FORM 10-K

OXIGENE INC - OXGN

Exhibit:

Filed: March 14, 2007 (period: December 31, 2006)

Annual report which provides a comprehensive overview of the company for the past year

EX-31.1 (EX-31.1 SECTION 302 CERTIFICATION OF CEO)

EX-31.2 (EX-31.2 SECTION 302 CERTIFICATION OF CFO)

EX-32 (EX-32 SECTION 906 CERTIFICATION OF CEO AND CFO)

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

Form 10-K

☑ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2006

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from _____ to _____

Commission file number: 0-21990

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

Delaware	**13-3679168**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
230 Third Avenue Waltham, MA	**02451**
(Address of principal executive offices)	*(Zip Code)*

Registrant's telephone number, including area code:
(781) 547-5900

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

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, par value $0.01 per share	**The Nasdaq Stock Market LLC**
Common Stock Purchase Rights	

Securities registered pursuant to Section 12(g) of the Act:
None
(Title of class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☑

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes ☐ No ☑

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):
Large accelerated filer ☐ Accelerated filer ☑ Non-accelerated filer ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☑

The aggregate market value of the registrant's voting and non-voting common stock held by non-affiliates of the registrant (without admitting that any person whose shares are not included in such calculation is an affiliate) computed by reference to the price at which the common stock was last sold, as of June 30, 2006 was $104,731,000.

As of February 16, 2007, the aggregate number of outstanding shares of common stock of the registrant was 28,174,997.

DOCUMENTS INCORPORATED BY REFERENCE

Certain portions of the registrant's definitive Proxy Statement for the 2007 Annual Meeting of Stockholders are incorporated by reference into Items 10, 11, 12, 13 and 14 of Part III of this Annual Report on Form 10-K.

SAFE HARBOR FOR FORWARD-LOOKING STATEMENTS UNDER THE SECURITIES LITIGATION REFORM ACT OF 1995

Except for historical information contained herein, this Annual Report on Form 10-K ("Annual Report") contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements involve known and unknown risks and uncertainties that may cause the Company's actual results or outcomes to be materially different from those anticipated and discussed herein. Important factors that the Company believes may cause such differences are discussed in the "Risk Factors" section of this Annual Report and in the cautionary statements accompanying the forward-looking statements in this Annual Report. In assessing forward-looking statements contained herein, readers are urged to read carefully all Risk Factors and cautionary statements contained in this Annual Report. Further, the Company operates in an industry sector where securities values may be volatile and may be influenced by regulatory and other factors beyond the Company's control.

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PART I

ITEM 1. *BUSINESS*

INTRODUCTION

OXiGENE, Inc. ("OXiGENE" or the "Company") is a biotechnology company developing novel small-molecule therapeutics to treat cancer and eye diseases. The Company's focus is the development and commercialization of drug candidates that selectively disrupt abnormal blood vessels associated with solid tumor progression and visual impairment. Currently, OXiGENE has two therapeutic product candidates in clinical development, as well as several other potential product candidates currently in the research stage. The Company's lead clinical compound is Combretastatin A4P (CA4P), which is being evaluated in multiple ongoing clinical trials in various oncology and ophthalmic indications.

Development Programs and Product Candidates

OXiGENE's primary drug development programs are based on a series of natural products called Combretastatins, which were originally isolated from the African bush willow tree *(Combretum caffrum)* by researchers at Arizona State University ASU. ASU has granted the Company an exclusive, worldwide, royalty-bearing license with respect to the commercial rights to particular Combretastatins. Through *in vitro* and *in vivo* testing, it has been established that certain Combretastatins selectively disrupt the function of newly formed abnormal blood vessels associated with solid cancers and have a similar effect on abnormal blood vessels associated with certain diseases of the eye. OXiGENE has developed two distinct technologies that are based on Combretastatins. The Company refers to the first technology as vascular disrupting agents (VDAs). OXiGENE is currently developing VDAs for indications in both oncology and ophthalmology. The Company refers to the second technology as ortho-quinone prodrugs OQPs. OXiGENE is currently developing OQPs for indications in oncology.

Vascular Disrupting Agents, or VDAs

OXiGENE's most clinically advanced VDA is CA4P, which is being evaluated in multiple ongoing clinical trials in both oncology and ophthalmology, both as a single agent and in combination with other therapies, including chemotherapy, radiotherapy, and antibody therapy against Vascular Endothelial Growth Factor (VEGF) activity. CA4P is an inactive synthetic derivative of the natural product CA4, which becomes activated following administration into the blood stream, and then targets and damages newly formed, abnormal blood vessels. Preclinical studies show that CA4P works via two potentially synergistic processes and that it can have dramatic effects on the shape and structural integrity of newly formed vascular endothelial cells. Vascular endothelial cells are the flat and elongated cells that form the walls of blood vessels.

In vitro studies have demonstrated that CA4P acts on a protein called tubulin inside the newly formed and growing endothelial cells. By binding to the tubulin, CA4P is able to collapse the structural framework that maintains the cells' flat shape. When this occurs, the shape of the cells changes from flat to round, initiating a cascade of events resulting in physical blockage of the blood vessels. Normal healthy tissues in the body have few actively growing endothelial cells. These normal, blood vessel endothelial cells have matured, and have much greater supporting structures such as pericytes and smooth muscle cells. They do not depend solely on tubulin for maintenance of their cell shape, and thus are much less susceptible to CA4P. Because of this, CA4P appears to have very high selectivity for abnormal, newly formed blood vessels.

Preclinical research, published in the November 2005 issue of the *Journal of Clinical Investigation*, showed that CA4P also disrupts the molecular engagement of VE-cadherin, a junctional protein important for endothelial cell survival and function. The authors of the research article conclude that this effect only occurs in endothelial cells which lack contact with smooth muscle cells, a known feature of abnormal vasculature associated with tumors and other disease processes. The disengagement of VE-cadherin leads to endothelial cell detachment, which in turn, can cause permanent physical blockage of vessels. These two complementary

mechanisms can block the flow of blood to a tumor and deprive it of oxygen and nutrients essential to its survival.

The Company is currently focusing on two major program areas with CA4P, oncology and ophthalmology.

CA4P and Its Application in Oncology

OXiGENE's CA4P targets newly formed abnormal blood vessels that penetrate and provide nutritive support to the inner areas of a tumor, regions that are widely believed to contain tumor cells that are difficult to treat with conventional cancer therapies, such as chemotherapy and radiation, as well as antibody and protein-based therapeutics. The resulting shutdown in blood flow then deprives tumor cells of oxygen and nutrients necessary for maintenance and growth and also prevents tumor cells from being able to excrete toxic metabolic waste products. The consequence of the blockage is extensive tumor cell death, as demonstrated in animal studies.

VDAs are distinguishable from anti-angiogenesis agents, which attempt to prevent the formation of new tumor blood vessels, in that VDAs directly target the blood vessels that have already formed within tumors. OXiGENE believes that anti-angiogenesis products may prevent the continued growth of tumors but may not directly result in the death of existing cancer cells. In contrast, OXiGENE's preclinical studies have shown that VDAs rapidly reduce blood flow within the tumor, thereby causing rapid and extensive tumor cell death. Moreover, because VDAs affect the central regions of the tumor, they may have the potential to enhance the effectiveness of currently available cancer therapies.

In the field of oncology, six clinical trials evaluating CA4P for the treatment of advanced solid tumor cancers have been completed and more than 250 patients have been dosed with CA4P, either as a monotherapy or in combination with other cancer-fighting treatments. OXiGENE believes the safety profile of CA4P in oncology to be tolerable and acceptable.

OXiGENE has decided to focus on a rare form of thyroid cancer, anaplastic thyroid cancer (ATC), as its lead indication in the field of oncology for CA4P in the immediate future. In June 2003, the U.S. Food and Drug Administration (FDA) granted fast track designation to CA4P, for the treatment of regionally advanced and/or metastatic ATC. The FDA's fast track program is designed to facilitate the development and expedite the review of new drugs intended to treat life-threatening conditions for which there is no approved therapy. The fast track designation applies to the combination of a drug candidate and a specific disease indication.

In July 2003, CA4P was awarded orphan drug status for the treatment of advanced ATC and for the treatment of medullary, Stage IV papillary and Stage IV follicular thyroid cancers. Orphan drug designations are granted by the FDA to provide economic incentives to stimulate the research and development of promising product candidates that treat rare diseases. The Orphan Drug Act provides for seven years of market exclusivity to the first sponsor that obtains market approval for an orphan drug-designated product. It also provides tax credits to defray the cost of research conducted to generate the data required for marketing approval, funding to support clinical trials and assistance in designing research studies.

Interim results from a Phase II study with CA4P in metastatic ATC has demonstrated stable disease in approximately one-third of the patients and median survival of approximately 4.4 months. OXiGENE believes that given these results, with orphan drug and fast track designation in ATC, there is an opportunity to be first to market with a VDA. The Company plans to initiate a late stage clinical trial of CA4P in combination with commonly used chemotherapeutic agents in the first half of 2007 in ATC.

CA4P is currently being studied in two additional areas in oncology as outlined below:

- A Phase II clinical trial in patients with advanced, inoperable, platinum-resistant ovarian cancer in combination with carboplatin and paclitaxel; and
- A Phase Ib clinical trial in patients with advanced solid tumors in combination with the anti-angiogenic drug, Avastin®(Bevacizumab).

In addition, CA4P is being evaluated in a number of other exploratory early stage studies involving non-small cell lung cancer (NSCLC) and cervical cancer.

CA4P and Its Application in Ophthalmology

Based on promising clinical results and OXiGENE's understanding of the safety profile of CA4P gleaned from our ongoing oncology studies, the Company has expanded its clinical development efforts of CA4P into the field of ophthalmology. In certain ophthalmologic conditions, VDAs can attack the network of abnormally formed existing and emerging blood vessels which have infiltrated the back of the eye and which may leak and cause severe visual impairment. There are two eye disease conditions that exhibit these symptoms. One is myopic macular degeneration, or MMD and the other is wet age-related macular degeneration or wAMD.

