process. Other risks associated with our product development programs are described in Risk Factors. Due to these uncertainties, accurate and meaningful estimates of the ultimate cost to bring a product to market, the timing of completion of any of our programs and the period in which material net cash inflows from any of our programs will commence are unavailable.

General and Administrative Expenses

General and administrative expenses increased 70% to $9.4 million in 2004 from $5.5 million in 2003. Professional fees increased by $2.3 million to $4.2 million in 2004 as compared to $1.9 million in 2003 due primarily to costs related to our patent infringement litigation with Eli Lilly and Company ("Lilly") and to business development and other corporate initiatives, including compliance with the internal control requirements of the Sarbanes-Oxley Act of 2002. The increase in general and administrative expenses was also due to the awarding in January 2004 of restricted stock grants, in lieu of stock options, to our Chief Executive Officer and each of the other members of our Board of Directors. In 2004, we recorded an

expense of $1.3 million related to these awards. Other increases in general and administrative expenses included salary adjustments, the cost of awards under our deferred executive compensation plan, and miscellaneous increases in insurance, state taxes and travel-related expenses. We expect that our general and administrative expenses will increase in 2005 as necessary to support our research and development programs and to continue to comply with the provisions of the Sarbanes-Oxley Act of 2002.

We expect that our operating expenses in total will increase in 2005 for the reasons described above. Operating expenses may fluctuate from quarter to quarter. The actual amount of any increase in operating expenses will depend on the progress of our product development programs, including preclinical and clinical studies and product manufacturing, the status of our patent infringement litigation with Lilly and our ability to raise funding through equity offerings, partnerships, licensing, joint ventures or other sources.

Interest Income/Expense

Interest income increased by 214% to $1.1 million in 2004 from $353,000 in 2003, primarily as a result of a higher level of funds invested in 2004.

Interest expense decreased by 10% to $272,000 in 2004 from $303,000 in 2003, primarily as a result of lower average loan balances in 2004.

Operating Results

We reported a loss from operations of $36.4 million in 2004 compared to a loss from operations of $19.8 million in 2003, an increase in loss of $16.6 million, or 84%. We expect that our loss from operations will increase in 2005 due to the expected increases in research and development expenses and general and administrative expenses described above. Losses may fluctuate depending on the extent to which, if at all, we enter into collaborations or partner(s)hips for one or more of our product candidates or licenses for our technologies. The extent of operating losses will also depend on our ability to raise funds from other sources, such as the capital markets, which will influence the amount we will spend on research and development and the development timelines for our product candidates.

We reported a net loss of $35.6 million in 2004 compared to a net loss of $19.7 million in 2003, an increase in net loss of $15.9 million or 80%, and a net loss per share of $0.69 and $051, respectively.

Years Ended December 31, 2003 and 2002

Revenue

We recognized license revenue of $660,000 for the year ended December 31, 2003 compared to $67,000 for the year ended December 31, 2002. The increase in license revenue was due to license agreements into which we have entered during the period related to our NF-κB technology and our ARGENT cell-signaling regulation technology.

Operating expenses

Research and Development Expenses

Our research and development expenses for 2003 as compared to 2002 were as follows:

In thousands	Year ended December 31, 2003	2002	Increase/ (decrease)
Direct external expenses:			
Clinical programs	$ 2,540	$ 285	$ 2,255
Preclinical programs	1,246	9,460	(8,214)
All other R&D expenses	11,103	13,273	(2,170)
	$ 14,889	$ 23,018	$ (8,129)

Clinical programs consisted of AP23573, for which we filed an IND in the fourth quarter of 2002. Direct external expenses for this product candidate consisted of costs associated with initiating clinical trials and enrolling and studying patients in these trials.

Preclinical programs in 2003 and 2002 consisted primarily of our oncogenic kinase inhibitor program and our bone-targeted mTOR inhibitor program. Preclinical programs in 2002 also included the completion of the preclinical stage of development of AP23573. Direct external expenses for preclinical programs decreased by $8.2 million in 2003 versus 2002 due to the completion of preclinical studies related to AP23573 and due to our decision in early 2003 to focus our development efforts on our small-molecule product candidates to treat cancer. As a result, several other preclinical programs were scaled back in 2003.

All other R&D expenses decreased by $2.2 million in 2003 versus 2002 primarily due to reduced personnel expenses ($448,000) through a reduction in our workforce in March 2003, and related decreases in laboratory and general expenses ($754,000), reduced expenses related to equipment leases ($507,000) due to expiration or buy-out of most of such leases, and reduced amortization of leasehold improvements that have become fully amortized ($727,000).

General and Administrative Expenses

General and administrative expenses decreased 3% to $5.5 million in 2003 from $5.7 million in 2002. This $171,000 decrease was primarily due to decreases in consulting and other professional fees ($122,000) and reductions in overhead and other expenses ($257,000), as a result of efforts to conserve cash and capital, offset in part by increases in personnel costs ($268,000) related to additions of certain personnel and increased insurance costs ($101,000) reflective of general increases in premiums by insurance companies. General and administrative expenses included fees and expenses of outside legal counsel of $1.6 million in 2003 and $1.8 million in 2002 related to securities, employment, real estate, general corporate and litigation matters, more than half of which was incurred each year in connection with our litigation with Lilly.

Interest income/expense

Interest income decreased 43% to $353,000 in 2003 from $615,000 in 2002 primarily as a result of declining interest rates during the year and a lower level of funds invested. Interest expense decreased 6% to $303,000 in 2003 from $323,000 in 2002. This decrease was primarily due to a lower level of long-term debt outstanding and lower interest rates in 2003.

Operating results

We reported a loss from operations of $19.8 million in 2003 compared to a loss from operations of $28.7 million in 2002, a decrease in loss of $8.9 million, or 31%. This decrease in loss was attributable to

decreased operating expenses as a result of our decision to focus our research and development efforts on our cancer small-molecule product candidates.

We reported a net loss of $19.7 million in 2003 or $0.51 per share as compared to a net loss of $27.8 million in 2002 or $0.86 per share.

Selected Quarterly Financial Data

Summarized unaudited quarterly financial data are as follows:

In thousands, except per share amounts	2004 Quarters			
	First	Second	Third	Fourth
Total license revenue	$ 190	$ 188	$ 185	$ 179
Net loss	(6,235)	(9,245)	(9,379)	(10,714)
Net loss per share	(0.13)	(0.18)	(0.18)	(0.20)

	2003 Quarters			
	First	Second	Third	Fourth
Total license revenue	$ 126	$ 153	$ 190	$ 191
Net loss	(5,312)	(4,304)	(4,399)	(5,711)
Net loss per share	(0.15)	(0.12)	(0.11)	(0.13)

Liquidity and Capital Resources

We have financed our operations and investments primarily through sales of our common stock to institutional investors and, to a lesser extent, through issuances of our common stock pursuant to our stock option and employee stock purchase plans, supplemented by the issuance of long-term debt. We sell securities and incur debt when the terms of such transactions are deemed favorable to us and as necessary to fund our current and projected cash needs. We seek to balance the level of cash, cash equivalents and marketable securities on hand with our projected needs and to allow us to withstand periods of uncertainty relative to the availability of funding on favorable terms.

Sources of Funds

During the years ended December 31, 2004, 2003 and 2002, we raised funding from the following sources:

	Year ended December 31,		
In thousands	2004	2003	2002
Sales/issuances of common stock:			
To institutional investors	$ 40,001	$ 56,180	$ 5,635
Pursuant to stock option and employee stock purchase plans	2,382	964	999
Increase (decrease) in long term-debt, net	1,200	1,460	(1,375)
	$ 43,583	$ 58,604	$ 5,259

The amount of funding we raise through sales of our common stock depends on many factors, including, but not limited to, the status and progress of our product development programs, projected cash needs, availability of funding from other sources, our stock price and the status of the capital markets. During 2002, we raised net proceeds of $5.6 million in a private placement of our common stock. In 2003, with additional progress in the development of our product candidates and an increased focus on oncology, we successfully completed three private placements with institutional investors and realized net proceeds of

$56.2 million. In 2004, we completed an underwritten public offering of our common stock for net proceeds of $40.0 million. The following table details our sales of common stock to institutional investors in 2004, 2003 and 2002:

	Number of Shares	Net Cash Proceeds
		In thousands
2002		
November ($2.75 per share)	2,200,000	$ 5,635
2003		
May ($2.50 per share)	4,000,000	$ 9,338
October ($6.35 per share)	6,438,113	38,094
December ($8.00 per share)	1,175,375	8,748
	11,613,488	$ 56,180
2004		
March ($8.50 per share)	5,060,000	$ 40,001

We have filed shelf registration statements with the United States Securities and Exchange Commission ("SEC"), from time to time, to ensure that we have registered shares of our common stock available for sale, giving us the opportunity to raise funding when terms are favorable. On December 19, 2003, we filed a shelf registration statement with the SEC for the issuance of up to 7,000,000 shares of our common stock, which was declared effective on January 9, 2004. As of December 31, 2004, after selling 5,060,000 of these shares in our March 2004 offering, we have 1,940,000 shares available for issuance under this shelf registration. We anticipate filing in early 2005 a new shelf registration with the SEC under which we may register for sale additional shares of our common stock.

In March 2003, we entered into a term loan agreement with a bank for $7.5 million, the proceeds of which were used to repay existing long-term debt, to pay off our obligations under certain operating leases for equipment and for general working capital purposes. The loan is secured by all of our assets excluding intellectual property, which we have agreed not to pledge to any other party. The loan carries interest at the bank's prime rate or LIBOR plus 2%. We amended the terms of the loan on December 31, 2003 and December 31, 2004, receiving another $2.0 million and $3.0 million, respectively, in loan proceeds. The amended loan is payable in monthly installments of $160,000 plus interest beginning in January 2005 with a final payment of $3.5 million due in March 2008. The terms of the loan require us to maintain at least $13.0 million in unrestricted cash, cash equivalents and investments. The agreement also contains certain covenants that restrict additional indebtedness, additional liens, and sales of assets, and dividends, distributions or repurchases of common stock. The balance outstanding as of December 31, 2004 was $9,575,000.

Uses of Funds

The primary uses of our cash are to fund our operations and working capital requirements and, to a lesser degree, to invest in intellectual property and property and equipment as needed for our business. Our uses of cash during the years ended December 31, 2004, 2003 and 2002 were as follows:

	Year ended December 31,		
In thousands	2004	2003	2002
Net cash used in operating activities	$ 31,559	$ 18,014	$ 23,958
Investment in intangible assets	730	507	1,366
Investment in property and equipment	2,743	307	269
	$ 35,032	$ 18,828	$ 25,593

The net cash used in operating activities is comprised of our net losses and working capital requirements. As noted above, our net loss decreased in 2003 as we reduced our operating expenses to conserve cash and capital, and increased in 2004 due to the expansion of our clinical development program and related costs for AP23573 and continued investment in our preclinical programs. Also as noted above, we expect that our loss from operations will increase in 2005 due to continued progress in clinical and preclinical development of our small-molecule product candidates. As a consequence, we expect that our net cash used in operations will increase in 2005. We expect that our investment in intangible assets, which primarily consist of patents and licenses that make up our intellectual property portfolio, will increase in 2005. Our investment in property and equipment increased in 2004 as we commenced a renovation project to create more useable space in our facility and an upgrade to our information technology infrastructure. These projects will be completed in 2005. We expect that our investment in property and equipment will increase in 2005.

Contractual Obligations

We have substantial fixed contractual obligations under various research and licensing agreements, consulting and employment agreements, lease agreements and long-term debt instruments. These contractual obligations were comprised of the following as of December 31, 2004:

In thousands	Payments Due By Period				
	Total	In 2005	2006 through 2008	2009 through 2010	After 2010
Long-term debt *	$ 9,575	$ 1,920	$ 7,655	$	$
Operating leases	1,421	550	871		
Other long-term obligations **	7,136	3,593	2,948	230	365
	$ 18,132	$ 6,063	$ 11,474	$ 230	$ 365

* Long-term debt consists of scheduled principal payments on such debt. Interest on our long-term debt is based on variable interest rates. Assuming a constant interest rate of 4.31%, our average interest rate on our debt at December 31, 2004, over the remaining term of the debt, our interest expense would total approximately $375,000 in 2005 and $540,000 in the period 2006 through 2008.

** Other long-term obligations are comprised primarily of employment agreements and license agreements. The license agreements generally provide for payment by us of annual license fees, milestone payments and royalties upon successful commercialization of products. All license agreements are cancelable by us. The above table reflects remaining license fees for the lives of the agreements but excludes milestone and royalty payments, as such amounts are not probable or estimable at this time.

Liquidity

At December 31, 2004, we had cash, cash equivalents and marketable securities totaling $75.5 million and working capital of $68.9 million compared to cash, cash equivalents and marketable securities totaling $66.7 million and working capital of $61.6 million at December 31, 2003. Based on our current operating plans and our known and anticipated contractual obligations and assuming no further funding or potential revenues that may be generated from product partnering or licensing initiatives we are currently pursuing, we believe that our currently available funds will be adequate to satisfy our capital and operating requirements into the fourth quarter of 2006. However, there can be no assurance that changes in our research and development plans or other future events affecting our operating expenses will not result in the depletion of our funds at an earlier time.

We will require substantial additional funding for our research and development programs, for operating expenses, for the pursuit of regulatory approvals and for establishing manufacturing, marketing and sales capabilities. Adequate funds for these purposes, whether obtained through financial markets or other

arrangements with collaborative partner(s), or from other sources, may not be available when needed or on terms acceptable to us.

Recently Issued Accounting Pronouncements

In December 2004, the Financial Accounting Standards Board ("FASB") issued SFAS No. 123(R), Share-Based Payment, which revised SFAS No. 123 and superseded APB Opinion No.25, Accounting for Stock Issued to Employees. SFAS No. 123(R) requires that companies recognize compensation expense associated with grants of stock options and other equity instruments to employees in the financial statements, effective as of the first reporting period that begins after June 15, 2005. Compensation cost will be measured based on the fair value of the instrument on the grant date and will be recognized over the vesting period. This pronouncement applies to all grants after the effective date and to the unvested portion of stock options outstanding as of the effective date. SFAS No. 123(R) eliminates the ability to account for such transactions using the intrinsic method currently used by the Company. The Company will be required to adopt SFAS No. 123(R) as of July 1, 2005 and has not yet determined the impact of adoption on its consolidated financial statements. SFAS No. 123(R) also requires that companies recognize compensation expense associated with purchases of shares of common stock by employees at a discount to market value under employee stock purchase plans that meet certain criteria. The impact of this requirement on the Company's consolidated financial statements is not expected to be material.

ITEM 7A: QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We invest our available funds in accordance with our investment policy to preserve principal, maintain proper liquidity to meet operating needs and maximize yields. Our investment policy specifies credit quality standards for our investments and limits the amount of credit exposure to any single issue, issuer or type of investment.

We invest cash balances in excess of operating requirements first in short-term, highly liquid securities, with original maturities of 90 days or less, and money market accounts. Depending on our level of available funds and our expected cash requirements, we may invest a portion of our funds in marketable securities, consisting generally of corporate debt and U.S. government securities with maturities of three years or less, but not longer than the availability of our cash, cash equivalents and marketable securities to fund projected needs for such funds. These securities are classified as available-for-sale. Available-for-sale securities are recorded on the balance sheet at fair market value with unrealized gains or losses reported as a separate component of stockholders' equity (accumulated other comprehensive loss). Realized gains and losses on marketable security transactions are reported on the specific-identification method. Interest income is recognized when earned. A decline in the market value of any available-for-sale security below cost that is deemed other than temporary results in a charge to earnings and establishes a new cost basis for the security.

Our investments are sensitive to interest rate risk. We believe, however, that the effect, if any, of reasonable possible near-term changes in interest rates on our financial position, results of operations and cash flows generally would not be material due to the short-term nature of these investments. In particular, at December 31, 2004, because our available funds are invested solely in cash equivalents and short-term marketable securities with maturities less than 2 years, our risk of loss due to changes in interest rates is not material.

We have an executive compensation plan which provides participants, in lieu of a cash bonus, an option to purchase certain designated mutual funds at a discount. These deferred compensation arrangements are accounted for as derivatives under SFAS No. 133. The fair value of the derivatives is reflected as a liability on our balance sheet. As of December 31, 2004, in the event of a hypothetical 10% increase (decrease) in the fair market value of the underlying mutual funds, we would incur approximately $379,000 of additional (reduced) compensation expense.

At December 31, 2004, we have a bank term note which bears interest at prime or LIBOR +2%. This note is sensitive to changes in interest rates. In the event of a hypothetical 10% increase in the prime rate (52.25 basis points), we would incur approximately $45,000 of additional interest expense in 2005.

Certain Factors That May Affect Future Results of Operations

The SEC encourages companies to disclose forward-looking information so that investors can better understand a company's future prospects and make informed investment decisions. This Annual Report on Form 10-K contains such "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These statements may be made directly in this Annual Report, and they may also be made a part of this Annual Report by reference to other documents filed with the SEC, which is known as "incorporation by reference."

Such statements in connection with any discussion of future operating or financial performance may be identified by use of words such as "may," "anticipate," "estimate," "expect," "project," "intend," "plan," "believe," and other words and terms of similar meaning. Such statements are based on management's expectations and are subject to certain factors, risks and uncertainties that may cause actual results, outcome of events, timing and performance to differ materially from those expressed or implied by such forward-looking statements. These risks include, but are not limited to, risks and uncertainties regarding our ability to conduct preclinical and clinical studies of our product candidates and the results of such studies, regulatory oversight, intellectual property claims, the timing, scope, cost and outcome of legal proceedings, future capital needs, key employees, dependence on our collaborators and manufacturers, markets, economic conditions, products, services, prices, reimbursement rates, competition and other factors. Please also see the discussion under "Risk Factors" appearing elsewhere in this Annual Report for more details regarding these and other risks.

