INTROGEN THERAPEUTICS INC
Form 10-K
March 17, 2008

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

Form 10-K

(Mark One)

þ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2007.

or

o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to .
Commission file number: 000-21291

Introgen Therapeutics, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**74-2704230**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification Number)*
301 Congress Avenue, Suite 1850 Austin, Texas	**78701**
(Address of principal executive offices)	*(Zip Code)*

Registrant s telephone number, including area code:
(512) 708-9310
Securities registered pursuant to Section 12(b) of the Act:
Common Stock, $0.001 par value per share
Securities registered pursuant to Section 12(g) of the Act:

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

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

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 **þ** No **o**

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 the 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. **þ**

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

Accelerated filer **þ** Non-accelerated filer **o**

Large accelerated filer **o** | Smaller reporting company **o**

(Do not check if a smaller reporting company)

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

The aggregate market value of the voting stock (common stock) held by non-affiliates of the Registrant, as of the last day of the Registrant s second fiscal quarter, was approximately $89.1 million based upon the last sale price reported on the Nasdaq Global Market for June 30, 2007. For purposes of this disclosure, shares of common stock held by persons holding more than 5% of the outstanding shares of the Registrant s common stock and shares held by executive officers and directors of the Registrant have been excluded because such persons may be deemed to be affiliates. This determination is not necessarily conclusive.

As of March 11, 2008, the Registrant had 44,004,099 shares of common stock, $0.001 par value per share, issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Certain information required by Items 10, 11, 12, 13 and 14 of Part III of Form 10-K is incorporated by reference to the Registrant s proxy statement for the 2008 Annual Meeting of Stockholders, which will be filed with the Securities and Exchange Commission within 120 days after the close of the Registrant s fiscal year ended December 31, 2007.

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PART I

Item 1. *Business*

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (Securities Act) and Section 21E of the Securities Exchange Act of 1934, as amended (Exchange Act). These statements address our future operations, financial condition, business strategies and other prospective items as well as the statements below under Item 1A. Risk Factors, and include, among other subjects, matters concerning our expectations regarding:

Our expectations regarding various regulatory applications, procedures and approvals relating to our product candidates, including but not limited to our expectations regarding the timing of such applications, procedures and approvals;

The growth of our operations, business and revenues and the growth rate of our costs and expenses;

Future increases in our research and development, sales and marketing and general and administrative expenses;

The sufficiency of our existing cash, cash equivalents, marketable securities and cash generated from operations;

Better efficacy of our product candidates through the use of biomarkers ;

Application of our research and development expertise to other diseases that result from cellular dysfunction and uncontrolled cell growth; and

Access to additional working capital.

The words believe, expect, anticipate and other similar expressions generally identify forward-looking statements. These forward-looking statements are based on our current expectations and entail various risks and uncertainties. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements. We undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements. These forward-looking statements are subject to certain risks and uncertainties that could cause our actual results to differ materially from those reflected in the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in this Annual Report on Form 10-K, and in particular, the risks discussed under the heading Risk Factors in Part I, Item 1A of this Annual Report on Form 10-K and those discussed in other documents we file with the Securities and Exchange Commission (SEC). Investors should carefully review the information contained in Item 1A. Risk Factors and elsewhere in, or incorporated by reference into, this Annual Report on Form 10-K.

Access to Company Information

Our Internet website address is www.introgen.com. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act are available free of charge through our website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Our website and the information contained therein or connected thereto is not intended to be incorporated into this Annual Report on Form 10-K.

Our Corporate Governance Standards, the charters of our Audit Committee, our Compensation Committee and our Nominating and Corporate Governance Committee, as well as our Corporate Code of Ethics for All Employees and Directors and our Corporate Code of Ethics for Financial Officers (which specifically applies to our Chief Executive Officer, Chief Financial Officer and persons performing similar functions) are available on our website under Investor Relations Corporate Governance.

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Overview

Introgen Therapeutics, Inc. was incorporated in Delaware in 1993. We are a biopharmaceutical company focused on the discovery, development and commercialization of targeted molecular therapies for the treatment of cancer and other diseases. We are developing product candidates to treat a wide range of cancers using tumor suppressors, cytokines and other targeted molecular therapies. These agents are designed to increase production of normal cancer-fighting proteins that act to overpower cancerous cells, stimulate immune activity and enhance conventional cancer therapies.

Our primary approach to the treatment of cancers is to deliver targeted molecular therapies that increase production of normal cancer-fighting proteins to induce apoptosis, restore cell cycle or cell growth control and alter gene regulation, including the regulation of angiogenic and immune factors to reduce cancer growth. Our products work by acting as templates for the transient *in vivo* production of proteins that have pharmacological properties. The resultant proteins engage disease-related molecular targets or receptors to produce specific therapeutic effects.

We believe the use of targeted molecular therapies to induce the production of biopharmaceutical proteins represents a new approach for treating many cancers while avoiding the toxic side effects common to traditional therapies. We have developed significant expertise in developing targeted therapies that may be used to treat disease and in using what we believe are safe and effective delivery systems to transport these agents to the cancer cells. We believe we will be able to treat a number of cancers in a way that kills cancer cells without harming normal cells.

Our lead product candidate, ADVEXIN® therapy, combines the p53 tumor suppressor with a non-replicating, non-integrating, adenoviral delivery system we have developed and extensively tested. The p53 molecule is one of the most potent members of a group of naturally-occurring tumor suppressors, which act to kill cancer cells, arrest cancer growth and protect cells from becoming cancerous. We are developing other product candidates for the treatment of cancer using other molecules and delivery systems, such as the mda-7 and FUS1 tumor suppressors.

We believe our research and development expertise gained from our targeted molecular therapies for cancer is also applicable to other diseases that, like cancer, result from cellular dysfunction and uncontrolled cell growth. As a result, we are conducting research in collaboration with medical institutions to understand the safety and effectiveness of our targeted molecular therapy product candidates in the treatment of other diseases.

We typically license the technologies on which our products are based from third parties. These licenses generally grant us exclusive rights for pre-clinical and clinical development, manufacturing, marketing and commercialization of product candidates based on those technologies.

Our product research and development efforts include pre-clinical activities as well as the conduct of Phase 1, 2 and 3 clinical trials. We rely on third parties to treat patients in their facilities under these clinical trials. We produce ADVEXIN therapy and other product candidates in manufacturing facilities we own and operate using production methods we developed. We hold a number of patents or patents pending on certain product candidates and manufacturing processes used to produce certain product candidates.

We have not yet generated any significant revenue from unaffiliated third parties nor is there any assurance of future product revenue. We earn minimal revenue from contract services activities, grants and interest income, as well as rent from the lease of a portion of our facilities to The University of Texas M. D. Anderson Cancer Center. Our ability to generate revenue from the commercial sale of our products in the near future is uncertain. We may never generate revenue from the commercial sale of our products.

Our principal executive offices are located at 301 Congress Avenue, Suite 1850, Austin, Texas 78701. Our telephone number is (512) 708-9310. Our Internet website address is www.introgen.com.

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Background

Targeted Therapeutics

A typical living cell in the body contains thousands of different proteins essential to cellular structure, growth and function. The cell produces proteins according to a set of genetic instructions encoded by DNA molecules, which contains all the information necessary to control the cell s biological processes. DNA is organized into segments called genes, with each gene containing the information required to produce one or more specific proteins. The production of a protein by a particular gene is known as gene expression or activity. Many of the proteins inside a cell participate in a series of receptor interactions and chemical reactions to form what are known as molecular pathways that enable a cell to perform its various metabolic functions. The improper expression of proteins by one or more genes can alter these pathways and affect a cell s normal function, frequently resulting in disease. The interaction of therapeutic agents with proteins in these pathways is known as targeted therapy. Targeted therapies are believed to provide precision in their action that results in less potential for undesirable side effects.

In recent years, scientists have made significant progress toward understanding the nature of the complete set of human genes, referred to as the human genome, and in evaluating the role that genes and the proteins they express play in both normal and disease states. Academic and governmental initiatives have sequenced a large number of the genes that comprise the human genome. As new genes are discovered and decoded within the human genome, scientists are identifying and understanding their functions and interactions within these pathways. These discoveries provide opportunities to develop targeted therapeutic applications for individual genes and the proteins they express, including treatment and prevention of disease. This approach is described as Personalized Medicine.

Delivery Systems

Targeted molecular therapies are often combined with a delivery system, referred to as a vector, which enables the therapeutic molecule to enter the target cell. The vector must be able to deliver a sufficient dose of the therapeutic molecule to cause a beneficial effect. Among the delivery systems currently in use are modified versions of viruses such as adenoviruses. Viruses are often used as delivery systems because they have the ability to efficiently infect cells and carry therapeutic molecules into the cells. These viruses can be modified by deleting pieces of the viral genome that are necessary for viral reproduction and replacing the deleted pieces with a therapeutic molecule. The resulting viral vector retains the ability of the virus to efficiently deliver the therapeutic molecule into cells, while losing the ability to reproduce itself and spread to other cells.

While viruses are an efficient means of introducing therapeutic molecules into cells, synthetic substances have been developed, such as nanoparticles, which are nanoscale structures that have no viral components. These synthetic or nanoparticle systems can also deliver therapeutic molecules to host cells, including systemic routes of administration. These systems can mimic the characteristics of viral vector systems. We use both viral and synthetic nanoparticle systems in our clinical trials to deliver therapeutic molecules.

An Overview of Cancer

Cancer is a leading cause of death in the United States, where approximately 1.4 million people are newly diagnosed with cancer and approximately 566,000 people die from the disease each year. Although the prevalence of specific cancers varies among different populations, we believe that the overall incidence of cancer worldwide is similar to that experienced in the United States. The National Institutes of Health (NIH) estimates the annual direct cost of treating cancer patients in the United States is approximately $89.0 billion.

Cancer is a group of diseases in which the body s normal self-regulatory mechanisms no longer control the growth of some kinds of cells. Cells are frequently exposed to a variety of agents, from both external and internal sources, which damage DNA. Even minor DNA damage can cause certain genes to become overactive, to undergo partial or complete inactivation, or to function abnormally. Genes control a number of protective pathways in cells that prevent cells from becoming cancerous. For example, pathways that transmit signals for a cell to divide have on-off switches that control cell division. Cells also have mechanisms that allow them to determine if their DNA has been damaged, and they have pathways to repair that damage or eliminate the cell.

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The failure of any of these protective pathways can lead to the development of cancer. Cancer is one of the more suitable initial applications for targeted therapies because molecular targets that will lead to the destruction of the cancer cell are understood. The introduction of normal tumor suppressors, such as p53 and mda-7, into cancer cells leads to the destruction of those cancer cells and is a promising approach to treating cancer.

Tumor Suppressors

Tumor suppressors are one class of molecules that play a crucial role in preventing cancer and its spread. This class includes the p53, mda-7, BAK and FUS-1 tumor suppressors, among others.

The best known and most studied of the tumor suppressors is the p53 molecule. The p53 molecule is one of the most potent members of a group of naturally occurring tumor suppressors, which act to kill cancer cells, arrest cancer cell growth and protect cells from becoming cancerous. The p53 tumor suppressor is involved in multiple cellular processes, including control of cell division, DNA repair, cell differentiation, genome integrity and apoptosis, and inhibition of blood vessel growth, or anti-angiogenesis. Angiogenesis refers to the process by which new blood vessels are formed, such as those that supply blood and nutrients to tumors to feed their growth. The p53 tumor suppressor is capable of such wide-ranging effects because it orchestrates the activity of a host of genes and proteins. If a cell suffers DNA damage, p53 responds to the damage by initiating a cascade of protective processes to either repair the DNA damage or to destroy the damaged cell through apoptosis. These p53-mediated processes prevent damaged cells from multiplying and progressing towards cancer.

Current Treatment of Cancer

Conventional therapeutic approaches, including surgery, chemotherapy and radiation therapy, can be ineffective or only partially effective in treating many types of cancer. Surgery is inadequate for many patients because the cancer is inaccessible or impossible to remove completely. Surgery, although applicable to over half of all cancer cases, is also inadequate where the cancer has spread, or metastasized. For certain cancers such as head and neck cancer, surgery can be an effective treatment of the cancer, but may result in severe disfigurement and disability for the patient. Radiation therapy and chemotherapy are, by their nature, toxic procedures that damage both normal and cancerous tissue. Physicians must carefully control administration of these therapies to avoid life-threatening side effects, and many patients are unable to withstand the most effective doses due to toxicity. These conventional therapies typically cause debilitating side effects such as bone marrow suppression, nausea, vomiting and hair loss, and often require additional and costly medications to ameliorate such side effects. Further, certain chemotherapies may not effectively treat tumors that have developed mechanisms to evade the action of the drugs, a phenomenon known as multi-drug resistance.

Due to the various limitations of most conventional cancer therapies, the treatment of cancer remains complex. Physicians refer to the first treatment regimen for a newly-diagnosed cancer, usually surgery if possible, or radiation therapy, as primary treatment. If the primary treatment is not successful, the cancer will re-grow or continue to grow, which is referred to as recurrent disease. In most cases, recurrent cancer is not curable, with secondary treatment regimens, usually chemotherapy, only providing marginal benefits for a limited period of time. Physicians consider recurrent cancer that has proven resistant to a secondary treatment to be refractory. Most new cancer treatments are tested initially in patients with either recurrent or refractory disease because conventional therapies are not likely to provide them with clinical benefit.

Given that established cancer therapies often prove to be incomplete, ineffective and/or toxic to the patient, there is a need for additional new treatment modalities that either complement established therapies or replace them by offering better therapeutic outcomes. For example, in a limited number of cancers, immunotherapy, which seeks to stimulate a patient s own immune system to kill cancer cells, has rapidly become widely accepted by improving on the shortcomings of existing therapy. However, for a broad range of cancers, additional approaches, especially more specific ones that target specific dysfunctional pathways in the cancer cell, are needed to reduce the toxicity and improve upon marginal benefits common to current cancer treatments. Targeted molecular therapy applications are designed to address the cellular dysfunction that causes cancer, compared with small molecule drugs or immunotherapeutic agents, which may act indirectly.

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The Introgen Approach

Our primary approach for the treatment of cancers is to deliver targeted molecular therapies that increase production of normal cancer-fighting proteins. The resultant proteins engage disease-related molecular targets or receptors to produce specific therapeutic effects. We believe we are able to treat a number of cancers in a way that kills cancer cells without harming normal cells.

Most cancers are amenable to local treatment, such as surgery and radiation, which are administered far more often than systemic cancer treatments. Our locally delivered product candidates, such as ADVEXIN therapy and INGN 241 therapy, deposit therapeutic molecules directly into a patient s cancerous tumor by hypodermic syringe. We have systemic formulations for intravenous use in those cases for which a systemic therapy may be indicated and have applied ADVEXIN therapy using a nanoparticle formulation system to deliver our tumor suppressors.

We initially focused on advanced cancers lacking effective treatments and in which local tumor growth control, where the tumor stops growing or shrinks, is likely to lead to measurable benefit. We have expanded our focus to include earlier stage cancers and pre-malignancies. We believe our clinical trials have shown our therapies can be used alone and in combination with conventional treatments such as surgery, radiation therapy and chemotherapy.

The Introgen Strategy

Our objective is to be a leader in the development of targeted molecular tumor suppressor therapies and other products for the treatment of cancer and other diseases that, like cancer, result from cellular dysfunction and uncontrolled cell growth. To accomplish this objective, we are pursuing the following strategies:

Develop and Commercialize ADVEXIN Therapy, INGN 241, INGN 225 and INGN 401 for Multiple Cancer Indications. We plan to continue our development programs to commercialize several of our product candidates in multiple cancer indications, including:

ADVEXIN therapy, using the p53 tumor suppressor;

INGN 241, using the mda-7 tumor suppressor (also known as interleukin 24 or IL-24);

INGN 225, using the p53 tumor suppressor as a highly specific cancer immunotherapy; and

INGN 401 systemic nanoparticle therapy, using the FUS-1 tumor suppressor.

Develop Our Portfolio of Targeted Molecular Therapies and Other Drug Products. Utilizing our research, clinical, regulatory and manufacturing expertise, we are evaluating development of additional molecular therapies for various cancers, including:

INGN 234, an oral rinse or mouthwash formulation containing the p53 tumor suppressor;

INGN 402 and 403, using nanoparticle formulations for systemic delivery of the p53 and mda-7 tumor suppressors; and

INGN 007, a replication-competent viral therapy.

Develop a Systemic Nanoparticle Administration Platform. Early pre-clinical and clinical studies with these new nanoparticle drugs have demonstrated a good safety profile and promising anti-cancer activity. In addition to FUS-1, we incorporate the p53 tumor suppressor and the mda-7 tumor suppressor in these nanoparticle formulations. We also have in-licensed technologies for systemic nanoparticle delivery of DNA, siRNA, proteins, peptides and polypeptides.

Develop the Topical Use of Tumor Suppressors. We plan to continue developing topical product candidates for the treatment or prevention of oral and dermal cancers, specifically INGN 234 referred to above. We believe these treatments are a logical extension of our loco-regional delivery of cancer therapies and

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represent attractive product candidates since pre-malignant and malignant cells can be exposed to natural, biological tumor suppressors and DNA repairing agents.

Establish Targeted Sales and Marketing Capabilities. The oncology market can be effectively addressed by a small, focused sales force because it is characterized by a concentration of specialists in cancer centers and oncology clinics. We believe we can address this market by a combination of building a direct sales force as part of the ADVEXIN therapy commercialization process and pursuing marketing and distribution agreements with corporate partners for ADVEXIN therapy as well as additional products.

Expand Our Market Focus to Non-Cancer Indications. We plan to leverage our scientific, research and process competencies in molecular therapy and vector development to pursue targeted molecular therapies for a variety of other diseases and conditions. While our primary emphasis at this time is on cancer, we believe these therapies could hold promise for diseases such as cardiovascular disease and rheumatoid arthritis, which, like cancer, result from cellular dysfunction or uncontrolled cell growth.

We have an established process for evaluating new drug candidates and advancing them from pre-clinical to clinical development. We have identified and licensed multiple technologies, which we intend to combine with our adenoviral and non-viral vector systems and which we believe are attractive development targets for the treatment of various cancers. We intend to evaluate additional opportunities to in-license or acquire new technologies.

Product Development Overview

ADVEXIN Therapy (p53)

ADVEXIN Therapy Overview and Regulatory Status

ADVEXIN therapy is our lead product candidate. It combines the p53 tumor suppressor with a non-replicating, non-integrating adenoviral delivery system we have developed and extensively tested. The p53 molecule is one of the most potent members of a group of naturally-occurring tumor suppressors, which act to kill cancer cells, arrest cancer cell growth and protect cells from becoming cancerous.

ADVEXIN therapy for head and neck cancer has been designated an Orphan Drug under the Orphan Drug Act. This designation may give us up to seven years of marketing exclusivity for ADVEXIN therapy for this indication if approved by the U.S. Food and Drug Administration (FDA).

The European Medicines Agency (EMEA) Committee for Orphan Medicinal Products granted ADVEXIN therapy an Orphan Medicinal Product Designation in Europe for the treatment of Li-Fraumeni Syndrome. This designation has been ratified by the European Commission. The Orphan Medicinal Product Designation in Europe confers a number of regulatory benefits to ADVEXIN therapy, including access to protocol assistance, reduced regulatory fees and a ten-year period of marketing exclusivity from the date of marketing authorization by the European Commission. Li-Fraumeni Syndrome is an inherited cancer characterized by inherited mutations in the p53 tumor suppressor.

We have submitted, and the EMEA has accepted for review, a Marketing Authorization Application for ADVEXIN therapy under the EMEA s Exceptional Circumstances Approval rules for breakthrough therapies. The application is for the use of ADVEXIN therapy for the treatment of Li-Fraumeni Syndrome (LFS). Under these rules, approval, if granted by the EMEA, will be based on clinical results from the use of ADVEXIN therapy in LFS and also from results of other trials with ADVEXIN therapy in a wide variety of non-inherited solid tumors that share the p53 biomarker abnormality, which characterizes LFS.

The EMEA s Exceptional Circumstances Approval provisions are designed to facilitate access to needed treatments for certain Orphan Medicinal Products. A Marketing Authorization Application filed with the EMEA under these provisions can be reviewed on an expedited basis. This Exceptional Circumstance registration approach is designed by EMEA to be more streamlined than EMEA s Conditional Approval procedures, which are similar to the FDA s Accelerated Approval regulations.

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An audit and inspection of Introgen s facilities and production processes was performed by a European Union Qualified Person (QP) during 2007. This inspection resulted in the QP concluding that ADVEXIN therapy has been manufactured at this site in accordance with the standards of Good Manufacturing Practices in place in the EU for Investigation Medicinal Products (IMPs). This inspection covered all aspects of ADVEXIN therapy manufacture, including production and purification, aseptic filling, labeling, and testing of raw materials, intermediates, and final product, and all quality systems in place for these aspects. This certification was obtained in preparation for the EMEA s inspection we anticipate upon review of the ADVEXIN therapy Marketing Authorization Application.

Most of our regulatory activities involving the EMEA are conducted by Gendux Molecular Limited, a wholly-owned subsidiary of ours based in Ireland.

We plan to analyze data from two Phase 3 clinical trials of ADVEXIN therapy in patients with advanced recurrent squamous cell carcinoma of the head and neck (recurrent head and neck cancer). These trials involve administration of ADVEXIN therapy, both independently and in combination with chemotherapy, in recurrent head and neck cancer.

We received Fast Track designation for ADVEXIN therapy from the FDA under its protocol assessment program as a result of the FDA s agreement with the design of our two Phase 3 clinical trials of ADVEXIN therapy. Under this Fast Track designation, the FDA will take actions to expedite the evaluation and review of the Biologics License Application (BLA) for ADVEXIN therapy. A BLA is the application for approval to market and sell ADVEXIN therapy in the United States. We plan to pursue with the FDA an Accelerated Approval of ADVEXIN therapy, which is one alternative provided under a Fast Track designation.

We reviewed historically successful FDA registration strategies for numerous cancer drugs, noting that during the past decade, approximately 14 cancer drugs were initially approved based upon submissions of Phase 2 clinical data. A number of the Phase 2 trials supporting these approvals employed single-arm studies involving relatively small patient populations. Virtually all of those drugs relied on surrogate endpoints for approval and a substantial number of the products were for orphan drug indications.

We conducted a series of meetings with the FDA to develop and implement the filing strategy for the BLA for ADVEXIN therapy. As a result of these meetings, we are developing and pursuing an initial rolling BLA filing strategy based on data from our Phase 2 and Phase 3 clinical trials of ADVEXIN therapy for treatment of recurrent head and neck cancer. The FDA has concurred that preliminary evaluation of this data suggests a level of efficacy consistent with the standard for the initiation of a rolling BLA. This submission process is also known as Submission Of a Partial Application or SOPA.

The FDA has concluded that ADVEXIN therapy continues to show promise with respect to an unmet medical need since there are limited treatment alternatives in the United States for recurrent head and neck cancer. The FDA has concluded that the clinical development program for ADVEXIN therapy for recurrent head and neck cancer continues to meet the criteria for Fast Track designation. By using new clinical data and new analyses of those data, we hope to more specifically target recurrent head and neck cancer in patients using indicators known as biomarkers , as discussed further below under ADVEXIN Therapy as a Targeted Molecular Therapy. We believe this Personalized Medicine approach will improve efficacy by identifying the patients most likely to benefit from ADVEXIN therapy.

We submitted a SOPA Request to the FDA Division of Cellular and Gene Therapies proposing a rolling BLA for ADVEXIN therapy for the treatment of recurrent head and neck cancer. This request was based primarily on data from our Phase 2 clinical trials. We have proposed to the FDA that, since the basis of the proposed rolling BLA is Phase 2 clinical data utilizing surrogate endpoints, the rolling BLA could be evaluated under the provisions of Subpart H for Accelerated Approval. In order to fully explore all of the review and approval possibilities for ADVEXIN therapy, the FDA has requested we submit new data and analyses from the Phase 2 ADVEXIN therapy clinical trials for recurrent head and neck cancer and conduct efficacy analyses on one or both of our Phase 3 trials. Given that we have two Phase 3 clinical trials in recurrent head and neck cancer as discussed further below, we and the FDA are evaluating the most effective use of the data from these Phase 2 and 3 clinical trials in the review and approval of ADVEXIN therapy. Regulatory approval approaches may allow Accelerated Approval on the basis of

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Phase 2 clinical data with subsequent confirmatory data being provided by the Phase 3 clinical studies or, alternatively, a full approval based on data from Phase 2 and certain Phase 3 clinical trials.

In addition to our original Phase 3 protocol determination to assess patient s genomic mutation status and other Personalized Medicine characteristics, we subsequently reached agreement with the FDA that biomarker evaluations as described in its Critical Path Initiative, which permits new product evaluation on the basis of specifically targeted (i.e., by prognostic or biologic parameters) clinical trials and/or patient populations, can be used in the ADVEXIN therapy approval process. This initiative also encouraged sponsors to examine novel approaches to define tumor responses that correlate with clinical benefit. Our phase 3 statistical analysis plan and clinical protocols describe assessments of p53 biomarker profiles based upon p53 protein levels determined by immunohistochemistry and p53 mutational gene sequence evaluations. We have employed several biomarker and response criteria to evaluate ADVEXIN therapy efficacy as described below.

We are currently conducting the efficacy analysis of one of our ADVEXIN therapy Phase 3 studies. This analysis involves comparing ADVEXIN therapy to methotrexate for the treatment of recurrent head and neck cancer. The efficacy assessment of the randomized, controlled clinical trial is based upon analysis of biomarkers and clinical outcomes. The efficacy evaluation of the Phase 3 study will incorporate the biomarker analyses identified in Phase 2 clinical trials of ADVEXIN therapy of recurrent head and neck cancer. The Phase 3 Statistical Analysis Plan was finalized with input from the FDA. We have followed advice from the FDA to accelerate our Phase 3 safety analysis and to perform an efficacy analysis for this study. An independent Data Safety Monitory Board review in 2006 noted no safety issues with the Phase 3 study. We completed the submission of the Phase 2 data to the FDA in the second quarter of 2007. These data contained information on response rate, survival and biomarker findings associated with the use of ADVEXIN therapy in recurrent head and neck cancer.

During 2008, we plan to:

- Conduct efficacy and biomarker analyses of one or both of our two Phase 3 clinical trials for recurrent head and neck cancer and plan to submit those date to the FDA and EMEA in support of ADVEXIN therapy registration programs;

- Complete filings with the EMEA in support of an Exceptional Circumstance Approval Application for Li-Fraumeni Syndrome cancers.

We have noted a positive correlation between ADVEXIN therapy clinical activity and p53 biomarker pathways in multiple patients with different types of cancer. We are continuing to analyze patient tissue samples for p53 and other biomarker data obtained from previously conducted clinical trials investigating the use of ADVEXIN therapy in various solid cancers. We plan to include relevant data from this research in our submissions to regulatory agencies.

There is no assurance we will be able to achieve these regulatory milestones during the time period we currently anticipate. We may encounter delays in the regulatory process relating to these milestones due to additional information requirements from regulatory authorities, unintentional omissions in our applications, additional government regulation or other delays in the review process. We may update our expectations regarding these regulatory milestones from time to time to reflect new information as it becomes available to us.

ADVEXIN Therapy as a Targeted Molecular Therapy

We identified a set of predictive indicators, commonly referred to as biomarkers, associated with high response rates and increased survival in Phase 2 clinical trials of ADVEXIN therapy in patients with recurrent head and neck cancer. These trials are discussed in more detail below under Other ADVEXIN Therapy Activities. We believe these biomarkers support the use of ADVEXIN therapy as a targeted molecular therapy.

The FDA, the National Cancer Institute (NCI), and the Centers for Medicare & Medicaid Services are undertaking the Oncology Biomarker Qualification Initiative to expedite the development of novel cancer treatments that reflect the Personalized Medicine approach. These agencies define biomarkers as clinical or biological indicators of disease or therapeutic effects, which can be measured through dynamic imaging tests, laboratory tests

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on blood or tissue samples as well as by clinically defined parameters. This initiative was developed to employ biomarkers as a way of speeding the development and evaluation of new cancer therapies. The identification of predictive indicators of ADVEXIN therapy activity is responsive to these initiatives by predicting the patient populations most likely to benefit from a specific cancer therapy.

We have compiled molecular biomarker data from several of our clinical studies in patients with head and neck, lung, prostate and Li-Fraumeni Syndrome cancers. Some of these studies are described in more detail in the following paragraphs. In the subset of patients with tumor samples available for evaluation, there was a statistically significant correlation between specific p53 biomarkers and tumor response after treatment with ADVEXIN therapy. In 54 cancer patients evaluated, tumor response after ADVEXIN therapy monotherapy was observed in 35 percent of patients with an abnormal p53 biomarker, and all tumor responses occurred in the abnormal p53 biomarker group. The association of tumor response with abnormal p53 biomarkers was statistically significant ($p = 0.0013$).

In an analysis of 112 patients in the Phase 2 trial of recurrent head and neck cancer treated with the ADVEXIN therapy dose proposed for regulatory approval, the percentages of patients with tumor responses defined by reductions in bi-dimensional tumor area on CT scan of 50 percent, 25 percent, 10 percent or stable disease for more than 2 treatment cycles were 6 percent, 7 percent, 12 percent and 22 percent, respectively. Median survival for these responder populations were 41, 17, 15 and 10 months, respectively. There was a statistically significant increase in median survival for each of the responder populations compared to the 6 month median survival of the non-responders (tumor reduction of less than 10% and p less than 0.0016). Spontaneous tumor remissions generally are not observed in recurrent head and neck cancer.

Specific p53 biomarkers were associated with a statistically significant increase in tumor responses to ADVEXIN therapy in recurrent head and neck cancer. A reduction in tumor size was observed in 38 percent of patients with specific p53 biomarkers compared to none (zero percent) of the patients with p53 protein normal tumors. The increased tumor response associated with the favorable p53 biomarker was statistically significant ($p = 0.05$). In addition, certain p53 biomarkers were predictive for increased survival following ADVEXIN therapy treatment. Median survival of patients with the predictive p53 biomarker was 11.6 months, compared to 3.5 months for patients with other p53 profiles ($p = 0.0007$). These biomarker analyses were conducted with pre-treatment samples from 28 patients on a completely blinded basis by an independent laboratory that was not aware of the clinical results of the study.

The targeted molecular therapy provided by ADVEXIN therapy is evidenced by its use to successfully treat a Li-Fraumeni Syndrome cancer patient on a compassionate use basis under a protocol authorized by the FDA. Li-Fraumeni Syndrome cancer patients have inherited defects in the p53 tumor suppressor that is the target of ADVEXIN therapy. Our treatment of a tumor in a Li-Fraumeni Syndrome patient with ADVEXIN therapy led to improvement of tumor-related symptoms and resulted in a complete response in the treated lesion as determined by positron emission tomography (PET) computerized tomography (CT) scans. PET-CT scans measure the metabolic activity of tumors and are being increasingly utilized in the management of cancer patients because they provide more sensitive assessments of treatment effects compared to conventional CT and magnetic resonance imaging scans.

This Li-Fraumeni Syndrome study defined important biomarkers to guide the administration of ADVEXIN therapy to patients with other cancers who display p53 pathway abnormalities. Our molecular analysis of biopsies of the Li-Fraumeni Syndrome tumor before and after treatment identified key markers of p53 pathway abnormalities that are used to predict and evaluate the effects of ADVEXIN therapy. These markers included detection of abnormal levels of p53 protein that identify aberrant p53 pathways and the induction of molecular markers of tumor growth control and tumor cell death that validate ADVEXIN therapy s mechanisms of action. We believe these biomarkers can be used to identify patients most likely to benefit from ADVEXIN therapy.

The EMEA Committee for Orphan Medicinal Products has granted ADVEXIN therapy an Orphan Medicinal Product Designation in Europe for the treatment of Li-Fraumeni Syndrome. This designation has been ratified by the European Commission. The Orphan Medicinal Product Designation in Europe confers a number of regulatory benefits to ADVEXIN therapy, including access to protocol assistance, reduced regulatory fees and a 10-year period of marketing exclusivity from the date of approval.

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We have submitted, and the EMEA has accepted for review, a Marketing Authorization Application for ADVEXIN therapy under the EMEA s Exceptional Circumstances Approval rules for breakthrough therapies. The application is for the use of ADVEXIN therapy for the treatment of Li-Fraumeni Syndrome (LFS). Under these rules, approval, if granted by the EMEA, will be based on clinical results from the use of ADVEXIN therapy in LFS and also from results of other trials with ADVEXIN therapy in a wide variety of non-inherited solid tumors that share the p53 biomarker abnormalities, which characterize LFS.

The EMEA s Exceptional Circumstances Approval provisions are designed by EMEA to facilitate access to needed treatments for certain Orphan Medicinal Products. A Marketing Authorization Application filed with the EMEA under these provisions can be reviewed on an expedited basis. This registration approach is more streamlined than EMEA s Conditional Approval procedures, which are similar to the FDA s Accelerated Approval regulations. As a result of the encouraging clinical findings in treating Li-Fraumeni Syndrome, we are making ADVEXIN therapy available on a compassionate use basis to qualified Li-Fraumeni Syndrome patients with tumors refractory to standard treatment.

Li-Fraumeni Syndrome is an inherited genetic disorder that greatly increases the risk of developing several types of cancer typically with initial occurrence at a young age. The majority of Li-Fraumeni Syndrome families have inherited mutations in the p53 tumor suppressor. The findings described above have been presented at the annual meetings of the American Society of Gene Therapy (ASGT) and the American Society of Clinical Oncology (ASCO).

Other ADVEXIN Therapy Activities

We performed a Phase 2 clinical trial of ADVEXIN therapy combined with neoadjuvant chemotherapy and surgery in women with locally advanced breast cancer. The results of this study were published in the journal *Cancer.* Objective clinical responses were seen following the combined therapy in 100% of the patients with a median of 80% reduction in tumor size. Following tumor shrinkage, complete tumor removal by subsequent surgery was achieved in 100% of the patients. At a median follow-up of 37 months (range, 30-41 months), four patients (30%) developed systemic recurrence and two patients died. The estimated breast cancer-specific survival rate at three years was 84%. There was no increase in systemic toxicity. Neoadjuvant treatments are administered prior to surgery and represent a novel and increasingly applied approach to making surgical tumor resections less invasive, improving outcomes and facilitating breast conservation.