Both MMD and wAMD are progressive eye diseases that can lead to legal or clinical blindness and are characterized by blurring of the central vision and distortion of certain shapes and images, which cannot be corrected by prescription eye glasses or contact lenses. MMD initially begins with the progressive elongation of the eye; it is not known whether the degenerative changes are the result of this elongation or other hereditary factors. Visual loss may be severe and may occur due to the degenerative changes or the occurrence of abnormal new vessels growing up through defects in the abnormal retina. The abnormal blood vessels grow from the choroid and infiltrate the retina, causing hemorrhaging and scarring, often resulting in central visual loss. MMD generally afflicts people in the 30-50 year old range and is a relatively uncommon disease affecting only approximately 300,000 people worldwide. wAMD generally afflicts people aged over 60 years old and affects approximately 3 to 5 million people worldwide.

In January 2007, the Company announced positive results from its Phase II clinical trial of intravenous CA4P in MMD.

OXiGENE believes that there is a significant opportunity in wAMD and has announced its intentions to pursue the development of CA4P in this indication. The Company is investigating and developing product formulations of CA4P for topically administering the compound. If successful, OXiGENE believes that its potential products could not only help those currently afflicted with wAMD, but also those who are at risk of developing the disease symptoms. Should results in preclinical studies prove positive, the Company expects to submit an IND for the study of CA4P in wAMD.

Ortho-Quinone Prodrugs, or OQPs i.e. VDAs with possible intrinsic cytotoxicity

The Company's focus for its OQP technology is with its lead OQP, OXi4503, in oncology indications.

OXi4503 and Its Application in Oncology

Preclinical research with OXi4503, OXiGENE's first OQP candidate, suggests that it not only shuts down blood flow, but can also be metabolized into a compound which could assist with killing the remaining tumor cells at the periphery of the tumor by direct cytotoxic activity against tumor cells. In December 2004, the United Kingdom regulatory authorities accepted an application from our collaborators, Cancer Research UK, to initiate a dose-escalating Phase I clinical trial of OXi4503 in patients with advanced cancer. This trial is currently ongoing.

In fiscal 2007, OXiGENE plans to initiate several preclinical studies to evaluate OXi4503 and possibly a Phase Ib clinical trial of OXi4503 in combination with currently approved anti-VEGF therapy, most likely bevacizumab.

Company Background

The Company is a Delaware corporation, incorporated in 1988 in the state of New York and reincorporated in 1992 in the state of Delaware, with its corporate office in the United States at 230 Third Avenue, Waltham, Massachusetts 02451 (telephone: 781-547-5900; fax: 781-547-6800). We also have an office in the United Kingdom at Magdalen Centre, Robert Robinson Avenue, The Oxford Science Park, Oxford, OX4 4GA. The Company's Internet address is www.OXiGENE.com. The Company's annual reports on Form 10-K,

quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports, are available to you free of charge through the Investor Relations section of our website as soon as reasonably practicable after such materials have been electronically filed with, or furnished to, the Securities and Exchange Commission.

TECHNOLOGY OVERVIEW

According to Cancer Research UK, a cancer organization in the United Kingdom, nearly 90% of all cancers, more than 200 types, are solid tumors, which are dependent on a continually developing vascular supply for their growth and survival. This naïve vasculature is the focal point of OXiGENE's research and development program. The Company's clinical candidates appear to disrupt the function of newly formed abnormal blood vessels that are associated with solid tumors and vision impairment in certain eye diseases, such as MMD and wAMD.

OXiGENE is researching and developing two separate, but related, classes of compounds. The first class of compounds, termed Vascular Disrupting Agents, or VDAs, departs significantly from current approaches to treating cancer. Despite advances in surgery, radiation and chemotherapy, serious problems with these conventional treatments persist: many solid tumors remain incurable, especially when the tumor has metastasized or is a large mass at the time of diagnosis; surgery may not be capable of treating certain tumors because of their location; and chemotherapy and radiation may not be effective in attacking the tissue core of the tumor. In addition, chemotherapy and radiation treatments may damage healthy cells along with cancerous cells, resulting in serious side effects for patients and, in many instances, can also induce drug resistance in the tumor. Therefore, a need exists for novel and highly targeted approaches to fighting cancer.

Anti-tumor VDAs are the focus of much scientific research. VDAs attack a tumor's life support system, the network of existing and emerging blood vessels, and selectively disrupt the existing blood vessel structures, particularly those within the tumor, creating a rapid and irreversible shutdown of these blood vessels. OXiGENE believes that shutting off a tumor's blood supply is an efficient therapeutic strategy and that there are many advantages to using VDAs.

First, many thousands of tumor cells depend on each blood vessel, and thus, damage to a relatively small number of endothelial cells, which line the blood vessels, could reduce blood flow and trigger a cascade of tumor cell death. Second, the endothelial cells that line the blood vessels and are the primary target of VDAs reside adjacent to the blood stream, and thus, delivery problems that are common with conventional chemotherapy may be overcome by using VDAs. Third, since endothelial cells are not transformed by VDAs and because VDAs appear to disengage VE-cadherin, a protein that holds adjacent endothelial cells together, treatment-resistant mutations are unlikely to emerge. Finally, recent advances in technologies that can accurately measure blood flow in a tumor have allowed OXiGENE to establish early in the clinical trial process whether a VDA has biological activity.

Based on pre-clinical studies and results from early stage clinical trials that show significant anti-tumor activity with VDA therapy, the Company believes that VDAs will be complementary to existing and emerging cancer treatments. As a result, in 2005 OXiGENE broadened its clinical trial pipeline and is currently evaluating CA4P in combination with prevalent anti-cancer therapies, such as radiation and chemotherapy, as well as newer, highly-targeted therapies, such as anti-VEGF therapy, in a variety of key indications. These clinical trials are currently in various stages, including Phase Ib and Phase II. OXiGENE also continues to conduct preclinical research studies with VDAs.

OXiGENE's second clinical compound, OXi4503, is a lead compound in a distinct class of clinical candidates we called ortho-quinone prodrugs, or OQPs. OQPs exhibit the properties of vascular disrupting agents, but may also be metabolized into a compound that could help to kill the surviving tumor cells at the periphery of the tumor. OXi4503 is currently being evaluated in a Phase I clinical trial for the treatment of solid tumors.

Combretastatin. Combretastatin compounds are naturally occurring small molecules found in the bark of the African bush willow tree *(Combretum caffrum)*. They were discovered and isolated over a decade ago at

ASU. In May 1997, OXiGENE and ASU entered into an option agreement to develop and test Combretastatins. The agreement granted OXiGENE an option to acquire an exclusive, world-wide, royalty-bearing license with respect to the family of Combretastatins' commercial rights, which OXiGENE exercised and subsequently signed a license agreement with respect to on August 2, 1999.

OXiGENE's most clinically advanced compound in the Combretastatin family is CA4P. Since its early stage oncology clinical trials with CA4P, which were initiated in the fourth quarter of 1998 and the first quarter of 1999, OXiGENE has made significant strides with the compound's clinical advancement. Today, CA4P is being evaluated in clinical trials both as a monotherapy and in combination with other cancer treatments. CA4P is currently in two Phase II clinical trials and five Phase Ib or Ib/II clinical trials in various other key cancer indications. The compound is also believed to be the only VDA in a human clinical trial in combination with the anti-angiogenic agent, Avastin. Based on the various stages of its clinical development and the breadth of monotherapy and combination treatments being evaluated clinically, OXiGENE believes that CA4P is the leading VDA candidate in the clinic today.

In December 2001, the Company announced the selection of OXi4503 as its second clinical compound, and moved forward with preclinical development. Today, OXi4503 is the lead clinical compound in a class of drugs we have termed OQPs. OXi4503 has a profile of activity that appears to be distinct from that of CA4P in that it appears to be able to cause tumor regressions in a number of experimental tumor models when administered as a single-agent. While CA4P has demonstrated the ability to act as a VDA and block blood flow to most central parts of the tumor when it is used alone, tumor regrowth can occur in many cases from a narrow rim of tumor cells surviving at the periphery adjacent to normal tissue. Current research suggests that, in addition to the effects on existing tumor blood vessels, OXi4503 is metabolized to a compound which appears to attack the surviving tumor cells in the tumor periphery. A Phase I dose-escalating clinical trial of OXi4503 in patients with advanced cancer was initiated in December 2004 and is currently ongoing.

In September 2006 OXiGENE announced the publication of a research article in the journal Science which provided strong scientific evidence for combining VDAs with antiangiogenic agents such as Avastin. In this article Professor Kerbel and Dr. Shaked from Sunnybrook Cancer Centre in Canada discussed their observations that the combination of CA4P and an antiangiogenic agent (an anti-VEGFR antibody) had synergistic effect on tumors. Overall, this research suggests a compelling strategy to maximize the therapeutic potential of VDAs and anti-angiogenic drugs as a therapy against solid tumors.

Since other disease pathologies are associated with the abnormal development of new vessels, VDAs may have application outside of cancer therapy. Promising data with CA4P in animal models of ocular disorders associated with neovascularization led the Company, in conjunction with key partners, to investigate its use in various eye diseases. CA4P has been studied in a Phase II trial, completed in October 2006, to evaluate its effect in patients with MMD which completed in October 2006. Additionally, OXiGENE is conducting preclinical experiments to determine a local, non-systemic delivery mechanism of CA4P that could be used to treat wAMD. OXiGENE is also evaluating possible oral formulations of CA4P which may have application not only in ophthalmology, but also in oncology.

In addition to the compounds discussed above, OXiGENE is developing several other compounds that exhibit VDA-like characteristics.

CLINICAL TRIAL PROGRAM

Combretastatin A-4 Prodrug. The Company began testing CA4P in three Phase I dose-escalating clinical trials during the fourth quarter of 1998 and the first quarter of 1999. Each of these clinical trials, which examined the safety, pharmacokinetics and mode of action of CA4P using three different dose regimens in patients with advanced solid tumors, has been completed. The key findings of these initial clinical trials are summarized below:

(1) CA4P was manageable and well tolerated.

(2) A similar maximum tolerated dose was determined in each clinical trial.

(3) The side-effect profile did not display the typical toxicities associated with chemotherapeutic agents.

(4) CA4P demonstrated reductions in tumor blood flow at a range of doses.

(5) There is data to support biological and anti-vascular activity in humans with a meaningful therapeutic index.

(6) Promising signs of clinical effects were observed with one complete response, one partial response, two cases of measurable tumor size reduction and three cases of long-term stabilization of disease.

Following the successful completion of these initial three Phase I trials, CA4P progressed to the next stage of clinical evaluation. During 2002 and 2003, CA4P entered into various investigator-sponsored clinical trials, either as a monotherapy or in combination trials with either chemotherapy or radiotherapy. These early dose-escalating trials were aimed to further inform CA4P's clinical development and to assess its anti-tumor effects and safety profile. The combination trials were also conducted to evaluate the compatibility and potential synergistic effects of CA4P with various cancer treatment modalities in key oncology indications.