In light of these assumptions, risks and uncertainties, the results and events discussed in the forward-looking statements contained in this Annual Report or in any document incorporated by reference might not occur. Stockholders are cautioned not to place undue reliance on the forward-looking statements, which speak only of the date of this report or the date of the document incorporated by reference in this Annual Report. We are not under any obligation, and we expressly disclaim any obligation, to update or alter any forward-looking statements, whether as a result of new information, future events or otherwise. All subsequent forward-looking statements attributable to us or to any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section.

ITEM 8: FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of
ARIAD Pharmaceuticals, Inc.:

We have audited the accompanying consolidated balance sheets of ARIAD Pharmaceuticals, Inc. and subsidiaries (the "Company") as of December 31, 2004 and 2003, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2004. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of ARIAD Pharmaceuticals, Inc. and subsidiaries as of December 31, 2004 and 2003, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2004, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of the Company's internal control over financial reporting as of December 31, 2004, based on the criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 17, 2005 expressed an unqualified opinion on management's assessment of the effectiveness of the Company's internal control over financial reporting and an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

/s/ DELOITTE & TOUCHE LLP

Boston, Massachusetts
February 17, 2005

ARIAD PHARMACEUTICALS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

In thousands, except share and per share data	December 31, 2004	December 31, 2003
ASSETS		
Current assets:		
Cash and cash equivalents	$ 18,556	$ 51,674
Marketable securities	56,950	15,066
Inventory and other current assets	1,965	534
Total current assets	77,471	67,274
Property and equipment:		
Leasehold improvements	12,693	12,690
Equipment and furniture	6,525	5,927
Construction in progress	2,049	
Total	21,267	18,617
Less accumulated depreciation and amortization	(18,031)	(17,690)
Property and equipment, net	3,236	927
Intangible and other assets, net	6,482	6,083
Total assets	$ 87,189	$ 74,284
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 2,129	$ 754
Current portion of long-term debt	1,920	1,800
Accrued compensation and benefits	310	466
Accrued product development expenses	2,934	880
Other accrued expenses	591	1,045
Current portion of deferred revenue	713	742
Total current liabilities	8,597	5,687
Long-term debt	7,655	6,575
Deferred revenue	404	591
Deferred executive compensation	3,093	2,105
Commitments, contingent liabilities and minority interest (Notes 1, 6, 10)		
Stockholders' equity:		
Preferred stock, authorized, 10,000,000 shares, none issued and outstanding		
Common stock, $.001 par value, authorized, 145,000,000 shares, issued and outstanding, 52,688,673 shares in 2004, 46,817,032 shares in 2003	53	47
Additional paid-in capital	259,122	215,343
Deferred compensation	(58)	(22)
Accumulated other comprehensive income (loss)	(61)	1
Accumulated deficit	(191,616)	(156,043)
Total stockholders' equity	67,440	59,326
Total liabilities and stockholders' equity	$ 87,189	$ 74,284

See notes to consolidated financial statements.

ARIAD PHARMACEUTICALS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

In thousands, except share and per share data	Years Ended December 31, 2004	2003	2002
License revenue	$ 742	$ 660	$ 67
Operating expenses:			
Research and development	27,711	14,889	23,018
General and administrative	9,442	5,547	5,718
Operating expenses	37,153	20,436	28,736
Loss from operations	(36,411)	(19,776)	(28,669)
Other income (expense):			
Interest income	1,110	353	615
Interest expense	(272)	(303)	(323)
Other income - tax refund			534
Other income, net	838	50	826
Net loss	$ (35,573)	$ (19,726)	$ (27,843)
Net loss per share	$ (0.69)	$ (0.51)	$ (0.86)
Weighted average number of shares of common stock outstanding	51,294,160	39,036,073	32,475,083

See notes to consolidated financial statements.

ARIAD PHARMACEUTICALS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
For the Years Ended December 31, 2002, 2003 and 2004

In thousands, except share data	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Deferred Compensation	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Stockholders' Equity
Balance, December 31, 2001	32,146,774	$ 32	$ 151,638	$ (106)	$ 3	$ (108,474)	$ 43,093
Issuance of common stock, net of issuance costs	2,200,000	2	5,633				5,635
Issuance of shares pursuant to ARIAD stock plans	481,915	1	998				999
Stock-based compensation to consultants			(122)	122			
Amortization of stock-based compensation				(29)			(29)
Comprehensive loss:							
Net loss						(27,843)	(27,843)
Other comprehensive income (loss)							
Net unrealized losses on marketable securities					(3)		(3)
Comprehensive loss							(27,846)
Balance, December 31, 2002	34,828,689	35	158,147	(13)	--	(136,317)	21,852
Issuance of common stock, net of issuance costs	11,613,488	12	56,168				56,180
Issuance of shares pursuant to ARIAD stock plans	374,855		964				964
Stock-based compensation to consultants			64	(64)			
Amortization of stock-based compensation				55			55
Comprehensive loss:							
Net loss						(19,726)	(19,726)
Other comprehensive income (loss)							
Net unrealized gains on marketable securities					1		1
Comprehensive loss							(19,725)
Balance, December 31, 2003	46,817,032	47	215,343	(22)	1	(156,043)	59,326
Issuance of common stock, net of issuance costs	5,060,000	5	39,996				40,001
Issuance of shares pursuant to ARIAD stock plans	811,641	1	3,689				3,690
Stock-based compensation to consultants			94	(94)			
Amortization of stock-based compensation				58			58
Comprehensive loss:							
Net loss						(35,573)	(35,573)
Other comprehensive income (loss)							
Net unrealized losses on marketable securities					(62)		(62)
Comprehensive loss							(35,635)
Balance, December 31, 2004	52,688,673	$ 53	$ 259,122	$ (58)	$ (61)	$ (191,616)	$ 67,440

See notes to consolidated financial statements

ARIAD PHARMACEUTICALS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

In thousands	Years Ended December 31, 2004	2003	2002
Cash flows from operating activities:			
Net loss	$ (35,573)	$ (19,726)	$ (27,843)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	911	1,602	2,253
Stock-based compensation	1,366	55	(29)
Deferred executive compensation expense	800	444	205
Increase (decrease) from:			
Inventory and other current assets	(1,431)	313	163
Other assets	15	21	(135)
Accounts payable	1,376	(1,391)	640
Accrued compensation and benefits	(156)	67	51
Accrued product development expenses	2,054	(126)	(67)
Other accrued expenses	(454)	(265)	732
Deferred revenue	(216)	1,100	233
Deferred executive compensation paid	(251)	(108)	(161)
Net cash used in operating activities	(31,559)	(18,014)	(23,958)
Cash flows from investing activities:			
Acquisitions of marketable securities	(58,259)	(32,296)	
Proceeds from sales and maturities of marketable securities	16,590	17,344	442
Investment in property and equipment	(2,743)	(307)	(269)
Investment in intangible assets	(730)	(507)	(1,366)
Net cash used in investing activities	(45,142)	(15,766)	(1,193)
Cash flows from financing activities:			
Proceeds from long-term debt borrowings	3,000	9,500	77
Repayment of long-term debt borrowings	(1,800)	(8,040)	(1,452)
Proceeds from issuance of common stock, net of issuance costs	40,001	56,180	5,635
Proceeds from issuance of common stock pursuant to stock option and purchase plans	2,382	964	999
Net cash provided by financing activities	43,583	58,604	5,259
Net increase (decrease) in cash and cash equivalents	(33,118)	24,824	(19,892)
Cash and cash equivalents, beginning of year	51,674	26,850	46,742
Cash and cash equivalents, end of year	$ 18,556	$ 51,674	$ 26,850
Interest paid	$ 273	$ 256	$ 288

See notes to consolidated financial statements.

ARIAD PHARMACEUTICALS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENT

1. Nature of Business and Summary of Significant Accounting Policies

Nature of Business

The Company is engaged in the discovery and development of breakthrough medicines to treat disease by regulating cell signaling with small molecules. Breakthrough medicines are products, created *de novo,* that may be used to treat diseases in innovative ways. The Company's initial disease focus is cancer and it is developing a comprehensive approach that addresses the greatest medical need - novel therapies for aggressive and advanced-stage disease for which current treatments are inadequate. The Company's goal is to create a series of novel small-molecule product candidates that have been demonstrated to provide targeted and highly potent anti-cancer activity to treat both solid tumors and hematologic cancers, as well as the spread of primary tumors to distant sites. Medinol Ltd. is also developing stents to deliver the Company's lead product candidate to prevent reblockage of injured vessels following stent-assisted angioplasty. The Company has also developed a proprietary portfolio of cell-signaling regulation technologies, its ARGENT technology, to control intracellular processes with small molecules, providing versatile tools for application in cell biology, functional genomics, proteomics and drug discovery research and useful in regulated protein and cell therapy. Additionally, the Company has an exclusive license to pioneering technology and patents related to the discovery, development and use of drugs that regulate NF-κB cell-signaling activity, which may be useful in treating certain diseases.

Principles of Consolidation

The consolidated financial statements include the accounts of ARIAD Pharmaceuticals, Inc., its wholly-owned subsidiaries, ARIAD Corporation and ARIAD Pharma S.A., and its 80%-owned subsidiary ARIAD Gene Therapeutics, Inc. ("AGTI") (Note 7). The Company's research and development relating to product candidates based on its ARGENT cell-signaling regulation technology and its lead small molecule mTOR inhibitors for cancer derived from the ARGENT programs are conducted on behalf of AGTI. Intercompany accounts and transactions have been eliminated in consolidation. AGTI is a research and development company and its accumulated deficit exceeds its total paid-in capital at December 31, 2004. Because the Company funds all losses of AGTI and the minority interest holders of AGTI common stock are not obligated to fund such losses, no minority interest income/gain or asset is recorded in the Company's consolidated financial statements.

Fair Value of Financial Instruments

The carrying amounts of cash, cash equivalents, accounts payable and accrued liabilities approximate fair value because of their short-term nature. Marketable securities are recorded in the consolidated financial statements at aggregate fair value (Note 2). The carrying amount of the Company's bank term note of $9.6 million at December 31, 2004 approximates fair value due to its variable interest rate (Note 4). The Company's obligation under its executive compensation plan (Note 5) is based on the current fair market value of the underlying securities and is therefore stated at its estimated current fair value.

Accounting Estimates

The preparation of the consolidated financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts and disclosure of assets and liabilities at the date of the consolidated financial statements and the reported amounts and disclosure of revenue and expenses during the reporting period. Actual results could differ from those estimates.

Cash Equivalents

Cash equivalents include short-term, highly liquid investments, which consist principally of United States government securities and high-grade domestic corporate securities, purchased with remaining maturities of 90 days or less, and money market accounts.

Marketable Securities

The Company has classified its marketable securities as "available-for-sale" and, accordingly, carries such securities at aggregate fair value. The difference between fair value and original cost is reflected as a component of accumulated other comprehensive income (loss). Fair value has been determined based on quoted market prices, in a dealer market, at the closing bid for each individual security held.

Inventory

Inventory consists of bulk pharmaceutical material to be used for multiple development programs. Inventories are carried at cost using the first-in, first-out method and are charged to research and development expense when consumed. The carrying value of inventory amounted to $1.3 million and $181,000 at December 31, 2004 and 2003, respectively.

Property and Equipment

Property and equipment are recorded at cost. Depreciation is recorded using the straight-line method over the estimated useful lives of the assets (3 to 10 years). Leasehold improvements are amortized over the shorter of their useful lives or lease term using the straight-line method (4 to 10 years). Costs classified as construction in progress are accumulated and are not amortized or depreciated until placed in service.

Intangible and Other Assets

Intangible and other assets consist primarily of capitalized patent and license costs, deposits and the unvested portion of the fair value of outstanding grants under the Company's executive compensation plan (Note 5). The cost of purchased patents and patent applications, costs incurred in filing patents and certain license fees are capitalized. Capitalized costs related to issued patents are amortized over a period not to exceed seventeen years or the remaining life of the patent, whichever is shorter, using the straight-line method. Capitalized license fees are amortized over the periods to which they relate. In addition, capitalized costs are expensed when it becomes determinable that such patent applications or technology will not be pursued.

Impairment of Long-Lived Assets

The Company reviews its long-lived assets, including the above-mentioned intangible assets, for impairment when events or changes in circumstances indicate that the carrying amount of a long-lived asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net cash flows expected to be generated by the asset. If such

assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets.

Revenue Recognition

The Company recognizes revenue in accordance with the Securities and Exchange Commission ("SEC") Staff Accounting Bulletin ("SAB") No. 101, *Revenue Recognition in Financial Statements*, SAB No. 104, *Revenue Recognition*, and Emerging Issues Task Force ("EITF"), No. 00-21, *Accounting for Revenue Arrangements with Multiple Deliverables*. Revenue is principally comprised of license fees received under agreements that provide the licensee with access to and/or the right to review and evaluate certain technology owned or controlled by the Company. Upfront and annual license fees are recorded as deferred revenue upon receipt and recognized as revenue on a systematic basis over the period of time they are earned in accordance with the terms of the agreements. Such agreements may also include milestone and royalty payments. Such payments are recognized as revenue when earned in accordance with the terms of the related agreements.

Income Taxes

The Company accounts for income taxes in accordance with Statement of Financial Accounting Standard ("SFAS") No. 109, *Accounting for Income Taxes*, which requires an asset and liability approach to financial accounting and reporting for income taxes. Deferred income tax assets and liabilities are computed annually for differences between financial statement basis and the income tax basis of assets and liabilities that will result in taxable or deductible amounts in the future. Such deferred income tax computations are based on enacted tax laws and rates applicable to the years in which the differences are expected to affect taxable income. A valuation allowance is established when it is necessary to reduce deferred income tax assets to the expected realized amounts (Note 10).

Segment Reporting

The Company organizes itself into one segment reporting to the chief executive officer. No significant revenues from product sales or services occurred in 2004, 2003 or 2002.

Stock-Based Compensation

SFAS No. 123, *Accounting for Stock-Based Compensation*, addresses the financial accounting and reporting standards for stock or other equity-based compensation arrangements. The Company accounts for stock or other equity-based compensation for non-employees under the fair value-based method as required by SFAS No. 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. The unearned portion of these awards is classified as a component of stockholders' equity and is listed as "deferred compensation" on the consolidated balance sheet.

The Company uses the intrinsic value method to measure compensation expense associated with grants of stock options to employees. Since options are granted to employees with exercise prices equal to the fair market value of the Company's common stock on the date of grant, there was no expense included in the statement of operations for the years ended December 31, 2004, 2003 and 2002 related to employee stock options. On a *pro forma* basis, had the Company used the fair value method to measure compensation, the net loss and net loss per share would have been reported as follows:

In thousands (except per share data)	Years ended December 31, 2004	2003	2002
Net loss, as reported	$ (35,573)	$ (19,726)	$ (27,843)
Effect of stock options of valued at fair value	(4,026)	(3,564)	(4,239)
Pro forma net loss	$ (39,599)	$ (23,290)	$ (32,082)
Net loss per share, as reported	$ (0.69)	$ (0.51)	$ (0.86)
Effect of stock options if valued at fair market	(0.08)	(0.09)	(0.13)
Pro forma net loss per share	$ (0.77)	$ (0.60)	$ (0.99)

The above disclosure, required by SFAS No. 123, includes only the effect of grants made subsequent to January 1, 1996. For purposes of calculating the above disclosure, the fair value of options on their grant date was measured using the Black-Scholes option pricing model. Key assumptions used to apply this pricing model included a risk-free interest rate of 3.71% for 2004, 3.42% for 2003 and 3.0% for 2002, expected lives of the option grants ranging from one to six years and expected rates of volatility for the underlying stock of 112% for 2004, 115% for 2003 and 106% for 2002. Using this model, the weighted average fair value per option for all options granted to employees in 2004, 2003 and 2002 was $6.02, $2.88 and $4.01, respectively.

Earnings Per Share

Basic earnings per common share are computed using the weighted average number of common shares outstanding during each year. Diluted earnings per common share reflect the effect of the Company's outstanding options using the treasury stock method, except where such items would be anti-dilutive. In years in which a net loss is reported, basic and diluted per share amounts are the same. In 2004, 2003 and 2002, options amounting to 5,889,532, 5,647,839 and 5,392,311 shares of common stock, respectively, were not included in the computation of dilutive earnings per share, because the effect would be anti-dilutive. There were no warrants or convertible securities outstanding at December 31, 2004, 2003 or 2002.

Executive Compensation Plan

The Company maintains an executive compensation plan, which provides participants, in lieu of a cash bonus, an option to purchase certain designated mutual funds at a discount. EITF No. 02-8, *Accounting for Options Granted to Employees in Unrestricted, Publicly Traded Shares of an Unrelated Party*, and SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities* require that the Company account for such benefits as derivatives. Under these pronouncements, the Company records the fair value of the awards as an asset and a liability and amortizes the asset to expense over the vesting period of the awards. Subsequent changes in the fair value of the liability are included in the determination of net income or loss.

Recently Issued Accounting Pronouncements

In December 2004, the Financial Accounting Standards Board ("FASB") issued SFAS No. 123(R), *Share-Based Payment*, which revised SFAS No. 123 and superseded APB Opinion No.25, Accounting for Stock Issued to Employees. SFAS No. 123(R) requires that companies recognize compensation expense associated with grants of stock options and other equity instruments to employees in the financial statements, effective as of the first reporting period that begins after June 15, 2005. Compensation cost will be measured based on the fair value of the instrument on the grant date and will be recognized over the vesting period. This pronouncement applies to all grants after the effective date and to the unvested portion of stock options outstanding as of the effective date. SFAS No. 123(R) eliminates the ability to

account for such transactions using the intrinsic method currently used by the Company. The Company will be required to adopt SFAS No. 123(R) as of July 1, 2005 and has not yet determined the impact of adoption on its consolidated financial statements.