We completed a Phase 2 clinical trial of ADVEXIN therapy administered as a complement to radiation therapy in non-small cell lung cancer. In the 19 patients who participated in the trial, combined ADVEXIN therapy and radiation treatment resulted in 63% biopsy-proven complete responses at three months, which is approximately four times the expected rate using radiotherapy alone. The results of this study were published in *Clinical Cancer Research.*

We performed a Phase 1/early Phase 2 clinical trial of ADVEXIN therapy for the treatment of advanced, unresectable, squamous cell esophageal cancer. Results of this trial in patients with esophageal cancer refractory to chemotherapy and radiation indicate three of the ten patients treated, or 30%, had negative biopsies after receiving ADVEXIN therapy. The median survival of the patients treated with ADVEXIN therapy was approximately twelve months, which compared favorably to historical controls in which a median survival of less than ten months was observed for patients who did not respond to standard treatments. This clinical trial was performed at Chiba University in Japan.

We have completed other clinical trials of ADVEXIN therapy, including Phase 1 studies in prostate cancer and bronchoalveolar carcinoma. To date, clinical investigators at sites in North America, Europe and Japan have treated over 600 patients with ADVEXIN therapy, establishing a large safety database. Findings from several of our clinical trials have been published in *Clinical Cancer Research* and *Proceedings of the American Society for Clinical Oncology* as well as presented at numerous conferences, including the San Antonio Breast Cancer Conference and various meetings of the ASCO, ASGT and the American Association for Cancer Research.

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A growing body of data suggests ADVEXIN therapy demonstrates clinical activity in a variety of cancer indications. Safety data from our clinical trials suggest this activity may be achieved without the treatment-limiting side effects frequently associated with many other cancer therapies.

Our clinical trials indicate ADVEXIN therapy is well tolerated as a monotherapy. The addition of ADVEXIN therapy to standard chemotherapy, surgery or radiation does not appear to increase the frequency or severity of side effects normally associated with these treatment regimens.

Pre-clinical studies have provided insight into the molecular pathways by which the p53 tumor suppressor, the active component of ADVEXIN therapy, kills tumor cells. These studies were undertaken to provide additional molecular data supporting the activity observed during the clinical development of ADVEXIN therapy and to provide additional information regarding the specific pathways, including anti-angiogenesis or the reduction of blood vessels supplying the tumor, that mediate the observed clinical effects of ADVEXIN therapy. The studies were conducted by our collaborators at Okayama University in Japan, The University of Texas M. D. Anderson Cancer Center and other academic institutions and were published in *Molecular Cancer Therapeutics* and other scientific journals..

Other data suggest the enhanced therapeutic effects of a combination of ADVEXIN therapy and Erbitux® therapy in an animal model of human non-small cell lung cancer. Other pre-clinical studies conducted by our collaborators at Wayne State University, the Karmanos Cancer Institute located in Detroit, Michigan and the University of California-Irvine, as published in *The Laryngoscope*, show that the combination of ADVEXIN therapy and docetaxel resulted in increased levels of programmed cell death in head and neck tumor cells.

We hold a worldwide, exclusive license to a family of patent applications directed to combination therapy using ADVEXIN therapy with inhibitors of epidermal growth factor receptors (EGFr inhibitors) such as Erbitux®, Vectibix®, Tarceva® and Iressa®. We licensed this family of patents from M. D. Anderson Cancer Center. This important technology is based on the discovery by scientists at M. D. Anderson Cancer Center that p53 therapies (which is the basis for our ADVEXIN therapy) and mda7 therapies (which is the basis for our INGN 241 product candidate discussed below) can work synergistically with inhibitors of epidermal growth factor receptors to arrest tumor growth. Preclinical studies have shown that this therapeutic approach results in a greater level of cancer cell death than when either therapy is used alone.

We hold the worldwide rights for pre-clinical and clinical development, manufacturing, marketing and commercialization of ADVEXIN therapy.

INGN 241 (mda-7)

INGN 241 uses the mda-7 tumor suppressor, that we believe, like the p53 tumor suppressor, has broad potential to induce apoptosis or cell death in many types of cancer. We have combined the mda-7 tumor suppressor with our adenoviral delivery system to form INGN 241. Our pre-clinical trials have shown the protein produced by INGN 241 suppresses the growth of many cancer cells, including those of the breast, lung, ovaries, colon, prostate and the central nervous system, while not affecting the growth of normal cells. Because INGN 241 kills cancer cells even if other tumor suppressors, including p53, are not functioning properly, it appears mda-7 functions via a novel mechanism of tumor suppression.

We have completed a Phase 1/early Phase 2 clinical trial using INGN 241 to evaluate safety, mechanism of action and efficacy in approximately 22 patients with solid tumors. This trial indicated that in patients with solid tumors, INGN 241 was well tolerated, was biologically active and displayed minimal toxicity associated with its use. Although INGN 241 was administered directly to tumors, evidence of distant biologic activity was observed, suggesting this therapy may have utility in treating primary tumors as well as metastatic disease. We are conducting a Phase 2 clinical trial using INGN 241 in patients with metastatic melanoma. We are also conducting a Phase 3 clinical trial using INGN 241 in combination with radiation therapy for solid tumors.

Data from our Phase 1/early Phase 2 clinical trial of INGN 241 in patients with solid tumors demonstrate that direct injection of INGN 241 induced programmed cell death in 100% of the tumors treated, even in patients who had failed prior therapy with other anti-cancer drugs. Clinical responses were observed in 44% of the treated lesions,

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including complete and partial responses in two patients with melanoma. Patients treated with INGN 241 had increases in a subset of T-cells that help to destroy cancer cells, which is consistent with the role of the mda-7 protein as a member of the interleukin family of immune stimulating proteins.

We have conducted pre-clinical work indicating that in addition to its known activity as a tumor suppressor, the protein produced by mda-7 may also stimulate the body s immune system to kill metastatic tumor cells and to protect the body against cancer, thereby offering the potential of providing an added advantage in treating various cancers because it may attack cancer using two different mechanisms. Because the mda-7 tumor suppressor may act as a cytokine, or immune system modulator, it is also known as interleukin 24, or IL-24. The mda-7 molecule may also work as a radiation sensitizer to make several types of human cancer cells more susceptible to radiation therapy. We have seen evidence of this effect in pre-clinical and clinical settings.

We have identified the molecular pathways by which mda-7, the active component of INGN 241, induces growth arrest and programmed cell death or apoptosis in cancer cells. Pre-clinical studies using lung cancer cells have demonstrated the mda-7 protein binds to a critical cellular enzyme known as PKR. The binding of mda-7 to PKR is essential for the anti-cancer activity of INGN 241. The identification of this binding partner demonstrates a significant advancement in understanding how this therapeutic can be effective against cancer. Additional studies have identified bystander killing of pancreatic cancer cells by the mda-7 protein. Bystander killing involves the killing of neighboring tumor cells by the mda-7 protein released from adjacent INGN 241-treated tumor cells.

Pre-clinical data indicate the combination of INGN 241 and Velcade® (Bortezeamib), marketed by Millennium Pharmaceuticals, Inc., can result in increased tumor cell killing in human ovarian cancer cells. These data showed that co-administration of INGN 241 and Velcade®, a known protein degradation inhibitor, further elevated mda-7 protein levels and caused a significant increase in killing of ovarian cancer cells. These findings are published in *Cancer Gene Therapy*.

Pre-clinical data indicate INGN 241 works synergistically with celecoxib, marketed by Pfizer as Celebrex®, to inhibit the growth and increase killing of breast cancer cells. The combination of celecoxib and INGN 241 showed greater than additive increases in cell death compared with either therapy alone and also resulted in the suppression of tumor cell growth.

Pre-clinical data indicate INGN 241 and bevacizumab, marketed by Roche Holding AG and Genentech, Inc. (Genentech) as Avastin®, each inhibit tumor angiogenesis through distinct mechanisms in models of lung cancer. Study results demonstrate the combination of INGN 241 and Avastin® significantly increases anti-tumor activity compared with either agent used separately. We have observed synergistic activity resulting in a positive therapeutic effect in the treatment of lung cancer in laboratory animals following the combination of the two agents. In contrast, treatment with Avastin® alone demonstrated only minor tumor regression in those animals. These findings have been published in *Molecular Therapy*, the journal of the American Society of Gene Therapy.

Pre-clinical data indicate the combination of INGN 241 and Tarceva®, marketed by Genentech, more significantly inhibits tumor cell growth than Tarceva® administered alone. The preclinical data suggest the two agents work in concert to inhibit activity of the epidermal growth factor receptor, a potent driver for cell growth in many types of cancer.

Our pre-clinical work indicates INGN 241 effectively kills cancer cells that are resistant to cisplatin, one of the most commonly used chemotherapeutic agents. These pre-clinical studies identified a novel defect in a protein degradation pathway in the cisplatin-resistant cells. This defect enhances the activity of INGN 241, suggesting that INGN 241 may have particular utility in treating cancers that do not respond to cisplatin. We have also observed that INGN 241 can restore cisplatin sensitivity to certain cancer cells that have become cisplatin-resistant.

In pre-clinical studies, we have observed the expression of mda-7 in ovarian cancer cells activates a cell death or apoptotic pathway regulated by the Fas signaling system, a key signaling system in immune regulation, apoptosis and drug resistance. This activation resulted in significant increases in apoptosis and inhibition of cancer cell proliferation that were specific to cancer cells. These effects were not observed in normal ovarian tissue, supporting previous data showing a cancer-selective effect of INGN 241.

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We have published preclinical data describing how an important tumor survival pathway impacts the anticancer activity of INGN 241. Inhibition of this pathway, known as NF-kB, enhanced the tumor killing effects of INGN 241 in cell culture and in preclinical models of human tumors. Researchers at Introgen and The University of Texas M. D. Anderson Cancer Center conducted theses studies. The data appear in the publication *Molecular Cancer Therapeutics*.

We have published preclinical data demonstrating that vitamin E succinate (VES) enhances the cytotoxic effects of INGN 241 in ovarian cancer cells. VES is a derivative of Vitamin E that has demonstrated potent antitumor activity in cell and animal models of cancer. Researchers at Introgen and The University of Texas M. D. Anderson Cancer Center collaborated on the studies. The results appear in the publication *Cancer Letters*.

We have published the results of a pre-clinical study indicating INGN 241 may suppress the growth *in vivo* of non-small cell lung cancer through apoptosis in combination with anti-angiogenesis. The data demonstrate INGN 241 can inhibit production of the VEGF protein, a potent inducer of angiogenesis, within lung cancer cells, which in turn inhibits tumor angiogenesis, a key requirement for tumor growth.

Pre-clinical work has demonstrated administration of INGN 241 results in the development of systemic immune responses against tumor cells and suggests INGN 241 could be used as a novel cancer molecular immunotherapy. In pre-clinical studies, implantation of INGN 241-treated tumor cells into mice resulted in significant inhibition of tumor growth. Significantly, mice immunized with INGN 241-treated cells showed inhibition of tumor growth after a subsequent challenge with additional tumor cells.

We have conducted pre-clinical studies with INGN 241 in breast cancer cell lines as a single agent, as well as in combination with radiation therapy, with chemotherapy (Taxotere® or Adriamycin®), with the hormone inhibitor Tamoxifen® and with Herceptin®, a biologic cancer therapy. In all settings, INGN 241 reduced cell growth and increased programmed tumor cell death (apoptosis). This effect was enhanced when combined with drugs currently used to treat breast cancer. In animal models of breast cancer, treatment with INGN 241 alone or in combination with radiation therapy resulted in significant decreases in tumor growth. In particular, our pre-clinical studies have shown treatment with a combination of INGN 241 plus Herceptin® induces cell death in Her-2/neu positive breast cancer cells at a rate greater than that seen with either agent alone. In these studies, it was also noted while Herceptin® exhibited no activity on Her-2/neu negative cells, INGN 241 did induce cell death in these cells.

Pre-clinical studies indicate the mda-7 protein released from cells treated with INGN 241 can kill nearby, untreated breast cancer cells resulting in additional therapeutic effect. This bystander effect occurs when the therapeutic protein binds to certain receptors on nearby cancer cells. We believe this bystander effect is significant because it could indicate the number of cancer cells INGN 241 can kill is greater than the number of cells that take up this novel investigational cancer therapy.

Pre-clinical studies have demonstrated that INGN 241 can induce human lung cancer cells to undergo apoptosis, or programmed cell death, through the synergistic action of INGN 241 and a class of tumor-targeted drugs known as heat shock protein 90 (Hsp90) inhibitors. We have observed the combination of INGN 241 and two Hsp90 inhibitors can result in the enhancement of cell death in lung cancer cells. This combination treatment inhibited tumor cell movement, suggesting an anti-metastatic effect.

Findings and results arising from our development of INGN 241 have also been published in the *Journal of Leukocyte Biology*, *Cancer Gene Therapy*, *Cancer Research*, *Molecular Therapy*, *Oncogene*, *Surgery*, and *International Immunopharmacolgy.* Data from this work have also been presented at the annual San Antonio Breast Cancer Symposium.

We have exclusive licenses from Columbia University and The University of Texas M. D. Anderson Cancer Center to mda-7 tumor suppressor technology for our therapeutic applications. The technology licensed from M. D. Anderson Cancer Center was developed pursuant to sponsored and collaborative research programs over the past several years. Pre-clinical studies regarding the active component of INGN 241 have included research at The University of Texas M. D. Anderson Cancer Center and Columbia University. We have an exclusive license to a family of patent applications covering methods and compositions of the mda-7 tumor suppressor with several types of currently available therapies, including conventional chemotherapies, vascular endothelial growth factor

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inhibitors, such as Avastin® (bevacizumab), non- steroidal anti-inflammatory drugs, which include COX-2 inhibitors such as Celebrex®, (celecoxib) and proteasome inhibitors, which can increase therapeutic functionality, such as Velcade® (bortezemib).

INGN 225 (p53 molecular immunotherapy)

We are developing INGN 225 using the p53 tumor suppressor in a different manner to create a molecular immunotherapy for cancer that stimulates a particular type of immune system cell known as a dendritic cell. Research published in *Current Opinion in Drug Discovery & Development* concluded that the p53 tumor suppressor can be used with a patient s isolated dendritic cells as an antigen delivery and immune enhancing therapeutic strategy. Pre-clinical testing has shown that the immune system can recognize and kill tumors after treatment with dendritic cells stimulated by the p53 tumor suppressor, which suggests a molecular immunotherapy consisting of dendritic cells stimulated by p53 could have broad utility as a treatment for progression of tumors.

Moffitt Cancer Center is conducting a Phase 2 randomized, controlled study of INGN 225 involving as many as 80 patients with metastatic, small-cell lung cancer. Mutations in the p53 tumor suppressor occur in approximately 90 percent of the patients with this disease such that this patient population is well-suited for testing the clinical efficacy of INGN 225. The National Institutes of Health National Cancer Institute awarded to Moffitt Cancer Center a grant of approximately $1.3 million to fund this trial. We have the right to, and expect we will, use the clinical data generated from this study as part of our INGN 225 commercial development efforts.

We have completed a Phase 1/2 clinical trial in collaboration with the Moffitt Cancer Center at the University of South Florida in patients with small cell lung cancer. We are also conducting a Phase 1/2 trial in patients with breast cancer in collaboration with the University of Nebraska. In this trial, INGN 225 was administered after the patients have been treated with standard chemotherapy.

The results from the Phase 1/2 trial in patients with extensive-stage small cell lung cancer who were previously treated with chemotherapy demonstrated a 45 percent response rate in patients with platinum-resistant small-cell lung cancer who received chemotherapy following INGN 225. The historical response rate is generally less than 15 percent in these patients. Among the 43 patients evaluable for survival following INGN 225 treatment, survival was also improved compared to historical controls.

INGN 234 (p53 topical)

We are developing INGN 234 for the prevention of oral cancers and the treatment of oral leukoplakia. We conducted a Phase 1 clinical trial in which p53 was administered in an oral mouthwash formulation to prevent precancerous oral lesions from developing into cancerous lesions.

We are conducting pre-clinical work on other topical administrations of tumor suppressors to control or prevent oral or dermal cancers. We are investigating multiple delivery platforms, including both viral and non-viral approaches. We are also investigating combining delivery of our therapies with rinses, patches, ointments and enhancing polymers. We believe the opportunity exists to develop non-toxic treatments for pre-malignant and malignant cells that can be easily exposed to natural biological tumor suppressor and DNA repairing molecules.

We have entered into an alliance agreement with Colgate-Palmolive to develop and potentially market oral healthcare products. See Part I, Item 2. Management s Discussion and Analysis of Financial Condition and Results of Operation Business and Collaborative Arrangements Alliance with Colgate-Palmolive Company below for further discussion of this alliance agreement.

INGN 401 (FUS-1)

INGN 401 uses systemically administered nanoparticles to express the tumor suppressor FUS-1. We exclusively license the FUS-1 technology from M. D. Anderson Cancer Center.

A Phase 1/early Phase 2 clinical trial is in process at M. D. Anderson Cancer Center testing INGN 401 in patients with advanced non-small cell lung cancer who have been treated previously with chemotherapy. INGN 401

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was successfully delivered into the tumors of stage IV lung cancer patients and was found to be active in patients metastatic non-small cell lung cancer tumors. This finding is the first clinical demonstration that a gene can be injected intravenously and be taken up and expressed at high levels in cancer cells at distant sites.

The interim results of this clinical trial were presented by the M. D. Anderson Cancer Center investigators at the 2007 annual meeting of the American Association of Cancer Research. That presentation noted this clinical trial consists of thirteen patients first treated with front line cisplatin combination chemotherapy, which failed to halt their disease. They received INGN 401 as a second line therapy. At the time of this presentation, the median survival time for the patients in this study was 14.6 months which compares favorably to a seven-month median survival time for patients receiving conventional second line therapy. No significant drug-related toxicity has been observed with respect to INGN 401. The clinical trial continues and no maximum tolerated dose has been established.

Pre-clinical data suggests that INGN 401 may have utility as a monotherapy in lung cancer. We have observed significant inhibition of tumor growth in lung cancer animal models following INGN 401 monotherapy treatment when compared with untreated animals.

Pre-clinical data suggests that a combination of ADVEXIN therapy and INGN 401, administered intravenously in nanoparticle formulations, is capable of significantly shrinking metastatic tumors in models of human lung cancer. The data indicates that while ADVEXIN therapy and INGN 401 are each effective as a monotherapy, more powerful results were observed when the treatments were combined. The data also indicates that the nanoparticle treatments had no demonstrable adverse effects on normal cells.

INGN 401 has demonstrated synergistic activity with gefitinib (Iressa®), a novel class of anti-cancer agents that decrease tumor growth by inhibiting growth factor receptors that promote tumor proliferation. While gefitinib can produce dramatic responses in a small subset of lung cancer patients, most lung cancers are refractory to its effects. The data indicate nanoparticle delivery of INGN 401 can synergize with Gefitinib in killing lung tumor cells resistant to gefitinib alone. Furthermore, in gefitinib-sensitive tumors, INGN 401 delivery significantly enhanced anti-cancer activity.

Data and findings from our work to develop INGN 401 have been published in *Cancer Gene Therapy* and *Cancer Research.* We are working with investigators at MDACC to design a pivotal clinical trial for INGN 401.

INGN 402 and INGN 403 (nanoparticle formulations of p53 and mda-7, respectively)

We are developing two nanoparticle formulations for systemic delivery. INGN 402 contains the p53 tumor suppressor and INGN 403 contains the mda-7 tumor suppressor, also known as interleukin 24 (IL-24). Early studies with these new nanoparticle drug candidates have demonstrated a good safety profile and promising anti-cancer activity in murine lung tumor models. Data from the mda-7 nanoparticle studies was published in *DNA and Cell Biology* and presented at the annual meetings of the ASGT and ASCO.

INGN 007 (oncolytic viral therapy)

We are developing INGN 007, a replication-competent viral therapy, which is also called an oncolytic virus, in which viruses bind directly to cancer cells, replicate in those cells, and cause those cancer cells to die. Pre-clinical testing in animal models indicates INGN 007 over-expresses a molecule that allows the vector to saturate the entire tumor. This testing has demonstrated that INGN 007 has a favorable safety profile and significantly inhibits tumor growth. Findings from this work to develop INGN 007 have been published in *Cancer Research* and were presented at a meeting of the ASCO. We are developing this replication-competent viral therapy through our strategic collaboration with VirRx. We have submitted to the FDA our Investigational New Drug application for INGN 007 in solid tumors.

Other Research and Development Programs

We are conducting a number of pre-clinical and research programs involving a variety of targeted therapies for the treatment of cancer. These programs involve molecules that act through diverse mechanisms to inhibit the growth of or kill cancer cells.

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We license from M. D. Anderson Cancer Center a group of molecules known as the 3p21.3 family. Pre-clinical research performed on these molecules by collaborators at The University of Texas Southwestern Medical Center and M. D. Anderson Cancer Center suggests that the 3p21.3 family plays a critical role in the suppression of tumor growth in lung and other cancers. This family of molecules includes the FUS-1 tumor suppressor we are testing as INGN 401 and the NPRL2 gene. We are working with M. D. Anderson Cancer Center to further evaluate other 3p21.3 family molecules as clinically relevant therapeutics.

The NPRL2 gene is believed to be important in the genesis of multiple types of cancer, including lung cancer and renal cell cancer. Preclinical data with the NPRL2 tumor suppressor gene demonstrated that systemic treatment using NPRL2 nanoparticles in combination with cisplatin resulted in a 90% inhibition of tumor growth in human lung cancer cells compared to control treatments. The ability to use a biomarker assay for NPRL2 to identify patients who might not experience significant benefit from treatment with cisplatin alone could represent an important advance in cancer treatment. Development of NPRL2 systemic nanoparticles may help patients whose tumors are resistant to cisplatin by re-sensitizing tumors to this commonly used therapy. Study results involving the NPRL2 treatment have been published in *Cancer Research*, a biomedical journal, and *Cancer Wise*, an electronic publication of M. D. Anderson Cancer Center.

We are evaluating additional molecules, including BAK, which hold promise as therapeutic candidates. BAK is a pro-apoptotic molecule that kills cancer cells. We are working with our collaborators at M. D. Anderson Cancer Center to identify and develop both viral and non-viral vectors containing this therapeutic molecule. We have exclusive rights to use the BAK molecule under a license with Genentech, Inc.

We believe our research and development expertise gained from our molecular therapies for cancer is also applicable to other diseases that, like cancer, result from cellular dysfunction and uncontrolled cell growth. As a result, we are conducting research in collaboration with medical institutions to understand the safety and effectiveness of our molecular therapy product candidates in the treatment of other diseases.

Introgen Enabling Technologies

We have a portfolio of technologies, referred to as enabling technologies, for administering targeted molecular products to patients and for enhancing the effects of these products. We plan to utilize these technologies to develop additional products to treat cancer and other diseases which, like cancer, result from cellular dysfunction and uncontrolled cell growth.

Nanoscale Viral Delivery Systems

We have demonstrated that ADVEXIN therapy and INGN 241, which use our adenoviral vector system, enter tumor cells and express their proteins despite the body s natural immune response to the adenoviral vector. While the adenoviral vector system used appears to be appropriate for the treatment of cancer by local administration, we have developed a number of additional systems that utilize modified adenoviral vectors for delivery. These systems also may be applicable to indications where activity of the therapeutic molecule for disease treatment is required for longer periods of time or where systemic administration may be necessary.

Nanoparticle Systemic Delivery Platform

We hold an exclusive, worldwide license to a portfolio of patents from M. D. Anderson Cancer Center focused on the delivery of biologically active proteins, polypeptides and peptides using novel nanoparticle delivery complexes. These systemically-delivered nanoparticles are applicable to a wide variety of bioactive protein-derived molecules. This technology is directed to specially designed nanoparticles that carry and deliver therapeutic bioactive proteins, polypeptides and peptides to targeted cells, such as cancer cells.

These nanoparticle formulations have certain therapeutic advantages. While peptides alone may be rapidly removed from circulation, requiring frequent administration and high doses, our nanoparticle-polypeptide formulations can increase therapeutic activity and protect against rapid degradation normally associated with peptide

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therapy. Our peptide nanoparticles can include special targeting molecules to further enhance cellular uptake and to improve therapeutic efficacy. These formulations can be expected to have a systemic effect.

We have licensed and are developing a non-viral, nanoparticle delivery platform as a complementary delivery technology for certain types of cancers, or clinical indications, particularly those that require systemic administration. We are using this technology in INGN 401, INGN 402 and INGN 403.

Data published in *DNA and Cell Biology* highlight the potential utility of combining our nanoparticle delivery system with the mda-7 tumor suppressor for the treatment of lung cancer. This data demonstrate that combining this innovative delivery system with the mda-7 tumor suppressor results in potent anti-cancer effects and systemic tumor growth inhibition in an animal model of lung cancer. We believe combining potent anti-cancer tumor suppressors, such as mda-7 or p53, with our nanoparticle delivery system could allow development of clinical strategies to attack metastatic cancers.

Replicating Viral Delivery Systems

Through our strategic collaboration with VirRx, we are developing replication-competent viral therapies, also known as oncolytic viruses, in which viruses bind directly to cancer cells, replicate in those cells, and cause those cancer cells to die. This technology forms the basis for our INGN 007 product development. We anticipate pursuing clinical confirmation as to whether this self-amplifying delivery system can complement our existing adenoviral delivery system, which is replication disabled, in selected therapeutic scenarios, in applications beyond INGN 007.

Additional Enabling Technologies

Our research and licensing activities include a number of additional technologies that expand our capabilities. These activities include the following:

Multi-Molecule Vector System. This technology is designed to combine multiple therapeutic molecules with a vector. This approach has the potential for use with both viral and non-viral delivery systems to allow the activity of more than one molecular therapy at a time for disease treatment.

Pro-Apoptotic Molecule Delivery System. This technology is designed to allow the activity of pro-apoptotic, or apoptosis-inducing, molecules during treatment only, while temporarily suppressing the ability of the apoptotic molecule to kill producer cells during production. This system could facilitate more efficient production of pro-apoptotic agents.

Tissue-Specific Targeting Systems. This technology is designed to promote the activity of the therapeutic molecule in only those cells which have been affected by the disease being targeted. It is intended to be applied to both viral and non-viral vectors.

Manufacturing and Process Development

Commercialization of a targeted molecular therapy product requires process methodologies, formulations and quality release assays to produce high quality materials at a large scale. We believe the expertise we have developed in the areas of manufacturing and process development represents a competitive advantage. We have developed scale-up methodologies for both upstream and downstream production processes, formulations that are safe and stable, and product release assays that support product quality control.

We own and operate state-of-the-art manufacturing facilities, including a commercial-scale, validated manufacturing facility designed to comply with the FDA s Current Good Manufacturing Practice requirements, commonly known as CGMP requirements. We have produced numerous batches of ADVEXIN therapy clinical material for use in our Phase 1, 2 and 3 clinical trials. The design and processes of the facility used for ADVEXIN therapy production have been reviewed with the FDA. We plan to use our facilities for the market launch of ADVEXIN therapy. We also use our facilities to produce INGN 241 and other investigative materials for use in clinical trials of those product candidates. From time to time, as requirements for our own products allow, we also manufacture pre-clinical and clinical materials for outside parties for a fee under contract services arrangements.

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As a result of an audit and inspection by a European Union Qualified Person (QP), we are certified with the Medicines and Healthcare Products Regulatory Agency (MHRA) that our facilities and production processes are compliant with European Good Manufacturing Practices for the manufacture and testing of ADVEXIN therapy. The MHRA is the competent authority in the UK and is a component of the EMEA.

Business and Collaborative Arrangements

Alliance with Colgate-Palmolive Company

In November 2005, we entered into an alliance agreement with Colgate-Palmolive to develop and potentially market oral healthcare products. In connection with the alliance agreement and pursuant to a common stock purchase agreement, Colgate-Palmolive purchased 3,610,760 shares of our common stock at a price of $5.539 per share for a total of approximately $20.0 million. Under the common stock purchase agreement, Colgate-Palmolive agreed to vote these shares and any other shares of our capital stock owned by it in favor of corporate actions approved by our Board of Directors. This voting agreement is subject to suspension or termination upon certain events specified in the common stock purchase agreement.

Pursuant to the alliance agreement, we are conducting research and development activities involving specialized formulations of our molecular therapies (such as p53, mda-7 and FUS-1) targeted at precancerous conditions of the oral cavity and at oral cancer. The objective is to market these formulations as oral healthcare products. The alliance agreement excludes certain of our cancer product candidates, including ADVEXIN therapy, INGN 241, INGN 225 and INGN 401.

Colgate-Palmolive has a first right to negotiate development, manufacturing, marketing and distribution rights with us for specifically designed oral healthcare products for use in the human oral cavity that may result from these research and development activities. We agreed to use commercially reasonable efforts to develop one or more specialized oral formulations through completion of Phase 2 clinical trials within the seven-year term of the alliance agreement. We can terminate our development efforts earlier under certain circumstances, including if the prospects for these products do not warrant further investment, or if we expend $15.0 million in this effort. In calculating the amount of our expenditures on these efforts, we may include grant funding received by us or our collaborators for work performed by third parties (e.g., universities and other institutions) that is directly related to program activities, as specified in the alliance agreement. The term of the alliance agreement continues to November 2012, unless earlier terminated by the parties as provided in the alliance agreement.

VirRx, Inc.

We are working with VirRx to investigate other vector technologies, specifically replication-competent viral therapies, for delivering products into targeted cells. These technologies form the basis for our INGN 007 product candidate.

Under an agreement with VirRx, we purchased $2,475,000 of VirRx s Series A Preferred Stock for cash, of which we purchased zero during the year ended December 31, 2007, $150,000 during the year ended December 31, 2006 and $600,000 during the year ended December 31, 2005. We are not obligated to make any additional such purchases at this time. We recorded these purchases as research and development expense.

Under a collaboration and license agreement with VirRx, we are required to make additional milestone stock purchases, either for cash or through the issuance of our common stock, upon the completion of Phase 1, 2 and 3 clinical trials involving technologies licensed under this agreement. We are required to make a $5.0 million cash milestone payment to VirRx, for which we will receive no VirRx stock, upon approval by the FDA of a BLA for the first collaboration product based on these technologies. To the extent we have already made cash milestone payments, we may receive a credit of 50% of the Phase 2 clinical trial milestone payments and 25% of the Phase 3 clinical trial milestone payments against this $5.0 million cash milestone payment.

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The additional milestone stock purchases and cash payments are not anticipated to be required in the near future. We may unilaterally terminate this collaboration and license agreement with 90 days prior notice, which would also terminate the requirement for us to make any additional stock purchases.

Silence Therapeutics plc

We owned approximately 6.2% of the issued share capital of Silence Therapeutics plc at December 31, 2007. We purchased these shares for approximately $3.0 million in July 2005. The shares we owned at December 31, 2007, had a quoted market value of $10.2 million at that time. We sold these shares in their entirety subsequent to December 31, 2007, for net proceeds of approximately $7.4 million. Silence Therapeutics is a European biotechnology company publicly traded on the Alternative Investment Market of the London Stock Exchange (LSE) that is developing oncology and other products.

Academic and Other Collaborations

Academic collaboration agreements have been a cost-effective way of expanding our intellectual property portfolio, generating data necessary for regulatory submissions, accessing industry expertise and finding new technology in-license candidates, all without building a large internal scientific and administrative infrastructure.

The University of Texas M. D. Anderson Cancer Center

Many of our core technologies were developed by scientists at The University of Texas M. D. Anderson Cancer Center in Houston, Texas, one of the largest academic cancer centers in the world. We sponsor research conducted at M. D. Anderson Cancer Center to further the development of technologies that have potential commercial viability. Through these sponsored research agreements, we have access to M. D. Anderson Cancer Center s resources and expertise for the development of our technology. In addition, we have the right to include certain patentable inventions arising from these sponsored research agreements under our exclusive license with M. D. Anderson Cancer Center.

We have license agreements with The Board of Regents of The University of Texas System and M. D. Anderson Cancer Center, a component institution of The University of Texas System, whereby we have exclusive, worldwide licenses to make, use and sell certain technology. Under the terms of the license, we will pay M. D. Anderson Cancer Center a royalty based on net sales by us or our affiliates or by sublicense agreement of products incorporating any of such technologies. We are obligated by the license agreements to reimburse any of M. D. Anderson Cancer Center s costs that may be incurred in connection with obtaining patents related to the licensed technologies.

Our strategy for product development is designed to take advantage of the significant multidisciplinary resources available at M. D. Anderson Cancer Center. Through these efforts, we have licensed numerous technologies and patents over the past several years that we believe could hold promise for development into commercial products.

National Cancer Institute

We have multiple cooperative research and development agreements, or CRADA, with the NCI. Under one of these agreements, the NCI will conduct a Phase 2 clinical study to treat cancer patients with genetically engineered therapies targeted to abnormal p53 pathways. This clinical study will combine our p53 formulations with a novel p53 targeted treatment developed by investigators at the NCI. This agreement continues until March 2012 and is terminable earlier upon the mutual consent of the parties. We will pay the NCI approximately $19,000 per quarter through March 2009 to support their technical, statistical and administrative activities under this CRADA.

Under another CRADA, the NCI agreed to sponsor and conduct pre-clinical and human clinical trials to evaluate the effectiveness and potential superiority to other treatments of ADVEXIN therapy against a range of designated cancers, including breast cancer, ovarian cancer, bladder cancer and brain cancer. To date, the NCI has conducted numerous Phase 1 clinical trials for ADVEXIN therapy. The NCI provided most of the funding for these activities. We supplied the NCI with ADVEXIN therapy product to be administered in these trials. We have exclusive rights to

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all pre-clinical and clinical data accumulated under the CRADA. The CRADA has a flexible duration, but is terminable upon the mutual consent of the parties or upon 30 days notice of either party.

Research and License Agreements for mda-7 Tumor Suppressor Programs

We have exclusive licenses from Columbia University and The University of Texas M. D. Anderson Cancer Center to mda-7 tumor suppressor related technology for our therapeutic applications. The technology licensed from M. D. Anderson Cancer Center was developed pursuant to sponsored and collaborative research programs over the past several years. The agreement is effective until the last to expire of the subject patents. It is terminable upon the breach or insolvency of either party. Under the sublicense agreement, we have agreed to make additional payments to Columbia University upon the achievement of development milestones, as well as royalty payments on product sales.