In December 2004, OXiGENE announced the initiation a Phase II clinical trial of CA4P in combination with carboplatin and paclitaxel. OXiGENE advanced CA4P into this Phase II trial with chemotherapy based on positive results from a Phase I/II trial conducted at the Mount Vernon Hospital in London, UK. This Phase II trial led by Dr. Wallace Akerley, Director of Clinical Research at the Huntsman Cancer Center at the University of Utah, evaluating patients commonly treated with carboplatin and paclitaxel therapies, such as those with breast, lung or ovarian cancers. The trial was completed in December 2006. Top line data from the trial indicate that the objectives of the trial have been met. The imaging confirmed blood flow shutdown in a wide variety of advanced imageable tumors, safety is in line with expectations and tumor responses were seen in multiple patients. An acceptable safety profile of CA4P was observed when given along with carboplatin and paclitaxel, a widely used chemotherapy regimen.

CA4P in Oncology

Based on these trials, OXiGENE developed its core clinical development program with CA4P in oncology, and set the foundation for what the Company believes to be its registrational pathway in oncology with CA4P:

CA4P for the Treatment of ATC

The Company has determined to focus on ATC as its lead targeted indication in oncology for CA4P in the immediate future. In June 2003, the FDA granted fast track designation to CA4P, for the treatment of regionally advanced and/or metastatic ATC. The FDA's fast track program is designed to facilitate the development and expedite the review of new drugs intended to treat life-threatening conditions for which there is no approved therapy. The fast track designation applies to the combination of a drug candidate and a specific disease indication.

In July 2003, CA4P was awarded orphan drug status for the treatment of advanced ATC and for the treatment of medullary, Stage IV papillary and Stage IV follicular thyroid cancers. In May 2006, CA4P was awarded orphan drug status for the treatment of ovarian cancer. Orphan drug designations are granted to provide economic incentives to stimulate the research and development of promising products that treat rare diseases. The Orphan Drug Act provides for seven years of market exclusivity to the first sponsor that obtains market approval for an orphan drug-designated product. It also provides tax credits to defray the cost of research conducted to generate the data required for marketing approval, funding to support clinical trials and assistance in designing research studies.

Currently, the Company has the following early stage trials involving ATC:

ATC is an extremely aggressive and rapidly progressive disease currently afflicting approximately 1,000 to 2,000 people in the United States and Europe. ATC has a highly undifferentiated histology and

is resistant to almost all forms of therapy. Of the three ATC patients enrolled in the Company's Phase I trial in ATC , one patient had a complete response, one patient had a partial response and the third experienced disease stabilization. OXiGENE believes that, with orphan drug and fast track designation status in this disease, there is an opportunity to be first to market with a VDA by initiating a late stage study in this indication. The Company expects to initiate a late stage clinical study in ATC with CA4P in combination with commonly used chemotherapeutic agents in the first half of 2007 in ATC.

A Phase II single-agent trial was initiated in 2003 at the Ireland Cancer Center at University Hospitals of Cleveland to treat ATC. This trial is designed to evaluate the survival time of patients with regionally advanced and/or metastatic ATC treated with CA4P in comparison to what has historically been extremely short survival time with conventional therapy. The clinical trial centers have been expanded to include the Josephine Ford Cancer Center in Detroit and University of Pittsburgh Medical Center. Interim results from this study have demonstrated stable disease in approximately one-third of the patients.

A Phase I/II trial for ATC was initiated in 2003 at the Ireland Cancer Center at University Hospitals of Cleveland and the Josephine Ford Cancer Center. This trial is designed to evaluate the mean survival time of patients with newly diagnosed ATC undergoing treatment with CA4P as part of a multimodality regimen, that is, in combination with the conventional chemotherapeutic agents doxorubicin and cisplatin, as well as radiotherapy.

Phase II: CA4P in Combination with Chemotherapy for the Treatment of Advanced, Platinum-Resistant Ovarian Cancer

Ovarian cancer is the fourth most common cancer in women and the deadliest of the gynecologic cancers. The disease often has no symptoms in its early stages. As a result, most patients have advanced disease at the time of diagnosis. Standard therapy for newly diagnosed ovarian cancer usually consists of surgery to remove the tumor, ovaries, and uterus, followed by chemotherapy, typically with carboplatin alone, or both paclitaxel and carboplatin. Carboplatin and paclitaxel are commonly used cytotoxic agents in solid malignancies, such as ovarian cancer, and have been combined with each other, as well as other agents, leading to enhanced efficacy without compromising safety.

Despite advances in the management of cancer with chemotherapy, radiotherapy and surgery, the disease recurs in many women within five years. Patients whose disease recurs within six months of completion of chemotherapy with a platinum-based drug are considered "platinum-resistant." The majority of women with advanced ovarian cancer will relapse and virtually all of these women will be considered platinum-resistant either at first relapse or at a later relapse.

On September 21, 2005, the Company announced the initiation of a Phase II clinical trial evaluating CA4P in triple combination therapy with carboplatin and paclitaxel — a widely used chemotherapeutic regimen — for the treatment of relapsed, advanced platinum-resistant ovarian cancer. The Phase II triple combination trial is an open-label trial designed to determine the safety and efficacy of CA4P in combination with carboplatin and paclitaxel. The trial is UK based multi-center study, and patient response will be evaluated using the international standard, RECIST, and CA125 response criteria.

In November 2005, OXiGENE announced that interim data from the Phase Ib portion which was conducted in a variety of solid tumors of a Phase I/II trial of CA4P in ovarian cancer was presented at the American Association for Cancer Research Meeting. The principal investigator in his presentation noted a 67% response rate to the combination treatment among a sub-population of evaluable patients with advanced, inoperable ovarian cancer (10 out of 15 evaluable patients) who were treated with a combination of CA4P and chemotherapy, all of whom had failed previous, alternate cancer treatments. Tumor response was measured according to RECIST or CA125. Additionally, four ovarian cancer patients had disease stabilization during treatment, and partial responses were seen in patients with esophageal cancer and small cell lung cancer.

Phase Ib: CA4P in Combination with the Anti-Angiogenic Agent, Avastin, for the Treatment of Solid Malignancies

In September 2006, a publication in the journal Science revealed the results of a preclinical study evaluating the combination of VDAs with an antiangiogenic drug to enhance suppression of tumor growth in mice. Using an antiangiogenic drug, 24 hours prior to administration of either of OXiGENE's VDAs, CA4P or OXi-4503, resulted in markedly enhanced anti-tumor activity in the study.

While anti-angiogenesis agents, like Avastin, and anti-tumor VDAs, such as CA4P, both target a tumor's blood vessels, they differ in their approach and in their end result. With anti-angiogenesis agents, the aim is to prevent tumor growth by inhibiting the formation of new tumor-specific blood vessels that sprout and feed the tumor. These agents may have to be used chronically over months and years to prevent further growth of the tumor mass. As the tumor is not destroyed, it can form new feeder blood vessels after treatment has stopped. Anti-tumor VDAs, by comparison, aim to attack tumors rapidly by selectively disrupting the existing blood vessel structure, particularly the vessels within the tumor, creating a rapid and irreversible shutdown of these blood vessels. Thus, while VDAs appear to destroy the established blood vessel network within a tumor, anti-angiogenic agents are thought to primarily to prevent the growth of new blood vessels. Further, anti-angiogenics may be successful in targeting and preventing regrowth of the viable rim of a tumor, which remains relatively intact post-VDA treatment.

A growing amount of preclinical data has demonstrated that the pairing of a VDA compound with an anti-angiogenic agent could be a potentially potent therapeutic combination in oncology. OXiGENE believes that combining these compounds could ultimately offer a new and viable cancer treatment strategy that destroys a tumor not only by targeting new blood vessel growth, but also by destroying the already established tumor blood vessel network.

On November 16, 2005, we reported that an investigator presented preclinical data that indicated that the combination of CA4P or OXi4503, OXiGENE's second clinical candidate, with the anti-angiogenic drug, Avastin, showed biological and anti-tumor activity. Both CA4P and OXi4503 appeared to improve the effectiveness of Avastin. Tumor response was measured by tumor growth delay in a human renal cell carcinoma model (Caki-1). The results suggested that treatment with Avastin and CA4P or OXi4503 resulted in statistically significant tumor growth delays, and that both CA4P and OXi4503 appeared to be effective at causing vasculature damage and tumor cell death in the central regions of solid tumors. The study also suggested that OXi4503 reduced the peripheral rim of tumor cells that can lead to tumor regrowth.

Based on this preclinical evidence, on December 5, 2005 OXiGENE announced the initiation of a Phase Ib clinical trial to evaluate CA4P in combination therapy with Avastin in patients with solid tumors. This is the first human clinical trial to pair a vascular disrupting compound and an anti-angiogenic agent in the treatment of cancer, specifically in people who have failed previous treatment and who are in advanced stages of disease.

OXiGENE's Phase Ib combination trial with Avastin is a traditional open-label, multi-center trial designed to determine the safety and tolerability of ascending doses of CA4P administered intravenously in combination with Avastin. Three dose levels of CA4P are being evaluated. If the maximum tolerated dose is not one of the three doses being investigated, further escalation will not be conducted. Tumor response will be evaluated according to RECIST. Pharmacodynamic effects to assess blood flow shutdown of tumor vasculature will be assessed with Dynamic Contrast Enhanced Magnetic Resonance Imaging, or DCE-MRI. Information on the effects upon CEPs will also be determined.

In addition to these core clinical programs in oncology, CA4P is currently being studied in several investigator-sponsored clinical trials. OXiGENE believes that the results from investigator-sponsored trials will certainly add to our knowledge concerning the effects of CA4P in a variety of tumor types and when given with chemotherapy or radiation.

Other Clinical Trials with CA4P in Oncology:

A Phase Ib clinical study evaluating CA4P in combination with radiotherapy for the treatment of NSCLC as well as patient cohorts with prostate cancer and head and neck cancer was initiated in 2004. On October 5, 2005, the investigator from the Mount Vernon Hospital in London presented interim trial data for the cohort of patients with NSCLC. The presentation was given at the National Cancer Research Institute's Cancer Conference held in Birmingham, United Kingdom. The Phase Ib trial included two cohorts of patients with NSCLC who received radiotherapy and either a single dose of CA4P at the end of the first week of radiotherapy treatment or once weekly doses of CA4P for three weeks. The investigator noted in his presentation that those patients who received weekly CA4P for three weeks, as compared to those patients who received a single dose of CA4P, showed a trend of increase in the median survival to approximately 1 year. The investigator also reported that increased radiation toxicities had not been observed when CA4P was administered, and that the side effects of CA4P observed to date were mild and self-limiting. This trial evaluating CA4P with radiotherapy remains ongoing in the lung and head & neck patient cohorts.