SFAS No. 123(R) also requires that companies recognize compensation expense associated with purchases of shares of common stock by employees at a discount to market value under employee stock purchase plans that meet certain criteria. The impact of this requirement on the Company's consolidated financial statements is not expected to be material.

2. Marketable Securities

The Company has classified its marketable securities as available-for-sale and, accordingly, carries such securities at aggregate fair value. At December 31, 2004 and 2003, all of the Company's marketable securities consisted of United States Treasury or agency securities.

At December 31, 2004, the aggregate fair value and amortized cost of the Company's marketable securities were $56,950,000 and $56,889,000, respectively. Gross unrealized gains and losses were $0 and $61,000, respectively, at December 31, 2004.

At December 31, 2003, the aggregate fair value and amortized cost of the Company's marketable securities were $15,066,000 and $15,065,000, respectively. Gross unrealized gains and losses were $1,000 and $0, respectively, at December 31, 2003.

Realized gains and losses on investment security transactions are reported on the specific-identification method. Realized gains and losses on sales of marketable securities were not material in 2004, 2003 and 2002. Changes in market values resulted in an increase (decrease) in net unrealized gains of ($62,000), $1,000, and ($3,000) in 2004, 2003 and 2002, respectively.

3. Intangible and Other Assets, Net

Intangible and other assets, net, were comprised of the following at December 31:

In thousands	2004	2003
Capitalized patent and license costs	$ 8,796	$ 8,122
Less accumulated amortization	(4,067)	(3,369)
	4,729	4,753
Unvested deferred executive compensation (Note 5)	1,690	1,251
Other	63	79
	$ 6,482	$ 6,083

Amortization expense for intangible assets amounted to $697,000, $692,000 and $548,000 in 2004, 2003 and 2002 respectively. In addition, the Company wrote-off capitalized patent and license costs of $87,000, $520,000 and $591,000 in 2004, 2003 and 2002, respectively, related to patent applications or technology no longer being pursued. The estimated future amortization expenses for capitalized patent and license costs are $724,000 for 2005, $662,000 for 2006, $647,000 for 2007, $393,000 for 2008 and $350,000 for 2009.

4. Long-Term Debt

Long-term debt was comprised of the following at December 31:

In thousands	2004	2003
Bank term note at prime rate or LIBOR +2% (average interest rate of 4.31% at December 31, 2004) payable in monthly installments of $160,000 plus interest, through March 2008	$ 9,575	$ 8,375
Less current portion	(1,920)	(1,800)
	$ 7,655	$ 6,575

In March 2003, the Company entered into a term loan agreement with a bank for $7.5 million, the proceeds of which were used to pay off then outstanding loans as well as remaining obligations under certain operating leases. Such repayments totaled $6.9 million in the aggregate. The loan is secured by a lien on all assets of the Company excluding intellectual property, which the Company has agreed not to pledge to any other party. This term loan agreement was amended on December 31, 2003 and on December 31, 2004 pursuant to which the Company received another $5.0 million in loan proceeds in the aggregate. The loan, as amended, is repayable in monthly installments of $160,000 plus interest with a balloon payment of $3.5 million in March 2008. The loan, as amended, requires the Company to maintain a minimum of $13.0 million in unrestricted cash, cash equivalents and investments. The agreement also contains certain covenants that restrict additional indebtedness, additional liens and sales of assets, and dividends, distributions or repurchases of common stock.

The annual aggregate future principal payments of the above loan, as amended, are $1.9 million in each of 2005, 2006 and 2007, and $3.8 million in 2007.

5. Executive Compensation Plan

Under the Company's deferred executive compensation plan, participants may be granted options to purchase shares of certain designated mutual funds at a discount equal to the amount of the award. The options vest ratably over four years. The Company recorded the fair value of awards in 2004, 2003 and 2002 of $1.0 million, $930,000 and $877,000, respectively. Total expense related to this plan amounted to $800,000, $444,000 and $205,000 in 2004, 2003 and 2002, respectively.

6. Leases, Licensed Technology and Other Commitments

Facility Lease

The Company conducts its operations in a 100,000 square foot office and laboratory facility under a non-cancelable operating lease. The original ten-year term of the lease expired in July 2002, and the Company has extended the lease for the first of two five-year extension periods. The Company currently subleases approximately 34,000 square feet of space to one tenant. Rent expense, net of sublease income of $1.4 million, $1.4 million and $1.1 million in 2004, 2003 and 2002 respectively, amounted to $509,000, $446,000 and $601,000 respectively. Future minimum annual rental payments through July 2007, the expiration of the first extension period, are $550,000 in each of 2005 and 2006 and $321,000 in 2007, which are net of expected sublease income of $1.1 million in each of 2005 and 2006 and $654,000 in 2007.

Licensed Technology

The Company and AGTI have entered into agreements with several universities under the terms of which the Company and/or AGTI have received exclusive licenses to technology and intellectual property. The

agreements, which are generally cancelable by the Company and/or AGTI, provide for the payment of license fees and/or minimum payments, which are generally creditable against future royalties. Fees paid by the Company on behalf of the Company and/or AGTI amounted to $238,000, $165,000 and $317,000 in 2004, 2003 and 2002, respectively, and are expected to amount to approximately $184,000 in 2005, $165,000 in 2006, and $115,000 annually in 2007 through 2009. In addition, the agreements provide for payments upon the achievement of certain milestones in product development. The agreements also require the Company to fund certain costs associated with the filing and prosecution of patent applications.

Other Commitments

The Company has entered into various employment agreements with twelve senior officers. The agreements provide for aggregate annual base salaries of $3.3 million and remaining terms of employment of up to three years.

7. Stockholders' Equity

Preferred Stock

The Company has authorized 10,000,000 shares of preferred stock which the Board of Directors is empowered to designate and issue in different series. At December 31, 2004, the Board of Directors had designated 500,000 shares as series A preferred stock, and 9,500,000 shares remained undesignated.

Common Stock

On May 19, 2003, the Company sold 4,000,000 registered shares of its common stock to institutional investors at a price of $2.50 per share and received gross proceeds of $10.0 million before commissions and expenses of $662,000. These shares were sold pursuant to previously filed shelf registration statements and under a related registration statement pursuant to SEC rules. No shares remain available for sale under those shelf registration statements.

On July 3, 2003, the Company filed a shelf registration statement with the SEC for the issuance of up to 7,500,000 shares of its common stock. On October 8, 2003, the Company sold 6,438,113 registered shares of its common stock, registered pursuant to this shelf registration, to institutional investors at a price of $6.35 per share and received gross proceeds of $40.9 million before commissions and expenses of $2.8 million. On December 3, 2003, the Company sold 1,175,375 registered shares of its common stock, including 113,489 shares registered under a related registration statement pursuant to SEC rules, to institutional investors at a price of $8.00 per share and received gross proceeds of $9.4 million before commissions and expenses of $652,000. Following this sale, no shares remain available for sale under this shelf registration.

On December 19, 2003, the Company filed a shelf registration statement with the SEC for the issuance of up to 7,000,000 shares of its common stock. This filing was declared effective on January 9, 2004. On March 29, 2004, the Company sold 5,060,000 of these registered shares in an underwritten public offering at a price of $8.50 per share for net proceeds of $40.0 million. As of December 31, 2004, the Company has 1,940,000 shares available for issuance under this shelf registration.

Stockholder Rights Plan

The Board of Directors of the Company adopted a Rights Agreement, dated as of June 8, 2000 (the "2000 Rights Agreement"), between the Company and State Street Bank and Trust Company, as Rights Agent, and approved the declaration of a dividend distribution of one Preferred Share Purchase Right (a "Right") on each outstanding share of its Common Stock. In general, the Rights become exercisable if a person or

group hereafter acquires 15% or more of the Common Stock of the Company or announces a tender offer for 15% or more of the Common Stock. The Board of Directors will, in general, be entitled to redeem the Rights at one cent per Right at any time before any such person hereafter acquires 15% or more of the outstanding Common Stock. The plan is designed to protect the Company's stockholders in the event that an attempt is made to acquire the Company without an offer of fair value.

If a person hereafter acquires 15% or more of the outstanding Common Stock of the Company (the "Acquiring Person"), each Right will entitle its holder to purchase, for an initial exercise price of $65, a number of shares of Common Stock having a market value at that time of twice the Right's exercise price. Rights held by the Acquiring Person will become void. If the Company is acquired in a merger or other business combination transaction after a person acquires 15% or more of the Company's Common Stock, each Right will entitle its holder to purchase, at the Right's then-current exercise price, a number of the acquiring company's common shares having a market value at that time of twice the Right's exercise price.

The dividend distribution of Rights was payable on July 19, 2000 to shareholders of record on June 19, 2000. The Rights will expire in ten years. The Rights distribution is not taxable to the Company's stockholders.

The Board of Directors also adopted two amendments to the Rights Agreement dated December 15, 1994, (the "1994 Rights Agreement"), between the Company and State Street Bank and Trust Company, as Rights Agent. As a result of these amendments, the adoption of the 2000 Rights Agreement and the setting of a record date to distribute new Rights, the 1994 Rights Agreement is no longer in effect.

Minority Interest in Subsidiary

At December 31, 2003, AGTI had 5,195,779 shares of its common stock outstanding. Of this amount, the Company owned 4,157,143 shares or 80%, which allows it to consolidate for tax purposes the results of operations of AGTI with those of the Company. On January 17, 2004, stock options for a total of 87,428 shares of AGTI common stock held by minority interest holders were exercised prior to their expiration on that date. In order to maintain its 80% ownership interest in AGTI, the Company acquired an additional 351,909 shares of AGTI common stock on January 13, 2004. The purchase price of such shares was approximately $8.8 million, effected through the reduction of intercompany debt representing the estimated fair value of such shares, subject to adjustment in certain circumstances.

After taking into account the above transactions, AGTI has a total of 5,635,116 shares of its common stock outstanding of which 80% are owned by ARIAD, 14% are owned by Stanford University, Harvard University, consultants and inventors, and 6% are owned by certain current members of the Company's management and Board of Directors. Approximately 75% of the shares of common stock owned by the minority interest holders are subject to restrictions on transfer and a right of first refusal held by AGTI to repurchase such shares of AGTI common stock before sale of such shares to another purchaser. There are currently no outstanding options to purchase AGTI common stock and no shares available for grant of additional options.

8. Stock Plans

ARIAD Stock Option and Stock Plans

The Company's 1991, 1994 and 2001 stock option and stock plans (the "Plans") provide for the awarding of nonqualified and incentive stock options and/or stock grants to officers, directors, employees and consultants of the Company. Stock options become exercisable as specified in the related option certificate, typically over a four-year period, and expire ten years from the date of grant. Stock grants provide the recipient with immediate ownership of common stock subject to any

rights the Company may have to repurchase the shares granted or other restrictions. The 1991 and 1994 Plans have expired according to their terms, although existing stock options granted under these Plans remain outstanding. As of December 31, 2004, there are 2,048,700 shares available for options or grants under the 2001 Plan.

Stock option transactions under the Plans for the years ended December 31, 2002, 2003 and 2004 are as follows:

		Number Of Shares	Weighted Average Exercise Price Per Share
Options outstanding, January 1, 2002		4,639,782	$ 4.47
Granted		1,341,300	4.01
Forfeited		(185,830)	5.37
Exercised		(402,941)	1.89
Options outstanding, December 31, 2002		5,392,311	4.51
Granted		781,220	3.90
Forfeited		(239,473)	5.16
Exercised		(286,219)	2.94
Options outstanding, December 31, 2003		5,647,839	4.48
Granted		1,192,150	6.02
Forfeited		(320,114)	6.17
Exercised		(630,343)	3.62
Options outstanding, December 31, 2004		5,889,532	$ 4.80
Options exercisable,	December 31, 2002	3,277,042	$ 3.95
	December 31, 2003	3,605,255	$ 4.27
	December 31, 2004	4,078,371	$ 4.65

In addition to the above stock option transactions, the Company awarded stock grants totaling 170,000 shares to its directors and chief executive officer in 2004. The stock grant to the chief executive officer was subject to the right of the Company to repurchase the shares in certain circumstances for a one-year period. The Company recognized expense of $1.3 million in 2004 related to these grants, equal to the fair market value of the common stock on the date of grant.

The following table sets forth information regarding options outstanding at December 31, 2004:

Range of Exercise Prices	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Life (years)	Number of Option Shares Currently Exercisable	Weighted Average Exercise Price for Currently Exercisable
$.75 - 1.25	393,146	$ 0.78	4.8	393,146	$ 0.78
1.34 - 2.31	710,470	1.60	5.3	552,217	1.63
2.68 - 4.88	2,261,941	4.14	6.2	1,845,067	4.10
4.89 - 8.00	2,197,475	5.95	7.8	965,691	6.08
12.56 - 14.63	326,500	13.38	5.5	322,250	13.42
	5,889,532	$ 4.80	6.5	4,078,371	$ 4.65

ARIAD Gene Therapeutics, Inc. Stock Option Plan

The Company's subsidiary, AGTI, adopted a stock option plan in 1993, substantially similar to the Plans, which has expired according to its terms. At December 31, 2003, there were 87,428 options outstanding all of which were exercised on January 17, 2004 for proceeds to AGTI of approximately $37,000 (Note 7). There were no other options exercised nor any options granted under this plan in 2004, 2003 or 2002. At December 31, 2004, there are no outstanding options to purchase AGTI common stock under this plan.

Employee Stock Purchase Plan

In 1997, the Company adopted the 1997 Employee Stock Purchase Plan and reserved 500,000 shares of common stock for issuance under this plan. Under this plan, substantially all of its employees may, through payroll withholdings, purchase shares of the Company's stock at a price of 85% of the lesser of the fair market value at the beginning or end of each three-month withholding period. In 2004, 2003 and 2002, 11,298, 88,636 and 78,974 shares of common stock were issued under the plan, respectively.

9. Other Income - Tax Refund

Other income consists of a tax refund of $534,000 received in 2002. In March 2002, the Job Creation and Worker Assistance Act of 2002 (the "Act") was signed into law. The Act allows taxpayers to carry back net operating losses incurred in 2001 and 2002 to the five prior tax years. Prior tax law limited the carry back to two years. In addition, the Act also suspended certain limitations on the utilization of Alternative Minimum Tax net operating losses. As a result of the Act, the Company was able to carry back a portion of its net loss for the year ended December 31, 2001 to recover taxes previously paid attributable to the sale of the Company's 50% interest in the Hoechst-ARIAD Genomics Center, LLC (the "Genomics Center") to Aventis Pharmaceuticals, Inc., now part of the Sanofi-Aventis Group, on December 31, 1999. As a result of the sale, the Company had recorded a net gain of $46.4 million, net of $534,000 in Alternative Minimum Tax, in 1999 in other income.

10. Income Taxes

At December 31, 2004, the Company had available, for federal tax reporting purposes, net operating loss carryforwards of approximately $194.7 million, which expire commencing in 2009 and, for state tax reporting purposes, net operating loss carryforwards of approximately $127.7 million, which expire commencing in 2005. The Company also had federal research and development credit carryovers of approximately $9.3 million, which expire commencing in 2006, and state research and development credit carryovers of $5.4 million, which expire commending in 2007. Both the net operating loss carryforwards and credits are subject to certain limitations under federal tax law.

The components of deferred income taxes were as follows at December 31:

In thousands	2004	2003
Deferred tax liabilities:		
Intangible and other assets	$ 1,891	$ 1,901
Deferred tax assets:		
Net operating loss carryforwards	73,863	58,903
Federal and State tax credit carryovers	14,804	13,055
Depreciation	3,489	3,627
Other	1,478	1,215
Total deferred tax assets	93,634	76,800
Deferred tax assets, net	91,742	74,900
Valuation allowance	(91,742)	(74,900)
Total deferred taxes	$ 0	$ 0

Since the Company has not yet achieved sustained profitable operations, management believes the tax benefits as of December 31, 2004 and 2003 do not satisfy the realization criteria set forth in SFAS No. 109 and has recorded a valuation allowance for the entire net deferred tax asset. The increase in the valuation allowance of $16.8 million in 2004 and $6.9 million in 2003 resulted primarily from net operating loss carryforwards and tax credit carryovers from operations in those years and that were not benefited.

11. Litigation

NF-κB Patent Infringement Litigation

On June 25, 2002, the Company, together with Massachusetts Institute of Technology, The Whitehead Institute for Biomedical Research and Harvard University (collectively, the "Plaintiffs") filed a lawsuit in the United States District Court for the District of Massachusetts (the "U.S. District Court") against Eli Lilly and Company ("Lilly") alleging infringement upon issuance of certain claims of the Plaintiffs' U.S. patent covering methods of treating human disease by regulating NF-κB cell-signaling activity ("the NF-κB '516 Claims") through sales of Lilly's osteoporosis drug, Evista®, and Lilly's septic shock drug, Xigris®, and seeking monetary damages from Lilly.

On August 26, 2002, Lilly filed a motion to dismiss or, alternatively, for summary judgment ("Lilly's Combined Motion") challenging the validity of the NF-κB '516 Claims. On May 12, 2003, the U.S. District Court issued a Memorandum of Decision and Order denying Lilly's Combined Motion.

Lilly's Answer to Plaintiffs' Complaint and Counterclaims was filed with the U.S. District Court on May 27, 2003. On June 19, 2003, the Plaintiffs' Answer to Lilly's Answer and Counterclaims was filed and a trial scheduling conference pursuant to Rule 16(b) of the Federal Rules of Civil Procedure occurred in order for the case to proceed to the discovery phase leading to trial.