Moffitt Cancer Center

We are collaborating with the H. Lee Moffitt Cancer Center and Research Institute to advance our INGN 225 molecular cancer immunotherapy program. Moffitt Cancer Center has conducted pre-clinical research with us and has completed a Phase1/2 clinical trial in patients with small cell lung cancer . The National Institutes of Health National Cancer Institute awarded Moffitt Cancer Center a grant of approximately $1.3 million to conduct a Phase 2 clinical trial of INGN 225. We have the right to, and expect we will, use the clinical data generated from this study as part of our INGN 225 commercial development efforts.

Research and Development Expense

Our research and development expense was $19.1 million, $18.2 million and $21.4 million for the years ended December 31, 2007, 2006 and 2005, respectively.

Marketing and Sales

We are focusing our current product development and commercialization efforts on the oncology market. This market is characterized by its concentration of specialists in relatively few major cancer centers, which we believe can be effectively addressed by a small, focused sales force. As regulatory approval of one or more of our product candidates for commercial sale approaches, we will address the methods of sales and marketing available to us. We will continue to evaluate the merits of building our own direct sales force, pursuing marketing and distribution arrangements with corporate partners or some combination of both.

Patents and Intellectual Property

Our Portfolio

Our success will depend in part on our ability to develop and maintain proprietary aspects of our technology. To this end, we have an intellectual property program directed at developing proprietary rights in technology that we believe may be important to our success. We also rely on a licensing program to ensure continued strong technology development and technology transfer from companies and research institutions with whom we work. We have entered into a number of exclusive license agreements or options with companies and institutions, including M. D. Anderson Cancer Center, Sidney Kimmel Cancer Center, Aventis Pharmaceutical Products, Inc. (Aventis), which is now Sanofi-Aventis, Columbia University, VirRx and LXR, with the LXR rights being subsequently sold to Tanox, which in turn has been acquired by Genentech. In addition to patents, we rely on trade secrets and proprietary know-how, which we seek to protect, in part, through confidentiality and proprietary information agreements.

We currently own or have an exclusive license to a large number of issued and pending United States and foreign patents and patent applications. Currently, the last to expire patents key to our ADVEXIN therapy expire in 2020. We have applications pending that could extend our coverage for our ADVEXIN therapy beyond these dates. Patents key to our INGN 241 product, using the mda-7 tumor suppressor, expire in the time frame of 2013 to 2016, although we have pending patent cases that could extend our protection beyond these expiration dates. The exclusive

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licenses that give us rights on the patents, and applications that such licenses cover, will expire no earlier than the life of any patent covered under the license.

Adenoviral p53 Compositions and Therapies

In developing our patent portfolio, we have focused our efforts in part on seeking protection for our potential products and how they will be used in the clinical trials. Arising out of our independent development programs and work with M. D. Anderson Cancer Center, we currently have an exclusive license to a number of United States and corresponding international patents and patent applications directed to adenoviruses that contain p53, referred to as adenoviral p53, adenoviral p53 DNA, adenoviral p53 pharmaceutical compositions, the production of adenoviral p53 compositions and the use of such compositions in various cancer therapies and protocols.

We have exclusively licensed from Aventis patent applications directed to adenoviral p53 and its clinical applications. We have an exclusive license to a United States patent application and corresponding international applications directed to the use of the p53 tumor suppressor in the treatment of cancer patients whose tumors express a normal p53 protein.

Combination Therapy with Tumor Suppressors, including p53 and mda-7/IL24

Our portfolio development includes seeking protection for clinical therapeutic strategies that combine the use of either the p53 tumor suppressor or the mda-7/IL-24 tumor suppressor with traditional cancer therapies. In this regard, also arising out of our work with M. D. Anderson Cancer Center, we have an exclusive license to a number of issued United States patents and applications with corresponding international patents and applications directed to cancer therapy using either the p53 tumor suppressor or the mda-7/IL-24 tumor suppressor in combination with conventional radiotherapy and/or other anti-cancer compounds. Such compounds include:

DNA-damaging agents and conventional chemotherapies;

Immunotherapeutics (e.g., Herceptin®);

COX-2 inhibitors (e.g., celecoxib);

Hsp90 inhibitors;

Proteasome inhibitors;

VEGF inhibitors (e.g., Avastin®); and

EGFr inhibitors (e.g., Tarceva®, Iressa®).

These United States patents and applications and corresponding international patents and applications concern the therapeutic application of the p53 tumor suppressor or the mda-7/IL-24 tumor suppressor before, during or after treatment with radiotherapy or other anti-cancer compounds.

To further extend our portfolio as it relates to combinatorial anti-cancer therapy, we have licensed from Aventis a United States patent and corresponding international patents and applications directed to therapy using the p53 tumor suppressor together with taxanes such as Taxol® or Taxotere®. We have exclusively licensed a United States patent application and corresponding international applications directed to the use of the p53 tumor suppressor in combination with surgical intervention in cancer therapy.

Adenovirus Production, Purification and Formulation

Another focus of our research has involved the development of procedures for the commercial-scale production of our potential adenoviral-based products, including that of ADVEXIN therapy. We own four issued United States patents and related European patents, as well as a number of pending United States applications and corresponding international applications directed to highly purified adenoviral compositions, commercial-scale processes for

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producing adenoviral-based compositions having a high level of purity and storage-stable formulations. These patents and patent applications include procedures for preparing commercial quantities of recombinant adenovirus products and include procedures applicable to the p53 tumor suppressor, as well as any of our other potential products.

We have licensed from Aventis in the p53 field a United States patent and corresponding international applications directed to processes for the production of purified adenoviruses, which are useful for our product applications. With respect to storage-stable formulations, we were issued a United States patent directed to compositions and methods concerning improved, storage-stable adenovirus formulations. This patent is not limited to our ADVEXIN therapy product candidate and may eventually replace formulations currently in use.

Other Tumor Suppressors

We either own or have exclusively licensed rights in a number of other patents and applications directed to compositions and clinical applications of various tumor suppressors other than p53, including the mda-7, BAK, the 3p21.3 family (FUS-1) and anti-sense K-ras. We have exclusively licensed or optioned rights in a number of issued United States patents covering the use of the mda-7 and BAK tumor suppressors.

Other Therapeutic, Composition and Process Technologies

We own or have exclusively licensed a number of United States and international patent applications on a range of additional technologies. These licenses include various applications and patents relating to p53, combination therapy with 2-methoxyestradiol, anti-proliferative factor technologies, retroviral delivery systems, stimulation of anti-p53 and screening and product assurance technologies.

We have exclusively licensed a number of United States and international applications directed to various improved vector applications employing more than one molecular therapy for disease treatment, as well as applications directed to the delivery of molecular therapies for disease treatment without the use of a vector, or non-viral therapy. For example, a United States patent, exclusively licensed to us, was issued that is directed to adenoviruses that exhibit tissue specific replication. We have exclusive rights in an issued United States patent and corresponding international applications directed to a low toxicity analogue of IL-24, also called F42K. We also have been issued exclusively licensed patents in Europe directed to our nanoparticle delivery system for delivering tumor suppressor genes.

Benzimidazole Small Molecule Cancer Therapy

We have exclusively licensed a United States and a corresponding international patent application directed to the use of a family of known anti-helminthic benzimidazole molecules, most notably mebendazole, in the treatment of cancer. These applications are directed generally to the use of small molecules of the benzimidazole family to induce apoptosis in cancers, as well as to treat cancer patients, particularly those having p53-related cancers. Both of these therapeutic actions are based on the discovery by our scientists and their collaborators that members of the benzimidazole family will actively induce apoptosis in cancer cells, particularly in conjunction with the action of an endogenous or exogenously added p53 tumor suppressor.

Trade Secrets

We rely on trade secrets law to protect technology where we believe patent protection is not appropriate or obtainable. Trade secrets are difficult to protect. We generally require employees, academic collaborators and consultants to enter into confidentiality agreements covering our trade secrets and other confidential information. Despite these measures, we may not be able to adequately protect our trade secrets or other proprietary information.

We are a party to various license agreements that give us rights to use specified technologies in our research and development processes. If we are not able to continue to license this technology on commercially reasonable terms, our product development and research may be delayed. In the case of technologies we have licensed, we may not have the ability to make the final decisions on how the patent application process is managed, and accordingly may be unable to exercise the same degree of control over this intellectual property as we exercise over our internally developed technology.

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Our research collaborators and scientific advisors have rights to publish data and information in which we have rights. If we cannot maintain the confidentiality of our technology and other confidential information in connection with our collaborations, then our ability to receive patent protection or protect our proprietary information will be diminished.

Government Regulation

The Drug Approval Process

Prescription pharmaceutical products and biologics are subject to extensive pre- and post-marketing regulation by the FDA, including regulations that govern the testing, manufacturing, safety, efficacy, labeling, storage, recordkeeping, advertising and promotion of the products under the Federal Food, Drug, and Cosmetics Act (FDC Act) and the Public Health Services Act, and by comparable regulatory agencies in most foreign countries. The process required by the FDA before a new drug or biologic (our products will be regulated as biologics) may be marketed in the United States generally involves:

Completion of preclinical laboratory and animal testing;

Submission of an investigational new drug application, or IND, which must become effective before clinical trials may begin;

Performance of adequate and well controlled human clinical trials to establish the safety and efficacy of the proposed drug or biologic s intended use; and

In the case of a new drug, approval by the FDA of a New Drug Application (NDA) or of a BLA for a biologic.

A complex, lengthy, cumbersome and expensive process such that we cannot be certain that we will receive FDA approval for any of our products.

Facilities used to manufacture drugs and biologics are subject to periodic inspection by the FDA, EMEA and other authorities where applicable and must comply with the FDA s CGMP regulations. Manufacturers of biologics also must comply with FDA s general biological product standard. Failure to comply with the statutory and regulatory requirements subjects the manufacturer to possible legal or regulatory action, such as suspension of manufacturing, seizure of product or voluntary recall of a product.

Pre-Clinical Testing

Pre-clinical testing includes laboratory evaluation of product chemistry and formulation as well as animal trials to assess the potential safety and effectiveness of the product. Compounds must be adequately manufactured and pre-clinical safety tests must be conducted in compliance with FDA Good Laboratory Practices regulations. The results of the pre-clinical tests are submitted to the FDA as part of an IND application to be reviewed by the FDA prior to the commencement of human clinical trials. Submission of an IND application may not result in FDA authorization to commence clinical trials, but the IND becomes effective if not rejected by the FDA within 30 days. The IND application must indicate:

The results of previous testing;

How, where and by whom the clinical trials will be conducted;

The chemical structure of the compound;

The method by which it is believed to work in the human body;

Any toxic effects of the compound found in the animal trials; and

How the compound is manufactured.

Clinical Trials

Clinical trials involve the administration of the drug or biologic to healthy volunteers or to patients, under the

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supervision of qualified principal investigators. All clinical trials must be conducted in accordance with Good Clinical Practices regulations under protocols that detail the objectives of the trial, the parameters to be used to monitor safety and the effectiveness criteria to be evaluated. Each protocol must be submitted to the FDA for review as part of the IND application prior to commencing the trial. Further, each clinical trial must be conducted under the auspices of an independent review panel termed the Institutional Review Board, or IRB, at the institution at which the trial will be conducted. The IRB will consider, among other things, ethical factors, the safety of human subjects, informed consent and the possible liability of the institution. Progress reports detailing the status of on-going clinical trials must be submitted at least annually to the FDA.

Clinical trials are typically conducted in three sequential phases, but the phases often overlap. In Phase 1, the initial introduction of the drug into healthy volunteers or patients, the drug is tested for safety or adverse effects, dosage tolerance, absorption, distribution, metabolism, excretion and clinical pharmacology. Phases 2 and 3 involve clinical trials in patient populations to determine the effectiveness of the drug for specific, targeted indications, determine dosage tolerance and optimal dosage. Phase 3 clinical trials typically contain control groups and are undertaken to further evaluate clinical effectiveness, to further test for safety within an expanded patient population at geographically dispersed clinical trial sites and may be utilized to seek marketing approval by the FDA.

National Institutes of Health

The NIH publishes guidelines concerning recombinant DNA products. The NIH guidelines require that human recombinant DNA protocols subject to the guidelines, and involving a novel product, disease indication, route of administration or other component, be discussed at the quarterly meetings of the NIH Recombinant DNA Advisory Committee. Companies involved in clinical trials as sponsors generally are expected to report all serious adverse events to the NIH.

We report to the FDA and the NIH serious adverse events and deaths, whether treatment-related or not, that occur in our clinical trials. Clinical trials we conduct include cancer patients who have failed all conventional treatments available to them, who therefore have short life expectancies and who sometimes die before completion of their full course of treatment in our clinical trials.

Marketing Applications

If the clinical data indicate that the drug is safe and effective, a BLA or an NDA is filed with the FDA for approval of the marketing and commercial shipment of the drug. This marketing application must contain all of the information on the drug gathered to that date, including data from the clinical trials. It is often over 100,000 pages in length.

The FDA reviews all marketing applications submitted to it before it accepts them for filing and may request additional information, rather than accepting the application for filing. In such event, the application must be re-submitted with the additional information and the application is again subject to review before filing.

Once the submission is accepted for filing, the FDA begins an in-depth review of the BLA or NDA. Under the FDC Act, the FDA has 180 days in which to review it and respond to the applicant. The review process is often significantly extended by FDA requests for additional information or clarification of information already provided in the submission. The FDA may refer the application to an appropriate advisory committee, typically a panel of clinicians, for review, evaluation and a recommendation as to whether the application should be approved. However, the FDA is not bound by the recommendation of an advisory committee.

If the FDA evaluations of the marketing application and the manufacturing facilities are favorable, the FDA may issue either an approval letter or an approvable letter. An approvable letter usually contains a number of conditions that must be met in order to secure final approval of the application. When, and if, those conditions have been met to the FDA s satisfaction, the FDA will issue an approval letter, authorizing commercial marketing of the drug for certain indications. Approvals may be withdrawn if compliance with regulatory standards is not maintained or if problems occur following initial marketing. If the FDA s evaluation of the submission or manufacturing facilities is not favorable, the FDA may refuse to approve the BLA or NDA or issue a not-approvable letter.

If the FDA approves the BLA or NDA, the drug becomes available for physicians to prescribe. Periodic reports must be submitted to the FDA, including descriptions of any adverse reactions reported. The FDA may request

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additional trials, referred to as Phase 4 clinical trials, to evaluate long-term effects. Phase 4 clinical trials and post-marketing trials may also be conducted to explore new indications and to broaden the application and use of the drug and its acceptance in the medical community.

Satisfaction of FDA premarket approval requirements for new drugs and biologics typically takes several years. The actual time required may vary substantially based upon the type, complexity and novelties of the product or disease. Government regulation may delay or present marketing of potential products for a considerable period of time and impose costly procedures upon our activities.

Success in early stage clinical trials and on prior versions of the products does not assure success in later stage clinical trials. Data obtained from clinical activities is not always conclusive and may be susceptible to varying interpretations that could delay, limit or prevent regulatory approval.

Orphan Drug Act

We have received Orphan Drug designation for ADVEXIN therapy for the treatment of head and neck cancer under the Orphan Drug Act. This act provides incentives to manufacturers to develop and market drugs for rare diseases and conditions affecting fewer than 200,000 people in the United States. The first developer to receive FDA marketing approval for an Orphan Drug is entitled to a seven-year exclusive marketing period in the United States following FDA approval of that product. However, the FDA will allow the sale of a drug clinically superior to or different from another approved Orphan Drug, although for the same indication, during the seven-year exclusive marketing period.

We may pursue Orphan Drug designation for other products we are developing. We cannot be sure that any of those potential products will ultimately receive Orphan Drug designation, or that the benefits currently provided by such a designation will not subsequently be amended or eliminated.

The Orphan Drug Act has been controversial. Legislative proposals have been introduced from time-to-time in Congress to modify various aspects of the Orphan Drug Act, particularly the market exclusivity provisions. New legislation may be introduced in the future that could adversely affect the availability or attractiveness of Orphan Drug status for our potential products. Orphan Drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

Off-Label Use

Physicians may prescribe drugs for uses that are not described in the product s labeling that differ from those tested by us and approved by the FDA. Such off-label uses are common across medical specialties and may constitute the best treatment for many patients in various circumstances. The FDA does not regulate the behavior of physicians in their choice of treatments. The FDA does, however, restrict manufacturers communications on the subject of off-label use.

Companies cannot actively promote FDA-approved drugs for off-label uses. Current regulations, if followed, provide a safe harbor from FDA enforcement action that would allow us to disseminate to physicians articles published in peer-reviewed journals, such as the *New England Journal of Medicine*, that discuss off-label uses of approved products. We cannot disseminate articles concerning drugs that have not been approved for any indication.

Fast Track Products

The FDA s Fast Track program is intended to facilitate the development and expedite the review of drugs intended for the treatment of a serious or life-threatening condition for which there is no effective treatment and that demonstrates the potential to address unmet medical needs for their condition. Under the Fast Track program, the sponsor of a new drug may request the FDA to designate the drug for a specific indication as a Fast Track product at any time during the clinical development of the product. The FDA must determine if the product qualifies for Fast Track designation within 60 days of receipt of the sponsor s request.

If Fast Track designation is obtained, the FDA may initiate review of sections of an NDA or BLA before the applicant is complete. This rolling review is available if the applicant provides a schedule for the submission of the

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remaining information and pays applicable user fees. However, the time period specified in the Prescription Drug User Fees Act, which governs the time period goals the FDA has committed to reviewing an application, does not begin until the complete application is submitted. Additionally, the Fast Track designation may be withdrawn by the FDA if the FDA believes that the designation is no longer supported by data emerging in the clinical trial process.

In some cases, a Fast Track designated product may also qualify for one or more of the following programs:

Priority Review. Under FDA policies, a product is eligible for priority review, or review within a six-month time frame from the time an NDA or BLA is accepted for filing, if the product provides a significant improvement compared to marketed products in the treatment, diagnosis, or prevention of a disease. A Fast Track designated product would ordinarily meet the FDA s criteria for priority review. We cannot guarantee any of our products will receive a priority review designation, or if a priority designation is received, that review or approval will be faster than conventional FDA procedures.

Accelerated Approval. Under the FDA s Accelerated Approval regulations, the FDA is authorized to approve products that have been studied for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit to patients over existing treatments based upon either a surrogate endpoint that is reasonably likely to predict clinical benefit or on the basis of an effect on a clinical endpoint other than patient survival. In clinical trials, surrogate endpoints are alternative measurements of the symptoms of a disease or condition that are substituted for measurements of observable clinical symptoms. Accelerated Approval of an application will be subject to Phase 4 or post-approval studies to validate the surrogate endpoint or confirm the effect on the clinical endpoint. Failure to validate a surrogate endpoint or confirm a clinical benefit during post-marketing studies will allow the product to be withdrawn from the market by the FDA on an expedited basis. All promotional materials for drugs approved under accelerated regulations are subject to prior review by the FDA.

ADVEXIN therapy is designated as a Fast Track product by the FDA for its effect on prolonging survival and the time to loco-regional disease progression in patients with recurrent, unresectable squamous cell carcinoma of the head and neck. By designating ADVEXIN therapy as a Fast Track product, the FDA will take actions to expedite the evaluation and review of the application for approval of ADVEXIN therapy. The Fast Track designation for ADVEXIN therapy from the FDA does not guarantee a faster development process, review process or approval compared to conventional FDA procedures.

We may seek Fast Track designation for our other products. We may be prevented from seeking, approval under the Accelerated Approval process for any of our products. We cannot predict the ultimate impact, if any, of the Fast Track process on the timing or likelihood of FDA approval of any of our other potential products.

International

Steps similar to those in the United States must be undertaken in virtually every other country comprising the market for our products before any such product can be commercialized in those countries. The approval procedure and the time required for approval vary from country to country and may involve additional testing.

In Europe, we have been granted Orphan Drug status for the use of ADVEXIN therapy in LFS. We intend to pursue an Exceptional Circumstances Approval for this product and seek Conditional Approval for the use of ADVEXIN therapy in head and neck cancer.

We cannot be sure that international approvals will be granted on a timely basis, or at all. In addition, regulatory approval of prices is required in most countries, other than the United States. There can be no assurance that the resulting prices would be sufficient to generate an acceptable return to us.

Competition

The biotechnology and pharmaceutical industries are subject to rapid and intense technological change. We will continue to face competition in the development and marketing of our product candidates from academic institutions, government agencies, research institutions and biotechnology and pharmaceutical companies.

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Competition may arise from other drug development technologies, methods of preventing or reducing the incidence of disease, including molecular immunotherapies, and new small molecule or other classes of therapeutic agents. Developments by others may render our product candidates or technologies obsolete or non-competitive.

We are aware that the Chinese pharmaceutical companies SiBiono GeneTech, Inc. (SiBiono GeneTech) and Shanghai Sunway Biotech Co. Ltd. have announced they have received regulatory approval from the Chinese drug regulatory authorities to market an adenoviral p53 product and an oncolytic virus product, respectively, both only in China. We are also aware of other pharmaceutical and biotechnology companies, including Canji, Inc. (Canji), Genvec, Inc. (Genvec) and ImClone Systems, Inc. (Imclone), which are pursuing forms of treatment for the diseases ADVEXIN therapy and our other product candidates target.

We are aware that ImClone and Bristol Myers Squibb have obtained marketing approval based on a supplemental application to the FDA for a monoclonal antibody product (Erbitux) for the treatment of certain kinds of head and neck cancer. Erbitux was approved for two stages of treatment of the cancer, one for an early, as yet untreated form, and a second for refractory head and neck cancer already treated with chemotherapy.

We are aware that Sanofi-Aventis has obtained marketing approval for the use of Taxotere® in combination with cisplatin and 5FU for the treatment of certain kinds of head and neck cancer.

We are aware that Canji, with its parent Schering-Plough Corporation (Schering-Plough), has in the past been involved in research and/or development of adenoviral p53 products and owns or controls patents and patent applications directed to adenoviral p53 therapy. We understand that Canji/Schering-Plough has stopped its adenoviral p53 clinical trials, and it is unknown whether these parties are continuing their adenoviral p53 research and/or development efforts.

There are many other companies, both publicly and privately held, including well-known pharmaceutical companies, engaged in developing products for human therapeutic applications. We also compete with universities and other research institutions in the development of products, technologies and processes. In many instances, we compete with other commercial entities in acquiring products or technologies from universities and other research institutions.

We expect competition among products approved for sale will be based, among other things, on product efficacy, safety, reliability, availability, price, patent position and sales, marketing and distribution capabilities. Our competitive position depends upon our ability to obtain required regulatory approvals, attract and retain qualified personnel, obtain patent protection or otherwise develop proprietary products or processes, and secure sufficient capital resources for the often substantial period between technological conception and commercial sales.

Human Resources

As of March 1, 2008, we had approximately 80 employees and contracted personnel engaged in research and development, regulatory affairs, clinical affairs, manufacturing and quality, finance and corporate development activities. Several of our employees hold a Ph.D. or M.D. degree. Many of our employees have extensive experience in pharmaceutical and biotechnology industries.

Scientific Advisory Board

We receive guidance on a broad range of scientific, clinical and technical issues from our Scientific Advisory Board. Members of our Scientific Advisory Board are recognized experts in their respective fields of research and clinical medicine related to molecular oncology. The members of the Scientific Advisory Board are:

Jack A. Roth, M.D., Chairman of the Scientific Advisory Board, is Professor of the Department of Thoracic and Cardiovascular Surgery and Director of the W.M. Keck Center for Innovative Cancer Therapies at M. D. Anderson Cancer Center where he holds the Bud Johnson Clinical Distinguished Chair. Dr. Roth was one of our founders and is our Chief Medical Advisor. Dr. Roth is a widely-recognized pioneer in the application of targeted molecular therapies to the treatment of cancer. He is the primary inventor of the technology supporting our tumor suppressor products. He received his M.D. from The Johns Hopkins University School of Medicine.

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Daniel D. Von Hoff, M.D., F.A.C.P., is the Physician-in-Chief and Senior Investigator for the Translational Genomics Research Institute (TGen) and Clinical Professor of Medicine at the University of Arizona, Arizona Cancer Center, Arizona Health Sciences Center. Dr. Von Hoff is also Chief Scientific Officer for US Oncology and Scottsdale Clinical Research Institute. Dr. Von Hoff is certified in medical oncology by the American Board of Internal Medicine. He received his M.D. from The Columbia College of Physicians and Surgeons.

Elizabeth Grimm, Ph.D., is the Frances King Black Memorial Professor of Cancer Research and Deputy Chair, Department experimental therapeutics at M. D. Anderson Cancer Center. Dr. Grimm has served as Cancer Expert, Surgical Branch of the NCI. She received her Ph.D. in microbiology from the University of California, Los Angeles School of Medicine.

Item 1A. ***Risk Factors***

If we are unable to commercialize ADVEXIN therapy in various markets for multiple indications, particularly for the treatment of recurrent head and neck cancer, our business will be harmed.

Our ability to achieve and sustain operating profitability depends on our ability to successfully commercialize ADVEXIN therapy in various markets for multiple indications, which depends in large part on our ability to commence, execute and complete clinical programs and obtain regulatory approvals for ADVEXIN therapy and other product candidates. In particular, our ability to achieve and sustain profitability will depend in large part on our ability to commercialize in the United States ADVEXIN therapy for the treatment of recurrent head and neck cancer. We cannot assure you we will receive approval for ADVEXIN therapy for the treatment of recurrent head and neck cancer or other types of cancer or indications in the United States or in other countries or if approved that we will achieve significant level of sales. If we are unable to do so, our business will be harmed.

If we fail to comply with FDA, EMEA or other foreign regulatory authority requirements or encounter delays or difficulties in clinical trials for our product candidates we may not obtain regulatory approval of some or all of our product candidates on a timely basis, if at all.

In order to commercialize our product candidates, we must obtain certain regulatory approvals. Satisfaction of regulatory requirements typically takes many years and involves compliance with requirements covering research and development, testing, manufacturing, quality control, labeling and promotion of drugs for human use. To obtain regulatory approvals, we must, among other requirements, complete clinical trials demonstrating our product candidates are safe and effective for a particular cancer type or other disease. Regulatory approval of a new drug is never guaranteed. The FDA, EMEA and other foreign regulatory authorities have substantial discretion in the approval process. Despite the time and experience exerted, failure can occur at any stage, and we could encounter problems causing us to abandon clinical trials.

We have completed or are conducting clinical trials of our lead product candidate, ADVEXIN therapy, which is based on the p53 tumor suppressor, for the treatment of various cancers. Current or future clinical trials may demonstrate ADVEXIN therapy is neither safe nor effective.

We have completed or are conducting clinical trials of INGN 241, a product candidate based on the mda-7 tumor suppressor. We will need to continue conducting significant research and animal testing, referred to as pre-clinical testing, to support performing clinical trials for our other product candidates. It will take us many years to complete pre-clinical testing and clinical trials, and failure could occur at any stage of testing. Current or future clinical trials may demonstrate INGN 241 or our other product candidates are neither safe nor effective.

Any delays or difficulties we encounter in our pre-clinical research and clinical trials may delay or preclude regulatory approval. Our product development costs will increase if we experience delays in testing or regulatory approvals or if we need to perform more or larger clinical trials than planned or make any unplanned changes to our product candidates. Any delay or preclusion could also delay or preclude the commercialization of ADVEXIN therapy or any other product candidates. In addition, we, the FDA, EMEA or other foreign regulatory authorities might delay or halt any of our clinical trials of a product candidate at any time for various reasons, including:

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the product candidate is less effective and/or more toxic than current therapies;

the presence of unforeseen adverse side effects of a product candidate, including its delivery system;

a longer than expected time required to determine whether or not a product candidate is effective;

the death of patients during a clinical trial, even if the product candidate did not cause those deaths;

the failure to enroll a sufficient number of patients in our clinical trials;

the inability to produce sufficient quantities of a product candidate to complete the trials; or

the inability to commit the necessary resources to fund the clinical trials.

We cannot be certain the results we observed in our pre-clinical testing will be confirmed in clinical trials or the results of any of our clinical trials will support FDA, EMEA or other regulatory approval. Pre-clinical and clinical data can be interpreted in many different ways, and the FDA, EMEA or other foreign regulatory officials could interpret differently data we consider promising, which could halt or delay our clinical trials or prevent regulatory approval.

We may encounter delays in the regulatory approval process due to additional information requirements from the FDA, unintentional omissions in our BLA for ADVEXIN therapy, or other delays in the FDA s review process. The FDA s approval for marketing of other competing products before ADVEXIN therapy is approved could terminate this Fast Track designation for ADVEXIN therapy. Similarly, we may encounter delays in the regulatory approval process due to additional information requirements from the EMEA, unintentional omissions in our Marketing Authorization Application filed with the EMEA, or other delays in the EMEA s review process. We may encounter delays or rejections in the regulatory approval process because of additional government regulation from future legislation or administrative action or changes in FDA or EMEA policy during the period of product development, clinical trials and FDA and EMEA regulatory review.

Despite the initiation of the BLA process for ADVEXIN therapy under the FDA s accelerated approval regulations, the FDA could determine that accelerated approval is not warranted and that a traditional BLA filing must be made. Such a determination could delay regulatory approval. Additionally, accelerated approval of an application could be subject to Phase 4 or post-approval studies to validate the surrogate endpoint or confirm the effect on the clinical endpoint. Failure to validate a surrogate endpoint or confirm a clinical benefit during post-approval studies could cause the product to be withdrawn from the market by the FDA on an expedited basis.

Even if our products are approved by regulatory authorities, if we fail to comply with ongoing regulatory requirements, or if we experience unanticipated problems with our products, these products could be subject to restrictions or withdrawal from the market.

Any product for which we obtain marketing approval, along with the manufacturing processes, post-approval clinical data and promotional activities for such product, will be subject to continual review and periodic inspections by the FDA, EMEA and other regulatory bodies. Even if regulatory approval of a product is granted, the approval may be subject to limitations on the indicated uses for which the product may be marketed or certain requirements for costly post-marketing testing and surveillance to monitor the safety or efficacy of the product. Later discovery of previously unknown problems with our products, including unanticipated adverse events of unanticipated severity or frequency, manufacturer or manufacturing processes or failure to comply with regulatory requirements, may result in restrictions on such products or manufacturing processes, withdrawal of the products from the market, voluntary or mandatory recall, fines, suspension of regulatory approvals, product seizures or detention, injunctions or the imposition of civil or criminal penalties.

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Failure to comply with foreign regulatory requirements governing human clinical trials and marketing approval for drugs could prevent us from selling our products in foreign markets, which may adversely affect our operating results and financial conditions.

For marketing drugs and biologics outside the United States, the requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from country to country and may require additional testing. The time required to obtain approvals outside the United States may differ from that required to obtain FDA approval. We may not obtain foreign regulatory approval on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other countries or by the FDA. Failure to comply with these regulatory requirements or to obtain required approvals could impair our ability to develop these markets and could have a material adverse effect on our results of operations and financial condition.

We have a history of operating losses, expect to incur significant additional operating losses and may never become profitable.

We have generated operating losses since we began operations in June 1993. As of December 31, 2007, we had an accumulated deficit of approximately $202.7 million. We expect to incur substantial additional operating expense and losses over the next several years as our research, development, pre-clinical testing and clinical trial activities continue. As we expand our operations and develop systems to support commercialization of our product candidates, these losses, among other things, have had, and are expected to continue to have, an adverse impact on our total assets, stockholders equity and working capital.

We have no products that have generated any commercial revenue. Presently, we earn minimal revenue from contract services activities, grants, interest income and rent from the lease of a portion of our facilities to M. D. Anderson Cancer Center. We do not expect to generate revenue from the commercial sale of products in the near future, and we may never generate revenue from the commercial sale of products.

If we continue to incur operating losses for a period longer than we anticipate and fail to obtain the capital necessary to fund our operations, we will be unable to advance our development program and complete our clinical trials.

Developing a new drug and conducting clinical trials is expensive. Our product development efforts may not lead to commercial products, either because our product candidates fail to be found safe or effective in clinical trials or because we lack the necessary financial or other resources or relationships to pursue our programs through commercialization. Our capital and future revenue may not be sufficient to support the expense of our operations, the development of commercial infrastructure and the conduct of our clinical trials and pre-clinical research.

We expect we will fund our operations through at least December 31, 2008, and perhaps longer, with our current working capital, which we accumulated primarily from sale of equity securities, income from contract services and research grants, debt financing of equipment acquisitions, the lease of a portion of our facilities to M. D. Anderson Cancer Center and interest on invested funds. We intend to raise additional capital sooner, however, under various circumstances, including if we experience:

- an acceleration of the number, size or complexity of our clinical trials;
- slower than expected progress in developing ADVEXIN therapy, INGN 241 or other product candidates;
- higher than expected costs to obtain regulatory approvals;
- higher than expected costs to pursue our intellectual property strategy;
- higher than expected costs to further develop and scale up our manufacturing capability;
- higher than expected costs to develop our sales and marketing capability;
- faster than expected rate of progress and cost of our research and development and clinical trial activities;

a decrease in the amount and timing of milestone payments we receive from collaborators;

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higher than expected costs of preparing an application for FDA, EMEA or other foreign regulatory approval of ADVEXIN therapy;

higher than expected costs of developing the processes and systems to support FDA, EMEA or other foreign regulatory approval of ADVEXIN therapy;

an increase in our timetable and costs for the development of marketing operations and other activities related to the commercialization of ADVEXIN therapy and our other product candidates;

a change in the degree of success in our Phase 3 clinical trial of ADVEXIN therapy and in the clinical trials of our other products;

the emergence of competing technologies and other adverse market developments; or

changes in or terminations of our existing collaboration and licensing arrangements.

We do not know whether additional financing will be available when needed or on terms favorable to us or our stockholders. We may need to raise any necessary funds through public or private equity offerings, debt financings or additional corporate collaboration and licensing arrangements. To the extent we raise additional capital by issuing equity securities, our stockholders will experience dilution. If we raise funds through debt financings, we may become subject to restrictive covenants. To the extent we raise additional funds through collaboration and licensing arrangements, we may be required to relinquish some rights to our technologies or product candidates, or grant licenses on terms not favorable to us. If we are not able to raise additional funds, we may have to delay, reduce or eliminate our clinical trials and our development programs.

If we cannot maintain our existing corporate and academic arrangements and enter into new arrangements, we may be unable to develop products effectively, or at all.