In addition, a small Phase I/II investigator sponsored trial to evaluate the combination of CA4P with the radiolabeled anti-CEA monoclonal antibody A5B7 and a small Phase I trial evaluating CA4P in combination with cisplatin, a primary chemotherapeutic treatment for cervical cancer, are underway.

OXi4503 in Oncology

OXiGENE initiated a clinical trial with its second oncology candidate, OXi4503. In December 2004, the Company announced the initiation of a Phase I trial of OXi4503 in solid tumors. OXi4503 has been shown in animals to have potent anti-tumor activity as both a single-agent and in combination therapy. OXi4503 is the lead compound in a novel class of agents that we have termed OQPs. This agent is of particular interest in that it exhibits not only the vascular disrupting properties characteristic of our lead vascular targeting agent CA4P, but also appears to cause direct killing of some types of tumor cells in vitro.

The trial, which is being conducted by Cancer Research UK, is a dose-escalating trial in which the primary endpoints are safety, tolerability and pharmacokinetics. Although ostensibly a Phase I safety trial, the protocol design has incorporated advanced testing to monitor patients through extensive blood work, MRI and Positron Emission Tomography, or PET scans to gain further insight into the mechanism of action of OXi4503. Two clinical centers in the UK are involved in the trial.

CA4P in Diseases of the Eye

Based on promising clinical results and our understanding of the safety profile of CA4P gleaned from our ongoing oncology studies, we have expanded our clinical development efforts of CA4P into the field of ophthalmology. In certain ophthalmologic conditions, VDAs can attack the network of abnormally formed existing and emerging blood vessels which have infiltrated the back of the eye and which may leak and cause severe visual impairment. There are two eye disease conditions that exhibit these symptoms. One is myopic macular degeneration, or MMD and the other is wet age-related macular degeneration or wAMD.

Both MMD and wAMD are progressive eye diseases that can lead to legal or clinical blindness and are characterized by blurring of the central vision and distortion of certain shapes and images, which cannot be corrected by prescription eye glasses or contact lenses. The MMD disease initially begins with the progressive elongation of the eye; it is not known whether the degenerative changes are the result of this elongation or other hereditary factors. Visual loss may be severe and may occur due to the degenerative changes or the occurrence of abnormal new vessels growing up through defects in the abnormal retina. The abnormal blood vessels grow from the choroid and infiltrate the retina, causing hemorrhaging and scarring, often resulting in central visual loss. MMD generally afflicts people in the 30-50 year old range and is a relatively uncommon disease affecting only approximately 300,000 people worldwide. wAMD generally afflicts people aged over 60 years old and affects approximately 3 to 5 million people worldwide.

In January 2007, we announced positive results from our Phase II clinical trial of intravenous CA4P in MMD.

OXiGENE believes that there is a significant opportunity in wAMD and has announced its intentions to pursue the indication. The Company is investigating and developing product formulations of CA4P for topically administering the compound. If successful, OXiGENE believes that its potential products could not only help those currently afflicted with wAMD, but also those who are at risk of developing the disease symptoms. Following positive results in preclinical studies, the Company expects to submit an IND for the study of CA4P in wAMD.

REGULATORY MATTERS

Government Regulation and Product Approval

Government authorities in the United States, at the federal, state and local level, and other countries extensively regulate, among other things, the research, development, testing, manufacture, labeling, packaging, promotion, storage, advertising, distribution, marketing and export and import of products, such as those we are developing. Our drugs must be approved by FDA through the new drug application, or NDA, process before they may be legally marketed in the United States.

In the United States, the FDA regulates drugs under the Federal Food, Drug and Cosmetic Act, or FDCA, and implementing regulations. The process of obtaining regulatory approvals and the subsequent substantial compliance with appropriate federal, state, local, and foreign statutes and regulations require the expenditure of substantial time and financial resources. Failure to comply with the applicable United States requirements at any time during the product development process, approval process or after approval, may subject an applicant to administrative or judicial sanctions. These sanctions could include the FDA's refusal to approve pending applications, license suspension or revocation, withdrawal of an approval, a clinical hold, warning letters, product recalls, product seizures, total or partial suspension of production or distribution injunctions, fines, civil penalties or criminal prosecution. Any agency or judicial enforcement action could have a material adverse effect on us. The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests, animal studies and formulation studies according to Good Laboratory Practices;
- submission of an investigational new drug application, or IND, which must become effective before human clinical trials may begin;
- performance of adequate and well-controlled human clinical trials according to Good Clinical Practices to establish the safety and efficacy of the proposed drug for its intended use;
- submission to the FDA of an NDA;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with current good manufacturing practice, or cGMP, to assure that the facilities, methods and controls are adequate to preserve the drug's safety, identity, strength, quality and purity; and
- FDA review and approval of the NDA.

United States Drug Development Process

Once a pharmaceutical candidate is identified for development it enters the preclinical testing stage. Preclinical tests include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal studies. An IND sponsor must submit the results of the preclinical tests, together with manufacturing information and analytical data, to the FDA as part of the IND. Some preclinical or nonclinical testing may continue even after the IND is submitted. In addition to including the results of the preclinical studies, the IND will also include a protocol detailing, among other things, the objectives of the first phase of the clinical trial, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated, if the first phase lends itself to an efficacy evaluation. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, raises concerns or questions about the conduct of the

trial. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin.

All clinical trials must be conducted under the supervision of one or more qualified investigators in accordance with good clinical practice regulations. These regulations include the requirement that all research subjects provide informed consent. Further, an institutional review board, or IRB, at each institution participating in the clinical trial must review and approve the plan for any clinical trial before it commences at that institution. Each new clinical protocol must be submitted with the IND for FDA review, and to the IRBs for approval. Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and more frequently if adverse events or certain types of other changes occur.

Human clinical trials are typically conducted in three sequential phases that may overlap or be combined:

- *Phase I:* The drug is initially introduced into healthy human subjects or patients with the disease and tested for safety, dosage tolerance, absorption, metabolism, distribution and excretion. In the case of some products for severe or life-threatening diseases, especially when the product may be too inherently toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients.
- *Phase II:* Involves studies in a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage.
- *Phase III:* Clinical trials are undertaken to further evaluate dosage, clinical efficacy and safety in a less restricted patient population at geographically dispersed clinical study sites where the test drug is compared with best established treatment. These studies are intended to establish the overall risk-benefit ratio of the product and provide, if appropriate, an adequate basis for product labeling.

Phase I, Phase II, and Phase III testing may not be completed successfully within any specified period, if at all. The FDA or an IRB or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the research subjects or patients are being exposed to an unacceptable health risk.

Concurrent with clinical trials, companies usually complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the drug and finalize a process for manufacturing the product in accordance with GLP and cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the drug candidate and, among other things, the manufacturer must develop methods for testing the safety, identity, strength, quality and purity of the final drug. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to determine its usable shelf life.

U.S. Review and Approval Processes

The results of product development, preclinical studies and clinical studies, along with descriptions of the manufacturing process, analytical tests conducted on the chemistry of the drug, results of chemical studies and other relevant information are submitted to the FDA as part of an NDA requesting approval to market the product. The FDA reviews all NDAs submitted to ensure that they are sufficiently complete for substantive review before it accepts them for filing. FDA may request additional information rather than accept an NDA for filing. In this event, the NDA must be resubmitted with the additional information. The resubmitted application also is subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review. The submission of an NDA is subject to the payment of user fees; a waiver of such fees may be obtained under certain limited circumstances such as for orphan drugs. The approval process is lengthy and difficult, and FDA may refuse to approve an NDA if the applicable regulatory criteria are not satisfied or may require additional clinical or other data and information. Even if such data and information is submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval. The FDA reviews an NDA to determine, among other things, whether a product is safe and effective for its intended use and whether its manufacturing is cGMP-compliant to assure and preserve the

product's safety, identity, strength, quality and purity. Before approving an NDA, the FDA will inspect the facility or facilities where the product is manufactured.

NDAs receive either standard or priority review. A drug representing a significant improvement in treatment, prevention or diagnosis of disease may receive priority review. In addition, products studied for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit over existing treatments may receive accelerated approval and may be approved on the basis of adequate and well-controlled clinical trials establishing that the drug product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit or on the basis of an effect on a clinical endpoint other than survival or irreversible morbidity. As a condition of approval, the FDA may require that a sponsor of a drug receiving accelerated approval perform adequate and well-controlled post-marketing clinical trials. Priority review and accelerated approval do not change the standards for approval, but may expedite the approval process.

Expedited review and approval

The FDA has various programs, including fast track, priority review, and accelerated approval, that are intended to expedite or simplify the process for reviewing drugs, and/or provide for approval on the basis of surrogate endpoints. Even if a drug qualifies for one or more of these programs, we cannot be sure that the FDA will not later decide that the drug no longer meets the conditions for qualification or that the time period for FDA review or approval will be shortened. Generally, drugs that may be eligible for these programs are those for serious or life-threatening conditions, those with the potential to address unmet medical needs, and those that offer meaningful benefits over existing treatments. Fast track designation applies to the combination of the product and the specific indication for which it is being studied. Although fast track and priority review do not affect the standards for approval, FDA will attempt to facilitate early and frequent meetings with a sponsor of a fast track designated drug and expedite review of the application for a drug designated for priority review. Drugs that receive an accelerated approval may be approved on the basis of adequate and well-controlled clinical trials establishing that the drug product has an effect of a surrogate endpoint that is reasonably likely to predict clinical benefit or on the basis of an effect on a clinical endpoint other than survival or irreversible morbidity. As a condition of approval, the FDA may require that a sponsor of a drug receiving accelerated approval perform post-marketing clinical trials.