On August 13, 2003, the U.S. District Court denied a motion filed by Lilly on June 17, 2003 to disqualify the Plaintiffs' counsel from representing them with respect to the Plaintiffs' NF-κB patent portfolio. On May 24, 2004, the U.S. District Court made a ruling to resolve the terms of a protective order by denying the Company's request to allow its Chief Executive Officer access to Lilly's confidential technical documents. The U.S. District Court entered a protective order on July 14, 2004. On January 12, 2005, the

U.S. District Court denied Plaintiff's motion to compel certain discovery, but also ruled that Lilly shall be limited in its presentation of evidence concerning the factual basis underlying Lilly's claims of invalidity of the NF-κB '516 Claims to certain matters already disclosed in the discovery process.

On March 3, 2004, a Memorandum Decision and Order was issued by the U.S. District Court which defined certain patent claims, following a hearing held on January 13, 2004.

A trial date for this case remains to be set by the U.S. District Court. The ultimate outcome of the litigation cannot be determined at this time, and, as a result, an estimate of a damage award or range of awards, if any, cannot be made.

12. Subsequent Event

On January 26, 2005, the Company and AGTI entered into non-exclusive license and supply agreements with Medinol Ltd. ("Medinol"), a cardiovascular medical device company, for the development and commercialization of stents and other medical devices to deliver the Company's mTOR inhibitor, AP23573, to prevent reblockage of injured vessels following stent-assisted angioplasty (collectively, the "Products").

Under the license agreement, the Company granted to Medinol a non-exclusive, world-wide, royalty-bearing license, under its patents and technology, to develop, manufacture and sell the Products. The license agreement allows Medinol to distribute Products worldwide through W.L. Gore and Associates or other distributors authorized by the Company. The term of the license agreement extends to the later to occur of the expiration of the Company's patents relating to the rights granted to Medinol under the license agreement or fifteen years after the first commercial sale of a Product. Medinol is required under the license agreement to use commercially reasonable efforts to develop the Products. The license agreement provides for the payment by Medinol to the Company of an upfront license fee, payments based on achievement of development, regulatory and commercial milestones and royalties based on commercial sale of the Products. The Company is required under the supply agreement to use commercially reasonable efforts to supply agreed-upon quantities of AP23573 to Medinol, and Medinol shall purchase such supply of AP23573 from the Company, for the development, manufacture and sale of the Products. The supply agreement is coterminous with the license agreement. These agreements may be terminated by either party for breach after a 90-day cure period. In addition, Medinol may terminate the agreements upon 30-day notice to ARIAD upon certain events, including if it determines, in its reasonable business judgment, that it is not in its business interest to continue the development of any Product, and ARIAD may terminate the agreements upon 30-day notice to Medinol, if it determines that it is not in its business interest to continue development and regulatory approval efforts with respect to AP23573.

ITEM 9: CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

ITEM 9A: CONTROLS AND PROCEDURES

(a) *Evaluation of Disclosure Controls and Procedures.* Our principal executive officer and principal financial officer, after evaluating the effectiveness of our disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) as of the end of the period covered by this Annual Report on Form 10-K, have concluded that, based on such evaluation, our disclosure controls and procedures were adequate and effective to ensure that material information relating to us, including our consolidated subsidiaries, was made known to them by others within those entities, particularly during the period in which this Annual Report on Form 10-K was being prepared.

In designing and evaluating our disclosure controls and procedures, our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and our management necessarily is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

(b) *Changes in Internal Controls.* There were no changes in our internal control over financial reporting, identified in connection with the evaluation of such internal control that occurred during our last fiscal quarter, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report On Internal Control Over Financial Reporting

The management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control system was designed to provide reasonable assurance to the Company's management and board of directors regarding the preparation and fair presentation of published financial statements. All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

The Company's management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2004. In making this assessment, it used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control-Integrated Framework. Based on our assessment we believe that, as of December 31, 2004, the Company's internal control over financial reporting is effective based on those criteria.

The Company's independent auditors have issued an audit report on our assessment of the Company's internal control over financial reporting. This report appears below.

Report Of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of
ARIAD Pharmaceuticals, Inc.:

We have audited management's assessment, included in the accompanying Management's Report on Internal Control Over Financial Reporting, that ARIAD Pharmaceuticals, Inc. and subsidiaries (the "Company") maintained effective internal control over financial reporting as of December 31, 2004, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on management's assessment and an opinion on the effectiveness of the Company's internal control over financial reporting based on our audit.

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

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3)

provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, management's assessment that the Company maintained effective internal control over financial reporting as of December 31, 2004, is fairly stated, in all material respects, based on the criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2004, based on the criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements as of and for the year ended December 31, 2004 of the Company and our report dated February 17, 2005 expressed an unqualified opinion on those financial statements.

/s/ DELOITTE & TOUCHE LLP

Boston, Massachusetts
February 17, 2005

ITEM 9B: OTHER INFORMATION

Not applicable.

PART III

ITEM 10: DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

Directors

The Board of Directors currently consists of nine members classified into three classes. At each Annual Meeting, the term for one class of directors expires, and directors are elected for a full term of three years to succeed the directors of such class. Sandford D. Smith, Jr., Jay R. LaMarche and Elizabeth H. S. Wyatt serve as Class 2 directors with a term to expire at the 2005 annual meeting of stockholders. Harvey J. Berger, Burton E. Sobel and Michael D. Kishbauch serve as Class 3 directors with a term to expire at the 2006 annual meeting of stockholders. Mary C. Tanner, Athanase Lavidas and Peter J. Nelson serve as Class 1 directors with a term to expire at the 2007 annual meeting of stockholders. Set forth below is certain biographical information for each of the directors.

Name	Age	Position
Harvey J. Berger, M.D.	54	Chairman of the Board of Directors, Chief Executive Officer and President
Sandford D. Smith	57	Vice Chairman of the Board of Directors
Michael D. Kishbauch	55	Director
Jay R. LaMarche	58	Director
Athanase Lavidas, Ph.D.	56	Director
Peter J. Nelson	47	Director
Burton E. Sobel, M.D.	67	Director
Mary C. Tanner	53	Director
Elizabeth H. S. Wyatt	57	Director

Harvey J. Berger, M.D., is our principal founder and has served as our Chairman of the Board and Chief Executive Officer since April 1991, and served as our President from April 1991 to September 2003 and from December 2004 to present. From 1986 to 1991, Dr. Berger held a series of senior management positions at Centocor, Inc., a biotechnology company, including Executive Vice President and President, Research and Development Division. He also has held senior academic and administrative appointments at Emory University, Yale University and the University of Pennsylvania and was an Established Investigator of the American Heart Association, Inc. Dr. Berger is a director of PTC Therapeutics, Inc., a closely held biotechnology company. Dr. Berger received his A.B. degree in Biology from Colgate University and his M.D. degree from Yale University School of Medicine and did further medical and research training at the Massachusetts General Hospital and Yale-New Haven Hospital.

Sandford D. Smith, one of our Directors since October 1991 and our Vice Chairman since January 1999, is Corporate Vice President and President, Genzyme Europe and International for Genzyme Corporation, a biotechnology company. From October 1997 to December 2000, he was President, Therapeutics International and from May 1996 to September 1996, Vice President and General Manager, Specialty Therapeutics and International Group for Genzyme. Mr. Smith was President and Chief Executive Officer and a Director of RepliGen Corporation, a biotechnology company, from 1986 to March 1996. Mr. Smith previously held a number of positions with Bristol-Myers Squibb Company from 1977 to 1986, including, most recently, Vice President of Corporate Development and Planning for the United States Pharmaceutical and Nutritional Group. Mr. Smith earned his B.A. degree from the University of Denver.

Michael D. Kishbauch, one of our directors since September 2004, has been President and Chief Executive Officer of Achillion Pharmaceuticals, Inc. since July 2004. Previously, Mr. Kishbauch was President and

Chief Executive Officer of OraPharma, Inc., a biotechnology company, from 1996 until 2003 when it was acquired by Johnson and Johnson. Subsequently, from 2003 to 2004, he was President of the OraPharma division of Johnson and Johnson. From 1992 to 1995, he held various senior management positions at MedImmune, Inc., a biotechnology company, as President and Chief Operating Officer and Executive Vice President, Operations. From 1987 to 1992, Mr. Kishbauch was Vice President, Product Planning and Promotion of the Pharmaceuticals Division of Ciba-Geigy Corporation, and from 1982 to 1987, he was Executive Director of Product Management. Mr. Kishbauch earned his M.B.A. from the Wharton School at the University of Pennsylvania and his B.A. degree in Biology from Wesleyan University.

Jay R. LaMarche, one of our Directors since January 1992, has served as a financial advisor since November 2000. Previously, he served as our Chief Financial Officer and Treasurer from January 1992 to November 2000 and as our Executive Vice President from March 1997 to November 2000. Mr. LaMarche was our Senior Vice President, Finance from January 1992 to February 1997. Prior to joining us, he was Chief Financial Officer and a Director of ChemDesign Corporation, a fine chemicals manufacturer. Previously, Mr. LaMarche was a partner with Deloitte Haskins & Sells, a public accounting firm. Mr. LaMarche received his B.B.A. degree in Public Accountancy from the University of Notre Dame and served as an officer in the United States Navy.

Athanase Lavidas, Ph.D., one of our Directors since September 2003, is the Chairman and Chief Executive Officer of Lavipharm Group in Greece, a position he has held since 1976. Dr. Lavidas is also Chairman of the Greece - U.S. Business Council and the Hellenic Entrepreneurs Association, and a member of the board of directors of the Federation of Greek Industries. He received his BS and MS degrees from the University of Munich, his M.B.A. from the Institut Superior de Marketing et Management in Paris, and his Ph.D. from the University of Athens.

Peter J. Nelson, one of our Directors since November 2004, is Co-Chief Executive Officer of National Beverage Properties, Inc., a private real estate investment firm. Previously, from 1997 to 2004, he was senior vice president-operations, chief financial officer, and treasurer of Alexandria Real Estate Equities, Inc., a NYSE real estate investment trust principally providing scientific research space to life science entities and biotechnology companies. He currently continues to serve as corporate secretary of Alexandria Real Estate Equities, Inc. Previously, from 1995 to 1997, Mr. Nelson was chief financial officer of Lennar Partners, Inc. (nka LNR Property Corporation). From 1986 to 1995, he also held senior management positions at Public Storage, Inc. and Westrec Properties, Inc. From 1980 to 1986, Mr. Nelson was an audit manager at Ernst & Young, LLP. Mr. Nelson received his B.S. degree from California State University, Northridge and is a certified public accountant.

Burton E. Sobel, M.D., one of our Directors since June 2002, is E.L. Amidon Professor, Physician-in-Chief, and Professor of Biochemistry at the University of Vermont and has been a trustee of Fletcher Allen Health Care Center, in Burlington, Vermont. Previously, he held senior academic and administrative positions at Washington University School of Medicine, from 1973 to 1994, and at the University of California, San Diego, from 1968 to 1973. Dr. Sobel completed postgraduate training at the Peter Bent Brigham Hospital, Boston and the National Institutes of Health, Bethesda and received his M.D. from Harvard University and his A.B. from Cornell University.

Mary C. Tanner, one of our Directors since September 2003, is founder and Managing Director of Life Sciences Partners, a healthcare investment and advisory firm. Previously, from 2001 to 2004, she was Senior Managing Director at Bear, Stearns & Co. Inc., a financial services company. Prior to Bear, Stearns, Ms. Tanner was a healthcare consultant from 2000 to 2001 and held various positions at Lehman Brothers Inc., a financial services company, including Managing Director and head of the health care practice, from 1984 to 2000. She was the first woman managing director at Lehman Brothers. Ms. Tanner received her B.A. degree from Harvard University.

Elizabeth H. S. Wyatt, one of our Directors since June 2002, held various senior management positions over a period of twenty years at Merck & Co., Inc., most recently, from 1992 to 2000, as Vice President, Corporate Licensing. She also served in leadership positions in corporate licensing from 1980 to 1992 at Merck. Previously, she held academic and administrative positions at Harvard Business School, Doyle Dane Bernbach, and Boston College. Ms. Wyatt is a director of MedImmune, Inc., a biopharmaceutical company and Neose Technologies, Inc., a biopharmaceutical company. She received her M.B.A. from Harvard Business School, her M.Ed. in education from Boston University, and her B.A. from Sweet Briar College, Virginia.

Director Compensation

Members of our Board of Directors, other than Dr. Berger, (the "non-employee directors"), receive grants of common stock or stock options under our 2001 Stock Plan to compensate them for service on the Board of Directors for the coming year. In January 2004, we granted 10,000 shares of our common stock under our 2001 Stock Plan to Mr. Smith, Mr. LaMarche, Dr. Lavidas, Dr. Sobel, Ms. Tanner and Ms. Wyatt. In addition, on December 8, 2004, we granted 25,000 stock options with an exercise price per share of $6.33 to each of Messrs. Kishbauch and Nelson in connection with their appointments to the Board of Directors of the Company. These options vest as to one-third of the shares on each of the first three anniversary dates of the date of grant. Non-employee directors do not receive any cash compensation for service on the Board of Directors or its committees.

Compensation Committee Interlocks and Insider Participation

During the fiscal year ended December 31, 2004, Drs. Sobel and Lavidas and Messrs. Smith and Kishbauch served as members of our Compensation Committee. In 2004, none of our executive officers served on the Board of Directors or Compensation Committee of any entity that had one or more executive officers serving as a member of our Board of Directors or Compensation Committee. There is no family relationship between or among the members of our Board of Directors or executive officers.

Audit Committee

The current members of the Audit Committee are Messrs. Nelson and Kishbauch and Ms. Wyatt. The Board of Directors has determined that Mr. Nelson is an "audit committee financial expert" in accordance with the rules of the SEC. The functions of the Audit Committee include selecting, evaluating and replacing, if needed, our independent public accountants; approving all audit and non-audit services and fees related thereto; reviewing, in consultation with our management and independent public accountants, the scope and results of the interim reviews and the annual audit of our financial statements included in our quarterly and annual reports filed with the SEC; and overseeing and monitoring the processes and controls management has in place to maintain the reliability and integrity of our accounting policies and financial reporting process, to ensure the adequacy of internal accounting, financial reporting and disclosure controls and to comply with legal and regulatory requirements that may impact our financial reporting and disclosure obligations. The Board of Directors has adopted a written charter for the Audit Committee, amended as of June 23, 2004.

Executive Officers and Key Employees

The following table sets forth certain information regarding our executive officers and key employees:

Name	Age	Position
Harvey J. Berger, M.D.	54	Chairman of the Board of Directors, Chief Executive Officer and President
Laurie A. Allen, Esq..	44	Senior Vice President, Chief Legal Officer, and Secretary
David L. Berstein, Esq..	52	Senior Vice President and Chief Patent Counsel
Timothy P. Clackson, Ph.D	39	Senior Vice President, Chief Scientific Officer
Edward M. Fitzgerald	50	Senior Vice President, Chief Financial Officer and Treasurer
John D. Iuliucci, Ph.D	62	Senior Vice President, Chief Development Officer
Thomas A. Pearson	63	Senior Vice President, Corporate Strategy
Tomi K. Sawyer, Ph.D.	50	Senior Vice President, Drug Discovery
Camille L. Bedrosian, M.D	52	Vice President and Chief Medical Officer
Joseph Bratica	41	Vice President, Finance and Controller
David C. Dalgarno, Ph.D.	46	Vice President, Development Sciences
Maryann G. Krane	45	Vice President, Regulatory Affairs

For biographical information on Dr. Berger, see "Board of Directors" above in this report.

Laurie A. Allen, Esq. has served as our Senior Vice President and Chief Legal Officer since March 2002 and has served continuously as our Secretary since January 1999. Previously, from January 1999 to December 1999, she served as our Senior Vice President, Corporate Development and Legal Affairs and General Counsel. From January 2000 to March 2002, Ms. Allen was Senior Vice President, Business Development and Legal Affairs at Alexandria Real Estate Equities, Inc., a real estate investment trust. Previously, she was a partner with the law firm of Brobeck, Phleger & Harrison, LLP from January 1996 to December 1998. She also was an associate with Brobeck, Phleger & Harrison, LLP from February 1991 to December 1995. Ms. Allen received her A.B. degree in History from the University of California, Los Angeles, her L.L.M. degree in taxation from New York University and her J.D. degree from Emory University School of Law.

David L. Berstein, Esq. has served as our Senior Vice President and Chief Patent Counsel since June 2000. Previously, he served as our Vice President and Chief Patent Counsel from September 1993 to June 2000. Prior to joining us, from 1990 through 1993, Mr. Berstein was Patent Counsel at BASF Bioresearch Corporation, a biotechnology company, where he was responsible for intellectual property matters, including patents and licensing. From 1985 to 1990, Mr. Berstein was a patent attorney at Genetics Institute, Inc., a biotechnology company, where he was involved in various aspects of the patent process from patent procurement through litigation. Mr. Berstein joined Genetics Institute from the law firm of Cooper & Dunham LLP. Mr. Berstein received his B.S. degree from the University of Michigan and his J.D. degree from Fordham University School of Law.

Timothy P. Clackson, Ph.D. has served as our Senior Vice President and Chief Scientific Officer since September 2003. Previously, he served as our Senior Vice President, Science and Technology from June 2002 to September 2003, as our Vice President, Gene Therapy and Genomics from June 2000 to June 2002, as our Director, Gene Therapy from August 1999 to June 2000 and as our Department Head, Gene Therapy Biology from March 1999 to August 1999. Prior to joining us in December 1994, Dr. Clackson

was a postdoctoral fellow at Genentech, Inc., a biotechnology company from 1991 to 1994, where he studied the molecular basis for human growth hormone function. Dr. Clackson received his B.A. degree in Biochemistry from the University of Oxford. Dr. Clackson received his Ph.D. in Biology from the University of Cambridge, for research conducted at the MRC Laboratory of Molecular Biology into antibody engineering and the development of phage display technology.