Our strategy for the research, development and commercialization of our product candidates may result in our entering into contractual arrangements with corporate collaborators, academic institutions and others. We have entered into sponsored research, license and/or collaborative arrangements with several entities, including M. D. Anderson Cancer Center, the NCI, Chiba University in Japan, Columbia University, Moffitt Cancer Center at the University of South Florida, Oregon Health and Science University and VirRx, Inc., as well as numerous other institutions that conduct clinical trials work or perform pre-clinical research for us. Our success depends upon our collaborative partners performing their responsibilities under these arrangements and complying with the regulations and requirements governing clinical trials. We cannot control the amount and timing of resources our collaborative partners devote to our research and testing programs or product candidates, or their compliance with regulatory requirements which can vary because of factors unrelated to such programs or product candidates. These relationships may in some cases be terminated at the discretion of our collaborative partners with only limited notice to us. We may not be able to maintain our existing arrangements, enter into new arrangements or negotiate current or new arrangements on acceptable terms, if at all. Some of our collaborative partners may also be researching competing technologies independently from us to treat the diseases targeted by our collaborative programs.

If we do not continue to receive grant funding from federal agencies and others we may be unable to continue our research and development programs for certain of our product candidates at current levels or in the manner we have planned for the future.

We rely in part on grants from third parties, generally federal agencies, to provide the funding necessary to conduct our research and development programs for some of our technologies and product candidates. Funding of these grants is typically subject to government appropriations. These grants often contain provisions that allow for termination at the convenience of the government. Further, these grants are subject to complex federal guidelines and regulations. If federal agencies or regulatory authorities determine that we, or the programs for which we desire to receive or have received grant funding, do not qualify for funding, our scientific or product development programs could be slowed or stopped, and we may suffer financial losses and be unable to successfully commercialize our products.

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If we are not able to create effective collaborative marketing relationships, we may be unable to market our products successfully or in a cost-effective manner.

To effectively market our products, we will need to develop sales, marketing and distribution capabilities. In order to develop or otherwise obtain these capabilities, we may have to enter into marketing, distribution or other similar arrangements with third parties in order to sell, market and distribute our products successfully. To the extent we enter into any such arrangements with third parties, our product revenue is likely to be lower than if we directly marketed and sold our products, and any revenue we receive will depend upon the efforts of such third parties. We have no experience in marketing or selling pharmaceutical products and we currently have no sales, marketing or distribution capability. We may be unable to develop sufficient sales, marketing and distribution capabilities to commercialize our products successfully.

Serious and unexpected side effects attributable to molecular therapies may result in governmental authorities imposing additional regulatory requirements or a negative public perception of our products.

ADVEXIN therapy and most of our other product candidates under development could be broadly described as targeted molecular therapies or recombinant DNA therapies. A number of clinical trials are being conducted by other pharmaceutical companies involving related therapies, including compounds similar to, or competitive with, our product candidates. The announcement of adverse results from these clinical trials, such as serious unwanted and unexpected side effects attributable to treatment, or any response by the FDA or foreign regulatory authorities to such clinical trials, may impede the timing of our clinical trials, delay or prevent us from obtaining regulatory approval or negatively influence public perception of our product candidates, which could harm our business and results of operations and depress the value of our stock.

The United States Senate has held hearings concerning the adequacy of regulatory oversight of recombinant DNA therapy clinical trials, as well as the adequacy of research subject education and protection in clinical research in general, and to determine whether additional legislation is required to protect volunteers and patients who participate in such clinical trials. The Recombinant DNA Advisory Committee, which acts as an advisory body to the NIH, has expanded its public role in evaluating important public and ethical issues in recombinant DNA therapy clinical trials. Implementation of any additional review and reporting procedures or other additional regulatory measures could increase the costs of or prolong our product development efforts or clinical trials.

We report to the FDA, EMEA and other regulatory agencies serious adverse events, including those we believe may be reasonably related to the treatments administered in our clinical trials. Such serious adverse events, whether treatment-related or not, could result in negative public perception of our treatments and require additional regulatory review or measures, which could increase the cost of or prolong our clinical trials.

No recombinant DNA therapy products of the types being developed by us have been approved by the FDA for sale in the United States or by the EMEA for sale in Europe. The commercial success of our products will depend in part on public acceptance of the use of these types of recombinant DNA products, which are a new type of disease treatment for the prevention or treatment of human diseases. Public attitudes may be influenced by claims that these types of recombinant DNA products are unsafe, and these treatment methodologies may not gain the acceptance of the public or the medical community. Negative public reaction to these types of recombinant DNA products could also result in greater government regulation and stricter clinical trial oversight.

Patient enrollment may be slow and patients may discontinue their participation in clinical studies, which may negatively impact the results of these studies and extend the timeline for completion of our and our collaborators development programs for our product candidates.

The time required to complete clinical trails is dependent upon, among other factors, the rate of patient enrollment. Patient enrollment is a function of many factors, including:

the size of the patient population;

the nature of the clinical protocol requirements;

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the diversion of patients to other trials or marketed therapies;

the ability to recruit and manage clinical centers and associated trials;

the proximity of patients to clinical sites; and

the patient eligibility criteria for the study.

We are subject to the risk that patients enrolled in our and our collaborators clinical studies for our product candidates may discontinue their participation at any time during the study as a result of a number of factors, including, withdrawing their consent or experiencing adverse clinical events which may or may not be related to our product candidates under evaluation. We are subject to the risk that if a large number of patients in any one of our studies discontinue their participation in the study, the results from that study may not be positive or may not support an NDA for regulatory approval of our product candidates or we may be forced to terminate or abandon the study.

We cannot predict the safety profile of the use of ADVEXIN therapy when used in combination with other therapies.

Many of our trials involve the use of ADVEXIN therapy in combination with other drugs or therapies. While the data we have evaluated to date suggest ADVEXIN therapy does not increase the adverse effects of other therapies, we cannot predict if this outcome will continue to be true or whether possible adverse side effects not directly attributable to the other drugs will compromise the safety profile of ADVEXIN therapy when used in certain combination therapies.

If we fail to adequately protect our intellectual property rights our competitors may be able to take advantage of our research and development efforts to develop competing drugs.

Our commercial success will depend in part on obtaining patent protection for our products and other technologies and successfully defending these patents against third-party challenges. Our patent position, like that of other biotechnology and pharmaceutical companies, is highly uncertain. One uncertainty is that the United States Patent and Trademark Office, or PTO, or the courts, may deny or significantly narrow claims made under patents issued to us or patent applications we file. This is particularly true for patent applications or patents that concern biotechnology and pharmaceutical technologies, such as ours, since the PTO and the courts often consider these technologies to involve unpredictable sciences. Another uncertainty is that any patents that may be issued or licensed to us may not provide any competitive advantage to us because they may not effectively preclude others from developing and marketing products like ours. Also, our patents may be successfully challenged, invalidated or circumvented in the future. In addition, our competitors, many of which have substantial resources and have made significant investments in competing technologies, may seek to apply for and obtain patents that will prevent, limit or interfere with our ability to make, use and sell our potential products either in the United States or in foreign markets.

Our ability to develop and protect a competitive position based on our biotechnological innovations, innovations involving molecular therapies, recombinant DNA therapeutic agents, viruses for delivering targeted molecular therapies to cells, formulations, delivery systems not involving viruses, and the like, is particularly uncertain. Due to the unpredictability of the biotechnological sciences, the PTO, as well as patent offices in other jurisdictions, has often required patent applications concerning biotechnology-related inventions to be limited or narrowed substantially to cover only the specific innovations exemplified in the patent application, thereby limiting their scope of protection against competitive challenges. Similarly, courts have invalidated or significantly narrowed many key patents in the biotechnology industry. Thus, even if we are able to obtain patents covering commercially significant innovations, our patents may not be upheld or our patents may be substantially narrowed.

Through our exclusive license with The University of Texas System for technology developed at M. D. Anderson Cancer Center, we have obtained and are currently seeking further patent protection for adenoviral p53, including ADVEXIN therapy, and its use in cancer therapy. Further, the PTO issued to us United States patents for our adenovirus production technology and our purified adenoviral compositions. We also control, through licensing

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arrangements, United States patents for combination therapy involving the p53 tumor suppressor and conventional chemotherapy or radiation, the use of adenoviral p53 in cancer therapy, adenoviral p53 as a product, the core DNA of adenoviral p53, pharmaceutical compositions of adenoviral p53 and clinical applications of such pharmaceutical compositions, as well as patents covering our mda-7 technology. Our competitors may challenge the validity of one or more of our patents in the courts or through an administrative procedure known as an interference, in which the PTO determines the priority of invention where two or more parties are claiming the same invention. The courts or the PTO may not uphold the validity of our patents, we may not prevail in such interference proceedings regarding our patents and none of our patents may give us a competitive advantage. In this regard, we have been notified by the PTO that an unidentified third party has attempted to initiate an interference with one of our patents directed to adenoviral p53 therapy. We have information indicating this party is Canji and that, to date, these interference attempts have been unsuccessful. We cannot assess the likelihood of an interference actually being declared. Should that party prevail in an interference proceeding, a patent may issue to that party that is infringed by, and therefore potentially preclude our commercialization of, products like ADVEXIN therapy that are used for adenoviral p53 therapy.

Schering-Plough filed with the European Patent Office, or EPO, an opposition against our European patent directed to combination therapy with p53 and conventional chemotherapy and/or radiation. An opposition is an administrative proceeding instituted by a third party and conducted by the EPO to determine whether a patent should be maintained or revoked, in part or in whole, based on evidence brought forth by the party opposing the patent. In February 2006, the Technical Board of Appeals of the EPO held a final oral proceeding concerning Schering-Plough s opposition and determined our patent should be maintained as amended. No further appeal by Schering-Plough is possible.

We rely on trade secrets law to protect technology where we believe patent protection is not appropriate or obtainable. However, trade secrets are difficult to protect. In addition, we generally require employees, academic collaborators and consultants to enter into confidentiality agreements. Despite these measures, we may not be able to adequately protect our trade secrets or other proprietary information. We are a party to various license agreements that give us rights to use specified technologies in our research and development processes. If we are not able to continue to license this technology on commercially reasonable terms, our product development and research may be delayed. In addition, in the case of technologies that we have licensed, we do not have the ability to make the final decisions on how the patent application process is managed, and accordingly are unable to exercise the same degree of control over this intellectual property as we exercise over our internally developed technology. Our research collaborators and scientific advisors have rights to publish data and information in which we have rights. If we cannot maintain the confidentiality of our technology and other confidential information in connection with our collaborations, then our ability to receive patent protection or protect our proprietary information will be diminished.

Third party claims of infringement of intellectual property could require us to spend time and money to address the claims and could limit our intellectual property rights.

The biotechnology and pharmaceutical industry has been characterized by extensive litigation regarding patents and other intellectual property rights, and companies have employed intellectual property litigation to gain a competitive advantage. We are aware of a number of issued patents and patent applications related to recombinant DNA therapy, the treatment of cancer and the use of the p53 and other tumor suppressors. Schering-Plough, including its subsidiary Canji, controls various United States applications and a European patent and applications, some of which are directed to therapy using p53, and others to adenoviruses containing p53, or adenoviral p53, and to methods for carrying out therapy using adenoviral p53. Adenoviral p53 technology underlies our ADVEXIN therapy product candidate. Furthermore, we are aware of a United States patent directed to replication-deficient recombinant adenoviral vectors apparently controlled by Transgene SA (Transgene). While we believe the claims of the Transgene adenoviral vector patent are invalid or not infringed by our products, Transgene could assert a claim against us.

One of the foregoing patent applications directed to p53 therapy, which we understand is owned by The Johns Hopkins University (Johns Hopkins) and controlled by Schering-Plough, was involved in a PTO interference proceeding with a patent owned by Canji. This Johns Hopkins application was the United States counterpart to the European patent recently revoked in its entirety by the EPO (see below). Priority of invention in that interference was awarded by the PTO to the Johns Hopkins inventors, leading to the issuance of a United States patent, and the

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Canji patent has been found unpatentable. While it is our belief that the claims of the Johns Hopkins patent are invalid and not infringed by our ADVEXIN therapy, Schering-Plough or Johns Hopkins may assert that our ADVEXIN therapy, which uses p53 therapy, infringes the claims of such patent. While we believe we would have both an invalidity and non-infringement defense against such an assertion, in the United States an issued patent enjoys a presumption of validity, which can be overcome only through clear and convincing evidence. We cannot assure such a defense would prevail.

We may also become subject to infringement claims or litigation arising out of other patents and pending applications of our competitors, if they issue, or additional interference proceedings are declared by the PTO to determine the priority of inventions. The defense and prosecution of intellectual property suits, PTO interference proceedings and related legal and administrative proceedings are costly and time-consuming to pursue, and their outcome is uncertain. Such suits and proceedings may distract our management and key personnel from our core business. Litigation may be necessary to enforce our issued patents, to protect our trade secrets and know-how or to determine the enforceability, scope and validity of the proprietary rights of others. An adverse determination in litigation or interference proceedings to which we may become a party could subject us to significant liabilities, require us to obtain licenses from third parties, or restrict or prevent us from selling our products in certain markets. Although patent and intellectual property disputes are often settled through licensing or similar arrangements, costs associated with such arrangements may be substantial and could include ongoing royalties. Furthermore, the necessary licenses may not be available to us on satisfactory terms, if at all. In particular, if we were found to infringe a valid claim of the Transgene adenoviral vector United States patent, the Johns Hopkins patent or a patent that may issue from a currently pending application, our business could be materially harmed.

We have recently been involved in patent opposition proceedings before the EPO, in which we have sought to have the EPO revoke three different European patents owned or controlled by Canji/Schering-Plough. These European patents relate to the use of p53, or the use of tumor suppressors, in the preparation of therapeutic products. In one opposition involving a Canji European patent directed to the use of a recombinant tumor suppressor, the EPO revoked the European patent in its entirety in a final, non-appealable decision. In the second opposition, involving a patent that is directed to therapeutic and other applications of the p53 and that is owned by Johns Hopkins and, we understand, controlled by Schering-Plough, the EPO recently revoked the patent in its entirety. The patent owner appealed this decision and the final hearing before the EPO Technical Board of Appeals was held in June 2005, at which time the Technical Board of Appeals confirmed the final revocation of all claims of this patent relevant to clinical therapeutic applications of p53. In a third case involving the use of p53, the European patent at issue was initially upheld, but finally revoked in a hearing held in late April 2004.

We may be subject to litigation and infringement claims that may be costly, divert management s attention and materially harm our business.

Extensive litigation regarding patents and other intellectual property rights has been common in the biopharmaceutical industry. Litigation may be necessary to assert infringement claims, enforce patent rights, protect trade secrets or know-how and determine the enforceability, scope and validity of certain proprietary rights. The defense and prosecution of intellectual property lawsuits, PTO interference proceedings, and related legal and administrative proceedings in the United States and internationally involve complex legal and factual questions. As a result, such proceedings are costly and time-consuming to pursue and their outcome is uncertain.

Regardless of merit or outcome, our involvement in any litigation, interference or other administrative proceedings could cause us to incur substantial expense and could significantly divert the efforts of our technical and management personnel. An adverse determination may subject us to the loss of our proprietary position or to significant liabilities, or require us to seek licenses that may include substantial cost and ongoing royalties. Licenses may not be available from third parties, or may not be obtainable on satisfactory terms. An adverse determination or a failure to obtain necessary licenses may restrict or prevent us from manufacturing and selling our products, if any. These outcomes could materially harm our business, financial condition and results of operations.

If we fail to meet our obligations under license agreements, we may lose our rights to key technologies on which our business depends.

Our business depends in part on patents licensed from third parties. Those third-party license agreements impose obligations on us, such as payment obligations and obligations to diligently pursue development of commercial

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products under the licensed patents. If a licensor believes we have failed to meet our obligations under a license agreement, the licensor could seek to limit or terminate our license rights, which could lead to costly and time-consuming litigation and, potentially, a loss of the licensed rights. During the period of any such litigation, our ability to carry out the development and commercialization of product candidates could be significantly and negatively affected. If our license rights were restricted or ultimately lost, our ability to continue our business based on the affected technology platform would be severely adversely affected.

Competition and technological change may make our product candidates and technologies less attractive or obsolete.

The market for therapeutic and commercial products is intensely competitive, rapidly evolving and subject to rapid technological change. We compete with pharmaceutical and biotechnology companies, including Canji and Genvec, which are pursuing forms of treatment similar to ours for the diseases ADVEXIN therapy and our other product candidates target. We are aware that Canji, with its parent Schering-Plough, has in the past been involved in research and/or development of adenoviral p53 products and has numerous patents and patent applications relating to adenoviral p53 therapy. We understand Schering-Plough has stopped its adenoviral p53 clinical trials, and it is unknown whether these parties are continuing their adenoviral p53 research and/or development efforts. We are also aware that a Chinese pharmaceutical company, Benda Pharmaceutical, Inc. (formerly SiBiono GeneTech), has received regulatory approval from the Chinese drug regulatory agency to market an adenoviral p53 product only in China. We control an issued Chinese patent covering adenoviral p53, and a number of pending Chinese applications directed to p53 therapy and adenoviral production. We understand enforcement of patents in China is unpredictable. We do not know if monetary damages could be recovered from Benda Pharmaceutical, Inc. if its product infringes our patent or patent applications. Patent enforcement and respect of international patent standards, rules and laws have not historically been a key characteristic of the Chinese government and patent system. Geopolitical developments, including trade and tariff disputes between the government of China and the United States Department of Commerce could add additional uncertainty to any effort to enforce patents, recover damages, if any, or engage in the sales and marketing of patented or non-patented products in China. We are aware that ImClone and Bristol Myers Squibb have obtained marketing approval for a monoclonal antibody product (Erbitux) for the treatment of certain kinds of recurrent head and neck cancer. We also may face competition from companies that may develop internally or acquire competing technology from universities and other research institutions. As these companies develop or acquire their technologies, they may develop competitive positions that may prevent or limit our product commercialization efforts.

Some of our competitors are established companies with greater financial and other resources than ours. Other companies may succeed in developing products earlier than we do, obtaining FDA or foreign regulatory authority approval for products before we do or developing products that are more effective than our product candidates. While we will seek to expand our technological capabilities to remain competitive, research and development by others may render our technology or product candidates obsolete or non-competitive or result in treatments or cures superior to any therapy developed by us.

Even if we receive regulatory approval to market our ADVEXIN therapy, INGN 241, INGN 225 or other product candidates, we may not be able to commercialize them profitably.

Our profitability will depend on the market s acceptance of ADVEXIN therapy, INGN 241, INGN 225 and our other product candidates, if approved. The commercial success of our product candidates will depend on whether:

- they are more effective than alternative treatments;
- their side effects are acceptable to patients and doctors;
- insurers and other third-party healthcare payers will provide adequate reimbursement for them;
- we produce and sell them at a profit; and
- we market ADVEXIN therapy, INGN 241, INGN 225 and our other product candidates effectively.

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We must achieve significant market share and obtain high per-patient prices for our products to achieve profitability.

ADVEXIN therapy, our lead product candidate, will, if approved by the FDA, initially be targeted for the treatment of recurrent head and neck cancer, a disease with an annual incidence of approximately 40,000 patients in the United States. We are simultaneously pursuing approval of ADVEXIN therapy in Europe for the treatment of recurrent head and neck cancer where the annual incidence is equal to and perhaps greater than the US incidence of this disease. Also in Europe, we are seeking approval from the EMEA to market ADVEXIN therapy for Li Fraumeni Syndrome, a rare, inherited disorder. As a result, our per-patient prices must be sufficiently high in order to recover our development costs and achieve profitability. Until additional disease targets with larger potential markets are approved, we believe we will need to market worldwide to achieve significant market penetration. If we are unable to obtain sufficient market share for our drug products at a high enough price, or obtain expanded approvals for larger markets, we may not achieve profitability or be able to independently continue our product development efforts.

If we are unable to obtain adequate reimbursement from governments or third-party payors for any products that we may develop or if we are unable to obtain acceptable prices for those products, they may not be purchased or used and our revenues and prospects for profitability will suffer.

Our future revenues and profits will depend heavily upon the availability of adequate reimbursement for the use of our approved product candidates from governmental and other third-party payors, both in the United States and in other markets. Reimbursement by a third-party payor may depend upon a number of factors, including the third-party payor s determination that use of a product is:

a covered benefit under its health plan;

safe, effective and medically necessary;

appropriate for the specific patient;

cost-effective; and

neither experimental nor investigational.

Obtaining reimbursement approval for a product from each government or other third-party payor is a time-consuming and costly process that could require us to provide supporting scientific, clinical and cost-effectiveness data for the use of our products to each payor. We may not be able to provide data sufficient to gain acceptance with respect to reimbursement. Even when a payor determines that a product is eligible for reimbursement, the payor may impose coverage limitations that preclude payment for some uses that are approved by the FDA, EMEA or other foreign authorities. In addition, eligibility for coverage does not imply that any product will be reimbursed in all cases or at a rate that allows us to make a profit or even cover our costs. Interim payments for new products, if applicable, may also not be sufficient to cover our costs and may not be made permanent.

Governments outside the United States may impose strict price controls, which may adversely affect our revenues, if any.

In some countries, particularly the countries of the European Union, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be adversely affected.

Legislation has been introduced into the United States Congress that, if enacted, would permit more widespread re-importation of drugs from foreign countries into the United States, which may include re-importation

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from foreign countries where the drugs are sold at lower prices than in the United States. Such legislation, or similar regulatory changes, could decrease the price we receive for any approved products which, in turn, could adversely affect our operating results and our overall financial condition.

If we are unable to manufacture our products in sufficient quantities or obtain regulatory approvals for our manufacturing facilities, or if our manufacturing process is found to infringe a valid patented process or processes of another company, then we may be unable to meet demand for our products and lose potential revenue.

To complete our clinical trials and commercialize our product candidates, if approved, we will need access to, or will need to develop, facilities to manufacture a sufficient supply of our product candidates. We have used manufacturing facilities we constructed in Houston, Texas to manufacture ADVEXIN therapy, INGN 241 and other product candidates for currently planned clinical trials. We anticipate our facilities are suitable for the initial commercial launch of ADVEXIN therapy. We have no experience manufacturing ADVEXIN therapy, INGN 241 or any other product candidates in the volumes necessary to support commercial sales. If we are unable to manufacture our product candidates in clinical or, when necessary, commercial quantities, then we will need to rely on third-party manufacturers to produce our products for clinical and commercial purposes. These third-party manufacturers must receive FDA, EMEA approval or approval of other relevant foreign authorities approval before they can produce clinical material or commercial product. Our products may be in competition with other products for access to these facilities and may be subject to delays in manufacturing if third parties give other products greater priority than ours. In addition, we may not be able to enter into any necessary third-party manufacturing arrangements on acceptable terms. There are a limited number of contract manufacturers who currently have the capability to produce ADVEXIN therapy, INGN 241 and our other product candidates, and the inability of any of these contract manufacturers to deliver our required quantities of product candidates timely and at commercially reasonable prices would negatively affect our operations.

Before we can begin commercially manufacturing ADVEXIN therapy, INGN 241 or any other product candidate, we must obtain regulatory approval of our manufacturing facilities and processes. Manufacturing of our product candidates for clinical and commercial purposes must comply with the FDA s CGMP requirements in the United States and European Good Manufacturing Practices in Europe. These requirements govern quality control and documentation policies and procedures. In complying with these requirements, we will be obligated to expend time, money and effort in production, record keeping and quality control to assure the product meets applicable specifications and other requirements. We must also pass a certain inspections by regulatory authorities in the United States and Europe to obtain marketing approval in those countries.

Our current manufacturing facilities have not yet been subject to a Pre-Approval Inspection by the FDA, EMEA or other foreign regulatory authorities. Failure to pass Pre-Approval Inspections may significantly delay approval of our products. If we fail to comply with these requirements, we would be subject to possible regulatory action and may be limited in the jurisdictions in which we are permitted to sell our products. Further, the FDA, EMEA and other foreign regulatory authorities have the authority to perform unannounced periodic inspections of our manufacturing facilities to ensure compliance with CGMP and foreign regulatory requirements. Our facilities in Houston, Texas are our only manufacturing facilities. If these facilities were to incur significant damage or destruction, then our ability to manufacture ADVEXIN therapy, INGN 241 or any other product candidates would be significantly hampered, and our pre-clinical testing, clinical trials and commercialization efforts would be delayed.

In order to produce our products in the quantities we believe will be required to meet anticipated market demand, if our products are approved, we will need to increase, or scale-up, our production process. If we are unable to do so, or if the cost of this scale-up is not economically viable to us, we may not be able to produce our products in a sufficient quantity to meet the requirements of future demand.

Canji controls a United States patent and the corresponding international applications, including a European counterpart, relating to the purification of viral or adenoviral compositions. While we believe our manufacturing process does not infringe this patent, Canji could still assert a claim against us. We may also become subject to infringement claims or litigation if our manufacturing process infringes other patents. The defense and prosecution

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of intellectual property suits and related legal and administrative proceedings are costly and time-consuming to pursue, and their outcome is uncertain.

We rely on a limited number of suppliers for some of our manufacturing materials. Any problems experienced by such suppliers could negatively affect our operations.

We rely on third-party suppliers for most of the equipment, materials and supplies used in the manufacturing of ADVEXIN therapy, INGN 241 and our other product candidates. Some items critical to the manufacturing of these product candidates are available from a limited number of suppliers or vendors. We do not have supply agreements with these key suppliers. To mitigate the related supply risk, we maintain inventories of these items. Any significant problem experienced by one or more of these limited number of suppliers could result in a delay or interruption in the supply of materials to us until the supplier cures the problem or until we locate an alternative source of supply. Such problems would likely lead to a delay or interruption in our manufacturing operations or could require a significant modification to our manufacturing process, which could impair our ability to manufacture our product candidates in a timely manner and negatively affect our operations.

If product liability lawsuits are brought against us, we may incur substantial expenses and damages and demand for our product candidates may be reduced.

The testing and marketing of medical products is subject to an inherent risk of product liability claims. Regardless of their merit or eventual outcome, product liability claims may result in:

decreased demand for our product candidates;

a diversion of our management and key personnel away from our core business;

injury to our reputation, significant media attention and potential harm to our market position;

withdrawal of clinical trial volunteers;

substantial delay in or withdrawal of FDA, EMEA or other foreign regulatory authority approval;

costs of investigation and litigation; and

substantial monetary awards to plaintiffs.

We currently maintain product liability insurance with coverage of $5.0 million per occurrence with a $10.0 million annual aggregate limit. This coverage may not be sufficient to protect us fully against product liability claims. We intend to expand our product liability insurance coverage beyond clinical trials to include the sale of commercial products if we obtain marketing approval for any of our product candidates. Our inability to obtain sufficient product liability insurance at an acceptable cost to protect against product liability claims could prevent or limit the commercialization of our products.

We use hazardous materials in our business. Any claims relating to improper handling, storage, use or disposal of these materials could significantly harm our business.

Our business involves the use of a broad range of hazardous chemicals and materials. Environmental laws impose stringent civil and criminal penalties for improper handling, disposal and storage of these materials. In addition, in the event of the improper or unauthorized release of, or the exposure of individuals to, hazardous materials, we could be subject to civil liability due to personal injury or property damage caused by the release or exposure. A failure to comply with environmental laws could result in fines and the revocation of environmental permits, which could significantly harm our business.

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Our stock price may fluctuate substantially.

The market price for our common stock may be affected by a number of factors, including:

progress and results of our pre-clinical and clinical trials;

announcement of technological innovations by us or our competitors;

developments concerning proprietary rights, including patent and litigation matters;

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

regulatory developments;

the announcement of new products by us or our competitors;

quarterly variations in our or our competitors results of operations;

failure to achieve operating results projected by securities analysts;

changes in earnings estimates or recommendations by securities analysts;

developments in our industry; and

general market conditions and other factors.

In addition, stock prices for many companies in the technology and emerging growth sectors have experienced wide fluctuations that have often been unrelated to the operating performance of such companies.

If we do not progress in our programs as anticipated, our stock price could decrease.

For planning purposes, we estimate the timing of a variety of clinical, regulatory and other milestones, such as when a certain product candidate will enter clinical development, when a clinical trial will be completed or when an application for regulatory approval will be filed. Some of our estimates are included in this Annual Report on Form 10-K for the year ended December 31, 2007. Our estimates are based on present facts and a variety of assumptions. Many of the underlying assumptions are outside of our control. If milestones are not achieved when we expect them to be, investors could be disappointed, and our stock price may decrease.

Our research and development efforts may not result in additional product candidates being discovered on anticipated timelines, if at all, which could limit our ability to generate revenues.

Our research and development programs, other than our programs for ADVEXIN therapy, are at preclinical stages. Additional product candidates that we may develop will require significant research, development, preclinical studies and clinical trials, regulatory approval and commitment of resources before any commercialization may occur. We cannot predict whether our research will lead to the discovery of any additional product candidates that could generate revenues for us.

Recently enacted legislation may make it more difficult and costly for us to obtain regulatory approval of our product candidates and to produce, market and distribute our existing products.

On September 27, 2007, the President signed into law the FDA Amendments Act, or FDAAA. This new legislation grants significant new powers to the FDA, many of which are aimed at improving drug safety and assuring the safety of drug products after approval. Under the FDAAA, companies that violate the new law are subject to substantial civil monetary penalties. While we expect the FDAAA to have a significant impact on the pharmaceutical industry, the FDA has not yet implemented many of its provisions and the extent of the impact is not

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yet known. The new requirements and changes imposed by the FDAAA may make it more difficult, and more costly, to obtain and maintain approval of new pharmaceutical products and to produce, market and distribute existing products.

In addition, the FDA s regulations, policies or guidance may change and new or additional statutes or government regulations may be enacted that could prevent or delay regulatory approval of our product candidates or further restrict or regulate post-approval activities. It is impossible to predict whether additional legislative changes will be enacted, or FDA regulations, guidance or interpretations changed, or what the impact of such changes, if any, may be.

Any acquisition we might make may be costly and difficult to integrate, divert management resources or dilute stockholder value.

As part of our business strategy, we may acquire assets or businesses principally relating to or complementary to our current operations, and we have in the past evaluated and discussed such opportunities with interested parties. Any acquisitions we undertake will be accompanied by the risks commonly encountered in business acquisitions. These risks include, among other things:

potential exposure to unknown liabilities of acquired companies;

the difficulty and expense of assimilating the operations and personnel of acquired businesses;

diversion of management time and attention and other resources;

loss of key employees and customers as a result of changes in management;

the incurrence of amortization expense; and

possible dilution to our stockholders.

In addition, geographic distances may make the integration of businesses more difficult. We may not be successful in overcoming these risks or any other problems encountered in connection with any acquisitions.

If we lose key personnel or are unable to attract and retain additional, highly skilled personnel required to develop our products or obtain new collaborations, our business will suffer.

We depend, to a significant extent, on the efforts of our key employees, including senior management and senior scientific, clinical, regulatory, manufacturing and other personnel. The development of new therapeutic products requires expertise from a number of different disciplines, some of which is not widely available. We depend upon our scientific staff to discover new product candidates and to develop and conduct pre-clinical studies of those new potential products. Our clinical and regulatory staff is responsible for the design and execution of clinical trials in accordance with FDA, EMEA and other foreign regulatory authority requirements and for the advancement of our product candidates toward FDA, EMEA and other foreign regulatory authority approval. Our manufacturing staff is responsible for designing and conducting our manufacturing processes in accordance with the FDA s CGMP requirements. The quality and reputation of our scientific, clinical, regulatory and manufacturing staff, especially the senior staff, and their success in performing their responsibilities, are a basis on which we attract potential funding sources and collaborators. In addition, our Chief Executive Officer and other executive officers are involved in a broad range of critical activities, including providing strategic and operational guidance. The loss of these individuals, or our inability to retain or recruit other key management and scientific, clinical, regulatory, manufacturing and other personnel, may delay or prevent us from achieving our business objectives. We face intense competition for personnel from other companies, universities, public and private research institutions, government entities and other organizations.

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Future changes in financial accounting standards or practices or existing taxation rules or practices may cause adverse unexpected financial reporting fluctuations and affect our reported results of operations.

A change in accounting standards or practices or a change in existing taxation rules or practices can have a significant effect on our reported results and may even affect our reporting of transactions completed before the change is effective. New accounting pronouncements and taxation rules and varying interpretations of accounting pronouncements and taxation practice have occurred and may occur in the future. Changes to existing rules or the questioning of current practices may adversely affect our reported financial results or the way we conduct our business. For example, Statement of Financial Accounting Standards (SFAS) No. 123R, Share-Based Payment, became effective for us on January 1, 2006. This statement requires that employee share-based compensation be measured based on its fair value on the grant date and treated as an expense that is reflected in the financial statements over the related service period. SFAS No. 123R has had a significant impact on our results of operations for the years ended December 31 2007 and 2006. Using the Black-Scholes option pricing model to compute share-based compensation expense as we do requires extensive use of accounting judgment and financial estimates. Items requiring estimation include the expected term optionholders will retain their vested stock options before exercising them, the estimated volatility of our common stock price over the expected term of a stock option and the number of stock options that will be forfeited prior to the completion of their vesting requirements. Application of alternative assumptions could result in significantly different share-based compensation amounts being recorded in our financial statements. We anticipate that SFAS No. 123R will continue to have a significant impact on our results of operations.

Our corporate governance structure, including provisions in our certificate of incorporation and by-laws, and Delaware law, may prevent a change in control or management that stockholders may consider desirable.

Section 203 of the Delaware General Corporation Law and our certificate of incorporation and by-laws contain provisions that might enable our management to resist a takeover of our company or discourage a third party from attempting to take over our company. These provisions include the inability of stockholders to act by written consent or to call special meetings, the ability of our board of directors to designate the terms of and issue new series of preferred stock without stockholder approval and the fact that our board of directors is divided into three classes serving staggered three-year terms.

These provisions could have the effect of delaying, deferring, or preventing a change in control of us or a change in our management that stockholders may consider favorable or beneficial. These provisions could also discourage proxy contests and make it more difficult for stockholders to elect directors and take other corporate actions. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock or our other securities.

Our executive officers, directors and principal stockholders will maintain the ability to control all matters submitted to stockholders for approval.