Orphan Drug

Under the Orphan Drug Act, the FDA may grant orphan drug designation to drugs intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the U.S. Orphan drug designation must be requested before submitting an NDA. After the FDA grants orphan drug designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation does not convey any advantage in or shorten the duration of the regulatory review and approval process. If a product that has orphan drug designation subsequently receives FDA approval for the disease for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other applications to market the same drug for the same indication, except in very limited circumstances, for seven years. Orphan drug exclusivity, however, also could block the approval of our product for seven years if a competitor obtains approval of the same drug as defined by the FDA or if our product is determined to be contained within the competitor's product for the same indication or disease. We obtained orphan drug designation for CA4P for the treatment of anaplastic thyroid cancer and ovarian cancer, and we intend to file for orphan drug designation for other diseases that meet the criteria for orphan designation. There is no guarantee that we will be awarded orphan exclusivity for any other products or indications. In addition, obtaining FDA approval to market a product with orphan drug exclusivity may not provide us with a material commercial advantage.

Post-approval Requirements

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory standards is not maintained or if problems occur after the product reaches the market. After approval, some types of

changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further FDA review and approval. In addition, the FDA may require testing and surveillance programs to monitor the effect of approved products that have been commercialized, and the FDA has the power to prevent or limit further marketing of a product based on the results of these post-marketing programs.

Any drug products manufactured or distributed by us pursuant to FDA approvals are subject to continuing regulation by the FDA, including, among other things, record-keeping requirements, reporting of adverse experiences with the drug, providing FDA with updated safety and efficacy information, drug sampling and distribution requirements, notifying the FDA and gaining its approval of certain manufacturing or labeling changes, complying with certain electronic records and signature requirements, and complying with FDA promotion and advertising requirements. Drug manufacturers and their subcontractors are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP and other laws.

We rely, and expect to continue to rely, on third parties for the production of clinical and commercial quantities of our products. Future FDA and state inspections may identify compliance issues at the facilities of our contract manufacturers that may disrupt production or distribution, or require substantial resources to correct.

From time to time, legislation is drafted, introduced and passed in Congress that could significantly change the statutory provisions governing the approval, manufacturing and marketing of products regulated by the FDA. In addition, FDA regulations and guidance are often revised or reinterpreted by the agency in ways that may significantly affect our business and our products. It is impossible to predict whether legislative changes will be enacted, or FDA regulations, guidance or interpretations changed or what the impact of such changes, if any, may be.

Foreign Regulation

In addition to regulations in the United States, we will be subject to a variety of foreign regulations governing clinical trials and commercial sales and distribution of our products. Whether or not we obtain FDA approval for a product, we must obtain approval of a product by the comparable regulatory authorities of foreign countries before we can commence clinical trials or marketing of the product in those countries. The approval process varies from country to country and the time may be longer or shorter than that required for FDA approval. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement can vary greatly from country to country. However, the United States, European Union and Japan are gradually bringing their top level requirements for establishing safety, quality and efficacy of pharmaceuticals into broad agreement under the International Conference on Harmonisation (ICH).

Under European Union regulatory systems, we may submit marketing authorization applications either under a centralized or decentralized procedure. The centralized procedure, which is compulsory for medicines produced by certain biotechnological processes and optional for those which are highly innovative, provides for the grant of a single marketing authorization that is valid for all European Union Member States. For drugs without approval in any Member State, the decentralized procedure provides for recognition by individual Member States of the marketing authorization granted by one Member State, known as the Reference Member State (RMS). Under this procedure, an applicant submits an application, or dossier, to the RMS, and after receiving its approval submits an updated dossier and an assessment report prepared by the RMS to other Member States in which the applicant is seeking licensure. Within 90 days of receiving the updated dossier and the assessment report, each other Member State must decide whether to recognize the assessment report. If a Member State does not recognize the assessment report, the disputed points may eventually be referred to the European Commission, whose decision is binding on all Member States.

Reimbursement

Sales of pharmaceutical products depend in significant part on the availability of third-party reimbursement. We anticipate third-party payors will provide reimbursement for our products. It is time consuming and

expensive for us to seek reimbursement from third-party payors. Reimbursement may not be available or sufficient to allow us to sell our products on a competitive and profitable basis.

The passage of the Medicare Prescription Drug and Modernization Act of 2003, or the MMA, imposes new requirements for the distribution and pricing of prescription drugs for Medicare beneficiaries, which may affect the marketing of our products. The MMA also introduced a new reimbursement methodology, part of which went into effect in 2004. At this point, it is not clear what effect the MMA will have on the prices paid for currently approved drugs and the pricing options for new drugs approved after January 1, 2006. Moreover, while the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own payment rates. Any reduction in payment that results from the MMA may result in a similar reduction in payments from non-governmental payors.

In addition, in some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, the European Union provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A member state may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market.

We expect that there will continue to be a number of federal and state proposals to implement governmental pricing controls. While we cannot predict whether such legislative or regulatory proposals will be adopted, the adoption of such proposals could have a material adverse effect on our business, financial condition and profitability.

RESEARCH AND DEVELOPMENT AND COLLABORATIVE ARRANGEMENTS

The Company's strategy is to develop innovative therapeutics for oncology and to leverage its technology in the field of ophthalmology. The principal focus of the Company, in the foreseeable future, is to complete the clinical development of its compounds CA4P and OXi4503 and to identify new preclinical candidates that are complementary to our VDAs and OQPs. To advance its strategy, the Company has established relationships with universities, research organizations and other institutions in these fields. The Company intends to broaden these relationships, rather than expand its in-house research and development staff. In general, these programs are created, developed and controlled by internal Company management. Currently, the Company has collaborative agreements and arrangements with a number of institutions in the United States and abroad, which it utilizes to perform the day-to-day activities associated with drug development. In 2006, collaborations were ongoing with a variety of university and research institutions, including the following:

- Gray Cancer Institute, Middlesex, United Kingdom;
- Baylor University, Waco, Texas;
- Arizona State University, Tempe, Arizona;
- The University of Texas MD Anderson Cancer Center, Houston, Texas; and
- Beth Israel Deaconess Medical Center, Boston, Massachusetts.

The Company has secured a technology license from Arizona State University, or ASU. The ASU license is an exclusive, world-wide, royalty-bearing license with respect to the commercial rights to particular Combretastatins. Under the ASU license, the Company has the right to grant sublicenses. ASU is entitled to royalty and milestone payments under the license agreement. The Company bears the costs of preparing, filing, prosecuting and maintaining all patent applications under the ASU license. Under the license agreement, the Company has agreed to diligently proceed with the development, manufacture and sale of products using the licensed technology. ASU has the first responsibility of enforcing patents under the license agreement. Either party may terminate the license agreement upon material default or bankruptcy of the other party. Payments made to ASU to date have amounted to $2,400,000. The agreement is to terminate on December 31,

2014 or within two months of receipt of written notice of termination from the Company. Currently, the Company is in compliance with the license.

The Company also has a license from Baylor University. The Baylor license is an exclusive license to all novel compositions developed for the treatment of vascular disorders, inflammation, parasitic diseases and infections, fungal diseases and infections and/or cancer. The Company has the right to grant sublicenses under the Baylor license. The agreement with Baylor stipulates that royalties will be paid by OXiGENE should sales be generated through use of Baylor's compounds. The Company is not required to pay Baylor for use of Baylor's compounds aside from this royalty arrangement. The Company is entitled to file, prosecute and maintain patent applications on products for which it has a license. The Company had made a one-time payment of $50,000 for the licensing fee that was used as a credit against research expenses generated by Baylor. The agreement will terminate on June 1, 2009 or within 90 days of written notice of material breach of the agreement by either party. Currently, the Company is in compliance with the Baylor license.

In May 2003, Cancer Research UK agreed to complete specified pre-clinical studies on OXi4503 and to then move the compound into Phase I human clinical trials. Cancer Research UK is Europe's leading cancer charity, dedicated to curing, treating and preventing the disease through world-class research. The charity relies almost entirely on voluntary donations from the public to fund the vital work of its 3,000 scientists, doctors and nurses.

Unless and until the Company enters into any new material collaborations, with respect to CA4P and/or the related Combretastatin family of compounds, the Company intends to advance its potential product candidates through the next stages of clinical trials and development independently.

PATENTS AND TRADE SECRETS

To date, OXiGENE's principal products have been based on certain previously known compounds. The Company anticipates that any products it develops hereafter may include or be based on the same or other compounds owned or produced by unaffiliated parties, as well as synthetic compounds it may discover. Although the Company expects to seek patent protection for any compounds it discovers, there is no assurance that any or all of them will be subject to effective patent protection. Further, the development of regimens for the administration of pharmaceuticals, which generally involve specifications for the frequency, timing and amount of dosages, has been, and the Company believes will continue to be, important to the Company's development efforts, although those processes, as such, may not be patentable.

Patent Protection. It is the Company's policy to seek patent protection in the United States and in foreign countries. Primarily because of different patent laws in various jurisdictions, the scope of, and hence the protection afforded by, any patents OXiGENE may receive may vary even though they relate essentially to the same subject matter.

The patent position of firms in the Company's industry generally involves highly complex legal and other issues, resulting in both an apparent inconsistency regarding the breadth of claims allowed in United States patents and general uncertainty as to their legal interpretation and enforceability. Accordingly, there can be no assurance that patent applications owned by the Company will result in patents being issued or that, if issued, the patents will afford competitive protection.

Further, there can be no assurance that products or processes developed by the Company will not be covered by third party patents, in which case continued development and marketing of those products or processes could require a license under such patents. There can be no assurance that if a legal action were to be brought against the Company on the basis of any third party patents, such action would be resolved in the Company's favor. An unfavorable finding against the Company could result in monetary damages and injunctive relief. Further, even a favorable result could cause expenditure of substantial monetary and other resources in connection with the Company's defense against any such action.

Granted Patents and Pending Applications. The following is a brief description of the Company's current patent position, both in the United States and abroad. As United States patent applications are generally maintained in secrecy by the United States Patent and Trademark Office for at least some time after

filing and because publication of discoveries in the scientific or patent literature often lags behind actual discoveries, OXiGENE cannot be certain that it was the first creator of inventions covered by its pending applications or that it was the first to file patent applications for those inventions.

The Company has exclusive rights in thirty-one (31) granted United States patents, twenty-four (24) pending United States patent applications, and granted patents and/or pending applications in several other major markets, including the European Union, Canada and Japan.