Edward M. Fitzgerald has served as our Senior Vice President, Chief Financial Officer and Treasurer since May 2002. From 1998 to April 2002, he served as Senior Vice President, Chief Financial Officer and Secretary at AltaRex Corp., a biotechnology company. From 1992 to 1997, Mr. Fitzgerald held various management positions at BankBoston Corp., a financial services and commercial banking company. From 1989 to 1992, he was a partner at Arthur Andersen & Co. in the audit and business advisory practice. Previously, from 1978 to 1988, he also was at Arthur Andersen & Co. Mr. Fitzgerald received his B.S. degree in accounting and M.B.A. degree in finance from Babson College.

John D. Iuliucci, Ph.D. has served as our Senior Vice President and Chief Development Officer since September 2003. Previously, he served as our Senior Vice President, Drug Development from January 1999 to September 2003, as our Vice President, Drug Development from October 1996 to December 1998 and as our Vice President, Preclinical Development from June 1992 to September 1996. Prior to joining us, Dr. Iuliucci was Director of Preclinical Pharmacology and Toxicology at Centocor, Inc., a biotechnology company, from 1984 to 1992. From 1975 to 1984, Dr. Iuliucci headed the Drug Safety Evaluation Department at Adria Laboratories, a pharmaceutical company. He was a Senior Toxicologist at the Warner-Lambert Pharmaceutical Research Institute from 1972 to 1975. Dr. Iuliucci received his B.S. degree in Pharmacy and M.S. and Ph.D. degrees in Pharmacology from Temple University.

Thomas A. Pearson has served as our Senior Vice President, Corporate Strategy since October 2004. Previously, he served as our Senior Vice President, Corporate Strategy and Communications from June 2002 to October 2004, as our Senior Advisor, Corporate Communications and Planning from January 2001 to June 2002, and as our corporate communications consultant from 1992 to January 2001. Mr. Pearson was an independent business consultant from 1983 to 1992, specializing in biotechnology and high-technology companies. Previously, Mr. Pearson held various management positions in the television stations division of CBS, an entertainment and broadcasting company. Mr. Pearson received his B.A. degree in liberal arts from Wheaton College.

Tomi K. Sawyer, Ph.D. has served as our Senior Vice President, Drug Discovery since September 2003. Previously, he served as our Vice President, Drug Discovery from January 1999 to September 2003 and as our Director, Drug Discovery - Signal Transduction from October 1997 to December 1998. From July 1993 to September 1997, he was Head and Associate Research Fellow, Structure-Based Design and Chemistry at Parke-Davis Pharmaceutical Research, a Division of Warner-Lambert Company, a pharmaceutical company, and Section Director, Peptide and Peptidomimetic Chemistry at Parke-Davis from July 1991 to July 1993. Dr. Sawyer received his B.S. degree in Chemistry from Moorhead State University and his Ph.D. degree in Organic Chemistry from the University of Arizona.

Camille L. Bedrosian, M.D. has served as our Vice President and Chief Medical Officer since September 2002. From 1997 to 2002, Dr. Bedrosian served in the Clinical Research and Development Department of Wyeth/Genetics Institute, Inc., most recently as Senior Director, Oncology/Hematology. From 1986 to 1997, she was a Fellow, an Associate, and then Assistant Professor of Medicine in the Division of Hematology and Oncology at Duke University Medical Center and the Duke Comprehensive Cancer Center. Dr. Bedrosian received her B.A. degree from Harvard University/Radcliffe College in Chemistry, her M.S. in Biophysics from M.I.T., and her M.D. from Harvard Medical School.

Joseph Bratica has served as our Vice President, Finance and Controller since January 2005. Previously, he served as our Director of Finance and Controller from January 1999 to January 2005, as our Assistant

Controller from January 1997 to December 1998 and as our Accounting Manager from August 1994 to December 1996. Prior to joining us, he was Accounting Manager at Creative BioMolecules, Inc., a biotechnology company, from 1992 to 1994. Mr. Bratica received his B.A. degree in Accounting from Suffolk University.

David C. Dalgarno, Ph.D. has served as our Vice President, Research Technologies since September 2004. Previously, he served as our Vice President, Development Sciences from September 2003 to August 2004, as our Vice President, Physical and Chemical Sciences from November 1999 to September 2003, as our Director, Physical and Chemical Sciences from September 1998 to November 1999 and as our Director, Spectroscopy from October 1996 to August 1998. Prior to joining us in March 1992, Dr. Dalgarno was a scientist at Schering-Plough Corp. focusing on protein structure determination by nuclear magnetic resonance. Dr. Dalgarno received his B.A. and Ph.D. degrees in Chemistry from the University of Oxford. He received his postdoctoral training in Molecular Biophysics and Biochemistry at Yale University.

Maryann G. Krane has served as our Vice President, Regulatory Affairs since May 2001. From September 2000 to May 2001, she served as Senior Director, Regulatory Affairs and Quality Assurance at AVANT Immunotherapeutics, Inc., a biotechnology company. From 1986 to 1992 and from 1993 to 2000, Ms. Krane held various positions in regulatory affairs and research at Genetics Institute, Inc., currently a unit of American Home Products Corporation, a diversified healthcare company. Most recently, she was Head, Regulatory Affairs, Global Development of Hemophilia and Oncology Products at Genetics Institute. From August 1992 to April 1993, she was Manager, Regulatory Affairs at Genzyme Corporation, a biotechnology company. Ms. Krane received her B.S. degree in Microbiology from the University of Massachusetts at Amherst, MA.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934 requires our directors and officers, and persons who own more than 10% of our common stock, to file with the Securities and Exchange Commission (the "SEC") initial reports of beneficial ownership and reports of changes in beneficial ownership of the common stock and our other equity securities. Officers, directors and greater than 10% beneficial owners are required by SEC regulation to furnish us with copies of all Section 16(a) forms they file.

To our knowledge, based solely on review of the copies of such reports furnished to us and written representations that no other reports were required, during the fiscal year ended December 31, 2004, all Section 16(a) filing requirements applicable to our officers, directors and greater than 10% beneficial owners were complied with, except the following:

- an Initial Statement of Beneficial Ownership of Securities on Form 3 for our director Michael D. Kishbauch, which was required to be filed on October 3, 2004, was filed on December 10, 2004; and
- an Initial Statement of Beneficial Ownership of Securities on Form 3 for our director Peter J. Nelson, which was required to be filed on November 11, 2004, was filed on December 10, 2004;

Corporate Code of Conduct & Ethics

We have adopted a Corporate Code of Conduct and Ethics that applies to all of our employees, including our chief executive officer and chief financial officer. A copy of the corporate Code of Conduct and Ethics is publicly available on the Investor Relations section of our website at www.ariad.com. Disclosure regarding any amendment to, or waivers from, provisions of our Corporate Code of Conduct and Ethics will be included in a Current Report of Form 8-K within four business days following the date of the amendment or waiver, unless website posting of such amendments or waivers is permitted by the rules of Nasdaq.

ITEM 11: EXECUTIVE COMPENSATION

Summary Compensation

The following table sets forth aggregate amounts of compensation paid or accrued by us for the years ended December 31, 2004, 2003 and 2002 for services rendered in all capacities, by our Chief Executive Officer and the four next-most highly compensated executive officers who earned more than $100,000 during the fiscal year ended December 31, 2004 (the "named executive officers").

Summary Compensation Table

		Annual Compensation		Long-Term Compensation		
Name and Principal Position	Year	Base Salary	Bonus (1)	Restricted Stock Awards (2)	Securities Underlying Options	All Other Compensation (3)
Harvey J. Berger, M.D.	2004	$ 480,000	$ -0-	$769,000	150,000	$ 6,000
Chairman, President, and	2003	455,000	-0-	-0-	-0-	5,870
Chief Executive Officer	2002	433,000	-0-	-0-	150,000	5,297
Laurie A. Allen, Esq.	2004	$ 265,000	$ 90,000	$ -0-	50,000	$ 2,242
Senior Vice President, Chief	2003	245,000	85,000	-0-	33,000	-0-
Legal Officer and Secretary	2002	177,404	-0-	-0-	100,000	-0-
Camille L. Bedrosian, M.D.	2004	$ 260,000	$ 95,000	$ -0-	70,000	$ 5,757
Vice President and	2003	242,000	75,000	-0-	30,000	5,204
Chief Medical Officer	2002	38,333	-0-	-0-	60,000	354
David L. Berstein, Esq.	2004	$ 275,000	$ 90,000	$ -0-	70,000	$ 5,662
Senior Vice President and	2003	259,000	85,000	-0-	33,000	13,557
Chief Patent Counsel	2002	242,000	70,000	-0-	50,000	6,621
John D. Iuliucci, Ph.D.	2004	$ 275,000	$ 90,000	$ -0-	55,000	$ 8,006
Senior Vice President, Chief	2003	260,000	85,000	-0-	40,500	14,432
Development Officer	2002	242,000	70,000	-0-	70,000	7,210

(1) The amounts listed are for bonuses awarded and deferred under our 1997 Executive Compensation Plan, a non-qualified, unfunded, deferred compensation plan.

(2) The restricted stock award to Mr. Berger consists of 100,000 shares of our common stock granted on January 15, 2004 valued at $7.69, the closing sale price of our common stock on the date of grant. These shares vested in full on January 15, 2005. As of December 31, 2004, Mr. Berger held a total of 100,000 shares of restricted stock with a value of $743,000, based on the closing sale price of our common stock on December 31, 2004.

(3) The amounts listed for each year consist of our matching contributions of up to $6,000 per year under our 401(k) plan and, in the case of Dr. Bedrosian, Mr. Berstein, and Dr. Iuliucci, include the aggregate difference between the fair market value and the purchase cost of common stock purchased under our 1997 Employee Stock Purchase Plan. Dr. Berger is not eligible to participate in our Employee Stock Purchase Plan.

Option Grants in Last Fiscal Year

The following table sets forth information regarding each stock option granted during the fiscal year ended December 31, 2004 to each of the named executive officers.

	Individual Grants				Potential Realizable Value at Assumed Annual Rates of Stock Price Appreciation for Option Term (2)	
Name	Number of Shares Underlying Options Granted (1)	Percent of Total Options Granted to Employees in Fiscal Year	Exercise Price (per share)	Expiration Date	5%	10%
Harvey J. Berger, M.D.	150,000 (3)	12.6%	$5.23	9/09/14	$493,368	$1,250,291
Laurie A. Allen, Esq.	50,000 (4)	4.2%	$5.23	9/09/14	$164,456	$416,764
Camille L. Bedrosian, M.D.	70,000 (4)	5.9%	$5.23	9/09/14	$230,238	$583,469
David L. Berstein, Esq.	20,000 (5)	1.7%	$7.44	6/23/14	$ 93,580	$237,149
	50,000 (4)	4.2%	$5.23	9/09/14	$164,456	$416,764
John D. Iuliucci, Ph.D.	55,000 (4)	4.6%	$5.23	9/09/14	$180,902	$458,440

(1) Options to purchase shares of our common stock under the 2001 Stock Plan.
(2) These amounts, based on assumed annual appreciation rates of 5% and 10% as prescribed by the rules of the SEC, are for illustration purposes only and are not intended to forecast possible future appreciation, if any, of our stock price. Actual gains, if any, on stock option exercises will depend on the future performance of our common stock, the option holder's continued employment with us through the option exercise period and the date on which the option is exercised.
(3) Options vest 100% on the third anniversary date of the award.
(4) Options vest 50% on the second anniversary date of the award, and 25% on each of the third and fourth anniversary dates of the award.
(5) Options are fully vested on the date of the award.

Aggregated Option Exercises in Last Fiscal Year and Fiscal Year-End Option Values

The following table provides information regarding the exercise of options by each of the named executive officers during the fiscal year ended December 31, 2004. In addition, this table includes the number of shares covered by both exercisable and unexercisable stock options as of December 31, 2004 and the values of "in-the-money" options, which values represent the positive spread between the exercise price of any such option and either the actual or estimated fair market value of the underlying security, as applicable.

Name	Shares Acquired on Exercise(#)	Value Realized (9)	No. of Shares Underlying Unexercised Options at Fiscal Year-End Exercisable/Unexercisable	Value of Unexercised In-the Money Options At Fiscal Year-End Exercisable/Unexercisable
Harvey J. Berger, M.D.	0 (1)	0 (3)	660,250/243,750 (5)	$2,597,248/625,313 (7)
	1,402 (2)	$15,464 (4)	0/0 (6)	$0/0 (8)
Laurie A. Allen, Esq.	0 (1)	0 (3)	195,000/100,000 (5)	$908,859/259,500 (7)
Camille L. Bedrosian, M.D.	0 (1)	0 (3)	60,000/100,000 (5)	$264,300/312,400 (7)
David L. Berstein, Esq.	90,571 (1)	$269,045 (3)	166,000/90,000 (5)	$302,526/217,700 (7)
	112 (2)	$ 1,235 (4)	0/0 (6)	$0/0 (8)
John D. Iuliucci, Ph.D.	20,000 (1)	$106,200 (3)	280,750/93,750 (5)	$1,192,260/226,475 (7)
	280 (2)	$3,088 (4)	0/0 (6)	$0/0 (8)

(1) Shares of our common stock acquired on exercise of options.
(2) Shares of common stock of our subsidiary, AGTI, acquired on exercise of options.
(3) Based upon the fair market value of our common stock on the date of exercise, if any, less the exercise price.
(4) Based upon the estimated fair value of the common stock of AGTI, for which there is no public market, less the exercise price.
(5) Options to purchase shares of our common stock.
(6) Options to purchase common stock of our subsidiary, AGTI.
(7) Based upon a fair market value of $7.43 per share of common stock, which was the closing price of a share of our common stock on the Nasdaq National Market on December 31, 2004, less the per share exercise price.
(8) Based upon an estimated value of the common stock of AGTI, for which there was no public market on December 31, 2004, less the per share exercise price.
(9) Amounts shown in this column do not necessarily represent actual value realized from the sale of the shares acquired upon exercise of the option because in many cases the shares are not sold on exercise but continue to be held by the executive officer exercising the option. The amounts shown represent the difference between the option exercise price and the market price on the date of exercise, which is the amount that would have been realized if the shares had been sold immediately upon exercise.

Employment Agreements, Termination of Employment and Change-in-Control Arrangements

Dr. Berger, our Chairman of the Board of Directors and Chief Executive Officer, has an employment agreement with us which commenced in January 1992 and terminates in December 2007. Dr. Berger's employment agreement is automatically renewable for successive three-year terms unless terminated by either party. The agreement provides that he shall be employed as our Chief Executive Officer, shall be nominated for election to our Board of Directors, serve as Chairman of the Board and receive an annual base salary during 2004 of $480,000, increasing each year by at least 10% of the preceding year's base salary, although he has not received such increments in each year of the term, including 2004. Dr. Berger is eligible each year to receive a discretionary bonus, determined by the Board of Directors, of up to 50% of his annual base salary, although he has not received such cash bonuses in prior years, including in 2004. If we fail to renew the employment agreement, we are obligated to pay Dr. Berger, in addition to his compensation for the remainder of the term, a lump sum payment equal to two times Dr. Berger's annual salary for the final year of the term and to provide for the immediate vesting and exercisability of all stock options and other equity rights.

Dr. Berger's employment agreement provides that, if the agreement is terminated by either party upon the occurrence of certain events, including (i) our sale or merger (or stockholder approval of a merger agreement) or an acquisition of a substantial equity interest in us by a person or group of persons, (ii) if Dr. Berger is not elected to membership on our Board of Directors and named as Chairman or designated as Chief Executive Officer or ceases to be our highest ranking executive officer or ceases to control personnel decisions with respect to our employees, (iii) if we are in material breach of the terms of his employment agreement, (iv) if we are bankrupt or insolvent or (v) if we terminate Dr. Berger's employment agreement without cause, (1) we will pay Dr. Berger the greater of (x) any remaining salary payable during the term of the agreement plus the maximum possible bonus for each year remaining in the term (taking into account, in both cases, obligated 10% increases in salary) and (y) an amount equal to twice his current annual salary and maximum bonus for the current year of employment (the "Severance Payment") and (2) all of his stock options, stock grants and similar equity rights will immediately vest and become exercisable. We are not obligated to make the Severance Payment if we discharge Dr. Berger for cause. If the vesting of certain benefits and the payment of certain amounts by us to Dr. Berger are treated as payments in the nature of compensation that are contingent on a "change in control" (within the meaning of Section 280G of the Internal Revenue Code of 1986, as amended (the "Code")), the deductibility of such payments could, depending upon the aggregate amount of such payments, be disallowed pursuant to Section 280G of the Code and an excise tax could be imposed on Dr. Berger pursuant to Section 4999 of the Code for which he would, pursuant to the employment agreement, be indemnified by us on a net after-tax

basis. The employment agreement contains a non-competition provision that is effective during the term of the agreement and, if Dr. Berger is terminated for cause, for a period of one year following the date of termination.

We have also entered into employment agreements with Ms. Allen, Dr. Bedrosian, Mr. Berstein, and Dr. Iuliucci. The agreements provide for employment through December 31, 2006 (December 31, 2005 for Dr. Bedrosian) at annual base salaries increasing each year by an amount to be determined by the Compensation Committee of the Board of Directors. For the year ended December 31, 2004, Ms. Allen, Dr. Bedrosian, Mr. Berstein and Dr. Iuliucci earned base salaries of $265,000, $260,000, $275,000 and $275,000, respectively. In addition, each executive is eligible each year to receive a discretionary bonus, to be determined by the Compensation Committee of the Board of Directors, of up to 30% of his or her annual base salary, which may be paid in the form of deferred compensation under the 1997 Executive Compensation Plan, awards of our stock options or stock grants, or cash. The agreements are renewable for successive one-year terms with the mutual consent of the parties.