Our executive officers, directors and stockholders who own more than 5% of our outstanding common stock beneficially own shares representing more than 50% of our outstanding capital stock. As a result, these stockholders, if they act together, will be able to exercise a controlling influence over matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions, such as mergers, consolidations and sales of all or substantially all of our assets, and will have significant control over our management and policies. The interests of this group of stockholders may not always coincide with our corporate interests or the interests of other stockholders. This significant concentration of stock ownership could also result in the entrenchment of our management and adversely affect the price of our common stock.

Some of our insiders are parties to transactions with us that may cause conflicting obligations.

Dr. John N. Kapoor, a member of our Board of Directors, is also associated with EJ Financial, a healthcare investment firm that is wholly owned by him. We have paid EJ Financial $175,000 per year under a consulting agreement for certain management consulting services, which is based on anticipated time spent by EJ Financial personnel on our affairs. EJ Financial is also involved in the management of healthcare companies in various fields, and Dr. Kapoor is involved in various capacities with the management and operation of these companies. In addition, EJ Financial is involved with other companies in the cancer field. Although these

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companies are pursuing different therapeutic approaches for the treatment of cancer, discoveries made by one or more of these companies could render our products less competitive or obsolete. Subsequent to December 31, 2007, this consulting agreement ended by mutual agreement between EJ Financial and us. Accordingly we no longer make payments under this agreement.

David Parker, Ph.D., J.D., our Vice President, Intellectual Property, is a partner with the law firm Fulbright & Jaworski LLP, which provides legal services to us as our primary outside counsel for intellectual property matters.

We have relationships with Jack A. Roth, M.D., a beneficial owner of our common stock, and M. D. Anderson Cancer Center, both of whom are affiliated with The Board of Regents of the University of Texas System, one of our stockholders. For more information concerning these relationships, see our Notes to Consolidated Financial Statements beginning on page F-7 of our Annual Report on Form 10-K for the year ended December 31, 2007.

In 2007, we became an owner of 49% of the outstanding stock of Introgen Research Institute (IRI). The other 51% of IRI is owned by our corporate Secretary, who is also an Introgen stockholder. We transferred to IRI an NIH grant originally awarded to us. IRI will be responsible for the remaining research contemplated by that grant and will receive future funding, if any, from the NIH under that grant. We have contractual relationships with IRI under which we may perform research and development services for them in the future.

In 2007, we established Gendux Pharmaceuticals Limited (GPL) for certain activities in European markets. Introgen originally owned approximately 85% of GPL, but on September 5, 2007, Introgen transferred its ownership of GPL to Introgen Global Limited (IGL), which is 100% owned by Introgen. IGL owns approximately 85% of GPL in the form of preferred stock convertible by Introgen into common stock (also called ordinary shares) at any time. The remaining portion of GPL is owned by certain of our directors, officers and employees in the form of approximately 150,000 shares of restricted common stock (also called ordinary shares) granted to them as approved by our Board of Directors. This stock had a nominal value at the time it was issued such that the share-based compensation related to those shares at that time was not material. Our plans have changed and we now anticipate that GPL will be liquidated and dissolved, and that the directors, officers and employees who own ordinary shares of GPL will receive no value for them.

We believe the foregoing transactions with insiders were and are in our best interests and the best interests of our stockholders. However, the transactions may cause conflicts of interest with respect to those insiders.

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

Not applicable.

Item 2. ***Properties***

We conduct our primary operations from facilities in Houston, Texas. These facilities consist of a 12,000 square foot CGMP production facility designed to support an ADVEXIN therapy product launch and a 30,000 square foot building containing our research and development laboratories and administrative offices. We own these facilities through TMX Realty Corporation (TMX), our wholly-owned subsidiary. Our corporate office is located in Austin, Texas, which consists of approximately 8,000 square feet we lease in a building owned by an unrelated third party. We expect our current facilities to satisfy our requirements for the foreseeable future.

TMX leases the land under our primary Houston facilities from a third party. The buildings are financed and pledged as collateral under a mortgage note payable. Certain equipment in the buildings is financed and pledged as collateral under notes payable. See the discussion below under Part II, Item 7. Management s Discussion and Analysis of Financial Condition and Results of Operations Liquidity and Capital Resources for a summary of our obligations under notes payable and leases.

We sublease to M. D. Anderson Cancer Center approximately 10,000 square feet in our primary facilities

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described above. This lease provides for rent payments at prevailing market rates and has an initial term expiring in 2009.

In addition to the primary facilities described above, we lease other space in Houston, Texas in which we constructed and operate a second production facility. We use that facility to produce investigative material for INGN 241 and other product candidates in an environment separate from that used for production of ADVEXIN therapy.

Item 3. ***Legal Proceedings***

We are involved from time to time in legal proceedings relating to claims arising out of our operation in the ordinary course of business, including actions relating to intellectual property rights.

We do not believe that the outcome of any present, or all litigation in the aggregate, will have a material effect on our business. You can read the discussion of our opposition of the patents under Part I, Item 1A. Risk Factors above.

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

No matter was submitted to a vote of security holders during the fourth quarter of the fiscal year covered by this Annual Report on
Form 10-K.

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PART II

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

Market and Equityholder Information

Our common stock has been quoted on the Nasdaq Global Market under the symbol INGN since our initial public offering in October 2000. Prior to October 2000, there was no established public trading market for our common stock. The following table sets forth, for the periods indicated, the high and low sale prices reported on the Nasdaq Global Market.

	High	Low
Fiscal Year Ended December 31, 2006:		
First Fiscal Quarter	$6.45	$4.91
Second Fiscal Quarter	5.62	3.50
Third Fiscal Quarter	4.88	3.78
Fourth Fiscal Quarter	5.20	4.28
Fiscal Year Ended December 31, 2007:		
First Fiscal Quarter	$6.25	$3.50
Second Fiscal Quarter	6.35	3.52
Third Fiscal Quarter	4.85	3.06
Fourth Fiscal Quarter	4.68	2.75

At March 11, 2008, there were 44,004,099 shares of our common stock issued and outstanding held by approximately 150 stockholders of record. A substantially greater number of holders of our common stock are street name or beneficial holders, whose shares are held of record by banks, brokers and other financial institutions.

Dividend Policy

We have never declared or paid any dividends on our capital stock. We currently expect to retain all of our future earnings, if any, to support the development of our business. We do not anticipate paying any cash dividends in the foreseeable future.

Stock Repurchases

We did not repurchase any shares of capital stock during the fourth quarter of the fiscal year covered by this Annual Report on Form 10-K.

Securities Authorized for Issuance Under Equity Compensation Plans

This information is incorporated by reference to Part III, Item 12 of this Annual Report on Form 10-K.

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Stock Price Performance Graph

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among Introgen Therapeutics, Inc., The NASDAQ Composite Index
And The S&P Biotechnology Index

* $100 invested on 12/31/02 in stock or index-including reinvestment of dividends.

Fiscal year ending December 31.

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

The selected consolidated financial data set forth below is qualified in its entirety by, and should be read in conjunction with, our Consolidated Financial Statements and notes thereto and Part II, Item 7. Management s Discussion and Analysis of Financial Condition and Results of Operations included elsewhere in this Annual Report on Form 10-K. This information is derived from and is qualified by our Consolidated Financial Statements appearing in Part IV below or in the analogous section of our Forms 10-Ks filed in previous years. All amounts are in thousands except per share data.

	Year Ended December 31,				
	2003	2004	2005	2006	2007
Statement of Operations Data:					
Contract services, grants and other revenue	$ 304	$ 1,808	$ 1,867	$ 1,151	$ 1,011
Operating costs and expense:					
Research and development	14,973	20,474	21,400	18,221	19,102
General and administrative	6,102	6,597	7,834	13,163	13,955
Total operating costs and expense	21,075	27,071	29,234	31,384	33,057
Loss from operations	(20,771)	(25,263)	(27,367)	(30,233)	(32,046)
Interest income (expense), net	393	(191)	166	343	593
Other income	1,052	1,067	1,098	1,089	1,004
Loss before non-controlling and minority interests in consolidated subsidiaries	(19,326)	(24,387)	(26,103)	(28,801)	(30,449)
Non-controlling and minority interests in consolidated subsidiaries					(6)
Net loss	$ (19,326)	$ (24,387)	$ (26,103)	$ (28,801)	$ (30,455)
Net loss per share, basic and diluted	$ (0.84)	$ (0.91)	$ (0.80)	$ (0.77)	$ (0.70)
Shares used in computing basic and diluted net loss per share	22,902	26,943	32,780	37,594	43,805

	December 31,				
	2003	2004	2005	2006	2007
Balance Sheet Data:					
Cash, cash equivalents, and short-term investments	$ 36,397	$ 38,180	$ 33,122	$ 41,345	$ 14,905
Working capital	31,091	31,981	29,529	39,957	18,536
Total assets	44,483	48,057	42,981	54,161	30,483
Notes payable, net of current portion	6,714	7,901	7,784	7,448	7,155
	876	1,132	1,404	923	79

Deferred revenue and other, long-term					
Accumulated deficit	(92,969)	(117,356)	(143,459)	(172,260)	(202,715)
Stockholders equity	31,285	32,166	27,011	37,048	16,003

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

The following discussion and analysis should be read in conjunction with our Condensed Consolidated Financial Statements and the related notes thereto included in this Annual Report on Form 10-K. The discussion and analysis contains forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. These statements include the statements under Item 1A. Risk Factors. These forward-looking statements are based on our current expectations and entail various risks and uncertainties. Our actual results could differ materially from those projected in the forward-looking statements as a result of various factors, including those set forth under Item 1A. Risk Factors.

Overview

Introgen Therapeutics, Inc. was incorporated in Delaware in 1993. We are a biopharmaceutical company focused on the discovery, development and commercialization of targeted molecular therapies for the treatment of cancer

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and other diseases. We are developing product candidates to treat a wide range of cancers using tumor suppressors, cytokines and other targeted molecular therapies. These agents are designed to increase production of normal cancer-fighting proteins that act to overpower cancerous cells, stimulate immune activity and enhance conventional cancer therapies. See Part I, Item 1. Business Overview above for a more complete discussion of our business.

Since our inception in 1993, we have used our resources primarily to conduct research and development activities for ADVEXIN therapy and, to a lesser extent, for other product candidates. At December 31, 2007, we had an accumulated deficit of $202.7 million. We anticipate we will incur losses in the future that may be greater than losses incurred in prior periods. At December 31, 2007, we had:

Cash, cash equivalents and short-term investments of $14.9 million; and

Marketable securities of $10.2 million for which we paid approximately $3.0 million and which we sold in their entirety subsequent to December 31, 2007 for net proceeds of $7.4 million.

We have used cash primarily as follows (in thousands):

	Year Ended December 31,		
	2005	2006	2007
Operating activities	$21,748	$19,208	$23,946
Purchases of property and equipment	509	185	288
Payment of offering costs related to sale of common stock			1,872
Principal payments on notes payable	707	901	906

We have received cash primarily as follows (in thousands):

	Year Ended December 31,		
	2005	2006	2007
Sales of our common stock	$19,585	$27,702	$
Proceeds from notes payable	772	727	282
Proceeds from stock option exercises	615	65	296

We expect to incur substantial additional operating expense and losses over the next several years as our research, development, pre-clinical testing and clinical trial activities continue and as we evolve our operations and systems to support commercialization of our product candidates. These losses, among other things, have caused and may cause our total assets, stockholders equity and working capital to decrease.

We currently earn revenue or income from research grants from U.S. Government agencies, contract services and process development activities, the lease of a portion of our facilities to M. D. Anderson Cancer Center and interest income on cash placed in short-term, investment grade securities. To fund our operating losses, we will need to raise additional funds through public or private equity offerings, debt financings or additional corporate collaboration and licensing arrangements. We do not know whether such additional financing will be available when needed or on terms favorable to us or our stockholders.

In November 2005, we sold approximately 3.6 million shares of our common stock in a direct equity sale to Colgate-Palmolive pursuant to a shelf registration statement for an aggregate purchase price of approximately $20.0 million. Our net proceeds from this transaction, after expenses payable in cash, were approximately $19.6 million. See Part I, Item 1. Business Business and Collaborative Arrangements Alliance with Colgate-Palmolive Company above for further discussion of our agreement with Colgate-Palmolive.

In November and December 2006, we sold approximately 6.3 million shares of our common stock in direct equity offerings pursuant to a shelf registration statement for an aggregate purchase price of approximately $30.0 million. Our net proceeds from these transactions, after related expenses payable in cash, were approximately $27.7 million. These expenses include approximately $2.1 million of fees to the placement agent for this transaction. Of this amount, we paid $1.5 million in January 2007 and $301,000 in equal monthly installments during 2007. At December 31, 2007, $300,000 of these fees remained payable in equal monthly installments through December

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2008. We have issued warrants to the placement agent to purchase up to 73,199 shares of our common stock at a price of $5.03 per share, exercisable beginning November 2008, and 326,801 shares of our common stock at a price of $4.75 per share, exercisable beginning December 2008. These warrants will expire in December 2015.

The shares of common stock issued in the transactions described above were registered pursuant to a registration statement on Form S-3, effective August 25, 2003 (Commission File No. 333-107799), registering shares of our common stock with an aggregate offering price of $100.0 million.

We have a registration statement on Form S-3 (Commission File No. 333-140424), effective April 19, 2007 providing for the sale by us of shares of our common stock with an aggregate offering price of up to $150.0 million. No common stock has been issued under this registration statement.

Subsidiaries

We account for Introgen Therapeutic Inc. s investment in its subsidiaries in accordance with the relevant provisions of generally accepted accounting principles, and specifically FIN 46(R), Consolidation of Variable Interest Entities (as amended). Accordingly, the subsidiaries accounts are included in these consolidated financial statements. We record a non-controlling or minority interests for the portion of these subsidiaries we do not own to the extent such minority interests constitutes a liability in our financial statements. If those subsidiaries have an accumulated net loss, the minority interests are zero.

Introgen Global Limited and Gendux Molecular Limited

In 2007, we established the following subsidiaries:

Introgen Global Limited (IGL), incorporated in the Cayman Islands and owned 100% by Introgen;

Gendux Pharmaceuticals Limited (GPL), owned approximately 85% by IGL; and

Gendux Molecular Limited (GML), incorporated in Ireland owned 100% by IGL.

We formed IGL to develop and commercialize targeted molecular medicines outside North America. We have licensed to IGL the rights for such activities with respect to our ADVEXIN therapy (under a non-exclusive license) and to various of our other technologies (under exclusive licenses.) Most of our regulatory activities involving the EMEA are conducted by GML through its presence in Ireland.

In 2007, we established GPL for certain activities in European markets. Introgen originally owned approximately 85% of GPL, but on September 5, 2007, Introgen transferred its ownership of GPL to IGL, which is 100% owned by Introgen. IGL owns approximately 85% of GPL in the form of preferred stock convertible by Introgen into common stock (also called ordinary shares) at any time. The remaining portion of GPL is owned by certain of our directors, officers and employees in the form of approximately 150,000 shares of restricted common stock (also called ordinary shares) granted to them as approved by our Board of Directors. This stock had a nominal value at the time it was issued such that the share-based compensation related to those shares at that time was not material. Our plans have changed and we now anticipate that GPL will be liquidated and dissolved, and that the directors, officers and employees who own ordinary shares of GPL will receive no value for them.

Introgen Research Institute

In 2007, we purchased 49% of the outstanding stock of Introgen Research Institute, Inc. for $10,000. The other 51% of IRI is owned by our corporate Secretary, who is also an Introgen stockholder.

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We transferred to IRI an NIH grant originally awarded to us. IRI is responsible for the remaining research contemplated by that grant and will receive future funding, if any, from the NIH under that grant. We have contractual relationships with IRI under which we may perform research and development services for them in the future. For year ended December 31, 2007, we recorded grant income $522,000 related to grants held by IRI.

The amount of grant funding, if any, available to IRI and us to perform research and development is dependent upon many factors, including the availability of grants from government agencies, performance of the work and incurring the costs contemplated by the grants, our success in obtaining additional grants in the future and our compliance with statutes and regulations governing such grants.

Magnum Therapeutics Corporation

In 2004, we acquired all of the outstanding capital stock of Magnum, a company owned at the time of this acquisition by one of our executive officers. Magnum s primary asset was the funding it received under a research grant from the NIH, which supplemented our ongoing research and development programs. During the years ended December 31, 2007, 2006 and 2005, we earned revenue of zero, $163,000 and $1.0 million, respectively, under this grant. Funding available for work contemplated under this grant has been fully received and utilized. No additional revenue will be earned from this grant. In the event certain of Magnum s technologies result in commercial products, we may be obligated to pay royalties related to the sales of those products to certain third parties.

Marketable Securities

In 2005, we purchased approximately 8.3% of the issued share capital of Silence Therapeutics plc for approximately $3.0 million. At December 31, 2007, these marketable securities constituted approximately 6.2% of the issued share capital of Silence Therapeutics and had a fair market value of approximately $10.2 million. We sold all of these shares subsequent to December 31, 2007, for approximately $7.4 million. Silence Therapeutics is a European biotechnology company publicly traded on the Alternative Investment Market of the LSE that is developing oncology and other products.

Mortgage Note Payable

In April 2006, we exercised our option to extend our mortgage note payable to a November 2009 maturity date, at which time the remaining outstanding principal balance, estimated to be approximately $6.7 million, is payable in full. As a result, the interest rate changed from 6.25% to 7.35% and our monthly installments of principal and interest changed from approximately $56,000 per month to approximately $61,000 per month. Our facilities are pledged as security for the mortgage note payable.

Stock Options and Stock Purchase Warrants

Stock Options

From time-to-time, we grant options to purchase our common stock to our directors, officers, employees and other service providers in recognition of their contribution to achieving our corporate objectives and as an incentive for their future contributions to the Company. These options typically vest under the following general terms:

Options issued to members of our Board of Directors vest monthly over 12 months.

Options issued to our Chief Executive Officer vest 100% on the date of grant.

Options issued to all other persons vest over four years at the rate of 25% per year on each annual anniversary of the grant date.

At December 31, 2007, we had 8,394,823 options outstanding to purchase our common stock, of which options to purchase 6,007,374 shares were vested and options to purchase 2,387,449 shares were unvested. These options have an exercise price equal to the market price of our common on the date of grant, with such exercise prices for options outstanding at December 31, 2007, ranging from $0.52 to $8.94 per share.

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Restricted Stock

In connection with the formation of GPL, approximately 150,000 shares of restricted common stock (also called ordinary shares) of that entity were granted to certain of Introgen s directors, officers, employees and key medical consultants as approved by our Board of Directors. The restricted common stock of GPL is designed to provide performance incentives similar in nature to a stock option plan. This stock had a nominal value at the time it was issued such that the share-based compensation related to those shares at that time was not material. Our plans have changed and we now anticipate that GPL will be liquidated and dissolved, and that the directors, officers and employees who own ordinary shares of GPL will receive no value for them.

Stock Purchase Warrants

From time-to-time, we issue stock purchase warrants, generally to investors or placement agents, in connection with sales of our common stock. We have issued warrants to purchase an aggregate of 1,400,032 shares of our common stock at prices ranging from $4.60 per share to $8.00 per share. These warrants expire on various dates through December 2015.

With respect to warrants for 686,087 of these shares exercisable through June 2008 at $4.60 per share, we may force their exercise if the average closing market price of our common stock during any 20 consecutive trading days is greater than $15.78 per share. These warrants also provide for the downward adjustment of their exercise price in the event we sell shares of our common stock at a price less than their current exercise price. The exercise price of these warrants was adjusted downward to $4.60 per share in connection with the sale of shares of our common stock in November 2006.

Critical Accounting Policies

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

Cash, Cash Equivalents and Short-term Investments. Our cash, cash equivalents and short-term investments include investments in short-term, investment grade securities, which currently consist primarily of United States federal government obligations. These investments are classified as held-to-maturity and are carried at amortized cost. At any time, amortized costs may be greater or less than fair value. If investments are sold prior to maturity, we could incur a realized gain or loss based on the fair market value of the investments at the date of sale. We could incur future losses on investments if the investment issuer becomes impaired or the investment is downgraded. We intend to hold short term investments until their maturity date.

Marketable Securities. Our marketable securities consist of issued share capital of other public companies, specifically Silence Therapeutics, and are classified as available-for-sale. Unrealized gains and losses are computed using the published share price of the applicable stock exchange at the close of business on the last day of the reporting period and are reported as a separate component of accumulated other comprehensive income (loss) in stockholders equity until realized. Subsequent to December 31, 2007, we sold our entire holdings in Silence Therapeutics for cash proceeds of $7.4 million and thereafter do not own any marketable securities.

Revenue Recognition. We recognize revenue as follows:

Contract services revenue is recognized when the related services are completed and delivered to the customer. We record deferred revenue for cash received for which the related work has not been completed and/or the related expense has not been incurred.

Grant revenue is recognized when research expense relating to a grant is incurred and the work contemplated under the grant has been performed.

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Rental income from the sublease of laboratory space to third parties under leases that have variable monthly rent amounts over the term of the lease is recognized on a straight-line basis over the term of the lease. Cash payments received in excess of rental income recognized is recorded as deferred revenue, which then declines when the straight-line basis rental income is greater than the cash received. Rental income is included in other income in the accompanying condensed consolidated statement of operations.

Research and Development Costs. In conducting our clinical trials of ADVEXIN therapy and other product candidates, we procure services from numerous third-party vendors. The cost of these services constitutes a significant portion of the cost of these trials and of our research and development expense in general. These vendors do not necessarily provide us billings for their services on a regular basis and, accordingly, are often not a timely source of information to determine the costs we have incurred relative to their services for any given accounting period. As a result, we make significant accounting estimates as to the amount of costs we have incurred relative to these vendors in each accounting period.

These estimates are based on numerous factors, including, among others, costs set forth in our contracts with these vendors, the period of time over which the vendor will render the services and the rate of enrollment of patients in our clinical trials. Using these estimates, we record expenses and accrued liabilities in each accounting period that we believe fairly represent our obligations to these vendors. Actual results could differ from these estimates, resulting in increases or decreases in the amount of expense recorded and the related accrual. We have consistently applied these estimation procedures in the past and plan to continue applying such procedures in the same manner during the foreseeable future. Our experience has been that our estimates have reasonably reflected the expense we actually incur.

Share-Based Compensation. Effective January 1, 2006, we adopted SFAS No. 123R, Accounting For Share-Based Compensation. From that date forward, we record share-based compensation expense for all stock options issued to all persons to the extent such options vest on January 1, 2006 or later. That expense is determined under the fair value method using the Black-Scholes option pricing model. We record that expense ratably over the period the stock options vest.

Prior to January 1, 2006, we applied Accounting Principles Board Opinion No. 25 (APB No. 25), Accounting for Stock Issued to Employees and related interpretations for determining compensation expense related to our stock option grants. Under that principle, we measured compensation expense for stock options issued to our directors and employees using the intrinsic value of the stock option at date of grant, which generally resulted in us recording no compensation expense since the intrinsic value of those stock options was typically zero at the date of grant due to the exercise price of those stock options being equal to the fair value of our shares on the date of grant. Compensation expense for stock options issued to all other persons was measured using the fair value of the stock option at the date of grant determined under the Black-Scholes option pricing model, which generally resulted in us recording a compensation expense.

The Black-Scholes option pricing model we use to compute share-based compensation expense requires extensive use of accounting judgment and financial estimates. Items requiring estimation include the expected term option holders will retain their vested stock options before exercising them, the estimated volatility of our common stock price over the expected term of a stock option, and the number of stock options that will be forfeited prior to the completion of their vesting requirements. Application of alternative assumptions could result in significantly different share-based compensation amounts being recorded in our financial statements.

We implemented SFAS No. 123R using the modified prospective transition method. Under this method, prior periods are not restated.

Recently Issued Accounting Pronouncements

In July 2006, the FASB issued SFAS Interpretation No. 48, Accounting for Uncertainty in Income Taxes an interpretation of SFAS Statement No. 109 (FIN 48). We adopted FIN 48 effective January 1, 2007. Significant aspects of FIN 48 include:

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It applies to all tax positions accounted for under SFAS 109. FIN 48 refers to tax positions as positions taken in a previously filed tax return or positions expected to be taken in a future tax return which are reflected in measuring current or deferred income tax assets and liabilities reported in the financial statements.

It clarifies that a tax benefit may be reflected in the financial statements only if it is more likely than not that a company will be able to sustain the tax return position, based on its technical merits. If a tax benefit meets this criterion, it should be measured and recognized based on the largest amount of benefit that is cumulatively greater than 50% likely to be realized.

It requires we make qualitative and quantitative disclosures, including:

- A discussion of reasonably possible changes that might occur in unrecognized tax benefits over the next 12 months;
- A description of open tax years by major jurisdictions; and
- A roll-forward of all unrecognized tax benefits, presented as a reconciliation of the beginning and ending balances of the unrecognized tax benefits on an aggregated basis.

The adoption of FIN 48 did not have a material impact on our financial statements or disclosures. As of January 1, 2007 and December 31, 2007 we had unrecognized tax benefits relative to uncertain tax positions totaling $1.7 million and $2.0 million, respectively. Any interest or penalties resulting from examinations will continue to be recognized as a component of the income tax provision; however, since the Company has historically operated in a loss position, there are no accrued interest and penalties. Please refer to Note 8 to our consolidated financial statements included elsewhere in this report for a detailed discussion of our accounting for income taxes.

In September 2006, the FASB issued Statement of Financial Accounting Standards No. 157, Fair Value Measurements, which defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles (GAAP), and expands disclosures about fair value measurements. In February 2007, the FASB issued Statement of Financial Accounting Standards No. 159, The Fair Value Option for Financial Assets and Financial Liabilities, which permits entities to choose to measure many financial instruments and certain other items at fair value with the objective of improving financial reporting by providing entities with the opportunity to mitigate volatility in reported earnings caused by measuring related assets and liabilities differently without having to apply complex hedge accounting provisions. Both these statements are effective as of the beginning of an entity s first fiscal year that begins after November 15, 2007. The nature of our business and the items reflected in our financial statements are such that we believe these statements will have little or no effect on our financial statements in the foreseeable future.

In June 2007, the FASB ratified the consensus reached by the FASB Emerging Issues Task Force on Issue No. 07-3, Accounting for Advance Payments for Goods or Services to Be Used in Future Research and Development Activities (EITF 07-3). EITF 07-3 requires entities to defer income statement recognition of nonrefundable advance payments for research and development activities, such as up-front nonrefundable payments to contract research organizations, if the contracted party has not yet performed activities related to the up-front payment. Amounts deferred are to be recognized by the contracting company as expense when the research and development activities are performed. The application of EITF 07-3 is effective for interim or annual reporting periods in fiscal years beginning after December 15, 2007. Earlier application of EITF 07-3 is not permitted. Companies are required to report the effects of applying EITF 07-3 prospectively for new contracts entered into after the effective date of EITF 07-3. We do not expect the application of EITF 07-3 to have a material affect on our consolidated results of operations and financial condition.

In December 2007, the FASB issued Statement of Financial Accounting Standards No. 160, Noncontrolling Interests in Consolidated Financial Statements an amendment of ARB No. 51. The objective of this statement is to improve the relevance, comparability, and transparency of the financial information that a reporting entity

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provides in its consolidated financial statements regarding non-controlling interests in consolidated subsidiaries. This statement establishes accounting and reporting standards that require, among other things, that:

The ownership interests in subsidiaries held by parties other than the parent be clearly identified, labeled, and presented in the consolidated statement of financial position within equity, but separate from the parent s equity;

The amount of consolidated net income attributable to the parent and to the non-controlling interests be clearly identified and presented on the face of the consolidated statement of income;

Entities provide sufficient disclosures that clearly identify and distinguish between the interests of the parent and the interests of the non-controlling owners.

This statement is effective as of the beginning of an entity s first fiscal year that begins after November 15, 2007. We are assessing the impact of this statement on our financial statements and believe the nature of our business and the items reflected in our financial statements are such that this statement will have little or no effect on our financial statements in the foreseeable future.

Results of Operations

Our operations consist primarily of the research and development of our product candidates and technologies described in Item 1. Business Product Development Programs above. Our research and development expense includes, but is not limited to, expense related to personnel, facilities and equipment, pre-clinical research, clinical trials, manufacturing of materials for use in clinical trials, conducting data analysis and conducting regulatory documentation submissions to the FDA. Our research and development expense can be divided between programs in the pre-clinical stage and programs in the clinical stage, and general research and development expense attributable to all programs. We manage our business by tracking research and development expense in these categories in lieu of tracking research and development expense on a project-by-project basis. Tables setting forth the amount of research and development expense we have incurred in each of these categories are presented below under Comparison of the Years Ended December 31, 2007, 2006 and 2005.

To commercialize our product candidates, we must obtain certain regulatory approvals. Satisfaction of regulatory requirements typically takes many years and involves compliance with requirements covering pre-clinical research, clinical trials, manufacturing, quality control, labeling and promotion of drugs for human use. To obtain regulatory approvals, we must, among other requirements, complete clinical trials and other work demonstrating our product candidates are safe and effective for a particular cancer type or other disease. The FDA, EMEA and other similar agencies throughout the world have substantial discretion over the work we must perform to obtain regulatory approval.

The likelihood that a product candidate will be commercially successful may be affected by a variety of factors, including, among others, the quality of the product candidate, the validity of the target and disease indication, early clinical data, competition, manufacturing capability and commercial viability. Because of the discretion of the FDA, EMEA and similar agencies throughout the world, as well as the foregoing factors, we cannot predict with reasonable accuracy:

The future expense we will incur developing these product candidates;

When we will complete our work in developing these product candidates;

When, if ever, we will earn significant revenue from approved products that might result from these product development programs.

For a discussion of the risks and uncertainties associated with developing our products, as well as the risks and uncertainties associated with potential commercialization of our product candidates, see Part I, Item 1A. Risk Factors, and particularly the risk factors entitled:

If we are unable to commercialize ADVEXIN therapy in various markets for multiple indications, particularly for the treatment of recurrent head and neck cancer, our business will be harmed ;

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If we fail to comply with FDA, EMEA or other foreign regulatory authority requirements or encounter delays or difficulties in clinical trials for our product candidates, we may not obtain regulatory approval of some or all of our product candidates on a timely basis, if at all ;

Even if our products are approved by regulatory authorities, if we fail to comply with ongoing regulatory requirements, or if we experience unanticipated problems with our products, these products could be subject to restrictions or withdrawal from the market ;

Failure to comply with foreign regulatory requirements governing human clinical trials and marketing approval for drugs could prevent us from selling our products in foreign markets, which may adversely affect our operating results and financial conditions ;

If we continue to incur operating losses for a period longer than we anticipate and fail to obtain the capital necessary to fund our operations, we will be unable to advance our development program and complete our clinical trials ;

If we cannot maintain our existing corporate and academic arrangements and enter into new arrangements, we may be unable to develop products effectively, or at all ;

If we are not able to create effective collaborative marketing relationships, we may be unable to market our products successfully or in a cost-effective manner ; and

Even if we receive regulatory approval to market our ADVEXIN therapy, INGN 241, INGN 225 or other product candidates, we may not be able to commercialize them profitably.

We expect our operating expenses discussed below could increase in the future as we continue to expand our research and development programs and work to commercialize our product candidates. If we are successful in receiving approval from regulatory agencies to sell one or more of our product candidates, we expect to incur expenses in the future that we have not incurred in the past, such as product manufacturing costs and sales and marketing expenses. As we obtain more financing to support these activities, we expect our interest expense and other expenses associated with obtaining debt and equity capital to increase in the future. If we are able to sell one or more of our product candidates, we expect to receive revenue in the future that we have not received in the past.

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Comparison of Years Ended December 31, 2007, 2006 and 2005

The following comparisons are for the years ended December 31, 2007, 2006 and 2005. References to the 2007 period refer to the year ended December 31, 2007, references to the 2006 period refer to the year ended December 31, 2006 and references to the 2005 period refer to the year ended December 31, 2005. All dollar amounts are in thousands unless noted otherwise.

Contract Services, Grant and Other Revenue

	2005	2006	2007
Contract services, grant and other revenue	$1,867	$1,151	$1,011
Percent decrease from previous period	N/A	(38)%	(12)%

For the 2007 and 2006 periods, we earned revenue primarily from:

Contract services revenue for research work we performed for third parties;

Revenue earned under research grants from U. S. government agencies; and

Contract manufacturing process development and product production services revenue.

For the 2006 and 2005 periods, we earned revenue primarily from:

Revenue earned under research grants from U. S. government agencies; and

Contract manufacturing process development and product production services revenue.

There is significant competition for funding under grants from U.S. Government agencies such that we cannot predict the amount of such funding, if any, we might receive in the future.

The change in contract services, grant and other revenue for the 2007 period compared to the 2006 period was a result of:

Decreased contract manufacturing process development and product production services revenue as a result of the completion of certain such work previously in process that was not replaced with additional such work;

which was offset by:

Increased contract services revenue for research work we performed for third parties; and

Increased revenue earned under research grants from U. S. government agencies;

The change in contract services, grant and other revenue for the 2006 period compared to the 2005 period was a result of:

Decreased revenue earned under research grants from U.S. Government agencies as a result of us substantially completing, subsequent to the 2005 period, work to be performed under the grant held by Magnum;

which was partially offset by:

Increased contract manufacturing process development and product production services revenue as a result of the completion of certain contract services which allowed us to recognize revenue for those services that had been deferred in previous periods.

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Research and Development Expense

	2005	2006	2007
Pre-clinical stage programs expense	$ 2,644	$ 1,349	$ 1,991
Clinical stage programs expense	15,713	13,462	13,478
General research and development expense	3,043	3,410	3,633
Total research and development expense	$ 21,400	$ 18,221	$ 19,102
Percent increase (decrease) in total from previous period	N/A	(15)%	5%

Research and development expense included share-based compensation of $1.0 million for the 2007 period, $1.0 million for the 2006 period and $396,000 for the 2005 period.

The change in research and development expense in the 2007 period compared to the 2006 period was a result of:

Increased costs related to our preparation of regulatory filings with the FDA and EMEA for ADVEXIN therapy;

which were partially offset by:

Decreased expense related to the amortization of grant rights acquired in the purchase of Magnum as a result of the completion of our work and related funding under that grant in the 2006 period;

Decreased costs of manufacturing supplies of clinical materials as our manufacturing activities in earlier periods provided us with adequate quantities of clinical materials to conduct our clinical trials for the foreseeable future such that we were able to reduce such manufacturing activities in the 2007 period;

Reaching an agreement with a third party that resulted in us not having to pay certain of their invoices that were previously included in our accounts payable;

The expiration of the requirement to purchase additional shares of VirRx, discussed in Note 10 to our Consolidated Financial Statements titled Licenses and Research Agreements VirRx, Inc;

Decreased legal expenses associated with patents and trademarks due to the completion of certain intellectual property legal activities. We have ongoing programs involving the filing of additional patents and trademarks and defending the patents and trademarks we have in place such that our expenses related to that work could increase materially in the future; and

Credits to expense resulting from the reduction of amounts previously accrued for possible state sales and use tax liabilities. As a result of the completion of audits by taxing authorities of our sales and use tax liability for certain prior periods, our liability for those taxes was less than previously estimated.