The following table summarizes the Company's United States patent portfolio by the number of patents that have been granted or that are currently pending for each of its product lines:

OXiGENE's United States Patent Portfolio

	Patents Pending	Patents Granted
Product Line		
Combretastatins	14	16
Baylor VDA Compounds	9	7
Benzamides, Nicotinamides, & Cordycepins	1	7
Diagnostic	0	1
Total	24	31

The following table summarizes the United States patent number, applicable expiration date, holder of patent and importance of the Company's material patents:

Title of Patent	U.S. PatentNo.	Date of Expiration	Holder of Patent	Importance
Combretastatin A-4	4,996,237	February 26, 2008	Arizona State University	Provides composition-of-matter protection for the active, tubulin-binding parent compound of the prodrug CA4P, as well as protection for methods-of-use for treatment of cancer. CA4 is generated in the body following administration of CA4P, which is the Company's most advanced product.
Combretastatin A-4 Prodrug	5,561,122	December 22, 2014	Arizona State University	Provides composition-of-matter protection for the Company's lead VDA compound, CA4P. Claims were also granted for methods of using CA4P for the treatment of cancer.
Isolation, Structural Elucidation, and Synthesis of novel Antineoplastic Agents termed "Combretastatins"	5,569,786	October 29, 2013	Arizona State University	Provides composition-of-matter protection for several Combretastatins, including CA1, which is the active, tubulin-binding compound of OXi4503, the Company's most advanced second generation compound.

Title of Patent	U.S. PatentNo.	Date of Expiration	Holder of Patent	Importance
Isolation, Structural Elucidation, and Synthesis of novel Antineoplastic Agents termed "Combretastatins"	5,409,953	April 25, 2012	Arizona State University	Provides methods of using Combretastins, including CA1, for the treatment of cancerous cells. CA1 is the active, tubulin-binding parent compound of OXi4503, the Company's most advanced second generation compound.
Compositions and Methods for Use in Targeting Vascular Destruction	6,538,038	February 16, 2020	OXiGENE, Inc.	Provides methods of using phosphate prodrugs of tubulin-binding compounds, including CA4P and OXi4503, to selectively target the proliferating vasculature of cancers, proliferative retinopathies, and other diseases characterized by the presence of unwanted neovascularization.
Combretastatin A-4 Phosphate Prodrug Mono- and Di-Organic Amine Salts, Mono- and Di-Amino Acid Salts, and Mono- and D-Amino Acid Ester Salts	6,670,344	September 11, 2021	Bristol-Myers Squibb Company	Provides novel Tromethamine (''TRIS") and Histidine salt forms of CA4P along with methods for their use and manufacture. The preferred TRIS salt composition provides enhanced formulation properties over the Disodium salt of CA4P.
Efficient Method of Synthesizing Combretastatin A-4 Prodrugs	6,743,937	July 17, 2021	OXiGENE, Inc.	Provides methods of synthesizing combretastatin A4 phosphate esters, prodrugs and *trans*-isomers thereof.
Use of combretastatin A4 and its prodrugs as an immune enhancing therapy	6,773,702	December 26, 2021	OXiGENE, Inc. and Bristol-Myers Squibb Company	Provides treatment methods for counteracting tumor-induced immunosuppression (e.g., during conventional immunotherapy) that avoid vascular destruction by administering combretastatin A4 or prodrugs thereof.
Combretastatin A-4 Phosphate Prodrug Mono- and Di-Organic Amine Salts, Mono- and Di-Amino Acid Salts, and Mono- and	6,855,702	September 11, 2021	Bristol-Myers Squibb Company	Provides optionally substituted aliphatic organic amine forms of CA4P, and pharmaceutical compositions

D-Amino Acid Ester Salts				comprising such compounds.
Synthesis of Combretastatin A-4 Prodrugs and Trans-Isomers thereof	7,018,987	January 8, 2019	Arizona State University	Provides methods for synthesizing combretastatin A-4 phosphate esters and trans-isomers thereof. Provides novel salt forms of CA4P along with methods for their use and manufacture.

Title of Patent	U.S. PatentNo.	Date of Expiration	Holder of Patent	Importance
Methods for Modulating Tumor Growth and Metastasis	7,037,906	December 20, 2021	OXiGENE, Inc. / Bristol-Myers Squibb Company	Provides methods for modulating tumor growth or metastasis in a subject by administering a combination comprising CA4P and Paclitaxel.
Combretastatin A-1 Phosphate and Combretastatin B-1 Phosphate Prodrugs	7,078,552	September 1, 2021	Arizona State University	Provides composition-of-matter, method-of-use, and method-of-synthesis protection for OXI4503 (CA1P), the Company's most advanced second generation compound, as well as related compounds.

Combretastatins. The Company's core Combretastatin technology platform is covered by a mix of existing and pending patents. The Company has exclusive rights in sixteen (16) issued United States patents, fourteen (14) pending United States patent applications, and granted patents and/or pending applications in other countries corresponding to the majority of the granted United States patents, all of which relate to Combretastatin compositions and/or methods of use in treating cancer or other angiogenic diseases. For the in-licensed patents and applications, the owners of record are the Arizona Board of Regents, a corporate body of the State of Arizona, acting for and on behalf of ASU, Angiogene Pharmaceuticals, and Bristol Myers Squibb Company.

Baylor VDA Compounds. The Company has maintained exclusive patent rights to a number of tubulin-binding agents that have potential for future development as VDAs. These compounds are functionally related but structurally distinct from Combretastatin, and are covered by seven (7) issued United States patents and nine (9) pending United States patent applications. Ownership of the licensed patents and patent applications is assigned to Baylor University. OXiGENE is a co-assignee of pending patent applications in this area.

Three patents issued in 2005 relating to the Baylor VDA compounds, including United States Patent Nos. 6,849,656; 6,919,324; and 6,956,054. The Company filed three additional United States applications in 2005, all of which relate to Baylor VDA compounds.

COMPETITION

The industry in which the Company is engaged is characterized by rapidly evolving technology and intense competition. The Company's competitors include, among others, major pharmaceutical, biopharmaceutical and biotechnology companies, many of which have financial, technical and marketing resources significantly greater than those of the Company. In addition, many of the small companies that compete with the Company have also formed collaborative relationships with large, established companies to support research, development, clinical trials and commercialization of products that may be competitive with those of the Company. Academic institutions, governmental agencies and other public and private research organizations are also conducting research activities and seeking patent protection and may commercialize products on their own or through joint ventures or other collaborations.

The Company is aware of a limited number of companies involved in the development of VDAs. Such companies include AstraZeneca, sanofi-aventis, Antisoma, Nereus and MediciNova, all of which have VDAs that management believes are at an earlier stage of clinical development than the Company's lead compound, CA4P.

The Company is aware of a number of companies engaged in the research, development and testing of new cancer therapies or ways of increasing the effectiveness of existing therapies. Such companies include, among others, AstraZeneca, sanofi-aventis, Bayer, Bristol-Myers Squibb, Abbott Laboratories, Inc., Aeterna Laboratories Inc., Eli Lilly and Company, EntreMed Inc., Genentech, GlaxoSmithKline, Johnson & Johnson, Millennium, NeoPharm, Inc., Novartis AG, Pharmacyclics, Inc., Pfizer Inc., and Pierre Fabre S.A., some of

whose products have already received, or are in the process of receiving, regulatory approval or are in later-stages of clinical trials.

There can be no assurance that the Company's competitors will not succeed in developing technologies and products that are more effective, safer or more affordable than those being developed by the Company.

The Company expects that, if any of its products gain regulatory approval for sale, they will compete primarily on the basis of product efficacy, safety, patient convenience, reliability, price and patent protection. The Company's competitive position will also depend on its ability to attract and retain qualified scientific and other personnel, develop effective proprietary products and implement joint ventures or other alliances with large pharmaceutical companies in order to jointly market and manufacture its products.

EMPLOYEES

The Company expects to maintain a relatively small number of executives and other employees. OXiGENE relies as much as possible on consultants and independent contractors for its research, development, pre-clinical testing and clinical trials. As of February 16, 2007 the Company had twenty-two (22) full-time employees, of which fourteen (14) were engaged in research and development and monitoring of clinical trials. Most of the Company's pre-clinical testing and clinical trials are subcontracted and performed at universities in the United States and Europe with the assistance of contract research organizations.

SCIENTIFIC ADVISORY BOARD AND CLINICAL TRIAL ADVISORY BOARD

OXiGENE's Clinical Trial Advisory Board assesses and evaluates the Company's clinical trial program. The Scientific Advisory Board discusses and evaluates the Company's research and development projects. Members of the Clinical Trial Advisory Board and the Scientific Advisory Board are independent and have no involvement with the Company other than serving on such boards. From time to time, however, the institutions or organizations these individuals are associated with may provide the Company with services.

Some members of the Scientific Advisory Board and the Clinical Trial Advisory Board receive cash compensation. Others have from time to time received, and are expected to continue to receive, options to purchase shares of common stock of the Company. All members are reimbursed for reasonable out-of-pocket expenses incurred in connection with serving on such boards.

The members of the Company's Scientific Advisory Board are:

ADRIAN L. HARRIS, M.D. is Cancer Research UK Professor of Clinical Oncology at the University of Oxford, and Director of the Cancer Research UK Molecular Oncology Laboratories at the University's Weatherall Institute of Molecular Medicine. He is involved in clinical trials of anti-angiogenesis therapy, signal blockade inhibitors and immunotherapy. His clinical research interests include breast cancer, melanoma, and renal cancer.

ROBERT S. KERBEL, Ph.D. is an internationally recognized tumor biologist known for his studies in cancer metastasis, drug resistance and tumor angiogenesis. He is a Canada Research Chair in Molecular Medicine and a Professor in the Departments of Medical Biophysics, and Laboratory Medicine & Pathobiology at the University of Toronto. Dr. Kerbel is a Senior Scientist in Molecular and Cell Biology Research, which he directed from 1991-2002, at the Sunnybrook and Women's College Health Sciences Centre in Toronto. He is the author of more than 250 scientific papers and the recipient of numerous scientific awards. Dr. Kerbel serves on the editorial boards of seven scientific journals, including Cancer Research, Clinical Cancer Research, American Journal of Pathology, Cell Cycle, Molecular Cancer Research and Angiogenesis. He was Editor-in-Chief of Cancer & Metastasis Reviews from 1991 to 2001.

DIETMAR W. SIEMANN, Ph.D. (Chairman) is the John P. Cofrin Professor and Associate Chair for Research in Radiation Oncology at the University of Florida College of Medicine in Gainesville. In addition, he is a Professor in the school's Department of Pharmacology and Therapeutics. Dr. Siemann has authored more than 150 scientific papers and is the recipient of numerous scientific awards, including

the Research Award of the Radiation Research Society in Oak Brook, Illinois (1990). He is the former Chairman of the National Cancer Institute's Radiation Study Section (1996-1998).