Our agreements with the above-named officers also provide that (i) upon a change of control, such officers will be entitled to receive, upon termination by the officer within 90 days after the change in control, any remaining salary payable during the term or six months' salary, whichever is less, and all stock options held by such officers will immediately vest and become exercisable; and (ii) upon termination by us, without cause, such officer will be entitled to receive his or her current salary for the remaining period of the applicable term, and all outstanding options that would have vested during such term shall vest immediately.

ITEM 12: SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

Security Ownership of Certain Beneficial Owners and Management

The following table sets forth, as of February 16, 2005, certain information with respect to (i) each person (including any "group" as defined in Section 13(d)(3) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), known to us to own beneficially more than 5% of our common stock, (ii) each of our directors, (iii) each executive officer named in the Summary Compensation Table under Item 11 "Executive Compensation" and (iv) all directors and executive officers as a group. In accordance with the rules promulgated by the SEC, such ownership includes shares currently owned, as well as shares that the named person has the right to acquire within 60 days of February 16, 2005, including, but not limited to, shares that the named person has the right to acquire through the exercise of any option. Except as otherwise indicated, the stockholders listed in the table have sole voting and investment powers with respect to the common stock shown as beneficially owned. Percentage ownership is based on 52,824,783 shares of common stock outstanding as of February 17, 2005.

Stock Ownership by Management, Directors and 5% Beneficial Owners

Name and Address**	Number and Nature of Shares Beneficially Owned***		Percent of Class
Platinum Asset Management Ltd. 55 Harrington Street Sydney, Australia	2,728,300	(1)	5.2%
Harvey J. Berger, M.D.	2,011,497	(2)	3.8%
Laurie A. Allen, Esq.	195,000	(3)	*
Camille L. Bedrosian, M.D.	60,434	(4)	*
David L. Berstein, Esq.	268,753	(5)	*
John D. Iuliucci, Ph.D.	335,840	(6)	*
Michael D. Kishbauch	10,000		*
Jay R. LaMarche	506,856	(7)	*
Athanase Lavidas, Ph.D.	28,334	(8)	*
Peter J. Nelson	12,400		*
Sandford D. Smith	211,705	(9)	*
Burton E. Sobel, M.D.	71,667	(10)	*
Mary C. Tanner	43,334	(11)	*
Elizabeth H.S. Wyatt	52,667	(12)	*
All directors and executive officers as a group (20 persons)	4,852,507	(13)	8.5%

* Indicates less than one percent of the outstanding shares of common stock.

** Addresses are given for beneficial owners of more than 5% of the outstanding common stock only.

*** Attached to each share of common stock is a preferred share purchase right to acquire a number of shares of common stock having a market value at that time of twice the right's exercise price, which rights are not presently exercisable.

(1) This information is based solely on information contained in a Schedule 13G that was filed with the SEC on October 26, 2004 by Platinum Asset Management Ltd.

(2) Includes 660,250 shares issuable upon exercise of stock options. Includes 771,428 shares of Common Stock held of record by The Berger Family Trust and 8,928 shares of Common Stock held of record by the Wolk Family Trust. Wendy S. Berger and Harvey J. Berger, as co-trustees of such trusts, have the right to vote and dispose of the shares held by such trusts; however, in certain circumstances, Wendy S. Berger as co-trustee will have sole voting power with respect to the shares held by each such trust. Includes 40,892 shares held by Wendy S. Berger, Dr. Berger's spouse, and 13,928 shares held by Dr. Berger's children.

(3) Consists of 195,000 shares issuable upon exercise of stock options.

(4) Includes 60,000 shares issuable upon exercise of stock options.

(5) Includes 166,000 shares issuable upon exercise of stock options.

(6) Includes 280,750 shares issuable upon exercise of stock options.

(7) Includes 137,750 shares issuable upon exercise of stock options and 6,696 shares held by Carol B. LaMarche, Mr. LaMarche's spouse.

(8) Includes 8,334 shares issuable upon exercise of stock options.

(9) Includes 135,500 shares issuable upon exercise of stock options.

(10) Includes 61,667 shares issuable upon exercise of stock options.

(11) Includes 8,334 shares issuable upon exercise of stock options.

(12) Includes 31,667 shares issuable upon exercise of stock options.

(13) See notes 3 through 13 above. Also includes 890,575 shares issuable upon the exercise of stock options held by executive officers not listed in the table above.

Equity Compensation Plan Information

The following table provides certain aggregate information with respect to all of our equity compensation plans in effect as of December 31, 2004:

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options	Weighted Average Exercise Price of Outstanding Options	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in first column)
Equity Compensation Plans Approved by Securityholders	5,855,782 (1)	$4.79	2,149,950
Equity Compensation Plans not Approved by Securityholders	33,750 (2)	$6.51	N/A
Total	5,889,532	$4.80	2,149,950

(1) Consist of options to purchase 2,039,204 shares of common stock granted under our 1991 Stock Option Plans for Employees, Consultants, and Directors, options to purchase 268,500 shares of common stock granted under our 1994 Stock Option Plan for Non-Employee Directors, and options to purchase 3,548,078 shares of common stock granted under our 2001 Stock Plan.

(2) Consists of vested options under a non-qualified stock option agreement granted to Paul J. Sekhri, our former President and Chief Business Officer who resigned in December 2004.

Summary Description of our Non-Stockholder Approved Equity Compensation Plan

On October 1, 2003, we granted a non-qualified stock option to purchase 135,000 shares of our common stock to Paul J. Sekhri, our newly hired President and Chief Business Officer. This option was granted pursuant to the Nasdaq exemption from stockholder approval of options granted to new employees as an inducement material to Mr. Sekhri's entering into employment with us and was approved by a majority of our independent directors as required by Nasdaq. Mr. Sekhri resigned his position in December 2004. At the effective date of his resignation, he had vested in 33,750 options under the agreement. The remaining options have expired under the terms of the stock option agreement. Mr. Sekhri has 90 days from the effective date of his resignation to exercise the vested options, which will expire if not exercised within that period.

ITEM 13: CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Certain Relationships and Related Transactions

Our subsidiary, ARIAD Gene Therapeutics, Inc. ("AGTI"), holds licenses from Harvard University, Stanford University and other universities relating to our ARGENT cell-signaling regulation technology and owns the intellectual property on our mTOR inhibitors, for use in cancer and in the development of drug-delivery stents and other medical devices derived from our ARGENT programs (the "AGTI Products"). Minority stockholders of AGTI, including Harvard University, Stanford University, several of our scientific advisors, and several current and former members of management and Board of Directors, own 20% of the issued and outstanding common stock of AGTI. We own the remaining 80% of the issued and outstanding common stock of AGTI. Four members of our management team and/or Board of Directors own approximately 5.6% of the outstanding common stock of AGTI. Harvey J. Berger, M.D. owns 3.2%; David L. Berstein, Esq. owns 0.2%; John D. Iuliucci, Ph.D. owns 0.6%; and Jay R. LaMarche owns 1.6%. AGTI has a right of first refusal on the sale to third parties of approximately 75% of the minority stockholders' AGTI shares. AGTI does not have a call option or a right to require the minority stockholders to sell their shares to ARIAD. Two of our directors, Harvey J. Berger, M.D., our Chairman, and Jay R. LaMarche, are the sole directors of AGTI. As part of the formation of AGTI, we entered into agreements with AGTI to provide for the operations of AGTI, which were amended in March 2002.

As part of an employment agreement entered into as of March 4, 2002, we extended a $75,000 relocation loan to Laurie A. Allen, our Senior Vice President, Chief Legal Officer and Secretary, pursuant to a promissory note, and secured by a second mortgage on her residence in Massachusetts. The loan will be forgiven on the third anniversary of the issue date, based on Ms. Allen's continuous service with us. In the event that Ms. Allen terminates her employment prior to such third anniversary, the principal is due and payable within ninety days thereafter, and any unpaid balance shall bear interest at a rate of 7% per annum.

In March 2004, we engaged Lehman Brothers to serve as lead underwriter in our public offering of 5,060,000 shares of our common stock, for which they received $1,399,090 in underwriting discounts and commissions. The spouse of Mary C. Tanner, one of our Directors, is a vice chairman of Lehman Brothers. We believe the transaction with Lehman Brothers was entered into on terms no less favorable to us than we could have obtained from unaffiliated third parties.

ITEM 14: PRINCIPAL ACCOUNTING FEES AND SERVICES

Audit and Non-Audit Fees

For the fiscal years ending December 31, 2004 and 2003, we paid Deloitte & Touche LLP the following fees:

	2004	2003
Audit Fees	$183,435	$148,325
Audit-Related Fees	20,085	10,500
Tax Fees	40,245	40,128
All Other Fees	0	0

Audit Fees include fees for audit of our annual financial statements, the review of our quarterly financial statements included in reports on Form 10-Q and the review of SEC filings, including Deloitte & Touche's consents. Audit-Related Fees include fees for the audits of employee benefit plan financial statements and consultation on accounting and reporting matters. Tax Fees include fees for preparation of tax

returns as well as tax planning and advice. All Other Fees include consultations related to regulatory and accounting developments. All of the services set forth above in the categories Audit-Related Fees, Tax Fees and All Other Fees were approved by the Audit Committee. The Audit Committee has considered that the provision of services categorized under "All Other Fees" is compatible with maintaining Deloitte & Touche's independence.

Policy on Audit Committee Pre-Approval of Audit and Permissible Non-audit Services of Independent Auditors

Consistent with SEC policies regarding auditor independence, the Audit Committee has responsibility for appointing, setting compensation and overseeing the work of the independent auditor. In recognition of this responsibility, the Audit Committee has established a policy to pre-approve all audit and permissible non-audit services provided by the independent auditor.

On a quarterly basis, management submits a report to the Audit Committee for their approval, outlining the services planned or anticipated to be rendered by the independent auditors, and the estimated fees for such services, within the following two calendar quarters. The services are outlined according to the four categories of services defined above, *i.e.* Audit, Audit-Related, Tax and All Other. Actual fees incurred relative to estimated fees are reported to the Audit Committee each quarter.

To ensure prompt consideration of unexpected services, the Audit Committee has delegated pre-approval authority to the Chair of the Audit Committee to pre-approve services to be rendered. Any such actions taken by the Chair must be reported to the Audit Committee at its next scheduled meeting.

PART IV

ITEM 15: EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

(a)(1) The following Consolidated Financial Statements, Notes thereto and Report of Independent Registered Public Accounting Firm have been presented in Item 8:

Report of Independent Registered Public Accounting Firm

Consolidated Balance Sheets

Consolidated Statements of Operations

Consolidated Statements of Stockholders' Equity

Consolidated Statements of Cash Flows

Notes to Consolidated Financial Statements

(a)(2) Financial Statement Schedules:

Schedules have been omitted because of the absence of conditions under which they are required or because the required information is included in the financial statements or notes thereto.

(a)(3) The Exhibits listed in the Exhibit Index are filed herewith in the manner set forth therein.

(b) See (a) (3) above.

(c) See (a) (2) above.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cambridge and Commonwealth of Massachusetts on the 18th of February, 2005.

ARIAD PHARMACEUTICALS, INC.

By: /s/ Harvey J. Berger, M.D.
Name: Harvey J. Berger, M.D.
Title: Chairman, Chief Executive Officer and President

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

Signature	Title	Date
/s/ Harvey J. Berger, M.D. Harvey J. Berger, M.D.	Chairman of the Board of Directors, Chief Executive Officer and President (Principal Executive Officer)	February 18, 2005
/s/ Sandford D. Smith Sandford D. Smith	Vice Chairman of the Board of Directors	February 18, 2005
/s/ Edward M. Fitzgerald Edward M. Fitzgerald	Senior Vice President, Chief Financial Officer and Treasurer (Principal Financial Officer and Principal Accounting Officer)	February 18, 2005
/s/ Michael D. Kishbauch Michael D. Kishbauch	Director	February 18, 2005
/s/ Jay R. LaMarche Jay R. LaMarche	Director	February 18, 2005
/s/ Athanase Lavidas, Ph.D. Athanase Lavidas, Ph.D	Director	February 18, 2005
/s/ Peter J. Nelson Peter J. Nelson	Director	February 18, 2005
/s/ Burton E. Sobel, M.D. Burton E. Sobel, M.D.	Director	February 18, 2005
/s/ Mary C. Tanner Mary C. Tanner	Director	February 18, 2005
/s/ Elizabeth H.S. Wyatt Elizabeth H.S. Wyatt	Director	February 18, 2005

EXHIBIT INDEX

Exhibit No.	Title
3.1	Certificate of Incorporation of the Company, as amended. (18)
3.2	Restated By-laws of the Company, as amended. (5)
4.1	Principal Stockholders' Agreement, dated as of January 5, 1992, among ARIAD Pharmaceuticals, Inc., David Blech, David Blech as trustee of The Blech Family Trust, Mark S. Germain, Harvey J. Berger, Harvey J. Berger and Wendy S. Berger as Trustees of the Berger Family Trust, Avalon Ventures and Avalon Ventures IV. (1)
4.2	Rights Agreement, dated as of June 8, 2000, between the Company and State Street Bank and Trust Company, which includes the Form of Certificate of Designations in respect of the Series A Preferred Stock, as Exhibit A, the Form of Right Certificate as Exhibit B and the Summary of Rights to Purchase Series A Preferred Stock as Exhibit C. Pursuant to the Rights Agreement, Right Certificates will not be mailed until after the Separation Date (as defined therein). (3)
10.1	Lease Agreement, dated January 8, 1992, between ARIAD Pharmaceuticals, Inc. and Forest City Cambridge, Inc. (1)
10.2+	Executive Employment Agreement, dated as of January 1, 1992, between ARIAD Pharmaceuticals, Inc. and Harvey J. Berger, M.D. (1)
10.3+	ARIAD Pharmaceuticals, Inc. 1991 Stock Option Plan for Employees and Consultants, as amended. (4)
10.4+	ARIAD Pharmaceuticals, Inc. 1991 Stock Option Plan for Directors. (1)
10.5+	ARIAD Retirement Savings Plan. (1)
10.6**	Amended and Restated Agreement, dated as of December 12, 1997, between The Board of Trustees of The Leland Stanford Junior University and ARIAD Gene Therapeutics, Inc. (7)
10.7+	Amendment, dated April 19, 1994, to Executive Employment Agreement between ARIAD Pharmaceuticals, Inc. and Harvey J. Berger, M.D. (2)
10.8+	Amendment No. 2, dated June 30, 1994, to Executive Employment Agreement between ARIAD Pharmaceuticals, Inc. and Harvey J. Berger, M.D. (4)
10.9+	ARIAD Pharmaceuticals, Inc. 1994 Stock Option Plan for Non-Employee Directors. (4)
10.10**	License Agreement, dated as of September 12, 1996, between Mochida Pharmaceuticals Co., Ltd. and ARIAD Pharmaceuticals, Inc. (6)
10.11+	Amendment, dated January 1, 1997, to Executive Employment Agreement between ARIAD Pharmaceuticals, Inc. and Harvey J. Berger, M.D. (12)
10.12+	ARIAD Pharmaceuticals, Inc. 1997 Employee Stock Purchase Plan. (12)
10.13+	Amendment to the 1991 Stock Option Plan for Employees and Consultants. (12)
10.14+	Amendment to the 1994 Stock Option Plan for Non-Employee Directors. (12)
10.15**	License Agreement, dated July 17, 1997, between ARIAD Pharmaceuticals, Inc. and Mitotix, Inc. (13)
10.16**	Technology Purchase and Sale Agreement and related agreements, dated July 17, 1997, between ARIAD Pharmaceuticals, Inc. and Mitotix, Inc. (13)
10.17+	ARIAD Pharmaceuticals, Inc. 1997 Executive Compensation Plan. (7)
10.18+	Executive Employment Agreement, dated May 1, 1992, Fourth Amendment to Employment Agreement dated June 8, 2000, Third Amendment to Employment Agreement dated January 1, 1999, and Amendments to Employment Agreements dated January 1, 1997 and March 2, 1994 between ARIAD Pharmaceuticals, Inc. and John Iuliucci, Ph.D. (8)
10.19+	Executive Employment Agreement, dated August 1, 1993, Third Amendment to Employment Agreement dated June 8, 2000, and Amendments to Employment Agreements dated January 1, 1997 and March 2, 1994 between ARIAD Pharmaceuticals, Inc. and David L. Berstein, J.D. (8)
10.20+	Amendment, dated as of January 1, 2001, to Executive Employment Agreement with John Iuliucci, Ph.D. (9)
10.21+	Amendment, dated as of January 1, 2001, to Executive Employment Agreement with David Berstein, Esq. (9)
10.22+	ARIAD Pharmaceuticals, Inc. 2001 Stock Plan, as amended. (18)
10.23	Revised and Restated Research and Development Agreement, dated as of March 15, 2002, by and between ARIAD Pharmaceuticals, Inc. and ARIAD Corporation. (10)
10.24	Revised and Restated Research and Development Agreement, dated as of March 15, 2002, by and between ARIAD Gene Therapeutics, Inc. and ARIAD Corporation. (10)
10.25+	Executive Employment Agreement, dated as of March 4, 2002, between ARIAD Pharmaceuticals, Inc. and Laurie A. Allen, Esq. (10)
10.26	Stock Transfer Agreement between ARIAD Gene Therapeutics, Inc. and the individuals listed on Exhibit A thereto. (10)