The change in research and development expense in the 2006 period compared to the 2005 period was a result of:

Lower costs in the 2006 period compared to the 2005 period since the 2005 period included higher costs related to our pursuit of an initial rolling BLA filing strategy for ADVEXIN therapy;

Decreased expense related to the amortization of grant rights acquired in the purchase of Magnum as a result of the completion of our work and related funding under that grant in the 2006 period;

Decreased costs of manufacturing supplies of clinical materials as our manufacturing activities in earlier periods provided us with adequate quantities of clinical materials to conduct our clinical trials for the foreseeable future such that we were able to reduce such manufacturing activities in the 2006 period; and

The expiration of the requirement to purchase additional shares of VirRx, discussed in Note 10 to our Consolidated Financial Statements titled License and Research Agreements VirRx, Inc. ;

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which were partially offset by:

Higher share-based compensation expense, which increased for the reasons discussed below under Share-Based Compensation Expense.

General and Administrative Expense

	2005	2006	2007
General and administrative expense	$7,834	$13,163	$13,955
Percent increase from previous period	N/A	68%	6%

General and administrative expense included share-based compensation of $5.1 million for the 2007 period, $6.0 million for the 2006 period and $936,000 for the 2005 period.

The change in general and administrative expense in the 2007 period compared to the 2006 period was primarily due to:

Increased legal fees incurred with respect to certain matters arising during the normal course of our business;

Increased security listing fees primarily resulting from our sale of common stock in November and December 2006;

Increased legal, accounting and professional fees related to the formation of our new subsidiaries IGL, GPL and GML;

Increased fees related to investor and public relations activities;

Increased insurance costs primarily due to the effects of hurricane activity on property insurance premiums; and

Increased administrative activities in support of our preparation of regulatory filings with the FDA and EMEA for ADVEXIN therapy;

which were partially offset by:

Decreased share-based compensation expense, which is discussed further below under Share-Based Compensation Expense ; and

Decreased financial advisory fees associated with raising capital since we did not conduct an offering of our common stock 2007 such as we did in 2006.

The change in general and administrative expense in the 2006 period compared to the 2005 period was primarily a result of higher share-based compensation expense resulting from the implementation of SFAS No. 123R, Share-Based Payments. This implementation resulted in us recording share-based compensation expense for stock option grants to directors, officers and employees in the 2006 period for which there was no comparable expense recorded in the 2005 period as allowed by GAAP in effect during the 2005 period.

Share-Based Compensation Expense

	2005	2006	2007
Share-based compensation expense	$1,332	$7,041	$6,060
Percent increase (decrease) from previous period	N/A	429%	(14)%

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The change in *s*hare-based compensation expense in the 2007 period compared to the 2006 period was a result of:

A decrease in the number of options granted to purchase common stock from 1.8 million shares in 2006 to 1.3 million shares in 2007, primarily as a result of a broad-based issue of stock options to substantially all employees in 2006 for which there was not a similar event in 2007;

Variances in the risk-free interest rate, the volatility of our stock price and other factors considered in our determination of share-based compensation expense using the Black-Scholes option pricing model.

which were partially offset by:

Higher expense due to a greater number of our common shares issued in replacement of expiring options to purchase shares of our common stock in 2007 compared to 2006 and;

The change in *s*hare-based compensation expense in the 2006 period compared to the 2005 period was a result of the implementation of SFAS No. 123R, Share-Based Payments, discussed above under Part II, Item 7. Management s Discussion and Analysis of Financial Condition and Results of Operations Critical Accounting Policies Share-Based Compensation.

Our insider trading policy restricts sales of our common stock by our officers and employees. The expiring options in 2007 referred to above could not be exercised pursuant to a cashless exercise program prior to their respective expiration dates due to these insider trading restrictions. Accordingly, to provide the option holder, who is one of our officers, with an economic equivalent to those expired options, we granted the officer an aggregate of 51,387 shares of our common stock during the 2007 period, of which 32,661 shares were issued to the officer and 18,726 shares were withheld by us in consideration for our payment on the officer s behalf of approximately $79,000 of federal income taxes. We recorded compensation expense of approximately $216,000 in the 2007 period in connection with the issuance of these shares. There was no similar material transaction during the 2006 period.

See Part II, Item 7. Management s Discussion and Analysis of Financial Condition and Results of Operations Critical Accounting Policies Share-Based Compensation above for a discussion of our application of SFAS No. 123, Accounting for Stock-Based Compensation, and the expected future effects of our adoption of SFAS No. 123R, Share-Based Payment.

Interest Income

	2005	2006	2007
Interest income	$ 787	$1,032	$1,274
Percent increase from previous period	N/A	31%	23%

The change in interest income in the 2007 period compared to the 2006 period was a result of:

A higher overall average balance of cash, cash equivalents and short-term investments in the first three quarters of the 2007 period compared to the 2006 period as a result of the investment of proceeds from our sales of our common stock in November 2006 and December 2006 as further discussed in the Financial Overview section above; and

Generally higher interest rates during the 2007 period compared to the 2006 period.

The change in interest income in the 2006 period compared to the 2005 period was a result of:

Higher interest rates earned on our invested funds in the 2006 period compared to the 2005 period;

which were partially offset by:

A lower overall average balance of cash, cash equivalents and short-term investments in the 2006 period

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compared to the 2005 period.

Interest Expense

	2005	2006	2007
Interest expense	$ 621	$689	$681
Percent increase (decrease) from previous period	N/A	11%	(1)%

Interest expense decreased for the 2007 period compared to the 2006 period due to:

Reductions in the total principal balance on which we are paying interest as a result of normal debt service payments;

which were partially offset by:

Additional borrowings subsequent to the 2006 period to finance equipment acquisitions and higher interest rates on those additional borrowings; and

A higher interest rate on our mortgage note payable for all of the 2007 period compared to that higher rate being in effect for less than all of the 2006 period as a result of an adjustment to that interest rate during the 2006 period in connection with the exercise of our option to extend the term of that note payable.

Interest expense increased for the 2006 period compared to the 2005 period:

Additional borrowings subsequent to the 2005 period to finance equipment acquisitions and higher interest rates on those additional borrowings; and

An increased interest rate on our mortgage note payable in the 2006 period compared to the 2005 period as a result of an adjustment to that interest rate during the 2006 period in connection with the exercise of our option to extend the term of that note payable.

Other Income

	2005	2006	2007
Other income	$1,098	$1,089	$1,004
Percent decrease from previous period	N/A	(1)%	(8)%

The dollar amount of other income was generally comparable between the 2007, 2006 and 2005 periods, which is consistent with the nature of our activities that generate other income. The percentage variations in this income is not material to our business. This income is earned primarily from our sublease of space to M. D. Anderson Cancer Center and other miscellaneous activities.

Liquidity and Capital Resources

In the following discussion of liquidity and capital resources, references to the 2007 period refer to the year ended December 31, 2007, references to the 2006 period refer to the year ended December 31, 2006 and references to the 2005 period refer to the year ended December 31, 2005. All dollar amounts are in thousands unless noted otherwise.

We have incurred annual operating losses since our inception. At December 31, 2007, we had an accumulated deficit of $202.7 million.

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Our cash equivalents and short-term investments are generally comparable financial instruments, with short-term investments having original maturity dates in excess of three months. Our marketable securities consist of issued share capital of other public companies and are classified as available-for-sale. Our balances are as follows:

	2005	2006	2007
Cash and cash equivalents	$ 28,090	$ 25,578	$ 11,320
Short-term investments	5,032	15,767	3,585
Total cash, cash equivalents and short-term investments	33,122	41,345	14,905
Marketable securities	2,892	6,957	10,165
Total cash, cash equivalents, short-term investments and marketable securities	$ 36,014	$ 48,302	$ 25,070

Subsequent to December 31, 2007, we sold all of our marketable securities for net cash proceeds of approximately $7.4 million.

The change in our cash and cash equivalents, exclusive of short-term investments and marketable securities, consisted of the following amounts, the details of which are presented in our condensed consolidated statements of cash flows in Item 8. Financial Statements below:

	2005	2006	2007
(Used) in operating activities	$(21,748)	$(19,208)	$(23,946)
Provided (Used) by investing activities	$ (589)	$(10,920)	$ 11,894
Provided (Used) by financing activities	$ 20,265	$ 27,593	$ (2,200)

From inception through December 31, 2007, we have financed our operations primarily from the following sources, the amounts of which are presented net of related expenses paid in cash (in millions):

Equity sales in December 2003, December 2004, November 2006 and December 2006 through registered direct offerings under a shelf registration filed with the SEC	$ 69.1
Collaborative research and development payments from Aventis from 1994 to 2000	49.7
Private equity sales to Aventis from 1994 to 1999	39.4
Initial public offering in October 2000	32.2
Private equity sales to various other parties	29.8
Contract services, grants, interest and other income	25.7
Equity sales to Colgate-Palmolive under a shelf registration filed with the SEC and pursuant to an alliance agreement entered into in November 2005	19.6
Mortgage financing from banks for our facilities	9.9
Sales of ADVEXIN therapy product to Aventis for use in later-stage clinical trials from 1997 to 2000	7.5
Leases and notes payable from commercial lessors and lenders to acquire equipment pledged as collateral for those leases and notes	6.5

We expect to continue focusing our activities primarily on conducting Phase 3 and other clinical trials, conducting data analysis related to those trials, preparing regulatory documentation submissions to the FDA, producing ADVEXIN therapy and other clinical materials for use in our clinical trials and conducting pre-marketing activities for ADVEXIN therapy. We expect to continue our research and development of various other targeted molecular therapy technologies. If ADVEXIN therapy or any of our other product candidates are approved for commercial sale by the FDA, we expect to conduct activities supporting the marketing, sales, production and distribution of those products, either ourselves or in collaboration with other parties.

We believe our cash, cash equivalents and short-term investments on hand at December 31, 2007, plus the amounts we may earn from contract services, grants and/or interest income during 2008, will be sufficient to fund our

operations through at least December 31, 2008, and perhaps longer, at a level necessary to achieve our primary

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business objectives. However, in order to fund our operations beyond December 31, 2008, or to introduce any new product candidates, we may be required to raise additional funds through public or private equity offerings, debt financings or additional corporate collaboration and licensing arrangements. If we raise additional funds through the issuance of equity securities, the percentage ownership of our stockholders could be significantly diluted. If we obtain additional debt financing, a substantial portion of our operating cash flow may be dedicated to the payment of principal and interest on such indebtedness, and the terms of the debt securities issued could impose significant restrictions on our operations. We do not know whether such additional financing will be available when needed or on terms favorable to us or our stockholders. In the event these sources of financing become unavailable, we may have to adjust the scope of our operations and related cash needs to a level that can extend the period of time during which we can rely on existing resources to conduct our business activities.

Net Cash Used in Operating Activities

	2005	**2006**	**2007**
Net cash used in operating activities	$21,748	$19,208	$23,946

The net cash we used in our operating activities relates to the following items:

Net loss The net loss reported in our statement of operations includes certain expenses that do not involve the use of cash. The following table illustrates the portion of our net loss for which we use cash:

	2005	**2006**	**2007**
Net loss	$ (26,103)	$ (28,801)	$ (30,455)
Less expenses not requiring the use of cash:			
Non-controlling interests in income of consolidated subsidiary			6
Depreciation	1,605	1,388	1,018
Share-based compensation	922	7,013	5,982
Amortization of grant rights acquired	1,419	133	
Portion of net loss for which we use cash	$ (22,157)	$ (20,267)	$ (23,449)
Percent increase (decrease) from previous period	N/A	(9)%	16%

See Comparison of Years Ended December 31, 2007, 2006 and 2005 above for a discussion of the changes in the components of our net loss.

Accounts payable and accrued liabilities Changes in these accounts arise primarily from variations in the timing of payments to vendors and employees that arise in the ordinary course of business. This timing is a function of:

- Variations in our general business activities;
- The nature of vendors to whom we have obligations;
- The nature of payment terms we receive from vendors;
- The timing of when we elect to make payments to vendors based on our available cash balances and cash flow needs; and
- The timing of our regularly scheduled paydays for our employees relative to the end of our accounting periods.

The changes in our accounts payable and accrued liabilities for the 2007, 2006 and 2005 periods related to one or more of the above items, with no single component of those aggregate changes being material to our business as a whole. In addition to the above items, we experienced a smaller increase in accounts payable and accrued liabilities

collectively in the 2007 period compared to the 2006 period due to:

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Reaching an agreement in 2007 with a third party that we would not have to pay certain of their invoices that were previously included in our accounts payable;

Payment in 2007 of $1.6 million to a placement agent in connection with their work supporting the sale of our common stock in November 2006 and December 2006 that was accrued as of December 31, 2006;

Elimination in 2007 of a liability accrued at December 31, 2006 for consulting services that we determined would not have to be paid; and

Completion during 2007 of a sales tax audit by state taxing authorities resulting in a reduction in the liability accrued for this matter;

which was partially offset by:

An increase in accrued liabilities related to BLA costs due to increased activity in that area in 2007.

The increase in accounts payable and accrued liabilities collectively in the 2006 period compared to a decrease in the 2005 period resulted primarily from the accrual of $1.8 million in fees payable to a placement agent in connection with their work supporting the sale of our common stock in November 2006 and December 2006, which is an accrued liability that did not arise in the 2005 period. Of these fees, $1.5 million were paid in 2007 and $300,000 will be paid in 2008.

Deferred revenue and other These accounts relate to:

Cash payments for contract manufacturing, process development and product production services work received in advance of completing the work to which the payments relate, which increases our deferred revenue. This deferred revenue decreases, with no effect on cash, as we complete the work and recognize the related revenue;

Rental income we receive from the sublease of laboratory space to third parties under leases that have variable monthly rent amounts over the term of the lease. We recognize this income on a straight-line basis over the term of the lease. Cash payments received in excess of rental income recognized is recorded as deferred revenue. This deferred revenue decreases, with no effect on cash, when the cash payments we receive are less than the rental income recognized on a straight-line basis; and

At December 31, 2006, the long-term portion of fees payable to a placement agent that assisted with our sale of common stock in November 2006 and December 2006. There is no long term portion of this obligation at December 31, 2007.

The change in deferred revenue and other in the 2007 period compared to the 2006 period was due to:

The monthly rent payments we received under a sublease of a portion of our facilities to M. D. Anderson Cancer Center being less than the monthly revenue we recognized on a straight-line basis for all of the 2007 period whereas, that situation existed for only a portion of the 2006 period due to a scheduled decrease in those rent payments becoming effective during the 2006 period; and

A decrease in other liabilities related to the long-term portion of fees payable to a placement agent that assisted with our sale of common stock in November 2006 and December 2006 as a result of us making scheduled payments of those fees.

The change in deferred revenue and other in the 2006 period compared to the 2005 period was due to:

A scheduled decrease during the 2006 period in the amount of the monthly rent payments we received under a sublease of a portion of our facilities to M. D. Anderson Cancer Center, resulting in the monthly rent payments we received during the 2006 period being less than the monthly revenue we recognized on a straight-line basis, which caused deferred revenue to decrease during the 2006 period; and

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Completion of certain contract services during the 2006 period for which revenue recognition had been previously deferred, which allowed us to recognize revenue for those services thereby causing a decrease in deferred revenue;

which were partially offset by:

An increase in other liabilities arising from the long-term portion of fees payable to a placement agent that assisted with our sale of common stock in November 2006 and December 2006.

Other assets Other assets increased during the 2007 and 2006 periods and decreased in the 2005 period. Changes in other assets vary in direction and amount based on the timing of and dollars involved in transactions related to items such as prepaid expenses, grant funding receivable and deposits. The aggregate changes in prepaid assets during the 2007, 2006 and 2005 periods resulted from such activities that arose during the normal course of our business, with no component of those aggregate changes being material to our business as a whole.

Depreciation is an expense in our net loss that does not use cash. This expense decreased in the 2007 period compared to the 2006 period and the 2006 period compared to the 2005 period due to the absence of significant property and equipment acquisitions during the 2007 and 2006 periods and our use of declining balance depreciation methods that results in decreasing depreciation charges over the life of an asset.

Amortization of grant rights acquired is an expense in our net loss that does not use cash. These grant rights resulted from our acquisition of Magnum in October 2004. This expense decreased in the 2007 period compared to the 2006 period and in the 2006 period compared to the 2005 period due to the completion in 2006 of activities under the grant from the NIH that we acquired in connection with our acquisition of Magnum.

Net Cash Provided (Used) In Investing Activities

	2005	2006	2007
Net cash provided (used) in investing activities	$(589)	$(10,920)	$11,894

The change in the 2007 period compared to the 2006 period was primarily due to higher level of net activity in sales of short-term investments in the 2007 period compared to the 2006 period arising from (1) normal variations in the amount and timing of purchases and sales of short-term investments based on our operating needs for cash and cash equivalents and (2) the availability of cash from November 2006 and December 2006 sales of our common stock .

The change in the 2006 period compared to the 2005 period was primarily due to:

A higher level of net activity in purchases of short-term investments in the 2006 period compared to the 2005 period arising from (1) normal variations in the amount and timing of purchases and sales of short-term investments based on our operating needs for cash and cash equivalents and (2) the availability of cash from December 2005 sales of our common stock, with those activities offset by; and

A lower level of equipment purchases to support our business being necessary in the 2006 period compared to the 2005 period since our facilities were substantially fully outfitted in previous periods.

We have no obligations at this time to purchase significant amounts of additional property or equipment, but our needs may change. It may be necessary for us to purchase larger amounts of property and equipment to support our clinical programs and other research, development and manufacturing activities. We may need to obtain debt or lease financing to facilitate such purchases. If that financing is not available, we may need to use our existing resources to fund those purchases, which could result in a reduction in the cash and cash equivalents available to fund operating activities.

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Net Cash Provided (Used) by Financing Activities

	2005	2006	2007
Cash provided (used) by financing activities	$20,265	$27,593	$(2,200)

The change in the 2007 period compared to the 2006 period was primarily due to:

The 2006 period including proceeds from sales of our common stock for which there was no comparable event in 2007;

The payment during the 2007 period of approximately $1.9 million of fees payable to a placement agent that we accrued as of December 31, 2006, which were for the placement agent s work supporting the sale of our common stock in November 2006 and December 2006; and

A decrease in proceeds from borrowings to finance equipment purchases due to the 2006 period including borrowings related to 2005 equipment purchases that were notably higher than equipment purchases in subsequent years (there can be a time lag between when the equipment is purchased and when financing proceeds are received);

which were offset by

An increase in proceeds from exercise of options for common stock in the 2007 period compared to the 2006 period, which is activity that can vary based upon the discretionary actions of the individuals holding such options.

The change in the 2006 period compared to the 2005 period was primarily due to:

An increase in proceeds from sales of common stock due to our success in selling more shares of our common stock to raise capital in the 2006 period compared to the 2005 period;

which was offset by:

A decrease in proceeds from exercise of options for common stock in the 2006 period compared to the 2005 period, which is activity that can vary based upon the actions of the individuals holding such options; and

An increase in principal payments under notes payable in the 2006 period compared to the 2005 period due to additional borrowings during and subsequent to the 2005 period to finance equipment purchased during that period.

Debt Service, Lease and Other Obligations

We have fixed debt service obligations under notes payable for which the liability is reflected on our balance sheet. We used the proceeds from these notes payable to finance facilities and equipment. Aggregate payments due under these obligations are as follows (in thousands):

Total debt service payments due during the year ending December 31:	
2008	$ 1,158
2009	950
2010	820
2011	735
2012	735
Thereafter	8,918
Total debt service payments	13,316
Less portion representing interest	(5,575)
Total principal balance at December 31, 2007	$ 7,741

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Principal balance presented on the December 31, 2007 balance sheet as liabilities in these categories:	
Current portion of notes payable	$ 586
Notes payable, net of current portion	7,155
Total principal balance at December 31, 2007	$ 7,741

We have fixed, noncancellable rent obligations under operating leases consisting primarily of the following:

A ground lease for the land on which we built our primary research and manufacturing facilities with annual rent payments of $156,000 through September 2026. These payments are subject to adjustment in the future for inflation.

A lease for a building housing our second production facility with annual rent payments of $98,000 through January 2009.

A lease for our corporate office space with annual rent payments of $230,000 through July 2009.

The latter two leases are subject to adjustment annually for changes in operating expenses.

Since these leases are operating leases under generally accepted accounting principles, no liability related to them is reflected on our balance sheet. Future minimum annual rental payments due under these leases and all other operating leases, the last of which is due in 2026, are as follows (in thousands):

Year ending December 31,	
2008	$ 519
2009	317
2010	166
2011	161
2012	156
Thereafter	2,147
Total minimum lease payments under operating leases	$ 3,466

In the normal course of business, we may enter into various long-term agreements with vendors to provide services to us. Some of these agreements may require up-front payment prior to services being rendered. Some may require periodic monthly payments and some may provide for the vendor to bill us for their services as they are rendered. In substantially all cases, we may cancel these agreements at any time with minimal or no penalty and pay the vendor only for services actually rendered. Regardless of the timing of the payments under these agreements, we record the expense incurred in the periods in which the services are rendered.

Pursuant to a consulting agreement, we have paid consulting fees of approximately $175,000 per annum to EJ Financial, a company owned by a member of our Board of Directors. EJ Financial has provided us guidance on strategic product development, business development and marketing activities. Subsequent to December 31, 2007, this consulting agreement was ended by mutual agreement between EJ Financial and us. Accordingly, we no longer make payments under this agreement.

We have a consulting agreement with Jack A. Roth, M.D., Chairman of the Department of Thoracic Surgery and Director of the Keck Center for Gene Therapy at The University of Texas M. D. Anderson Cancer Center where he holds the Bud Johnson Clinical Distinguished Chair. Dr. Roth is the primary inventor of the technology upon which our ADVEXIN therapy is based and numerous other technologies we utilize. We licensed Dr. Roth s inventions from M. D. Anderson Cancer Center. Dr. Roth is our Chief Medical Advisor and chairman of our scientific advisory board. His duties involve the regular interaction and consultation with our scientists and others on our behalf. As

compensation for his services and responsibilities, this consulting agreement provides for payments to Dr. Roth of $215,000 per annum. These payments continue through the end of the consulting agreement term on September 30, 2009. We may terminate this agreement at our option upon one year s advance notice. If we had terminated this agreement as of December 31, 2007, we would have been obligated to make final payments totaling $215,000. Dr. Roth is one of our stockholders.

A placement agent assisted with our sale of common stock in November 2006 and December 2006. As

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consideration for its services, we are obligated make future payments of fees to the placement agent totaling $300,000. These fees are payable in monthly installments of approximately $25,000 through December 2008. During 2007, we also paid this placement agent consideration of $90,000 for their work in arranging future financing transactions for us.

We sublease a portion of our facilities to M. D. Anderson Cancer Center, a component institution of The University of Texas System, which is one of our shareholders. They are obligated to pay us rent and facilities operating expense reimbursements of approximately $23,000 per month during the non-cancelable term of this lease, which expires in 2009.

VirRx, Inc.

Under an agreement with VirRx, we have purchased VirRx s Series A Preferred Stock for cash in the amount of $2,475,000 during the period from inception of this agreement through December 31, 2006, including purchases of $150,000 in the 2006 period (specifically during the three months ended March 31, 2006) and $600,000 in the 2005 and 2004 periods. These purchases are recorded as research and development expense.

We have no plans at this time to purchase additional shares of this stock and are no longer required to make periodic purchases of Series A Preferred Stock under this agreement. We may be required to make additional stock purchases in the event VirRx reaches certain specified milestones as described below.

We have a research the collaboration and license agreement with VirRx. Provided this agreement remains in place, we are required to make additional milestone stock purchases, either for cash or through the issuance of our common stock, upon the completion of Phase 1, 2 and 3 clinical trials involving technologies licensed under this agreement. We are required to make a $5.0 million cash milestone payment to VirRx, for which we receive no VirRx stock, upon approval by the FDA of a BLA for the first collaboration product based on these technologies. To the extent we have already made cash milestone payments, we may receive a credit of 50% of the Phase 2 clinical trial milestone payments and 25% of the Phase 3 clinical trial milestone payments against this $5.0 million cash milestone payment. The additional milestone stock purchases and cash payment are not anticipated to be required in the near future. If these payments become due, we may have to obtain additional financing to make them.

Quarterly Results of Operations

The following table sets forth certain unaudited quarterly financial data for the years ended December 31, 2006 and 2007. This information has been prepared on the same basis as the Consolidated Financial Statements and all necessary adjustments have been included in the amounts stated below to present fairly the selected quarterly information when read in conjunction with the Consolidated Financial Statements and notes thereto. Historical quarterly financial results and trends may not be indicative of future results.

	Three Months Ended							
	March 31, 2006	June 30, 2006	September 30, 2006	December 31, 2006	March 31, 2007	June 30, 2007	September 30, 2007	December 31, 2007
	(Unaudited)							
	(In thousands, except per share amounts)							
Statement of Operations Data:								
Contract services, grant and other revenue	$ 225	$ 98	$ 733	$ 95	$ 322	$ 82	$ 139	$ 468
Operating expense:								
Research and development	5,046	4,896	4,256	4,023	3,175	4,763	5,074	6,090
General and administrative	3,796	3,273	2,546	3,548	3,267	3,533	2,980	4,175
	(8,617)	(8,071)	(6,069)	(7,476)	(6,120)	(8,214)	(7,915)	(9,797)

Loss from operations								
Interest income (expense), net	143	92	50	58	263	207	112	11
Other income	255	288	281	265	254	244	257	249
Loss before non-controlling interests in consolidated subsidiaries	(8,219)	(7,691)	(5,738)	(7,153)	(5,603)	(7,763)	(7,546)	(9,537)
Non-controlling interests in consolidated subsidiaries					(14)	14		(6)
Net loss	$ (8,219)	$ (7,691)	$ (5,738)	$ (7,153)	$ (5,617)	$ (7,749)	$ (7,546)	$ (9,543)
Basic and diluted net loss per share	$ (0.22)	$ (0.21)	$ (0.15)	$ (0.19)	$ (0.13)	$ (0.18)	$ (0.17)	$ (0.22)
Shares used in computing basic and diluted net loss per share	37,180	37,214	37,245	38,723	43,655	43,801	43,845	43,916

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Contractual Obligations

The following table summarizes our contractual obligations as of December 31, 2007 (in thousands):

	Total	One Year or Less	Two to Three Years	Four to Five Years	More Than Five Years
Long-term debt	$ 13,316	$ 1,158	$ 1,770	$ 1,470	$ 8,918
Operating leases	3,466	519	483	317	2,147
Employment agreements	1,719	666	1,053		
Consulting agreements	805	622	183		
Total	$ 19,306	$ 2,965	$ 3,489	$ 1,787	$ 11,065

Off-Balance Sheet Arrangements

As of December 31, 2007, we did not have any significant off-balance sheet arrangements, as defined in Item 303(a)(4)(ii) of Regulation S-K.

Item 7A. ***Quantitative and Qualitative Disclosures about Market Risk***

We are exposed to market risk related to changes in interest rates, foreign currency exchange rates and equity prices. Our risks, risk management strategies and sensitivity analyses estimating the effects of changes in fair values for each of these exposures at December 31, 2007 are outlined below. Actual results may differ materially from our sensitivity analyses based on changes in the timing and amount of interest rate, foreign currency exchange rate and equity price movements and our actual exposures.

Interest Rate Risk

Our exposure to market risk for changes in interest rates relates primarily to our fixed rate long-term debt and short-term investments in investment grade securities, which consist primarily of federal government obligations. Investments are classified as held-to-maturity and are carried at amortized cost. We do not hedge interest rate exposure or invest in derivative securities.

We have performed sensitivity analyses as of December 31, 2007 and December 31, 2006 using a modeling technique that measures the change in our interest income arising from a hypothetical 100-basis point decrease in the levels of interest rates across the entire yield curve, with all other variables held constant. The analyses cover our fixed rate long-term debt and short-term investments. The analyses use actual maturities for our fixed rate long-term debt and short-term investments. The discount rates we used were based on the market interest rates in effect at December 31, 2007 and December 31, 2006. The sensitivity analyses indicated a hypothetical 100-basis point decrease in the interest rates of our cash, cash equivalents and short-term investments as of December 31, 2007 would decrease our interest income by approximately $149,000 per year and approximately $37,260 per quarter, compared to a decrease in our interest income of approximately $413,500 per year and approximately $103,375 per quarter as of December 31, 2006.

At December 31, 2007, the fair value of our fixed-rate debt approximated its carrying value based upon discounted future cash flows using current market prices.

Foreign Currency Exchange Rate Risk

Substantially all of our revenue and expenses are denominated in U.S. dollars, and therefore our results of operations are not subject to foreign currency risk. However, we may continue to expand our operations globally and receive payments and incur expenses that are denominated in foreign currencies, which may increase our exposure to foreign currency exchange fluctuations.

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

The information required by this Item is set forth in our Consolidated Financial Statements and notes thereto beginning on page F-3 of this Annual Report on Form 10-K.

Item 9. ***Changes in and Disagreements with Accountants on Accounting and Financial Disclosure***

Not applicable.

Item 9A. ***Controls and Procedures***

Evaluation of Disclosure Controls and Procedures. Our management evaluated, with the participation of our Chief Executive Officer and our Chief Financial Officer, the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Annual Report on Form 10-K. Based on this evaluation, our President and Chief Executive Officer and our Chief Financial Officer have concluded that our disclosure controls and procedures are effective to ensure that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms.

Changes in Internal Control over Financial Reporting. There was no change in our internal control over financial reporting that occurred during the last fiscal quarter covered by this Annual Report on Form 10-K that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Management s Annual Report on Internal Control over Financial Reporting. Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Under the supervision and with the participation of our management, including our President and Chief Executive Officer and our Chief Financial Officer, we assessed the effectiveness of our internal control over financial reporting as of the end of the period covered by this report based on the framework in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. In addition, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions and that the degree of compliance with the policies or procedures may deteriorate.

Based on its assessment of internal control over financial reporting, management has concluded that, as of December 31, 2007, our internal control over financial reporting was effective to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of our financial statements for external purposes in accordance with United States generally accepted accounting principles.

Ernst & Young, the independent registered public accounting firm that audited the Consolidated Financial Statements included in this Annual Report on Form 10K, has also audited the effectiveness of our internal control over financial reporting as of December 31, 2007. Management s and Ernst & Young s reports are included in our 2007 Consolidated Financial Statements on pages 71 and F-1, respectively, of our Form 10K under the captions entitled Management s Annual Report on Internal Controls Over Financial Reporting and Report of Independent Registered Public Accounting Firm and are incorporated herein by reference.

Item 9B. ***Other Information***

Not applicable.

PART III

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

The information required by this Item is incorporated by reference to the information under the sections captioned Election of Directors, Executive Officers, Section 16(a) Beneficial Ownership Reporting Compliance and Code of Ethics contained in our 2008 Proxy Statement.

Item 11. ***Executive Compensation***

The information required by this Item is incorporated by reference to the information under the section captioned Executive Compensation and the subsections captioned Compensation Discussion and Analysis, Compensation Committee Interlocks and Insider Participation and Compensation Committee Report contained in our 2008 Proxy Statement.

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

The information required by this Item is incorporated by reference to the information under the sections captioned Security Ownership and Outstanding Equity Awards at Fiscal 2007 Year End contained in our 2008 Proxy Statement.

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

The information required by this Item is incorporated by reference to the information under the sections captioned Transactions with Related Persons and Compensation Committee Interlocks and Insider Participation contained in our 2008 Proxy Statement.

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

The information required by this Item related to principal accountant fees and services as well as related pre-approval policies is incorporated by reference to the information under the sections captioned Fees Paid to Ernst & Young LLP and Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Registered Public Accounting Firm contained in our 2008 Proxy Statement.

PART IV

Item 15. ***Exhibits and Financial Statement Schedules***

1. *Consolidated Financial Statements*

The following financial statements are filed as part of this Annual Report on Form 10-K:

2. *Financial Statement Schedules*

All financial statement schedules are omitted because they are not applicable or not required, or because the required information is included in the Consolidated Financial Statements or notes thereto.