The members of the Company's Clinical Trial Advisory Board are:

HILARY CALVERT, MB, BChir, is the Clinical Director of the Northern Institute for Cancer Research and Professor of Medical Oncology at the University of Newcastle upon Tyne, England. His training is in Medicine, Mathematics and Biochemistry. He has had a long involvement in anticancer drug development starting while he was working at the Institute for Cancer Research / Royal Marsden Hospital in London. Since 1989 he has worked in the University of Newcastle at Tyne and has implemented a program of drug development, aimed at using the molecular pathology of human cancers to define targets, developing drugs aimed at those targets and performing preclinical and early clinical studies. In 2005 he was awarded the Pfizer Research Innovation Award for his work on developing new anticancer drugs.

JEFFREY S. HEIER, M.D. is a Vitreoretinal Specialist at Ophthalmic Consultants of Boston, Co-Director of the Vitreoretinal Fellowship at OCB/Tufts Medical School, and President of the Center for Eye Research and Education in Boston, Massachusetts. Dr. Heier's academic appointments include an instructorship in ophthalmology at Tufts University School of Medicine and Harvard University Medical School, both in Boston. Dr. Heier received a medical degree from Boston University School of Medicine in Massachusetts, and subsequently completed a transitional internship, ophthalmic residency, and vitreoretinal fellowship at Fitzsimons Army Medical Center. Additional postgraduate training includes a vitreoretinal fellowship completed at Ophthalmic Consultants of Boston/Tufts University School of Medicine. Dr. Heier's research interests are focused on age-related macular degeneration (ARMD), diabetic retinopathy, and innovation in vitreoretinal surgical instrumentation: areas he has pursued as lead or principal investigator in numerous clinical trials.

STANLEY KAYE, M.D., BSc, Professor Kaye is currently Head of the Drug Development Unit and Head of the Section of Medicine at the Royal Marsden Hospital/Institute of Cancer Research, London. Until recently he was also Head of the Gynaecology Unit at the Royal Marsden Hospital. He is now responsible for one of the world's largest Phase I Units, incorporating 10 in-patient and 5 outpatient beds, over 40 staff and over 20 current new drug trials. Between 150 and 200 patients per year now enter Phase I trials in the Unit. He is the author of over 300 peer reviewed papers, he sits on the Editorial Board of 12 cancer journals, and has held various national and international responsibilities, most notably in Cancer Research UK for which he currently chairs the Clinical and Translational Research Committee.

HAKAN MELLSTEDT, M.D., Ph.D. (Chairman) is Professor of Oncologic Biotherapy at the Karolinska Institute and Managing Director of Cancer Center Karolinska, Karolinska Institute, Stockholm, Sweden. He holds a position as Chief Physician at the Department of Oncology (Radiumhemmet), Karolinska Hospital, Stockholm, and has specialist certificates in Oncology, Hematology and Internal Medicine. He is a Member of the Board of Directors of ESMO (European Society for Medical Oncology) and a Member of ESMO's Executive Committee. Professor Mellstedt is currently a member of the Editorial Board of several international scientific journals and has published more than 450 articles in the areas of hematology and has made contributions to Biomolecular Technologies.

LEE S. ROSEN, M.D. is the Director of Developmental Therapeutics for the Cancer Institute Medical Group, affiliated with the John Wayne Cancer Institute in Santa Monica. He is the former Adjunct Assistant Professor at UCLA's Department of Medicine, Division of Hematology-Oncology and served as Director of UCLA's Cancer Therapy Development Program from 1996-2002. Dr. Rosen serves as the principal investigator for many Phase I and II clinical trials, focusing on novel agents in general and the angiogenesis inhibitors in particular.

GORDON RUSTIN, M.D. is the Director of Medical Oncology at Mount Vernon Hospital, which is the largest cancer center in the South of England. He has published widely on management of gynecological cancers and germ cell tumors and the use of tumor markers. He has developed response criteria on CA125, which are now increasingly used in Phase II trials of ovarian cancer. He has recently

been the principal investigator of two trials of vascular targeting agents, as well as several trials in ovarian cancer. He was awarded an Honorary Professorship by University College London in March 2001.

JAN B. VERMORKEN, M.D., Ph.D. is a professor of Oncology and head of the Department of Medical Oncology of the University Hospital of the University of Antwerp, Belgium. Professor Vermorken has held numerous functions with the Dutch Cancer Society and the European Organization for Research on Treatment of Cancer (EORTC). He is a member of several EORTC study groups and presently is Secretary of the EORTC Head and Neck Cancer Group. Professor Vermorken has lectured extensively in the area of gynecological oncology and head and neck cancer, and currently serves on the editorial boards of several international journals.

ITEM 1A. *RISK FACTORS*

Statements in this Annual Report under the captions "Business" and "Management's Discussion and Analysis of Financial Condition and Results of Operation," as well as oral statements that may be made by the Company or by officers, directors or employees of the Company acting on the Company's behalf, that are not historical fact constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements involve known and unknown risks, uncertainties and other factors that could cause the actual results of the Company to be materially different from the historical results or from any results expressed or implied by such forward-looking statements. Such factors include, but are not limited to, the risk factors set forth below.

The Company does not intend to update any forward-looking statements to reflect events or circumstances after the date of such statements or to reflect the occurrence of anticipated or unanticipated events.

We have a history of losses and we anticipate that we will continue to incur losses in the future.

We have experienced net losses every year since our inception and, as of December 31, 2006, had an accumulated deficit of approximately $117,412,000. We anticipate incurring substantial additional losses over at least the next several years due to, among other factors, the need to expend substantial amounts on our continuing clinical trials with respect to our VDA and OQP technologies, and anticipated research and development activities and the general and administrative expenses associated with those activities. We have not commercially introduced any product and our potential products are in varying early stages of development and testing. Our ability to attain profitability will depend upon our ability to develop products that are effective and commercially viable, to obtain regulatory approval for the manufacture and sale of our products and to license or otherwise market our products successfully. We may never achieve profitability, and even if we do, we may not be able to sustain being profitable.

Our products have not completed clinical trials, and may never demonstrate sufficient safety and efficacy in order to do so.

Our products are in an early stage of development. In order to achieve profitable operations, we, alone or in collaboration with others, must successfully develop, manufacture, introduce and market our products. The time frame necessary to achieve market success for any individual product is long and uncertain. The products currently under development by us will require significant additional research and development and extensive preclinical and clinical testing prior to application for commercial use. A number of companies in the biotechnology and pharmaceutical industries have suffered significant setbacks in clinical trials, even after showing promising results in early or later-stage studies or clinical trials. Although we have obtained some favorable results to date in preclinical studies and clinical trials of certain of our potential products, such results may not be indicative of results that will ultimately be obtained in or throughout such clinical trials, and clinical trials may not show any of our products to be safe or capable of producing a desired result. Additionally, we may encounter problems in our clinical trials that will cause us to delay, suspend or terminate those clinical trials. Further, our research or product development efforts or those of our collaborative partners may not be successfully completed, any compounds currently under development by us may not be successfully developed into drugs, any potential products may not receive regulatory approval on a timely

basis, if at all, and competitors may develop and bring to market products or technologies that render our potential products obsolete. If any of these problems occur, our business would be materially and adversely affected.

We have no manufacturing capacity, and we have relied and expect to continue to rely on third-party manufacturers to produce our product candidates.

We do not own or operate manufacturing facilities for the production of clinical or commercial quantities of our product candidates or any of the compounds that we are testing in our preclinical programs, and we lack the resources and the capabilities to do so. As a result, we currently rely, and we expect to rely in the future, on third-party manufacturers to supply our product candidates. Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured product candidates or products ourselves, including:

- reliance on the third party for manufacturing process development, regulatory compliance and quality assurance;
- limitations on supply availability resulting from capacity and scheduling constraints of the third party;
- The possible breach of the manufacturing agreement by the third party because of factors beyond our control; and
- The possible termination or non-renewal of the agreement by the third party, based on its own business priorities, at a time that is costly or inconvenient for us.

If we do not maintain or develop important manufacturing relationships, we may fail to find replacement manufacturers or develop our own manufacturing capabilities which could delay or impair our ability to obtain regulatory approval for our products and substantially increase our costs or deplete profit margins, if any. If we do find replacement manufacturers, we may not be able to enter into agreements with them on terms and conditions favorable to us, and there could be a substantial delay before new facilities could be qualified and registered with the FDA and foreign regulatory authorities.

The FDA and foreign regulatory authorities require manufacturers to register manufacturing facilities. The FDA and corresponding foreign regulators also inspect these facilities to confirm compliance with current good manufacturing practices, or cGMPs. Contract manufacturers may face manufacturing or quality control problems causing drug substance production and shipment delays or a situation where the contractor may not be able to maintain compliance with the applicable cGMP requirements. Any failure to comply with cGMP requirements or other FDA and comparable foreign regulatory requirements could adversely affect our clinical research activities and our ability to develop our product candidates and market our products after approval.

Our current and anticipated future dependence upon others for the manufacture of our product candidates may adversely affect our future profit margins and our ability to develop our product candidates and commercialize any products that receive regulatory approval on a timely basis.

We may fail to select or capitalize on the most scientifically, clinically or commercially promising or profitable indications or therapeutic areas for our product candidates or those that we in-license.

We have limited technical, managerial and financial resources to determine the indications on which we should focus the development efforts related to our product candidates. We may make incorrect determinations. Our decisions to allocate our research, management and financial resources toward particular indications or therapeutic areas for our product candidates may not lead to the development of viable commercial products and may divert resources from better opportunities. Similarly, our decisions to delay or terminate drug development programs may also be incorrect and could cause us to miss valuable opportunities. In addition, from time to time we may in-license or otherwise acquire product candidates to supplement our internal development activities. Those activities may use resources that otherwise would be devoted to our internal programs. We cannot assure you that any resources that we devote to acquired or in-licensed programs will result in any products that are superior to our internally developed products.

If third parties on which we rely for clinical trials do not perform as contractually required or as we expect, we may not be able to obtain regulatory approval for or commercialize our product candidates.