10.27	Notice of Extension of Lease, dated October 2, 2001, from ARIAD Corporation to Forest City Commercial Group. (10)
10.28+	Executive Employment Agreement, dated May 6, 2002, between ARIAD Pharmaceuticals, Inc. and Edward M. Fitzgerald (11)
10.29+	Promissory Note issued pursuant to Executive Employment Agreement, dated as of March 4, 1992, by and between ARIAD Pharmaceuticals, Inc. and Laurie A. Allen, Esq., dated as of July 24, 2002 (13)
10.30+	Executive Employment Agreement, dated June 8, 2000, between ARIAD Pharmaceuticals, Inc. and Timothy Clackson, Ph.D.(14)
10.31+	Amendment to Employment Agreement, dated July 1, 2001, between ARIAD Pharmaceuticals, Inc. and Timothy Clackson, Ph.D. (14)
10.32+	Amendment to Employment Agreement, dated July 12, 2002, between ARIAD Pharmaceuticals, Inc. and Timothy Clackson, Ph.D. (14)
10.33+	Executive Employment Agreement, dated July 1, 2002, between ARIAD Pharmaceuticals, Inc. and Thomas A. Pearson. (14)
10.34	Agreement of Sublease, dated December 31, 1999, between ARIAD Corporation and Aventis Pharmaceuticals Inc. (14)
10.35	First Amendment to Sublease, dated July 26, 2002, between ARIAD Corporation and Aventis Pharmaceuticals Inc. (14)
10.36	Credit Agreement, dated as of March 12, 2003, by and among ARIAD Pharmaceuticals, Inc., ARIAD Corporation and ARIAD Gene Therapeutics, Inc. and Citizens Bank of Massachusetts. (15)
10.37	Security Agreement - All Assets, dated as of March 12, 2003, by and between ARIAD Pharmaceuticals, Inc. and Citizens Bank of Massachusetts. (15)
10.38	Security Agreement - All Assets, dated as of March 12, 2003, by and between ARIAD Corporation and Citizens Bank of Massachusetts. (15)
10.39	Security Agreement - All Assets, dated as of March 12, 2003, by and between ARIAD Gene Therapeutics, Inc. and Citizens Bank of Massachusetts. (15)
10.40+	Amendment to Employee Agreement, dated September 2, 2003, between ARIAD Pharmaceuticals, Inc. and Harvey J. Berger, M.D. (16)
10.41+	Amendment to Employee Agreement, dated September 2, 2003, between ARIAD Pharmaceuticals, Inc. and Laurie A. Allen, Esq. (16)
10.42+	Amendment to Employee Agreement, dated September 2, 2003, between ARIAD Pharmaceuticals, Inc. and David Berstein, Esq. (16)
10.43+	Amendment to Employee Agreement, dated September 2, 2003, between ARIAD Pharmaceuticals, Inc. and Timothy P. Clackson, Ph.D. (16)
10.44+	Amendment to Employee Agreement, dated September 2, 2003, between ARIAD Pharmaceuticals, Inc. and Edward M. Fitzgerald. (16)
10.45+	Amendment to Employee Agreement, dated September 2, 2003 between ARIAD Pharmaceuticals, Inc. and John D. Iuliucci, Ph.D. (16)
10.46+	Executive Employee Agreement, dated December 10, 1998, and Amendments to Employee Agreement dated July 1, 2001, September 11, 2002, and September 2, 2003, between ARIAD Pharmaceuticals, Inc. and Tomi K. Sawyer, Ph.D. (17)
10.47+	Executive Employee Agreement, dated September 10, 2003, between ARIAD Pharmaceuticals, Inc. and Paul J. Sekhri. (16)
10.48+	Non-qualified Stock Option Agreement, dated October 1, 2003, between ARIAD Pharmaceuticals, Inc. and Paul J. Sekhri. (16)
10.49	Amendment No. 1 to Credit Agreement, dated as of December 31, 2003, by and among ARIAD Pharmaceuticals, Inc., ARIAD Corporation and ARIAD Gene Therapeutics, Inc. and Citizens Bank of Massachusetts. (17)
10.50	Stock Issuance Agreement, dated January 13, 2004, between ARIAD Gene Therapeutics, Inc. and ARIAD Pharmaceuticals, Inc. (17)
10.51	Stock Transfer Agreement, dated January 17, 2004, between ARIAD Gene Therapeutics, Inc. and the individuals listed on Exhibit A thereto. (17)
10.52*	Amendment No. 2 to Credit Agreement dated as of December 31, 2004 by and among ARIAD Pharmaceuticals, Inc., ARIAD Corporation and ARIAD Gene Therapeutics, Inc. and Citizens Bank of Massachusetts.
10.53*	Second Amended and Restated Term Note, dated December 31, 2004, issued ARIAD Pharmaceuticals, Inc., ARIAD Corporation and ARIAD Gene Therapeutics, Inc. to Citizens Bank of Massachusetts.
21.1*	Subsidiaries of the Company.
23.1*	Consent of Deloitte & Touche LLP.
31.2*	Certification of the Chief Executive Officer.
31.3*	Certification of the Chief Financial Officer.

32.1* Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

Notes to Exhibits:

(+) Management Contract or Compensatory Plan or Arrangement

(*) Filed Herewith.

(**) Confidential treatment has been granted by the Securities and Exchange Commission as to certain portions.

(1) Incorporated by reference to Registration Statement on Form 10 of the Company filed with the Securities and Exchange Commission on June 25, 1993.

(2) Incorporated by reference to Registration Statement on Form S-1 of the Company (No. 33-76414) filed with the Securities and Exchange Commission on March 11, 1994.

(3) Incorporated by reference to Form 8-A of the Company filed with the Securities and Exchange Commission on June 19, 2000.

(4) Incorporated by reference to Form 10-K of the Company for the fiscal year ended December 31, 1994 filed with the Securities and Exchange Commission on March 31, 1995.

(5) Incorporated by reference to Amendment No. 1 to the Registration Statement on Form S-3 of the Company (No. 333-38664) filed with the Securities and Exchange Commission on June 23, 2000.

(6) Incorporated by reference to Forms 10-Q of the Company filed with the Securities and Exchange Commission on May 3, 1997.

(7) Incorporated by reference to Form 10-K of the Company for the fiscal year ended December 31, 1997 filed with the Securities and Exchange Commission on March 10, 1998.

(8) Incorporated by reference to Form 10-Q of the Company filed with the Securities and Exchange Commission on August 10, 2000.

(9) Incorporated herein by reference to Form 10-Q of the Company filed with the Securities and Exchange Commission on May 14, 2001.

(10) Incorporated by reference to Form 10-K of the Company for the fiscal year ended December 31, 2001 filed with the Securities and Exchange Commission on March 22, 2002.

(11) Incorporated herein by reference to Form 10-Q of the Company filed with the Securities and Exchange Commission on May 9, 2002.

(12) Incorporated by reference to Form 10-Q of the Company filed with the Securities and Exchange Commission on August 12, 1997.

(13) Incorporated by reference to Form 10-Q of the Company filed with the Securities and Exchange Commission on November 12, 1997.

(14) Incorporated by reference to Form 10-Q of the Company filed with the Securities and Exchange Commission in March 14, 2003.

(15) Incorporated by reference to Form 10-Q of the Company filed with the Securities and Exchange Commission in May 13, 2003.

(16) Incorporated by reference to Form 10-Q of the Company filed with the Securities and Exchange Commission in November 4, 2003.

(17) Incorporated by reference to Form 10-K of the Company filed with the Securities and Exchange Commission on March 2, 2004.

(18) Incorporated by reference to Registration Statement on Form S-8 of the Company (No. 333-116996) filed with the Securities and Exchange Commission on June 30, 2004.

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

FORM 10-K/A
(Amendment No. 1 to Form 10-K)

(Mark One)

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2004

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 033-76414

ARIAD Pharmaceuticals, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**22-3106987**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

26 Landsdowne Street, Cambridge, Massachusetts 02139-4234
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (617) 494-0400

Securities registered pursuant to Section 12(b) of the Act: None

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

Common Stock, $.001 Par Value

Rights to Purchase Series A Preferred Stock

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes [X] No [ ]

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

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Act).
Yes [X] No [ ]

The aggregate market value of the registrant's common stock held by nonaffiliates of the registrant (without admitting that any person whose shares are not included in such calculation is an affiliate), computed by reference to the price at which the common stock was last sold, as of the last business day of the registrant's most recently completed second fiscal quarter was $357 million.

As of February 17, 2005, the registrant had 52,824,783 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Not applicable.

EXPLANATORY NOTE

ARIAD Pharmaceuticals, Inc. is filing this Amendment No. 1 on Form 10-K/A to its Annual Report on Form 10-K for the fiscal year ended December 31, 2004, as filed with the SEC on February 18, 2005, for the purpose of amending and restating in its entirety Item 9B, Item 11 and Item 15(a)(3) of such Annual Report on Form 10-K, as set forth below. This Amendment No. 1 on Form 10K/A does not change our previously reported financial statements and other financial disclosures.

PART II

ITEM 9B: OTHER INFORMATION

Director Compensation

On January 17, 2005, we granted 10,000 shares of our common stock under our 2001 Stock Plan to our non-employee directors, Sandford D. Smith, Michael D. Kishbauch, Jay R. LaMarche, Athanase Lavidas, Ph.D., Peter J. Nelson, Burton E. Sobel, M.D., Mary C. Tanner and Elizabeth H. S. Wyatt, for their service on the Board during fiscal 2005.

Executive Compensation

Listed below are the salaries and bonuses for our executive officers that were awarded during fiscal 2004 and the salaries that have been established for fiscal 2005. Bonuses for fiscal 2005 have not yet been determined.

Executive Officer	2004 Salary	2004 Bonus (1)	2005 Salary
Harvey J. Berger, M.D. *Chairman of the Board of Directors, Chief Executive Officer and President*	$480,000	$0	$504,000
Laurie A. Allen, Esq. *Senior Vice President, Chief Legal Officer and Secretary*	$265,000	$90,000	$288,000
David L. Berstein, Esq. *Senior Vice President, Chief Patent Counsel*	$275,000	$90,000	$288,000
Timothy P. Clackson, Ph.D. *Senior Vice President, Chief Scientific Officer*	$262,000	$90,000	$290,000
Edward M. Fitzgerald *Senior Vice President, Chief Financial Officer and Treasurer*	$262,000	$90,000	$288,000
John D. Iuliucci, Ph.D. *Senior Vice President, Chief Development Officer*	$275,000	$90,000	$290,000
Camille L. Bedrosian, M.D. *Vice President, Chief Medical Officer*	$260,000	$95,000	$290,000

(1) These bonuses were awarded and deferred under our 1997 Executive Compensation Plan, a non-qualified, unfunded, deferred compensation plan.

PART III

ITEM 11: EXECUTIVE COMPENSATION

Summary Compensation

The following table sets forth aggregate amounts of compensation paid or accrued by us for the years ended December 31, 2004, 2003 and 2002 for services rendered in all capacities, by our Chief Executive Officer and the four next-most highly compensated executive officers who earned more than $100,000 during the fiscal year ended December 31, 2004 (the "named executive officers").

Summary Compensation Table

Name and Principal Position	Year	Annual Compensation		Long-Term Compensation		All Other Compensation (3)
		Base Salary	Bonus (1)	Restricted Stock Awards (2)	Securities Underlying Options	
Harvey J. Berger, M.D.	2004	$ 480,000	$ -0-	$769,000	150,000	$ 6,000
Chairman, Chief Executive	2003	455,000	-0-	-0-	-0-	5,870
Officer and President	2002	433,000	-0-	-0-	150,000	5,297
Laurie A. Allen, Esq.	2004	$ 265,000	$ 90,000	$ -0-	50,000	$ 2,242
Senior Vice President, Chief	2003	245,000	85,000	-0-	33,000	-0-
Legal Officer and Secretary	2002	177,404	-0-	-0-	100,000	-0-
Camille L. Bedrosian, M.D.	2004	$ 260,000	$ 95,000	$ -0-	70,000	$ 5,757
Vice President,	2003	242,000	75,000	-0-	30,000	5,204
Chief Medical Officer	2002	38,333	-0-	-0-	60,000	354
David L. Berstein, Esq.	2004	$ 275,000	$ 90,000	$ -0-	70,000	$ 5,662
Senior Vice President,	2003	259,000	85,000	-0-	33,000	13,557
Chief Patent Counsel	2002	242,000	70,000	-0-	50,000	6,621
John D. Iuliucci, Ph.D.	2004	$ 275,000	$ 90,000	$ -0-	55,000	$ 8,006
Senior Vice President, Chief	2003	260,000	85,000	-0-	40,500	14,432
Development Officer	2002	242,000	70,000	-0-	70,000	7,210

(1) The amounts listed are for bonuses awarded and deferred under our 1997 Executive Compensation Plan, a non-qualified, unfunded, deferred compensation plan.

(2) The restricted stock award to Mr. Berger consists of 100,000 shares of our common stock granted on January 15, 2004 valued at $7.69, the closing sale price of our common stock on the date of grant. The restrictions on these shares lapsed on January 15, 2005. As of December 31, 2004, Mr. Berger held a total of 100,000 shares of restricted stock with a value of $743,000, based on the closing sale price of our common stock on December 31, 2004.

(3) The amounts listed for each year consist of our matching contributions of up to $6,000 per year under our 401(k) plan and, in the case of Dr. Bedrosian, Mr. Berstein, and Dr. Iuliucci, include the aggregate difference between the fair market value and the purchase cost of common stock purchased under our 1997 Employee Stock Purchase Plan. Dr. Berger is not eligible to participate in our Employee Stock Purchase Plan.

Option Grants in Last Fiscal Year

The following table sets forth information regarding each stock option granted during the fiscal year ended December 31, 2004 to each of the named executive officers.

	Individual Grants				Potential Realizable Value at Assumed Annual Rates of Stock Price Appreciation for Option Term (2)	
Name	Number of Shares Underlying Options Granted (1)	Percent of Total Options Granted to Employees in Fiscal Year	Exercise Price (per share)	Expiration Date	5%	10%
Harvey J. Berger, M.D.	150,000 (3)	12.6%	$5.23	9/09/14	$493,368	$1,250,291
Laurie A. Allen, Esq.	50,000 (4)	4.2%	$5.23	9/09/14	$164,456	$416,764
Camille L. Bedrosian, M.D.	70,000 (4)	5.9%	$5.23	9/09/14	$230,238	$583,469
David L. Berstein, Esq.	20,000 (5)	1.7%	$7.44	6/23/14	$ 93,580	$237,149
	50,000 (4)	4.2%	$5.23	9/09/14	$164,456	$416,764
John D. Iuliucci, Ph.D.	55,000 (4)	4.6%	$5.23	9/09/14	$180,902	$458,440

(1) Options to purchase shares of our common stock under the 2001 Stock Plan.
(2) These amounts, based on assumed annual appreciation rates of 5% and 10% as prescribed by the rules of the SEC, are for illustration purposes only and are not intended to forecast possible future appreciation, if any, of our stock price. Actual gains, if any, on stock option exercises will depend on the future performance of our common stock, the option holder's continued employment with us through the option exercise period and the date on which the option is exercised.
(3) Options vest 100% on the third anniversary date of the award.
(4) Options vest 50% on the second anniversary date of the award, and 25% on each of the third and fourth anniversary dates of the award.
(5) Options are fully vested on the date of the award.

Aggregated Option Exercises in Last Fiscal Year and Fiscal Year-End Option Values

The following table provides information regarding the exercise of options by each of the named executive officers during the fiscal year ended December 31, 2004. In addition, this table includes the number of shares covered by both exercisable and unexercisable stock options as of December 31, 2004 and the values of "in-the-money" options, which values represent the positive spread between the exercise price of any such option and either the actual or estimated fair market value of the underlying security, as applicable.

Name	Shares Acquired on Exercise(#)	Value Realized (9)	No. of Shares Underlying Unexercised Options at Fiscal Year-End Exercisable/Unexercisable	Value of Unexercised In-the Money Options At Fiscal Year-End Exercisable/Unexercisable
Harvey J. Berger, M.D.	0 (1)	0 (3)	660,250/243,750 (5)	$2,597,248/625,313 (7)
	1,402 (2)	$15,464 (4)	0/0 (6)	$0/0 (8)
Laurie A. Allen, Esq.	0 (1)	0 (3)	195,000/100,000 (5)	$908,859/259,500 (7)
Camille L. Bedrosian, M.D.	0 (1)	0 (3)	60,000/100,000 (5)	$264,300/312,400 (7)
David L. Berstein, Esq.	90,571 (1)	$269,045 (3)	166,000/90,000 (5)	$302,526/217,700 (7)
	112 (2)	$ 1,235 (4)	0/0 (6)	$0/0 (8)
John D. Iuliucci, Ph.D.	20,000 (1)	$106,200 (3)	280,750/93,750 (5)	$1,192,260/226,475 (7)
	280 (2)	$3,088 (4)	0/0 (6)	$0/0 (8)

(1) Shares of our common stock acquired on exercise of options.
(2) Shares of common stock of our subsidiary, AGTI, acquired on exercise of options.
(3) Based upon the fair market value of our common stock on the date of exercise, if any, less the exercise price.
(4) Based upon the estimated fair value of the common stock of AGTI, for which there is no public market, less the exercise price.
(5) Options to purchase shares of our common stock.
(6) Options to purchase common stock of our subsidiary, AGTI.
(7) Based upon a fair market value of $7.43 per share of common stock, which was the closing price of a share of our common stock on the Nasdaq National Market on December 31, 2004, less the per share exercise price.
(8) Based upon an estimated value of the common stock of AGTI, for which there was no public market on December 31, 2004, less the per share exercise price.
(9) Amounts shown in this column do not necessarily represent actual value realized from the sale of the shares acquired upon exercise of the option because in many cases the shares are not sold on exercise but continue to be held by the executive officer exercising the option. The amounts shown represent the difference between the option exercise price and the market price on the date of exercise, which is the amount that would have been realized if the shares had been sold immediately upon exercise.