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3. *Exhibits*
(a) *Exhibits*

Exhibit Number	Description of Document
3.1(a)(6)	Certificate of Incorporation as currently in effect
3.1(b)(6)	Amendment to Certificate of Incorporation, effective as of December 21, 2001
3.1(c)(10)	Amendment to Certificate of Incorporation, effective as of August 6, 2004
3.2(4)	Bylaws of Introgen Therapeutics, Inc. (Introgen) as currently in effect
4.1(2)	Specimen Common Stock Certificate
4.2(5)	Certificate of Designations of Series A Non-Voting Convertible Preferred Stock
4.3(8)	Form of Stock Purchase Warrant
4.4(13)	Form of Stock Purchase Warrant
10.1(1)	Form of Indemnification Agreement between Introgen and each directors and officers
10.2(1)*	1995 Stock Plan and form of stock option agreement thereunder
10.3(3)*	2000 Stock Option Plan and forms of stock option agreement thereunder
10.3(11)*	2000 Stock Option Plan form of stock option agreement, as amended
10.4(3)*	2000 Employee Stock Purchase Plan and forms of agreements thereunder
10.5	Reserved
10.6	Reserved
10.7(a)(1)	Assignment of Leases, dated November 23, 1998, by TMX Realty Corporation and Riverway Bank, and other related agreements
10.7(b)(1)	Lease Agreement, dated June 7, 1996, by and between Introgen and Plaza del Oro Business Center
10.7(c)(2)	Amendment No. 1 to Lease Agreement, effective as of May 9, 1997
10.7(d)(2)	Amendment No. 2 to Lease Agreement, effective as of July 31, 1998
10.7(e)(2)	Amendment No. 3 to Lease Agreement, effective as of June 29, 2000
10.7(f)(10)	Modification Agreement effective April 1, 2004 by TMX Realty Corporation and Texas State Bank (formerly known as Riverway Bank), and other related agreements

10.8(a) (1)	Patent and Technology License Agreement, effective as of July 20, 1994, by and between The Board of Regents of The University of Texas System, M. D. Anderson Cancer Center and Introgen
10.8(b) (1)	Amendment No. 1 to Patent License Agreement, effective as of September 1, 1996
10.9 (3)	Sponsored Research Agreement for Clinical Trial, No. CS 93-27, dated February 11, 1993, between Introgen and M. D. Anderson, as amended
10.10	Reserved
10.11 (3)	Sponsored Research Agreement No. SR 93-04, dated February 11, 1993 between M. D. Anderson and Introgen, as amended
10.12	Reserved
10.13 (3)	Sponsored Research Agreement No. SR 96-004 between Introgen and M. D. Anderson, dated January 17, 1996
10.14	Reserved

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Exhibit Number	Description of Document
10.15 (3)	License Agreement, dated March 29, 1996 between Introgen and SKCC
10.16(1)	Consulting Agreement between Introgen and Jack A. Roth, M.D., effective as of October 1, 1994
10.17(1)	Consulting Agreement between EJ Financial Enterprises, Inc. and Introgen, effective as of July 1, 1994
10.18(d)*	Employment Agreement dated as of August 1, 2007 between Introgen and David G. Nance
10.19	Reserved
10.20(a) (1)	Collaboration Agreement (p53 Products), effective as of October 7, 1994, between Introgen and RPR, as amended
10.20(b) (3)	Addendum No. 1 to Collaboration Agreement (p53 Products), dated January 23, 1996, between Introgen and RPR
10.20(c) (1)	1997 Agreement Memorandum, effective as of July 22, 1997, between Introgen and RPR
10.20(d) (3)	Letter Agreement, dated April 19, 1999, from Introgen to RPR regarding manufacturing process for ADVEXIN therapy
10.21(a) (1)	Collaboration Agreement (K-ras Products), effective as of October 7, 1994, between Introgen and RPR, as amended
10.21(b)(1)	Amendment No. 1 to Collaboration Agreement (K-ras Products), effective as of September 27, 1995, between Introgen and RPR
10.22 (3)	Collaborative Research and Development Agreement dated October 30, 1998 between Introgen, RPR and NCI
10.23 (1)	Non-Exclusive License Agreement, effective as of April 16, 1997, by Introgen and Iowa Research Foundation
10.24 (3)	Option Agreement, effective as of June 1, 1998, by Introgen and Imperial Cancer Research Technology Limited (ICRT)
10.25 (3)	Option Agreement, effective as of January 1, 1999, by Introgen and ICRT
10.26 (3)	Exclusive License Agreement, effective as of July 19, 1999, by Introgen and Corixa Corporation
10.27(a)	Reserved
10.27(b)(1)	Letter dated January 28, 2000, from Introgen to LXR Biotechnology (LXR), notifying LXR of its exercise of its option

10.27(c)	(2)	Exclusive License Agreement, effective as of May 16, 2000, by and between Introgen and LXR
10.28	(3)	Administrative Services and Management Agreement, effective as of January 1, 1999, by and between Introgen and Gendux, Inc.
10.29	(3)	Research and Development Agreement, effective as of January 1, 1999, by and between Introgen and Gendux, Inc.
10.30	(3)	Delivery Technology License Agreement, effective as of January 1, 1999, by and between Introgen and Gendux, Inc.
10.31	(3)	Target Gene License Agreement, effective as of January 1, 1999, by and between Introgen and Gendux, Inc.
10.32	(1)	Non-Exclusive License Agreement, effective as of August 17, 1998, by and between Introgen and National Institutes of Health
10.33		Reserved

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Exhibit Number	Description of Document
10.34(2)	Master Lease Agreement, effective as of August 4, 1999, by and between Introgen and Finova Capital Corporation
10.35(2)	Construction Loan Agreement, effective as of July 24, 2000, by and between Introgen and Compass Bank
10.36 (5)	Restated p53 and K-ras Agreement, effective as of June 30, 2001, by and among Introgen, Aventis Pharmaceuticals Inc. (API) and Aventis Pharma S.A. (Aventis)
10.37(5)	p53 Assignment Agreement, effective as of June 30, 2001, by and among Introgen, API and Aventis
10.38(5)	K-ras Assignment Agreement, effective as of June 30, 2001, by and among Introgen, API and Aventis
10.39	Reserved
10.40(5)	Voting Agreement, effective as of June 30, 2001, by and among Introgen, API and RPR
10.41	Reserved
10.42 (7)	Series A Preferred Stock Purchase Agreement, effective as of March 7, 2002, by and between Introgen and VirRx, Inc.
10.43 (7)	Collaboration and License Agreement, effective as of March 7, 2002, by and between Introgen and VirRx, Inc.
10.44(8)	Securities Purchase Agreement, effective as of June 18, 2003, by and among Introgen and the Investors named therein
10.45	Reserved
10.46	Reserved
10.47	Reserved
10.48	Reserved
10.49	Reserved
10.50	Reserved
10.51	Reserved
10.52	Reserved
10.53 (15)	

	Oral Healthcare Alliance Agreement dated November 4, 2005, by and between Introgen and Colgate-Palmolive Company
10.54(15)	Common Stock Purchase Agreement dated November 4, 2005, by and between Introgen and Colgate-Palmolive Company
10.55(14)	Letter Agreement dated February 24, 2006, by and between Introgen and Aventis Pharmaceuticals, Inc.
10.56(16)	Form of Restricted Stock Purchase Agreement by and between Introgen and each of its non-executive directors
10.57 (17)	Amendment No. 4 to Patent and Technology License Agreement dated August 1, 2006, by and among Introgen, The University of Texas M. D. Anderson Cancer Center and the Board of Regents of The University of Texas System
10.58(18)	Placement Agent Agreement dated November 7, 2006, by and between Introgen and Mulier Capital Limited
10.59 (20)	Patent and Technology License Agreement dated November 13, 2006, by and among Introgen, The University of Texas M. D. Anderson Cancer Center and the Board of Regents of The University of Texas System

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Exhibit Number	Description of Document
10.60(19)	Placement Agent Agreement dated December 13, 2006, by and between Introgen and Mulier Capital Limited
10.61 (20)	Amendment No. 5 to Patent and Technology License Agreement dated December 18, 2006, by and among Introgen, The University of Texas M. D. Anderson Cancer Center and the Board of Regents of The University of Texas System
10.62 (12)	Cooperative Research and Development Agreement effective as of March 22, 2007, by and between Introgen and the U.S. Department of Health and Human Services, as represented by the National Cancer Institute
10.63(21)*	Form of Restricted Stock Purchase Agreement entered into with certain directors, officers and employees of Introgen for the purchase of ordinary shares of GPL
14.1(9)	Code of Conduct and Ethics
21.1	List of subsidiaries of Introgen
23.1	Consent of Independent Registered Public Accounting Firm
24.1	Power of Attorney (See page 78)
31.1	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act, as amended
32.1	Certification of Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

(1) Incorporated by reference to the same-numbered exhibit filed with our Registration Statement on Form S-1 (No. 333-30582) filed with the SEC on February 17, 2000.

(2) Incorporated by reference to the same-numbered exhibit filed with Amendment

No. 2 to our Registration Statement on Form S-1 (No. 333-30582) filed with the SEC on September 8, 2000.

(3) Incorporated by reference to the same-numbered exhibit filed with Amendment No. 3 to our Registration Statement on Form S-1 (No. 333-30582) filed with the SEC on October 4, 2000.

(4) Incorporated by reference to the same-numbered exhibit filed with our Quarterly Report on Form 10-Q, for the quarter ended December 31, 2000, (File No. 000-21291), filed with the SEC on February 14, 2001.

(5) Incorporated by reference to the same-numbered exhibit filed with our Annual Report on Form 10-K for the fiscal year ended June 30, 2001 (File No. 000-21291),

filed with the SEC on September 19, 2001.

(6) Incorporated by reference to the same-numbered exhibit filed with our Transition Report on Form 10-KT for the six-month transition period ended December 31, 2001 (File No. 000-21291), filed with the SEC on March 20, 2002.

(7) Incorporated by reference to the same-numbered exhibit filed with our Quarterly Report on Form 10-Q, for the quarter ended March 31, 2002 (File No. 000-21291), filed with the SEC on May 15, 2002.

(8) Incorporated by reference to the same-numbered exhibit filed with our Current Report on Form 8-K, filed with the SEC on June 18, 2003.

(9) See Part I, Item 1. Business Access to Company

Information of this Annual Report on Form 10-K.

(10) Incorporated by reference to the same-numbered exhibit filed with our Quarterly Report on Form 10-Q, for the quarter ended June 30, 2004 (File No. 000-21291), filed with the SEC on August 16, 2004.

(11) Incorporated by reference to the same-numbered exhibit filed with our Quarterly Report on Form 10-Q, for the quarter ended September 30, 2004 (File No. 000-21291), filed with the SEC on November 15, 2004.

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(12) Incorporated by reference to the same-numbered exhibit filed with our Quarterly Report on Form 10-Q, for the quarter ended March 31, 2007 (File No. 000-21291), filed with the SEC on May 4, 2007.

(13) Incorporated by reference to the same-numbered exhibit filed with our Quarterly Report on Form 10-Q, for the quarter ended September 30, 2005 (File No. 000-21291), filed with the SEC on November 9, 2005.

(14) Incorporated by reference to the exhibit filed with our Current Report on Form 8-K, filed with the SEC on February 24, 2006.

(15) Incorporated by reference to the same-numbered exhibit filed with our Annual Report on Form 10-K, for the year ended

December 31, 2005 (File No. 000-21291), filed with the SEC on March 16, 2006.

(16) Incorporated by reference to the exhibit filed with our Current Report on Form 8-K, filed with the SEC on May 30, 2006.

(17) Incorporated by reference to the exhibit filed with our Quarterly Report on Form 10-Q, filed with the SEC on November 6, 2006.

(18) Incorporated by reference to the exhibit filed with our Current Report on Form 8-K, filed with the SEC on November 7, 2006.

(19) Incorporated by reference to the exhibit filed with our Current Report on Form 8-K, filed with the SEC on December 14, 2006.

(20) Incorporated by reference to the same-numbered exhibit filed with our Annual

Report on Form 10-K for the fiscal year ended December 31, 2006 (File No. 000-21291), filed with the SEC on March 8, 2007.

(21) Incorporated by reference to the same-numbered exhibit filed with our Quarterly Report on Form 10-Q, for the quarter ended June 30, 2007 (File No. 000-21291), filed with the SEC on August 9, 2007.

Confidential treatment has been granted for portions of this exhibit.

Confidential treatment has been requested for portions of this exhibit.

* Indicates management contract or compensatory plan or arrangement.

(b) *Exhibits*

See Item 15(3) above.

(c) *Financial Statement Schedules*

See Item 15(2) above.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

INTROGEN THERAPEUTICS, INC.

By: /s/ DAVID G. NANCE

David G. Nance
President, Chief Executive Officer, Chairman of the Board and Director
(Principal Executive Officer)

By: /s/ JAMES W. ALBRECHT, JR.

James W. Albrecht, Jr.
Chief Financial Officer
(Principal Financial and Accounting Officer)

Date: March 17, 2008

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints David G. Nance and James W. Albrecht, Jr. and each of them acting individually, as his or her attorney-in-fact, each with full power of substitution, for him or her in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission.

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this Annual Report on Form 10-K has been signed on behalf of the Registrant by the following persons in the capacities and on the dates indicated:

Signature	Title	Date
/s/ DAVID G. NANCE (David G. Nance)	President, Chief Executive Officer, Chairman of the Board, and Director (Principal Executive Officer)	March 17, 2008
/s/ JAMES W. ALBRECHT, JR. (James W. Albrecht, Jr.)	Chief Financial Officer (Principal Financial and Accounting Officer)	March 17, 2008
/s/ JOHN N. KAPOOR, PH.D. (John N. Kapoor, Ph.D.)	Director	March 17, 2008
/s/ WILLIAM H. CUNNINGHAM, PH.D. (William H. Cunningham, Ph.D.)	Director	March 17, 2008
/s/ MALCOLM GILLIS, PH.D. (Malcolm Gillis, Ph.D.)	Director	March 17, 2008
/s/ CHARLES E. LONG	Director	March 17, 2008

(Charles E. Long) /s/ PETER BARTON HUTT (Peter Barton Hutt)	Director	March 17, 2008

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of Introgen Therapeutics, Inc. and Subsidiaries

We have audited Introgen Therapeutics, Inc. and Subsidiaries internal control over financial reporting as of December 31. 2007, based on criteria established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). Introgen Therapeutics, Inc. and Subsidiaries management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management s Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the company s internal control over financial reporting based on our audit.

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

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

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

In our opinion, Introgen Therapeutics, Inc. and Subsidiaries maintained, in all material respects, effective internal control over financial reporting as of December 31, 2007, based on the COSO criteria**.**

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the accompanying consolidated balance sheets of Introgen Therapeutics, Inc. and Subsidiaries as of December 31, 2007 and 2006, and the related consolidated statements of operations, stockholders equity, and cash flows for each of the three years in the period ended December 31, 2007 of Introgen Therapeutics, Inc. and Subsidiaries and our report dated March 17, 2008 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Austin, Texas
March 17, 2008

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of Introgen Therapeutics, Inc. and Subsidiaries

We have audited the accompanying consolidated balance sheets of Introgen Therapeutics, Inc. and Subsidiaries as of December 31, 2007 and 2006, and the related consolidated statements of operations, stockholders equity, and cash flows for each of the three years in the period ended December 31, 2007. 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, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Introgen Therapeutics, Inc. and Subsidiaries at December 31, 2007 and 2006, and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 2007, in conformity with U.S. generally accepted accounting principles.

As discussed in Note 2 to the consolidated financial statements, in fiscal 2006, Introgen Therapeutics, Inc. and Subsidiaries changed its method of accounting for stock-based compensation in accordance with guidance provided in the Statement of Financial Standards No. 123(R), Share-Based Payment. Also, as discussed in Note 2 to the consolidated financial statements, in fiscal 2007, Introgen Therapeutics, Inc. and Subsidiaries changed its method of accounting for income taxes in accordance with guidance provided in the Financial Accounting Standards Interpretation No. 48, Accounting for Uncertainty in Income Taxes.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Introgen Therapeutics Inc. and Subsidiaries internal control over financial reporting as of December 31, 2007, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 17, 2008 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Austin, Texas
March 17, 2008

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INTROGEN THERAPEUTICS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	December 31, 2006	2007
	(Amounts in thousands)	
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 25,578	$ 11,320
Short-term investments	15,767	3,585
Total cash, cash equivalents and short-term investments	41,345	14,905
Marketable securities	6,957	10,165
Prepaid expense and other current assets	397	706
Total current assets	48,699	25,776
Property and equipment, net of accumulated depreciation of $13,976 and $14,994	5,172	4,442
Other assets	290	265
Total assets	$ 54,161	$ 30,483
LIABILITIES AND STOCKHOLDERS EQUITY		
Current Liabilities:		
Accounts payable	$ 2,384	$ 1,813
Accrued liabilities and other	4,817	4,225
Deferred revenue and other	624	616
Current portion of notes payable	917	586
Total current liabilities	8,742	7,240
Notes payable, net of current portion	7,448	7,155
Deferred revenue and other, long-term	923	79
Total liabilities	17,113	14,474
Non-controlling and minority interests in consolidated subsidiaries		6
Commitments and Contingencies (Note 11)		
Stockholders Equity:		
Preferred stock, $.001 par value per share; 5,000 shares authorized; 4,900 shares issuable; zero Series A shares issued and outstanding in 2006 and 2007, respectively		
Common stock, $.001 par value per share; 100,000 shares authorized; shares issued and outstanding of 43,591 in 2006 and 44,004 in 2007	44	44
Additional paid-in capital	205,350	211,558
Accumulated deficit	(172,260)	(202,715)
Accumulated other comprehensive gain	3,914	7,116

Total stockholders equity	37,048	16,003
Total liabilities and stockholders equity	$ 54,161	$ 30,483

The accompanying notes are an integral part of these Consolidated Financial Statements.

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INTROGEN THERAPEUTICS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,		
	2005	2006	2007
	(Amounts in thousands, except per share amounts)		
Contract services, grant and other revenue	$ 1,867	$ 1,151	$ 1,011
Operating costs and expense:			
Research and development, including share-based compensation of $396, $1,024 and $1,008 for the years ended December 31, 2005, 2006 and 2007, respectively	21,400	18,221	19,102
General and administrative, including share-based compensation of $936, $6,017 and $5,052 for the years ended December 31, 2005, 2006 and 2007, respectively	7,834	13,163	13,955
Total operating costs and expense	29,234	31,384	33,057
Loss from operations	(27,367)	(30,233)	(32,046)
Interest income	787	1,032	1,274
Interest expense	(621)	(689)	(681)
Other income	1,098	1,089	1,004
Loss before non-controlling and minority interests in consolidated subsidiaries	(26,103)	(28,801)	(30,449)
Non-controlling and minority interest in consolidated subsidiaries			(6)
Net loss	$ (26,103)	$ (28,801)	$ (30,455)
Net loss per share, basic and diluted	$ (0.80)	$ (0.77)	$ (0.70)
Shares used in computing basic and diluted net loss per share	32,780	37,594	43,805

The accompanying notes are an integral part of these Consolidated Financial Statements.

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INTROGEN THERAPEUTICS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY

	Series A Non-Voting Convertible Preferred Stock		Common Stock		Additional			Accumulated Other	
	Shares	Amount	Shares	Amount	Paid-In Capital	Deferred Compensation	Accumulated Deficit	Comprehensive Loss	Total
	(Amounts in thousands)								
Balance, December 31, 2004	100	$ 1	30,622	$ 30	$ 149,652	$ (161)	$ (117,356)	$	$ 32,166
Issuance of common stock in a direct equity offering in November 2005, net of offering costs of $414			3,611	4	19,581				19,585
Issuance of common stock in connection with exercise of stock options			457		615				615
Issuance of common stock in connection with the grant of stock			113		687				687
Addition to deferred compensation relating to issuance of stock options					142	(142)			
Conversion of preferred stock to common stock	(100)	(1)	2,344	3	(2)				
Amortization of deferred compensation and share-based compensation						235			235
Net Comprehensive loss							(26,103)		(26,103)
Unrealized loss on marketable securities								(149)	(149)
Foreign currency translation adjustment, cumulative translation loss of $25 at December 31, 2005								(25)	(25)

Total comprehensive loss							(26,277)
Balance, December 31, 2005	$ 37,147	$ 37	$ 170,675	$ (68)	$ (143,459)	$ (174)	$ 27,011
Issuance of common stock in direct equity offerings in November and December 2006, net of offering costs of $2,333	6,313	6	27,696				27,702
Issuance of common stock in connection with exercise of stock options	83	1	64				65
Issuance of common stock in connection with the grant of stock	53		251				251
Reduction of purchase price for Magnum Therapeutics Corporation upon final settlement	(5)		(30)				(30)
Share-based compensation			6,762				6,762
Amortization of deferred compensation			(68)	68			
Net Comprehensive loss					(28,801)		(28,801)
Unrealized gain on marketable securities						4,065	4,065
Foreign currency translation adjustment, cumulative translation loss of $2 at December 31, 2006						23	23
Total comprehensive loss							(24,713)
Balance, December 31, 2006	$ 43,591	$ 44	$ 205,350	$	$ (172,260)	$ 3,914	$ 37,048
			(69)				(69)

Issuance of common stock in direct equity offerings in December 2006, net of offering costs of $69							
Issuance of common stock in connection with exercise of stock options	333		296				296
Issuance of common stock in connection with the grant of stock	80		347				347
Share-based compensation			5,634				5,634
Net Comprehensive loss					(30,455)		(30,455)
Unrealized gain on marketable securities						3,208	3,208
Foreign currency translation adjustment, cumulative translation loss of $5 at December 31, 2007						(6)	(6)
Total comprehensive loss							(27,253)
Balance, December 31, 2007	$ 44,004	$ 44	$ 211,558	$	$ (202.715)	$ 7,116	$ 16,003

The accompanying notes are an integral part of these Consolidated Financial Statements.

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INTROGEN THERAPEUTICS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2005	2006	2007
	(Amounts in thousands)		
Cash flows from operating activities:			
Net loss	$ (26,103)	$ (28,801)	$ (30,455)
Adjustments to reconcile net loss to net cash used in operating activities:			
Non-controlling interests in consolidated subsidiary			6
Depreciation	1,605	1,388	1,018
Share-based compensation	922	7,013	5,982
Amortization of grant rights acquired	1,419	133	
Changes in assets and liabilities:			
(Increase) decrease in other assets	395	(64)	(284)
Increase (decrease) in accounts payable	(425)	126	(571)
Increase (decrease) in accrued liabilities	(275)	1,520	910
Increase (decrease) in deferred revenue and other	714	(523)	(552)
Net cash used in operating activities	(21,748)	(19,208)	(23,946)
Cash flows from investing activities:			
Purchases of property and equipment	(509)	(185)	(288)
Purchases of short-term investments	(31,869)	(40,774)	(29,553)
Maturities of short-term investments	34,830	30,039	41,735
Purchase of marketable securities	(3,041)		
Net cash (used in) provided by investing activities	(589)	(10,920)	11,894
Cash flows from financing activities:			
Payment of offering costs related to sale of common stock			(1,872)
Proceeds from sale of common stock, net of offering costs	19,585	27,702	
Proceeds from exercise of options for common stock	615	65	296
Proceeds from notes payable	772	727	282
Principal payments under notes payable	(707)	(901)	(906)
Net cash (used in) provided by financing activities	20,265	27,593	(2,200)
Effect of exchange rate changes on cash	(25)	23	(6)
Net increase (decrease) in cash	(2,097)	(2,512)	(14,258)
Cash and cash equivalents, beginning of period	30,187	28,090	25,578
Cash and cash equivalents, end of period	$ 28,090	$ 25,578	$ 11,320
Supplemental disclosure of cash flow information:			
Cash paid for interest	$ 580	$ 638	$ 645

Cash paid for taxes for the issuance of common stock in connection with the grant of common stock	$ 411	$ 28	$ 82
Supplemental disclosure of non-cash investing and financing activities:			
Grant rights acquired in asset acquisition	$	$ 30	$
Non-cash unrealized gain (loss) on marketable securities	$ (149)	$ 4,065	$ 3,208
Issuance of common stock in connection with the grant of stock	$ 687	$ 251	$ 347
Construction allowance for leasehold improvements	$	$ 194	$
Proceeds from insurance financing notes	$ 117	$ 251	$

The accompanying notes are an integral part of these Consolidated Financial Statements.

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INTROGEN THERAPEUTICS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

1. Business of the Company

We are a biopharmaceutical company focused on the discovery, development and commercialization of targeted molecular therapies for the treatment of cancer and other diseases. We are developing product candidates to treat a wide range of cancers using tumor suppressors, cytokines and other targeted molecular therapies. These agents are designed to increase production of normal cancer-fighting proteins that act to overpower cancerous cells, stimulate immune activity and enhance conventional cancer therapies.

Our primary approach to the treatment of cancers is to deliver targeted molecular therapies that increase production of normal cancer-fighting proteins to induce apoptosis, restore cell cycle or cell growth control and alter gene regulation, including the regulation of angiogenic and immune factors to reduce cancer growth. Our products work by acting as templates for the transient *in vivo* production of proteins that have pharmacological properties. The resultant proteins engage disease-related molecular targets or receptors to produce specific therapeutic effects.

We believe the use of targeted molecular therapies to induce the production of biopharmaceutical proteins represents a new approach for treating many cancers while avoiding the toxic side effects common to traditional therapies. We have developed significant expertise in developing targeted therapies that may be used to treat disease and in using what we believe are safe and effective delivery systems to transport these agents to the cancer cells. We believe we are able to treat a number of cancers in a way that kills cancer cells without harming normal cells.

Our lead product candidate, ADVEXIN therapy, combines the p53 tumor suppressor with a non-replicating, non-integrating, adenoviral delivery system we have developed and extensively tested. The p53 molecule is one of the most potent members of a group of naturally-occurring tumor suppressors, which act to kill cancer cells, arrest cancer growth and protect cells from becoming cancerous. We are developing other product candidates for the treatment of cancer using other molecules and delivery systems, such as the mda-7 and FUS1 tumor suppressors.

We believe our research and development expertise gained from our targeted molecular therapies for cancer is also applicable to other diseases that, like cancer, result from cellular dysfunction and uncontrolled cell growth. As a result, we are conducting research in collaboration with medical institutions to understand the safety and effectiveness of our targeted molecular therapy product candidates in the treatment of other diseases.

We typically license the technologies on which our products are based from third parties. These licenses generally grant us exclusive rights for pre-clinical and clinical development, manufacturing, marketing and commercialization of product candidates based on those technologies.

Our product research and development efforts include pre-clinical activities as well as the conduct of Phase 1, 2 and 3 clinical trials. We rely on third parties to treat patients in their facilities under these clinical trials. We produce ADVEXIN therapy and other product candidates in manufacturing facilities we own and operate using production methods we developed. We hold a number of patents or patents pending on certain product candidates and manufacturing processes used to produce certain product candidates.

We have not yet generated any significant revenue from unaffiliated third parties nor is there any assurance of future product revenue. We earn minimal revenue from contract services activities, grants and interest income, as well as rent from the lease of a portion of our facilities to The University of Texas M. D. Anderson Cancer Center. Our ability to generate revenue from the commercial sale of our products in the near future is uncertain. We may never generate revenue from the commercial sale of our products.

Our research and development activities involve a high degree of risk and uncertainty. Our ability to successfully develop, manufacture and market our proprietary products is dependent upon many factors. These factors include, but are not limited to, the need for and the ability to obtain additional financing, the reliance on collaborative research and development arrangements with corporate and academic affiliates and the ability to develop manufacturing, sales and marketing experience. Additional factors include uncertainties as to patents and proprietary technologies, competitive technologies, technological change and risk of obsolescence, development of products, competition, government regulations and regulatory approval, and product liability exposure. As a result of these factors and the related uncertainties, there can be no assurance of our future success.

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INTROGEN THERAPEUTICS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

We believe our cash, cash equivalents and short-term investments on hand at December 31, 2007, plus the amounts we may earn from contract services, grants and/or interest income during 2008, will be sufficient to fund our operations through at least December 31, 2008, and perhaps longer, at a level necessary to achieve our primary business objectives. However, in order to fund our operations beyond December 31, 2008, or to introduce any new product candidates, we may be required to raise additional funds through public or private equity offerings, debt financings or additional corporate collaboration and licensing arrangements. If we raise additional funds through the issuance of equity securities, the percentage ownership of our stockholders could be significantly diluted. If we obtain additional debt financing, a substantial portion of our operating cash flow may be dedicated to the payment of principal and interest on such indebtedness, and the terms of the debt securities issued could impose significant restrictions on our operations. We do not know whether such additional financing will be available when needed or on terms favorable to us or our stockholders. In the event these sources of financing become unavailable, we may have to adjust the scope of our operations and related cash needs to a level that can extend the period of time during which we can rely on existing resources to conduct our business activities.

Since our inception in 1993, we have used our resources primarily to conduct research and development activities for ADVEXIN therapy and, to a lesser extent, other product candidates. As of December 31, 2007, we had an accumulated deficit of approximately $202.7 million. We expect to incur substantial additional operating expense and losses over the next several years as our research, development, pre-clinical testing and clinical trial activities continue and as we evolve our operations and systems to support commercialization of our product candidates. These losses, among other things, have caused and may cause our total assets, stockholders equity and working capital to decrease in the future.

2. Basis of Presentation and Significant Accounting Policies

Basis of Presentation

The accompanying Consolidated Financial Statements include our accounts and those of all of our subsidiaries. Intercompany transactions and balances are eliminated in consolidation. We record a liability for non-controlling and minority interests related to the portion of the consolidated subsidiaries we do not own.

Use of Estimates

The preparation of 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 of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expense during the reporting period. Actual results could differ from those estimates.

Cash and Cash Equivalents

Cash and cash equivalents include amounts on deposit with financial institutions and investments that are readily convertible to cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. These investments have original maturities of three months or less. Our investments generally consist of securities in the form of United States federal government obligations.

Short-term Investments

Our short-term investments are carried at an amount that approximates amortized cost and consist primarily of fixed income securities issued by the United States government. We have the positive intent and ability to hold such securities until their respective maturity dates, which are less than one year from the date of purchase. As of December 31, 2007, the carrying value approximates the market value of these investments.

Marketable Securities

Our marketable securities consist of issued share capital of other public companies and are classified as available-for-sale. Unrealized gains and losses are computed using the published share price of the applicable stock exchange at the close of business on the last day of the reporting period and are reported as a separate component of accumulated other comprehensive income (loss) in shareholders equity until realized.

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Fair Value of Financial Instruments

Our financial instruments consist primarily of cash and cash equivalents, short-term investments, marketable securities, accounts payable and notes payable. We believe all of these financial instruments are recorded at amounts that approximate their current market values.

Risks and Uncertainties

Financial instruments that potentially subject us to significant concentrations of credit risk consist primarily of cash and cash equivalents, short-term investments, and marketable securities. We place these financial instruments with high credit quality financial institutions and issuers.

Property and Equipment

Property and equipment are carried at cost, less accumulated depreciation. Maintenance, repairs and minor replacements are charged to expense as incurred. Depreciation is provided generally using accelerated methods based on useful lives of fifteen years for research, manufacturing and administrative facilities and three to seven years for equipment. Leasehold improvements and landlord incentives are capitalized and amortized on a straight-line basis over the shorter of the lease term or the estimated useful life of the related asset. Interest incurred during construction of facilities is capitalized as a cost of those facilities.

Property and equipment consists of the following items (in thousands):

	December 31,	
	2006	**2007**
Facilities	$ 12,813	$ 12,800
Equipment	6,335	6,636
Total property and equipment	19,148	19,436
Less accumulated depreciation	(13,976)	(14,994)
Net property and equipment	$ 5,172	$ 4,442

Substantially all of our facilities are pledged as collateral for the mortgage notes payable described in Note 9. A portion of our equipment is pledged as collateral for the equipment notes payable described in Note 9.

Federal Income Taxes

We recognize deferred tax liabilities and assets for the expected future tax consequences of events that have been recognized differently between the financial statements and tax returns. Under this method, deferred tax liabilities and assets are determined based on the difference between the financial statement carrying amounts and tax bases of liabilities and assets using enacted tax rates and laws in effect in the years in which the differences are expected to reverse. Deferred tax assets are evaluated for realization based on more-likely-than-not criteria in determining if an allowance should be provided.

Accrued Liabilities

Accrued liabilities consist of the following significant items (in thousands):

	December 31,	
	2006	**2007**
Clinical costs due unrelated parties	$ 146	$ 481
Pre-clinical costs due related parties	419	211
Pre-clinical costs due unrelated parties	63	37
Property taxes	372	418
Franchise and use taxes	440	141

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	December 31,	
	2006	2007
Payroll	168	191
Vacation	407	512
Legal and accounting fees	452	885
Securities offering costs	1,802	300
Other vendor charges not yet billed	548	1,049
Total accrued liabilities	$ 4,817	$ 4,225

In conducting our clinical trials of ADVEXIN therapy and other product candidates, we procure services from multiple third party vendors. The cost of these services constitutes a significant portion of the cost of these trials and of our research and development expense in general. Some of our vendors do not necessarily bill us for their services on a regular basis and, accordingly, make it difficult for us to determine the costs we have incurred relative to their services for any given accounting period. As a result, we make significant accounting estimates as to the amount of costs we have incurred relative to these vendors in each accounting period. These estimates are based on many factors, including, among others, costs set forth in our contracts with these vendors, the period of time over which the vendor has rendered the services and the rate of enrollment of patients in our clinical trials. Using these estimates, we record expense and accrued liabilities in each accounting period that we believe fairly represent our obligations to these vendors. Actual results could differ from these estimates resulting in increases or decreases in the amount of expense recorded and the related accrual.

A placement agent assisted with our sale of common stock in November and December 2006. As consideration for its services, the placement agent earned a fee of approximately $2.1 million, of which approximately $300,000 is included as a current liability in accrued liabilities and other and zero is included in other long term liabilities as of December 31, 2007.

Revenue Recognition

Contract services revenue is recognized when the related services are completed and delivered to the customer. Deferred revenue is recorded when cash is received in advance of completion of these services.

Grant revenue is recognized as research expense relating to a grant is incurred and the work contemplated under the grant has been performed.

Rental income from the sublease of laboratory space to third parties under leases that have variable monthly rent amounts over the term of the lease is recognized on a straight-line basis over the term of the lease. Any cash payments received in excess of rental income recognized is recorded as deferred revenue. Rental income is included in other income in the accompanying Consolidated Statement of Operations.

Research and Development Costs

In conducting our clinical trials of ADVEXIN therapy and other product candidates, we procure services from numerous third-party vendors. The cost of these services constitutes a significant portion of the cost of these trials and of our research and development expense in general. These vendors do not necessarily provide us billings for their services on a regular basis and, accordingly, are often not a timely source of information to determine the costs we have incurred relative to their services for any given accounting period. As a result, we make significant accounting estimates as to the amount of costs we have incurred relative to these vendors in each accounting period.

These estimates are based on numerous factors, including, among others, costs set forth in our contracts with these vendors, the period of time over which the vendor will render the services and the rate of enrollment of patients in our clinical trials. Using these estimates, we record expenses and accrued liabilities in each accounting period that we believe fairly represent our obligations to these vendors. Actual results could differ from these estimates, resulting in increases or decreases in the amount of expense recorded and the related accrual. We have consistently applied these

estimation procedures in the past and plan to continue applying such procedures in the

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INTROGEN THERAPEUTICS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

same manner during the foreseeable future. Our experience has been that our estimates have reasonably reflected the expense we actually incur.

Net Loss Per Share

Net loss per share is computed using the weighted average number of shares of common stock outstanding. Due to losses incurred in all periods presented, the shares associated with stock options, warrants and non-voting convertible preferred stock are not included because they are anti-dilutive.

Share-Based Compensation

Effective January 1, 2006, we adopted Statement of Financial Accounting Standards No. 123R (SFAS No. 123R), Accounting For Share-Based Compensation. From that date forward, we record share-based compensation expense for all stock options issued to all persons to the extent such options vest on January 1, 2006 or later. That expense is determined under the fair value method using the Black-Scholes option pricing model. We record that expense ratably over the period the stock options vest.