Employment Agreements, Termination of Employment and Change-in-Control Arrangements

Dr. Berger, our Chairman of the Board of Directors and Chief Executive Officer, has an employment agreement with us which commenced in January 1992 and terminates in December 2007. Dr. Berger's employment agreement is automatically renewable for successive three-year terms unless terminated by either party. The agreement provides that he shall be employed as our Chief Executive Officer, shall be nominated for election to our Board of Directors, serve as Chairman of the Board and receive an annual base salary ($480,000 during 2004 as recommended by the Compensation Committee and approved by the Board of Directors), increasing each year by at least 10% of the preceding year's base salary, although he has not received such increments in each year of the term, including 2004. Dr. Berger is eligible each year to receive a discretionary bonus, determined by the Board of Directors, of up to 50% of his annual base salary, although he has not received such cash bonuses in prior years, including in 2004. If we fail to renew the employment agreement, we are obligated to pay Dr. Berger, in addition to his compensation for the remainder of the term, a lump sum payment equal to two times Dr. Berger's annual salary for the final year of the term and to provide for the immediate vesting and exercisability of all stock options and other equity rights.

Dr. Berger's employment agreement provides that, if the agreement is terminated by either party upon the occurrence of certain events, including (i) our sale or merger (or stockholder approval of a merger agreement) or an acquisition of a substantial equity interest in us by a person or group of persons, (ii) if Dr. Berger is not elected to membership on our Board of Directors and named as Chairman or designated as Chief Executive Officer or ceases to be our highest ranking executive officer or ceases to control personnel decisions with respect to our employees, (iii) if we are in material breach of the terms of his employment agreement, (iv) if we are bankrupt or insolvent or (v) if we terminate Dr. Berger's employment agreement without cause, (1) we will pay Dr. Berger the greater of (x) any remaining salary payable during the term of the agreement plus the maximum possible bonus for each year remaining in the term (taking into account, in both cases, obligated 10% increases in salary) and (y) an amount equal to twice his current annual salary and maximum bonus for the current year of employment (the "Severance Payment") and (2) all of his stock options, stock grants and similar equity rights will immediately vest and become exercisable. We are not obligated to make the Severance Payment if we discharge Dr. Berger for cause. If the vesting of certain benefits and the payment of certain amounts by us to Dr. Berger are treated as payments in the nature of compensation that are contingent on a "change in control" (within the meaning of Section 280G of the Internal Revenue Code of 1986, as amended (the "Code")), the deductibility of such payments could, depending upon the aggregate amount of such payments, be disallowed pursuant to Section 280G of the Code and an excise tax could be imposed on Dr. Berger pursuant to Section 4999 of the Code for

which he would, pursuant to the employment agreement, be indemnified by us on a net after-tax basis. The employment agreement contains a non-competition provision that is effective during the term of the agreement and, if Dr. Berger is terminated for cause, for a period of one year following the date of termination.

We have also entered into employment agreements with Ms. Allen, Dr. Bedrosian, Mr. Berstein, and Dr. Iuliucci. The agreements provide for employment through December 31, 2006 (December 31, 2005 for Dr. Bedrosian) at annual base salaries increasing each year by an amount to be determined by the Compensation Committee of the Board of Directors. For the year ended December 31, 2004, Ms. Allen, Dr. Bedrosian, Mr. Berstein and Dr. Iuliucci earned base salaries of $265,000, $260,000, $275,000 and $275,000, respectively. In addition, each executive is eligible each year to receive a discretionary bonus, to be determined by the Compensation Committee of the Board of Directors, which may be paid in the form of deferred compensation under the 1997 Executive Compensation Plan, awards of our stock options or stock grants, or cash. The agreements are renewable for successive one-year terms with the mutual consent of the parties.

Our agreements with the above-named officers also provide that (i) upon a change of control, such officers will be entitled to receive, upon termination by the officer within 90 days after the change in control, any remaining salary payable during the term or six months' salary, whichever is less, and all stock options held by such officers will immediately vest and become exercisable; and (ii) upon termination by us, without cause, such officer will be entitled to receive his or her current salary for the remaining period of the applicable term, and all outstanding options that would have vested during such term shall vest immediately.

PART IV

ITEM 15: EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

(a)(1) The following Consolidated Financial Statements, Notes thereto and Report of Independent Registered Public Accounting Firm have been presented in Item 8:

Report of Independent Registered Public Accounting Firm

Consolidated Balance Sheets

Consolidated Statements of Operations

Consolidated Statements of Stockholders' Equity

Consolidated Statements of Cash Flows

Notes to Consolidated Financial Statements

(a)(2) Financial Statement Schedules:

Schedules have been omitted because of the absence of conditions under which they are required or because the required information is included in the financial statements or notes thereto.

(a)(3) The Exhibits listed in the Exhibit Index are filed herewith in the manner set forth therein.

(b) See (a) (3) above.

(c) See (a) (2) above.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Act of 1934, the registrant has duly caused this Amendment No. 1 to its Annual Report on Form 10-K/A to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cambridge and Commonwealth of Massachusetts on the 11th of March, 2005.

ARIAD PHARMACEUTICALS, INC.

By: /s/ Harvey J. Berger, M.D.
Name: Harvey J. Berger, M.D.
Title: Chairman, Chief Executive Officer and President

EXHIBIT INDEX

Exhibit No.	Title
3.1	Certificate of Incorporation of the Company, as amended. (18)
3.2	Restated By-laws of the Company, as amended. (5)
4.1	Principal Stockholders' Agreement, dated as of January 5, 1992, among ARIAD Pharmaceuticals, Inc., David Blech, David Blech as trustee of The Blech Family Trust, Mark S. Germain, Harvey J. Berger, Harvey J. Berger and Wendy S. Berger as Trustees of the Berger Family Trust, Avalon Ventures and Avalon Ventures IV. (1)
4.2	Rights Agreement, dated as of June 8, 2000, between the Company and State Street Bank and Trust Company, which includes the Form of Certificate of Designations in respect of the Series A Preferred Stock, as Exhibit A, the Form of Right Certificate as Exhibit B and the Summary of Rights to Purchase Series A Preferred Stock as Exhibit C. Pursuant to the Rights Agreement, Right Certificates will not be mailed until after the Separation Date (as defined therein). (3)
10.1	Lease Agreement, dated January 8, 1992, between ARIAD Pharmaceuticals, Inc. and Forest City Cambridge, Inc. (1)
10.2+	Executive Employment Agreement, dated as of January 1, 1992, between ARIAD Pharmaceuticals, Inc. and Harvey J. Berger, M.D. (1)
10.3+	ARIAD Pharmaceuticals, Inc. 1991 Stock Option Plan for Employees and Consultants, as amended. (4)
10.4+	ARIAD Pharmaceuticals, Inc. 1991 Stock Option Plan for Directors. (1)
10.5+	ARIAD Retirement Savings Plan. (1)
10.6**	Amended and Restated Agreement, dated as of December 12, 1997, between The Board of Trustees of The Leland Stanford Junior University and ARIAD Gene Therapeutics, Inc. (7)
10.7+	Amendment, dated April 19, 1994, to Executive Employment Agreement between ARIAD Pharmaceuticals, Inc. and Harvey J. Berger, M.D. (2)
10.8+	Amendment No. 2, dated June 30, 1994, to Executive Employment Agreement between ARIAD Pharmaceuticals, Inc. and Harvey J. Berger, M.D. (4)
10.9+	ARIAD Pharmaceuticals, Inc. 1994 Stock Option Plan for Non-Employee Directors. (4)
10.10**	License Agreement, dated as of September 12, 1996, between Mochida Pharmaceuticals Co., Ltd. and ARIAD Pharmaceuticals, Inc. (6)
10.11+	Amendment, dated January 1, 1997, to Executive Employment Agreement between ARIAD Pharmaceuticals, Inc. and Harvey J. Berger, M.D. (12)
10.12+	ARIAD Pharmaceuticals, Inc. 1997 Employee Stock Purchase Plan. (12)
10.13+	Amendment to the 1991 Stock Option Plan for Employees and Consultants. (12)
10.14+	Amendment to the 1994 Stock Option Plan for Non-Employee Directors. (12)
10.15**	License Agreement, dated July 17, 1997, between ARIAD Pharmaceuticals, Inc. and Mitotix, Inc. (13)
10.16**	Technology Purchase and Sale Agreement and related agreements, dated July 17, 1997, between ARIAD Pharmaceuticals, Inc. and Mitotix, Inc. (13)
10.17+	ARIAD Pharmaceuticals, Inc. 1997 Executive Compensation Plan. (7)
10.18+	Executive Employment Agreement, dated May 1, 1992, Fourth Amendment to Employment Agreement dated June 8, 2000, Third Amendment to Employment Agreement dated January 1, 1999, and Amendments to Employment Agreements dated January 1, 1997 and March 2, 1994 between ARIAD Pharmaceuticals, Inc. and John Iuliucci, Ph.D. (8)
10.19+	Executive Employment Agreement, dated August 1, 1993, Third Amendment to Employment Agreement dated June 8, 2000, and Amendments to Employment Agreements dated January 1, 1997 and March 2, 1994 between ARIAD Pharmaceuticals, Inc. and David L. Berstein, J.D. (8)
10.20+	Amendment, dated as of January 1, 2001, to Executive Employment Agreement with John Iuliucci, Ph.D. (9)
10.21+	Amendment, dated as of January 1, 2001, to Executive Employment Agreement with David Berstein, Esq. (9)
10.22+	ARIAD Pharmaceuticals, Inc. 2001 Stock Plan, as amended. (18)
10.23	Revised and Restated Research and Development Agreement, dated as of March 15, 2002, by and between ARIAD Pharmaceuticals, Inc. and ARIAD Corporation. (10)
10.24	Revised and Restated Research and Development Agreement, dated as of March 15, 2002, by and between ARIAD Gene Therapeutics, Inc. and ARIAD Corporation. (10)
10.25+	Executive Employment Agreement, dated as of March 4, 2002, between ARIAD Pharmaceuticals, Inc. and Laurie A. Allen, Esq. (10)
10.26	Stock Transfer Agreement between ARIAD Gene Therapeutics, Inc. and the individuals listed on Exhibit A thereto. (10)

10.27	Notice of Extension of Lease, dated October 2, 2001, from ARIAD Corporation to Forest City Commercial Group. (10)
10.28+	Executive Employment Agreement, dated May 6, 2002, between ARIAD Pharmaceuticals, Inc. and Edward M. Fitzgerald (11)
10.29+	Promissory Note issued pursuant to Executive Employment Agreement, dated as of March 4, 1992, by and between ARIAD Pharmaceuticals, Inc. and Laurie A. Allen, Esq., dated as of July 24, 2002 (13)
10.30+	Executive Employment Agreement, dated June 8, 2000, between ARIAD Pharmaceuticals, Inc. and Timothy Clackson, Ph.D.(14)
10.31+	Amendment to Employment Agreement, dated July 1, 2001, between ARIAD Pharmaceuticals, Inc. and Timothy Clackson, Ph.D. (14)
10.32+	Amendment to Employment Agreement, dated July 12, 2002, between ARIAD Pharmaceuticals, Inc. and Timothy Clackson, Ph.D. (14)
10.33	Agreement of Sublease, dated December 31, 1999, between ARIAD Corporation and Aventis Pharmaceuticals Inc. (14)
10.34	First Amendment to Sublease, dated July 26, 2002, between ARIAD Corporation and Aventis Pharmaceuticals Inc. (14)
10.35	Credit Agreement, dated as of March 12, 2003, by and among ARIAD Pharmaceuticals, Inc., ARIAD Corporation and ARIAD Gene Therapeutics, Inc. and Citizens Bank of Massachusetts. (15)
10.36	Security Agreement - All Assets, dated as of March 12, 2003, by and between ARIAD Pharmaceuticals, Inc. and Citizens Bank of Massachusetts. (15)
10.37	Security Agreement - All Assets, dated as of March 12, 2003, by and between ARIAD Corporation and Citizens Bank of Massachusetts. (15)
10.38	Security Agreement - All Assets, dated as of March 12, 2003, by and between ARIAD Gene Therapeutics, Inc. and Citizens Bank of Massachusetts. (15)
10.39+	Amendment to Employee Agreement, dated September 2, 2003, between ARIAD Pharmaceuticals, Inc. and Harvey J. Berger, M.D. (16)
10.40+	Amendment to Employee Agreement, dated September 2, 2003, between ARIAD Pharmaceuticals, Inc. and Laurie A. Allen, Esq. (16)
10.41+	Amendment to Employee Agreement, dated September 2, 2003, between ARIAD Pharmaceuticals, Inc. and David Berstein, Esq. (16)
10.42+	Amendment to Employee Agreement, dated September 2, 2003, between ARIAD Pharmaceuticals, Inc. and Timothy P. Clackson, Ph.D. (16)
10.43+	Amendment to Employee Agreement, dated September 2, 2003, between ARIAD Pharmaceuticals, Inc. and Edward M. Fitzgerald. (16)
10.44+	Amendment to Employee Agreement, dated September 2, 2003 between ARIAD Pharmaceuticals, Inc. and John D. Iuliucci, Ph.D. (16)
10.45+	Executive Employee Agreement, dated September 10, 2003, between ARIAD Pharmaceuticals, Inc. and Paul J. Sekhri. (16)
10.46+	Non-qualified Stock Option Agreement, dated October 1, 2003, between ARIAD Pharmaceuticals, Inc. and Paul J. Sekhri. (16)
10.47	Amendment No. 1 to Credit Agreement, dated as of December 31, 2003, by and among ARIAD Pharmaceuticals, Inc., ARIAD Corporation and ARIAD Gene Therapeutics, Inc. and Citizens Bank of Massachusetts. (17)
10.48	Stock Issuance Agreement, dated January 13, 2004, between ARIAD Gene Therapeutics, Inc. and ARIAD Pharmaceuticals, Inc. (17)
10.49	Stock Transfer Agreement, dated January 17, 2004, between ARIAD Gene Therapeutics, Inc. and the individuals listed on Exhibit A thereto. (17)
10.50	Amendment No. 2 to Credit Agreement dated as of December 31, 2004 by and among ARIAD Pharmaceuticals, Inc., ARIAD Corporation and ARIAD Gene Therapeutics, Inc. and Citizens Bank of Massachusetts. (19)
10.51	Second Amended and Restated Term Note, dated December 31, 2004, issued ARIAD Pharmaceuticals, Inc., ARIAD Corporation and ARIAD Gene Therapeutics, Inc. to Citizens Bank of Massachusetts. (19)
10.52+*	Executive Employee Agreement, dated August 19, 2002 and First Amendment to Employment Agreement dated September 2, 2003 between ARIAD Pharmaceuticals, Inc. and Camille L. Bedrosian, M.D.
10.53+*	Executive Compensation Arrangements.
10.54+*	Director Compensation Arrangements.
21.1	Subsidiaries of the Company. (19)
23.1	Consent of Deloitte & Touche LLP. (19)
31.1*	Certification of the Chief Executive Officer.
31.2*	Certification of the Chief Financial Officer.
32.1	Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. (19)

Notes to Exhibits:

(+)	Management Contract or Compensatory Plan or Arrangement
(*)	Filed Herewith.
(**)	Confidential treatment has been granted by the Securities and Exchange Commission as to certain portions.
(1)	Incorporated by reference to Registration Statement on Form 10 of the Company filed with the Securities and Exchange Commission on June 25, 1993.
(2)	Incorporated by reference to Registration Statement on Form S-1 of the Company (No. 33-76414) filed with the Securities and Exchange Commission on March 11, 1994.
(3)	Incorporated by reference to Form 8-A of the Company filed with the Securities and Exchange Commission on June 19, 2000.
(4)	Incorporated by reference to Form 10-K of the Company for the fiscal year ended December 31, 1994 filed with the Securities and Exchange Commission on March 31, 1995.
(5)	Incorporated by reference to Amendment No. 1 to the Registration Statement on Form S-3 of the Company (No. 333-38664) filed with the Securities and Exchange Commission on June 23, 2000.
(6)	Incorporated by reference to Forms 10-Q of the Company filed with the Securities and Exchange Commission on May 3, 1997.
(7)	Incorporated by reference to Form 10-K of the Company for the fiscal year ended December 31, 1997 filed with the Securities and Exchange Commission on March 10, 1998.
(8)	Incorporated by reference to Form 10-Q of the Company filed with the Securities and Exchange Commission on August 10, 2000.
(9)	Incorporated herein by reference to Form 10-Q of the Company filed with the Securities and Exchange Commission on May 14, 2001.
(10)	Incorporated by reference to Form 10-K of the Company for the fiscal year ended December 31, 2001 filed with the Securities and Exchange Commission on March 22, 2002.
(11)	Incorporated herein by reference to Form 10-Q of the Company filed with the Securities and Exchange Commission on May 9, 2002.
(12)	Incorporated by reference to Form 10-Q of the Company filed with the Securities and Exchange Commission on August 12, 1997.
(13)	Incorporated by reference to Form 10-Q of the Company filed with the Securities and Exchange Commission on November 12, 1997.
(14)	Incorporated by reference to Form 10-Q of the Company filed with the Securities and Exchange Commission in March 14, 2003.
(15)	Incorporated by reference to Form 10-Q of the Company filed with the Securities and Exchange Commission in May 13, 2003.
(16)	Incorporated by reference to Form 10-Q of the Company filed with the Securities and Exchange Commission in November 4, 2003.
(17)	Incorporated by reference to Form 10-K of the Company filed with the Securities and Exchange Commission on March 2, 2004.
(18)	Incorporated by reference to Registration Statement on Form S-8 of the Company (No. 333-116996) filed with the Securities and Exchange Commission on June 30, 2004.
(19)	Incorporated by reference to Form 10-K of the Company filed with the Securities and Exchange Commission on February 18, 2005.