Prior to January 1, 2006, we applied Accounting Principles Board Opinion No. 25 (APB No. 25), Accounting for Stock Issued to Employees and related interpretations for determining compensation expense related to our stock option grants. Under that accounting principle, we measured compensation expense for stock options issued to our directors and employees using the intrinsic value of the stock option at date of grant, which generally resulted in us recording no compensation expense since the intrinsic value of those stock options was typically zero at the date of grant due to the exercise price of those stock options being equal to the fair value of our shares on the date of grant. Compensation expense for stock options issued to all other persons was measured using the fair value of the stock option at the date of grant determined under the Black-Scholes option pricing model, which generally resulted in us recording a compensation expense.

The Black-Scholes option pricing model we use to compute share-based compensation expense requires extensive use of accounting judgment and financial estimates. Items requiring estimation include the expected term optionholders will retain their vested stock options before exercising them, the estimated volatility of our common stock price over the expected term of a stock option and the number of stock options that will be forfeited prior to the completion of their vesting requirements. Application of alternative assumptions could result in significantly different share-based compensation amounts being recorded in our financial statements.

We implemented SFAS No. 123R using the modified prospective transition method. Under this method, prior periods are not restated.

Recent Accounting Pronouncements

In July 2006, the FASB issued SFAS Interpretation No. 48, Accounting for Uncertainty in Income Taxes an interpretation of SFAS Statement No. 109 (FIN 48). We adopted FIN 48 effective January 1, 2007. Significant aspects of FIN 48 include:

It applies to all tax positions accounted for under SFAS 109. FIN 48 refers to tax positions as positions taken in a previously filed tax return or positions expected to be taken in a future tax return which are reflected in measuring current or deferred income tax assets and liabilities reported in the financial statements.

It clarifies that a tax benefit may be reflected in the financial statements only if it is more likely than not that a company will be able to sustain the tax return position, based on its technical merits. If a tax benefit meets this criterion, it should be measured and recognized based on the largest amount of benefit that is cumulatively greater than 50% likely to be realized.

It requires we make qualitative and quantitative disclosures, including:

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- A discussion of reasonably possible changes that might occur in unrecognized tax benefits over the next 12 months;

- A description of open tax years by major jurisdictions; and

- A roll-forward of all unrecognized tax benefits, presented as a reconciliation of the beginning and ending balances of the unrecognized tax benefits on an aggregated basis.

The adoption of FIN 48 did not have a material impact on our financial statements or disclosures. As of January 1, 2007 and December 31, 2007 we had unrecognized tax benefits relative to uncertain tax positions totaling $1.7 million and $2.0 million, respectively. Any interest or penalties resulting from examinations will continue to be recognized as a component of the income tax provision; however, since the Company has historically operated in a loss position, there are no accrued interest and penalties. Please refer to Note 8 to our consolidated financial statements included elsewhere in this report for a detailed discussion of our accounting for income taxes.

In September 2006, the FASB issued Statement of Financial Accounting Standards No. 157, Fair Value Measurements, which defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles (GAAP), and expands disclosures about fair value measurements. In February 2007, the FASB issued Statement of Financial Accounting Standards No. 159, The Fair Value Option for Financial Assets and Financial Liabilities, which permits entities to choose to measure many financial instruments and certain other items at fair value with the objective of improving financial reporting by providing entities with the opportunity to mitigate volatility in reported earnings caused by measuring related assets and liabilities differently without having to apply complex hedge accounting provisions. Both these statements are effective as of the beginning of an entity s first fiscal year that begins after November 15, 2007. The nature of our business and the items reflected in our financial statements are such that we believe these statements will have little or no effect on our financial statements in the foreseeable future.

In June 2007, the FASB ratified the consensus reached by the FASB Emerging Issues Task Force on Issue No. 07-3, Accounting for Advance Payments for Goods or Services to Be Used in Future Research and Development Activities (EITF 07-3). EITF 07-3 requires entities to defer income statement recognition of nonrefundable advance payments for research and development activities, such as up-front nonrefundable payments to contract research organizations, if the contracted party has not yet performed activities related to the up-front payment. Amounts deferred are to be recognized by the contracting company as expense when the research and development activities are performed. The application of EITF 07-3 is effective for interim or annual reporting periods in fiscal years beginning after December 15, 2007. Earlier application of EITF 07-3 is not permitted. Companies are required to report the effects of applying EITF 07-3 prospectively for new contracts entered into after the effective date of EITF 07-3. We do not expect the application of EITF 07-3 to have a material affect on our consolidated results of operations and financial condition.

In December 2007, the FASB issued Statement of Financial Accounting Standards No. 160, Noncontrolling Interests in Consolidated Financial Statements an amendment of ARB No. 51. The objective of this statement is to improve the relevance, comparability, and transparency of the financial information that a reporting entity provides in its consolidated financial statements regarding non-controlling interests in consolidated subsidiaries. This statement establishes accounting and reporting standards that require, among other things, that:

The ownership interests in subsidiaries held by parties other than the parent be clearly identified, labeled, and presented in the consolidated statement of financial position within equity, but separate from the parent s equity;

The amount of consolidated net income or loss attributable to the parent and to the non-controlling interests be clearly identified and presented on the face of the consolidated statement of operations;

Entities provide sufficient disclosures that clearly identify and distinguish between the interests of the parent and the interests of the non-controlling owners.

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INTROGEN THERAPEUTICS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

This statement is effective as of the beginning of an entity s first fiscal year that begins after November 15, 2007. We are assessing the impact of this statement on our financial statements and believe the nature of our business and the items reflected in our financial statements are such that this statement will have little or no effect on our financial statements in the foreseeable future.

3. Investment in Silence Therapeutics plc

In July 2005, we purchased common stock of Silence Therapeutics plc for approximately $3.0 million. Silence Therapeutics is a European biotechnology company publicly traded on the Alternative Investment Market of the London Stock Exchange (LSE) that is developing oncology and other products. This investment is classified as marketable securities on our balance sheet. Marketable securities are classified as available-for-sale and are presented at fair value with any unrealized gains or losses included in accumulated other comprehensive loss in the stockholders equity section of our balance sheet. We own less than 10% of the outstanding common stock of this company. At December 31, 2007, these marketable securities had a fair market value of approximately $10.2 million. Subsequent to December 31, 2007, we sold our entire holdings in Silence Therapeutics for net cash proceeds of approximately $7.4 million.

4. Intangible Assets

Intangible Assets With Definite Lives

Our intangible assets with definite lives that are subject to amortization, all of which arose from our acquisition of Magnum Therapeutics Corporation in October 2004, are as follows (in thousands):

	December 31,						
	2006				2007		
	Gross Carrying Amount	Adjustment to Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Asset Acquisition: Acquired Grant Rights (22 month amortization period)	$ 1,741	$ (30)	$ (1,711)	$	$ 1,711	$ (1,711)	$
Ending Balance	$ 1,741	$ (30)	$ (1,711)	$	$ 1,711	$ (1,711)	$

Research and development expense includes amortization of intangibles of $1,419,000, $133,000 and zero for the years ended December 31, 2005, 2006 and 2007, respectively. During the three months ended March 31, 2006, the acquired grant rights were reduced by $30,000 as a result of the final contractual settlement of the purchase of Magnum. During the three months ended December 31, 2005, we changed our estimate of the useful life of the acquired grant rights from 22 months to 17 months. The effect of this change was to increase amortization expense for the year ended December 31, 2005 and decrease amortization expense for the year ending December 31, 2006 by $470,000 or $0.01 per share. The grant rights were fully amortized as of December 31, 2006.

5. Stock Options

The 2000 Stock Option Plan (Stock Option Plan) was initiated in October 2000 and all stock option grants since that time have been under this plan. The Stock Option Plan provides for the granting of options, either incentive or non-statutory, or stock purchase rights to our employees, directors and consultants to purchase shares of our common stock.

Option awards are generally granted with the following terms:

An exercise price equal to the fair value of the Company s stock at the date of grant;

A term of ten years;

Vesting under one of the following general terms:

For options issued to members of the Board of Directors, vesting monthly over 12 months.

For options issued to our Chief Executive Officer, 100% vesting on the date of grant.

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For options issued to all other persons, vesting at the rate of 25% per year over four years on each annual anniversary date of the option grant.

The Stock Option Plan provides for annual increases each January 1 in the number of shares available for issuance in an amount equal to the lesser of 1.6 million shares, 5% of the outstanding shares on the date of the annual increase, or a lesser amount as may be determined by the Board of Directors. After this latest annual increase and at January 1, 2008, there were 2,696,000 shares of common stock reserved for future option grants under this plan.

In the event of a merger, reorganization or change in our controlling ownership, options granted under the Stock Option Plan (1) may be assumed or substituted with substantially equivalent options by the successor corporation and/or (2) become fully vested and immediately exercisable regardless of whether or not they are assumed or substituted by the successor corporation. The Stock Option Plan terminates in 2010 and may be amended or terminated by the Board of Directors.

Prior to October 2000, stock options were granted under our 1995 Stock Plan. We no longer issue options under this plan. The terms of this plan are substantially the same as the Stock Option Plan. No shares of common stock were reserved for future option grants under this plan at December 31, 2007.

Our accounting policy for stock options is described in Note 2. Had we recognized share-based compensation expense in our financial statements for the year ended December 31, 2005, determined using the fair value method for all stock options (as allowed by SFAS No. 123), our net loss would have been increased to the following pro forma amounts (in thousands, except per share information):

		2005
Net loss, as reported		$ (26,103)
Add: Share-based employee compensation expense included in reported net loss		1,098
Deduct: Total share-based employee compensation expense determined under the fair value based method for all awards		(5,268)
Pro forma net loss		$ (30,273)
Loss per share:		
Basic and Diluted	as reported	$ (0.80)
Basic and Diluted	pro forma	$ (0.92)

These pro forma disclosures are not applicable to the years ended December 31, 2007 and 2006, because share-based compensation expense for all stock options vesting during that period are recognized in our financial statements for that period. Our adoption of SFAS No. 123R resulted in share-based compensation expense as follows (in thousands, except per share information):

	Increase for 2006		Increase for 2007	
	Total	Per Share	Total	Per Share
Research and development expense	$1,024	$0.03	$1,008	$0.02
General and administrative expense	$6,017	$0.16	$5,052	$0.12

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INTROGEN THERAPEUTICS, INC. AND SUBSIDIARIES
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Activity under our option plans is as follows:

	Options Outstanding	Weighted Average Exercise Price per Share	Weighted Average Remaining Contractual Life	Aggregate Intrinsic Value (In thousands)
Balance, December 31, 2005	5,978,369	$ 4.49	6.84	$ 7,446
Activity in 2006:				
Granted	1,799,350	4.78		14
Exercised	(83,389)	0.78		336
Cancelled	(132,150)	6.25		
Balance, December 31, 2006	7,562,180	4.57	6.69	4,855
Activity in 2007:				
Granted	1,308,418	4.35		
Exercised	(332,723)	0.89		1,174
Cancelled	(143,050)	3.64		
Balance, December 31, 2007	8,394,825	4.70	6.46	1,774
Vested at December 31, 2007 and expected to vest	8,215,359	4.69	6.42	1,774
Exercisable at December 31, 2007	6,007,374	4.56	5.79	1,774

All options granted during the periods set forth above have an exercise price equal to the fair value of our common stock as of the date of grant. Additional information of note related to our stock options includes:

	2005	2006	2007
Weighted average fair value of options granted per share	$ 5.71	$3.50	$ 2.93
Aggregate intrinsic value of stock options at exercise (000 s)	$2,498	$ 336	$1,174
Aggregate intrinsic value of stock options vested (000 s)	$ 406	$ 114	$ 167

The total unrecognized share-based compensation expense related to unvested stock options and subject to recognition in future periods was approximately $6.2 million as of December 31, 2007. This amount relates to approximately 2.4 million shares with a per share weighted average fair value of $4.0. We anticipate this expense to be recognized over a weighted average period of approximately 2.0 years.

We applied the following assumptions on a weighted average basis in computing the fair value of stock options at their date of grant using the Black-Scholes option pricing model:

	Year Ended December 31,		
	2005	**2006**	**2007**
Weighted average expected volatility	89.07%	85.26%	74.36%
Weighted average risk free interest rate	4.08%	4.74%	4.66%

Expected dividend yield	0.00%	0.00%	0.00%
Weighted average expected life, in years	10.00	5.76	5.72
Range of Assumptions Used:			
Expected volatility range	86.0%-91.8%	74.2%-90.5%	67.3%-84.4%
Risk free interest rate range	3.94%-4.49%	4.29%-5.10%	3.59%-5.07%

Specifics regarding these assumptions include:

The expected volatility is calculated using the daily historical volatility of our common stock over a term that approximates the expected life of the option grants;

The risk-free interest rate is based on the U.S. treasury yield curve for five to seven-year terms for the years ended December 31, 2007 and 2006 and the ten-year zero coupon treasury bill rate for the year ended December 31, 2005.; and

As allowed by Staff Accounting Bulletin No. 107, we have elected to apply the shortcut approach in developing our estimate of expected term for plain vanilla stock options by using the mid-point between the vesting date and contractual termination date.

We periodically evaluate and revise, as necessary, the assumptions used to calculate the fair value of our stock options in response to changing market conditions and experience.

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6. Stock Purchase Warrants

From time-to-time, we issue stock purchase warrants, generally to investors or placement agents, in connection with sales of our common stock. At December 31, 2007, we had various warrants outstanding to purchase a total of 1,400,032 shares of our common stock at prices ranging from $4.60 per share to $8.00 per share. These warrants expire on various dates through December 2015.

With respect to warrants for 686,087 of these shares exercisable through June 2008 at $4.60 per share, we may force the exercise of these warrants if the average closing market price of our common stock during any 20 consecutive trading days is greater than $15.78 per share. These warrants provide for a downward adjustment of their exercise price in the event we sell shares of our common stock at a price less than their current exercise price. The exercise price of these warrants was adjusted downward to $4.60 per share in connection with the sale of shares of our common stock in November 2006.

See the discussion of stock sales in Note 7 for additional information regarding stock purchase warrants included in the totals above that were issued in connection with sales of our stock during the years ended December 31, 2007, 2006 and 2005.

7. Stockholders Equity

Stock Sales

In November and December 2006, we sold approximately 6.3 million shares of our common stock in direct equity offerings pursuant to a shelf registration statement for an aggregate purchase price of approximately $30.0 million. Our net proceeds from these transactions, after related expenses payable in cash, were approximately $27.7 million. These expenses include approximately $2.1 million of fees to the placement agent for this transaction, of which $1.5 million was paid in January 2007 and $601,000 is payable in equal installments over 24 months through December 2008. We issued warrants to the placement agents representing us in these stock sales to purchase up to 73,199 shares of our common stock at a price of $5.03 per share and 326,801 shares of our common stock at a price of $4.75 per share, exercisable beginning November 2008 and December 2008, respectively. These warrants expire in December 2015.

In November 2005, we sold approximately 3.6 million shares of our common stock in a direct equity sale to Colgate-Palmolive pursuant to a shelf registration statement for an aggregate purchase price of approximately $20.0 million. Our net proceeds from this transaction, after related fees and expense, were approximately $19.6 million. See Note 10 for further discussion of our agreement with Colgate-Palmolive.

Common Stock Grant to Officers

Options to purchase 57,600 shares of our common stock held by one of our officers reached the end of its stated contractual ten year life during the 2007 period, resulting in the expiration of the right to exercise those options. To provide the officer an economic equivalent to those expired options, we granted the officer an aggregate of 51,387 shares of our common stock during the 2007 period, of which 32,661 shares were issued to the officer and 18,726 shares were withheld by us in consideration for our payment on the officer s behalf of approximately $79,000 of federal income taxes. This expense related to employee federal income taxes, plus compensation expense not requiring cash of $137,000, resulted in total share-based compensation expense of $216,000 related to the transaction.

Options to purchase 191,200 shares of our common stock held by certain of our officers reached the end of their stated contractual ten year life during the 2005 period, resulting in the expiration of the right to exercise those options. To provide those officers an economic equivalent to those expired options, we granted them an aggregate of 178,362 shares of our common stock during the 2005 period, of which 113,349 shares were issued to those officers

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and 65,013 shares were withheld by us in consideration for our payment on their behalf of approximately $411,000 of federal income taxes. This expense related to employee federal income taxes, plus compensation expense not requiring cash of $687,000, resulted in total share-based compensation expense of $1.1 million related to these transactions.

Our insider trading policy restricts sales of our common stock by our officers and employees. The 1995 Stock Plan under which the expiring options described above were issued does not allow a cashless exercise of options issued under that plan. Accordingly, holders of the expiring options described above could not reasonably sell shares in the marketplace to generate cash required to pay the option exercise price or the income taxes that might arise from an option exercise.

Employee Stock Purchase Plan

Our 2000 Employee Stock Purchase Plan (Stock Purchase Plan) remains in place, but we have suspended its operation until further notice by our Board of Directors. This plan will terminate in 2010 and may be amended or terminated earlier by the Board of Directors. Key provisions of the Stock Purchase Plan that would be applicable if it were active include:

Employees could purchase our common stock at 85% of the appropriate market price.

Employees could authorize payroll deductions of up to 10% of their qualified compensation to purchase our common stock.

An employee could purchase up to 10,000 shares of our common stock in a single offering period.

We continue to have 780,000 shares of common stock reserved for purchase under this plan by eligible employees. That amount may be increased on each January 1 in an amount equal to the lesser of 480,000 shares, 1.5% of the outstanding shares of common stock on the date of the annual increase or such lesser amount as may be determined by the Board of Directors.

Shares Reserved For Future Issuance

We have reserved a total of 13,270,560 shares of our common stock for issuance in the future with respect to (1) our Stock Option Plan, (2) our Stock Purchase Plan and (3) stock purchase warrants issued in connection with our sales of common stock in June 2003, December 2004, November 2006 and December 2006.

8. Federal Income Taxes

As of December 31, 2007, we have generated federal net operating loss carryforwards of approximately $148.9 million, orphan drug credits of approximately $13.3 million and research and development credits of approximately $1.2 million available to reduce future income taxes. These carryforwards begin to expire in 2008. A change in ownership, as defined by federal income tax regulations, could significantly limit our ability to utilize these carryforwards. Additionally, because United States tax laws limit the time during which these carryforwards may be applied against future taxes, we may not be able to take full advantage of these attributes for federal income tax purposes.

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of our deferred taxes as of December 31 are as follows (in thousands):

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	2006	2007
Deferred tax assets:		
Current deferred tax assets		
Accrued liabilities	$ 665	$ 285
Unrealized gains and losses	1,332	2,423
Valuation allowance for current deferred tax assets	(1,994)	(2,707)
Net current deferred tax assets	3	1
Noncurrent deferred tax assets		
Net operating loss carryforwards	44,499	51,786
Research and development tax credits	1,103	1,365
Orphan drug tax credits	11,357	10,609
State tax credits		2,256
Tax basis of property and equipment in excess of book basis	3,001	3,070
Stock compensation	2,427	2,261
Deferred rent	337	145
Investments	841	842
Other	60	70
Valuation allowance for noncurrent deferred tax assets	(63,527)	(72,372)
Net noncurrent deferred tax assets	98	32
Deferred tax liabilities:		
Current deferred tax liabilities		
Prepaid expense	(101)	(33)
Total current deferred tax liabilities	(101)	(33)
Net current deferred tax asset (liability)	(98)	(32)
Net noncurrent deferred tax asset (liability)	$ 98	$ 32

As we have had cumulative losses and there is no assurance of future taxable income, a valuation allowance has been established to fully offset the net deferred tax asset. During the year ended December 31, 2007, the valuation allowance increased by $9.6 million due primarily to losses from operations and the implementation of FIN 48. Approximately $374,000 of the valuation allowance relates to tax benefits for stock option deductions included in the net operating loss carryforward, which when realized, will be allocated directly to contributed capital to the extent the benefits exceed amounts attributable to deferred compensation expense.

Undistributed earnings of our foreign subsidiaries are considered permanently reinvested and, accordingly, no provision for U.S. federal or state income taxes has been provided thereon.

Our provision for income taxes differs from the expected tax expense (benefit) amount computed by applying the statutory federal income tax rate of 34% to income from continuing operations before taxes due to the following:

	Year Ended December 31,		
	2005	2006	2007
Federal statutory rate	(34.0)%	(34.0)%	(34.0)%
State taxes, net of federal benefit	(2.8)		
Increase in deferred tax valuation allowance	42.5	20.9	33.8
Stock option compensation	1.1	4.0	6.8
Orphan drug tax credits	(5.0)	(3.4)	(3.3)
Research and development tax credits	(0.7)	(0.4)	(0.3)
Change in Texas tax law		10.7	(8.8)
Foreign income taxed at different rates			5.4

Other	(1.1) %	2.2 %	0.4 %

Effective January 1, 2007, the company adopted FIN 48. The company recorded no additional tax liability as a result of the adoption of FIN 48 and no adjustments to the January 1, 2007 balance of retained earnings. The total amount of unrecognized tax benefits as of January 1, 2007 was $1,720. The reconciliation of our unrecognized tax benefits at the beginning and end of the year is as follows (in thousands):

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INTROGEN THERAPEUTICS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Balance at January 1, 2007	1,720
Additions based on tax positions related to the current year	313
Additions for tax positions of prior years	
Reductions for tax positions of prior years	
Settlements	
Balance at December 31, 2007	2,033

Due to the existence of the valuation allowance, future changes in our unrecognized tax benefits will not impact the Company s effective tax rate.

The Company s practice is to recognize interest and/or penalties related to income tax matters in income tax expense. During the twelve months ended December 31, 2007, the Company did not recognize any interest or penalties.

The adoption of FIN 48 did not impact our financial condition, results of operations or cash flows. As such, we did not record any interest or penalties upon adoption of FIN 48 or during the twelve months ended December 31, 2007.

We file consolidated and separate tax returns in the U.S. federal jurisdiction and in several state and foreign jurisdictions. We are no longer subject to U.S. federal income tax examinations for years before 2004 and are no longer subject to state and local or foreign income tax examinations by tax authorities for years before 2003. We are not currently under audit for federal, state or any foreign jurisdictions.

9. Notes Payable

We have a mortgage note payable to a bank related to our facilities that had an outstanding balance of $7,092,000 and $7,289,000 at December 31, 2007 and 2006. In April 2006, we exercised our option to extend that note payable to a November 2009 maturity date, at which time the remaining outstanding principal balance, estimated to be approximately $6.7 million, is payable in full. As a result, the interest rate changed from 6.25% to 7.35% and our monthly installments of principal and interest changed from approximately $56,000 per month to approximately $61,000 per month.

We financed $282,000 and $476,000 of equipment acquisitions under notes payable to commercial finance companies during the years ended December 31, 2007 and 2006, respectively. The notes are payable monthly over terms of 36 to 60 months from the time of the draw and bear interest at fixed interest rates ranging from zero to 11.38% at December 31, 2007 and from zero to 11.38% at December 31, 2006. These notes payable are secured by the equipment being financed.

Aggregate annual maturities on notes payable as of December 31, 2007, are as follows (in thousands):

Year ending December 31,	
2008	$ 586
2009	7,077
2010	78
2011	
2012	
Thereafter	
Total	$ 7,741

We believe the fair market value of our debt approximates its carrying value as of all balance sheet dates presented herein.

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INTROGEN THERAPEUTICS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. License and Research Agreements

Patent and Technology License Agreement With The University of Texas System

We have license agreements with The Board of Regents of The University of Texas System and M. D. Anderson Cancer Center, a component institution of The University of Texas System, whereby we have exclusive, worldwide licenses to make, use and sell certain technology. Under the terms of the license, we will pay M. D. Anderson Cancer Center a royalty based on net sales by us or our affiliates or by sublicense agreement of products incorporating any of such technologies. We are obligated by the license agreements to reimburse any of M. D. Anderson Cancer Center s costs that may be incurred in connection with obtaining patents related to the licensed technologies.

VirRx, Inc.

We are working with VirRx to investigate other vector technologies, specifically replication-competent viral therapies, for delivering products into targeted cells. These technologies form the basis for our INGN 007 product candidate.

Under an agreement with VirRx, we purchased $2,475,000 of VirRx s Series A Preferred Stock for cash, of which we purchased zero during the year ended December 31, 2007 and $150,000 during the year ended December 31, 2006, respectively. We are not obligated to make any additional purchases at this time. We record these purchases as research and development expense.

Under a collaboration and license agreement with VirRx, we are required to make additional milestone stock purchases, either for cash or through the issuance of our common stock, upon the completion of Phase 1, 2 and 3 clinical trials involving technologies licensed under this agreement. We are required to make a $5.0 million cash milestone payment to VirRx, for which we receive no VirRx stock, upon approval by the FDA of a Biologics License Application for the first collaboration product based on these technologies. To the extent we have already made cash milestone payments, we may receive a credit of 50% of the Phase 2 clinical trial milestone payments and 25% of the Phase 3 clinical trial milestone payments against this $5.0 million cash milestone payment.

The additional milestone stock purchases and cash payments are not anticipated to be required in the near future. We may unilaterally terminate this collaboration and license agreement with 90 days prior notice, which would also terminate the requirement for us to make any additional milestone stock purchases or cash payments.

In accordance with the provisions of Financial Accounting Standards Board Interpretation 46R, Consolidation of Variable Interest Entities, an Interpretation of Accounting Research Bulletin No. 51, VirRx is not consolidated in our financial statements.

Alliance Agreement With Colgate-Palmolive Company

In November 2005, we entered into an alliance agreement with Colgate-Palmolive to develop and potentially market oral healthcare products. In connection with the alliance agreement and pursuant to a common stock purchase agreement, Colgate-Palmolive purchased 3,610,760 shares of our common stock at a purchase price of $5.539 per share for a total of approximately $20.0 million. Under the common stock purchase agreement, Colgate-Palmolive agreed to vote these shares and any other shares of our capital stock owned by it in favor of corporate actions approved by our Board of Directors. This voting agreement is subject to suspension or termination upon certain events specified in the common stock purchase agreement.

Pursuant to the alliance agreement, we will conduct research and development activities involving specialized formulations of our molecular therapies (such as p53, mda-7 and FUS-1) targeted at precancerous conditions of the oral cavity and at oral cancer. The objective is to market these formulations as oral healthcare products. The alliance

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INTROGEN THERAPEUTICS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

agreement excludes certain of our cancer product candidates, including ADVEXIN therapy, INGN 241, INGN 225 and INGN 401.

Colgate-Palmolive has a first right to negotiate development, manufacturing, marketing and distribution rights with us for specifically designed oral healthcare products for use in the human oral cavity that may result from these research and development activities. We agreed to use commercially reasonable efforts to develop one or more specialized oral formulations through completion of Phase 2 clinical trials within the seven-year term of the alliance agreement. We can terminate our development efforts earlier under certain circumstances, including if the prospects for these products do not warrant further investment, or if we expend $15.0 million in this effort. In calculating the amount of our expenditures on these efforts, we may include grant funding received by us or our collaborators for work performed by third parties (e.g., universities and other institutions) that is directly related to program activities, as specified in the alliance agreement. The term of the alliance agreement continues to November 2012, unless earlier terminated by the parties as provided in the alliance agreement.

Other Technology Option and License Agreements

We have various other technology option and license agreements with various third parties related to certain molecular therapies or delivery systems that are part of other product candidates we are developing. These agreements require us to make milestone and license payments to these parties if and when we achieve certain prescribed clinical trial and product development milestones. We also license certain enabling technologies under technology option and license agreements with other third parties, which require annual payments aggregating $40,000 until cancelled at our option.

11. Commitments and Contingencies

Lease Commitments

We are obligated under various operating leases for land, office and laboratory space that expire at various dates through September 2026. Rent expense was $456,000, $416,000 and $365,000 for the years ended December 31, 2007, 2006 and 2005. Some of our leases contain predetermined fixed escalations of the minimum rentals. For these leases, we recognize the related rental expense on a straight-line basis and record the difference between the recognized rental expense and amounts payable under the leases as deferred rent.

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INTROGEN THERAPEUTICS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Future minimum lease payments under non-cancelable operating leases as of December 31, 2007, are as follows (in thousands):

Year ending December 31,	
2008	$ 519
2009	317
2010	166
2011	161
2012	156
Thereafter	2,147
Total	$ 3,466

Insurance and Litigation

We are subject to numerous risks and uncertainties because of the nature and status of our operations, and to claims and legal actions arising in the normal course of business. We maintain insurance coverage for events and in amounts that we deem appropriate. Management believes that uninsured losses, if any, would not be materially adverse to our financial position or results of operations.

Employment Agreement

We have an employment agreement with our President and Chief Executive Officer that provides for a base salary and bonuses through July 31, 2010, and thereafter renews automatically for one-year terms until either party gives timely written notice of non-renewal. If his employment had been terminated by the Company other than for cause on December 31, 2007, we would have been obligated to pay him a remaining salary of approximately $1.5 million and accrued vacation and insurance premium benefits of approximately $182,000.

12. Related Parties

A member of our Board of Directors, who is also one of our stockholders, owns a company to which we have paid consulting fees of approximately $175,000 per year. Subsequent to December 31, 2007, this consulting agreement ended by mutual agreement between EJ Financial and us. Accordingly we no longer make payments under this agreement. As of December 31, 2007, this person held options to purchase 192,200 shares of our common stock.

We have a consulting agreement with the individual primarily responsible for the creation of the technology upon which ADVEXIN therapy is based. This individual is also one of our stockholders. Under this consulting agreement, we paid this individual fees of $207,000, $205,000 and $202,000 during the years ended December 31, 2007, 2006 and 2005. This consulting agreement provides for payments of $215,000 per annum through the end of its term on September 30, 2009. We may terminate this agreement at our option upon one year s advance notice.

A placement agent assisted with our sale of common stock in November 2006 and December 2006. As consideration for its services, we are obligated to make future payments of fees to the placement agent totaling $300,000. These fees are payable in monthly installments of approximately $25,000 through December 2008. During 2007, we also paid this placement agent consideration of $90,000 for their work in arranging future financing transactions for us.

We fund certain research performed by M. D. Anderson Cancer Center to further the development of technologies that could have potential commercial viability. By sponsoring and funding this research, we have the right to include certain patentable inventions arising therefrom under our patent and technology license agreements with The University of Texas System described in Note 10 above. The expense for this research was approximately $107,000, $300,000 and $243,000 for the years ended December 31, 2007, 2006 and 2005. M. D. Anderson is a component institution of The University of Texas System, one of our stockholders.

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INTROGEN THERAPEUTICS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

We sublease a portion of our facilities to M. D. Anderson Cancer Center under a lease with a non-cancelable term that expires in 2009. M. D. Anderson Cancer Center is obligated to pay us rent of approximately $23,000 per month until January 2009 for a total of $278,000 in 2007 and 2008 and $23,000 in 2009. Rental income was $1,004,000, $1,084,000 and $1,068,000 for the years ended December 31, 2007, 2006 and 2005.

In 2007, we became an owner of 49% of the outstanding stock of IRI. The other 51% of IRI is owned by our corporate Secretary, who is also an Introgen shareholder. We transferred to IRI an NIH grant originally awarded to us. IRI will be responsible for the remaining research contemplated by that grant and will receive future funding, if any, from the NIH under that grant. We have contractual relationships with IRI under which we may perform research and development services for them in the future. The activities of IRI are not material to our business as a whole. IRI is a variable interest entity for which we are the primary beneficiary. Accordingly, the accounts of IRI are included in these consolidated financial statements.

13. Registration Statement

We have in place a registration statement on Form S-3 (Commission File No. 333-140424), allowing for the sale shares of our common stock with an aggregate offering price of up to $150.0 million. We have sold no common stock under this registration statement.

14. Quarterly Results of Operations

The following table sets forth certain unaudited quarterly financial data for the years ended December 31, 2006 and 2007. This information has been prepared on the same basis as the Consolidated Financial Statements and all necessary adjustments have been included in the amounts stated below to present fairly the selected quarterly information when read in conjunction with the Consolidated Financial Statements and notes thereto. Historical quarterly financial results and trends may not be indicative of future results.

	Three Months Ended							
	March 31, 2006	June 30, 2006	September 30, 2006	December 31, 2006	March 31, 2007	June 30, 2007	September 30, 2007	December 31, 2007
	(Unaudited) (In thousands, except per share amounts)							
Statement of Operations Data:								
Contract services, grant and other revenue	$ 225	$ 98	$ 733	$ 95	$ 322	$ 82	$ 139	$ 468
Operating expense:								
Research and development	5,046	4,896	4,256	4,023	3,175	4,763	5,074	6,090
General and administrative	3,796	3,273	2,546	3,548	3,267	3,533	2,980	4,175
Loss from operations	(8,617)	(8,071)	(6,069)	(7,476)	(6,120)	(8,214)	(7,915)	(9,797)
Interest income (expense), net	143	92	50	58	263	207	112	11
Other income	255	288	281	265	254	244	257	249
Loss before non-controlling	(8,219)	(7,691)	(5,738)	(7,153)	(5,603)	(7,763)	(7,546)	(9,537)

interests in consolidated subsidiaries								
Non-controlling interests in consolidated subsidiaries					(14)	14		(6)
Nt loss s	$ (8,219)	$ (7,691)	$ (5,738)	$ (7,153)	$ (5,617)	$ (7,749)	$ (7,546)	$ (9,543)
Basic and diluted net loss per share	$ (0.22)	$ (0.21)	$ (0.15)	$ (0.19)	$ (0.13)	$ (0.18)	$ (0.17)	$ (0.22)
Shares used in computing basic and diluted net loss per share	37,180	37,214	37,245	38,723	43,655	43,801	43,845	43,916

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EXHIBIT INDEX

Exhibit Number	Description of Document
10.18(d)	Employment Agreement dated as of August 1, 2007 between Introgen and David G. Nance
10.62	Cooperative Research and Development Agreement effective as of March 22, 2007, by and between Introgen and the U.S. Department of Health and Human Services, as represented by the National Cancer Institute
10.63	Form of Restricted Stock Purchase Agreement entered into with certain directors, officers and employees.
21.1	List of subsidiaries of Introgen
23.1	Consent of Independent Registered Public Accounting Firm
24.1	Power of Attorney (See page 78)
31.1	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act, as amended
32.1	Certification of Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Confidential treatment has been requested for portions of this exhibit.