We do not have the ability to independently conduct the clinical trials required to obtain regulatory approval for our product candidates. We depend on independent clinical investigators and, in some cases, contract research organizations and other third-party service providers to conduct the clinical trials of our product candidates and expect to continue to do so. We rely heavily on these parties for successful execution of our clinical trials and we do not control many aspects of their activities. Nonetheless, we are responsible for confirming that each of our clinical trials is conducted in accordance with its general investigational plan and protocol. Moreover, the FDA and corresponding foreign regulatory authorities require us to comply with regulations and standards, commonly referred to as good clinical practices, for conducting and recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the trial participants are adequately protected. Our reliance on third parties that we do not control does not relieve us of these responsibilities and requirements. Third parties may not complete activities on schedule or may not conduct our clinical trials in accordance with regulatory requirements or the respective trial plans and protocols. The failure of these third parties to carry out their obligations could delay or prevent the development, approval and commercialization of our product candidates or result in enforcement action against us.

We have licensed in rights to CA4P, OXi4503 and other programs from third parties. If our license agreements terminate, we may lose the licensed rights to our product candidates, including CA4P and OXi4503, and we may not be able to continue to develop them or, if they are approved, market or commercialize them.

We depend on license agreements with third parties for certain intellectual property rights relating to our product candidates, including patent rights. Currently, we have licensed in patent rights from ASU and the Bristol-Myers Squibb Company for CA4P and Oxi4503 and from Baylor University for other programs. In general, our license agreements require us to make payments and satisfy performance obligations in order to keep these agreements in effect and retain our rights under them. These payment obligations can include upfront fees, maintenance fees, milestones, royalties, patent prosecution expenses, and other fees. These performance obligations typically include diligence obligations. If we fail to pay, be diligent or otherwise perform as required under our license agreements, we could lose our rights under the patents and other intellectual property rights covered by the agreements. While we are not currently aware of any dispute with any licensors under our material agreements with them, if disputes arise under any of our in-licenses, including our in-licenses from ASU and the Bristol-Myers Squibb Company, and Baylor University, we could lose our rights under these agreements. Any such disputes may or may not be resolvable on favorable terms, or at all. Whether or not any disputes of this kind are favorably resolved, our management's time and attention and our other resources could be consumed by the need to attend to and seek to resolve these disputes and our business could be harmed by the emergence of such a dispute.

If we lose our rights under these agreements, we may not be able to conduct any further activities with the product candidate or program that the license covered. If this were to happen, we might not be able to develop our product candidates further, or following regulatory approval, if any, we might be prohibited from marketing or commercializing them. In particular, patents previously licensed to us might after termination be used to stop us from conducting these activities.

We will be required to raise additional funds to finance our operations; we may not be able to do so when necessary, and/or the terms of any financings may not be advantageous to us.

Our operations to date have consumed substantial amounts of cash. Negative cash flow from our operations is expected to continue over at least the next several years. We do not currently have any commitments to raise additional capital by selling equity, issuing debt or entering into any collaboration that would provide material funding. Our actual capital requirements will depend on numerous factors, including: the progress of and results of our preclinical testing and clinical trials of our product candidates under development, including CA4P and OXi4503; the progress of our research and development programs; the time and costs expended and required to obtain any necessary or desired regulatory approvals; the resources, if any,

that we devote to developing manufacturing methods and advanced technologies; our ability to enter into licensing arrangements, including any unanticipated licensing arrangements that may be necessary to enable us to continue our development and clinical trial programs; the costs and expenses of filing, prosecuting and, if necessary, enforcing our patent claims, or defending against possible claims of infringement by us of third party patent or other technology rights; the cost of commercialization activities and arrangements, if any, undertaken by us; and, if and when approved, the demand for our products, which demand depends in turn on circumstances and uncertainties that cannot be fully known, understood or quantified unless and until the time of approval, including the range of indications for which any product is granted approval.

Under our current operating plan and capital budget, and based on our current cost expectations and levels of operations, we believe that our cash, cash equivalents and marketable securities will be sufficient to fund operations at least through the first half of fiscal 2008, including substantial advancement of currently ongoing clinical trials towards FDA approval of CA4P and OXi4503, our lead clinical-stage compounds. We cannot predict with any certainty the success of any clinical trials, whether or not FDA approval will ultimately be obtained, and if obtained, whether such approval will be conditioned or take longer than expected. Due to the numerous risks and uncertainties of the drug development and FDA approval process, we cannot guarantee that our current cash, cash equivalents and capital will be sufficient to fund operations for the full time period described above. If our existing funds are not sufficient, we would be required to seek additional funding and/or take other measures to reduce expenses.

In addition, we will likely have to raise substantial additional funds: if FDA approval is obtained with respect to our CA4P and OXi4503 compounds, to bring such compounds to market, including arranging for or developing manufacturing capabilities and completing marketing and other commercialization activities related to CA4P and OXi4503; to complete the development of any additional products other than the development and FDA approval process related to CA4P and OXi4503; and to bring any other potential product to market. The issuance of additional equity securities by us, if required to support these or any other purposes, would result in dilution to our existing stockholders. Additional financing may not be available on acceptable terms when needed, if at all. If adequate funds are not available on acceptable terms when needed, we would be required to delay, scale back or eliminate one or more of our product development programs or seek to obtain funds through arrangements with collaborative partners or others, which arrangements may include a requirement that we relinquish rights to certain of our technologies or products or rights related to our technologies or products that we would not otherwise relinquish. Our failure to obtain funding when and in the amounts needed and/or our acceptance of funding on terms that are not favorable to us or less favorable to us than we would ordinarily desire, would have a material adverse effect on our financial position and results of operations.

Our products are subject to extensive government regulation, which results in uncertainties and delays in the progress of our products through the clinical trial process.

Our research and development activities, preclinical testing and clinical trials, and the manufacturing and marketing of our products are subject to extensive regulation by numerous governmental authorities in the United States and other countries. Preclinical testing and clinical trials and manufacturing and marketing of our products are and will continue to be subject to the rigorous testing and approval processes of the FDA and other corresponding foreign regulatory authorities. Clinical testing and the regulatory review process generally take many years and require the expenditure of substantial resources. In addition, delays or rejections may be encountered during the period of product development, clinical testing and FDA regulatory review of each submitted application. Similar delays may also be encountered in foreign countries. Even after such time and expenditures, regulatory approval may not be obtained for any potential products developed by us, and a potential product, if approved in one country, may not be approved in other countries. Moreover, even if regulatory approval of a potential product is granted, such approval may impose significant limitations on the indicated uses for which that product may be marketed. Further, even if such regulatory approval is obtained, a marketed product, its manufacturer and its manufacturing facilities are subject to continual review and periodic inspections, and later discovery of previously unknown problems, such as undiscovered side effects, or manufacturing problems, may result in restrictions on such product, manufacturer or facility, including a

possible withdrawal of the product from the market. Failure to comply with the applicable regulatory requirements can, among other things, result in fines, suspensions of regulatory approvals, product recalls, operating restrictions, injunctions and criminal prosecution. Moreover, continued cost control initiatives by third party health care payers, including government programs such as Medicare may affect the financial ability and willingness of patients and their health care providers to utilize certain therapies which, in turn, could have a material adverse effect on us.

The uncertainty associated with pharmaceutical reimbursement and related matters may adversely affect our business.

Upon the marketing approval of any one or more of our products, if at all, sales of our products will depend significantly on the extent to which reimbursement for our products and related treatments will be available from government health programs, private health insurers and other third party payers. Third party payers and governmental health programs are increasingly attempting to limit and/or regulate the price of medical products and services. The Medicare Prescription Drug Improvement and Modernization Act, as well as other changes in governmental or in private third-party payers' reimbursement policies may reduce or eliminate any currently expected reimbursement. Decreases in third-party reimbursement for our products could reduce physician usage of the product and have a material adverse effect on our product sales, results of operations and financial condition.

Our industry is highly competitive, and our products may become technologically obsolete.

We are engaged in a rapidly evolving field. Competition from other pharmaceutical companies, biotechnology companies and research and academic institutions is intense and expected to increase. Many of those companies and institutions have substantially greater financial, technical and human resources than we do. Those companies and institutions also have substantially greater experience in developing products, in conducting clinical trials, in obtaining regulatory approval and in manufacturing and marketing pharmaceutical products. Our competitors may succeed in obtaining regulatory approval for their products more rapidly than we do. Competitors have developed or are in the process of developing technologies that are, or in the future may be, the basis for competitive products. We are aware of at least one other company that currently has a clinical-stage VDA for use in an oncology indication. Some of these competitive products may have an entirely different approach or means of accomplishing the desired therapeutic effect than products being developed by us. Our competitors may succeed in developing technologies and products that are more effective and/or cost competitive than those being developed by us, or that would render our technology and products less competitive or even obsolete. In addition, one or more of our competitors may achieve product commercialization or patent protection earlier than we do, which could materially adversely affect us.

We depend extensively on our patents and proprietary technology, and we must protect those assets in order to preserve our business.

To date, our principal product candidates have been based on certain previously known compounds. We anticipate that the products we develop in the future may include or be based on the same or other compounds owned or produced by unaffiliated parties, as well as synthetic compounds we may discover. Although we expect to seek patent protection for any compounds we discover and/or for any specific uses we discover for new or previously known compounds, any or all of them may not be subject to effective patent protection. Further, the development of regimens for the administration of pharmaceuticals, which generally involve specifications for the frequency, timing and amount of dosages, has been, and we believe, may continue to be, important to our efforts, although those processes, as such, may not be patentable. In addition, the issued patents may be declared invalid or our competitors may find ways to avoid the claims in the patents.

Our success will depend, in part, on our ability to obtain patents, protect our trade secrets and operate without infringing on the proprietary rights of others. As of December 31, 2006, we were the holder, sole assignee or co-assignee of thirty one (31) granted United States patents, twenty four (24) pending United States patent applications, and granted patents and/or pending applications in several other major markets, including the European Union, Canada and Japan. The patent position of pharmaceutical and biotechnology firms like us

generally is highly uncertain and involves complex legal and factual questions, resulting in both an apparent inconsistency regarding the breadth of claims allowed in United States patents and general uncertainty as to their legal interpretation and enforceability. Accordingly, patent applications assigned or exclusively licensed to us may not result in patents being issued, any issued patents assigned or exclusively licensed to us may not provide us with competitive protection or may be challenged by others, and the current or future granted patents of others may have an adverse effect on our ability to do business and achieve profitability. Moreover, since some of the basic research relating to one or more of our patent applications and/or patents was performed at various universities and/or funded by grants, one or more universities, employees of such universities and/or grantors could assert that they have certain rights in such research and any resulting products. Further, others may independently develop similar products, may duplicate our products, or may design around our patent rights. In addition, as a result of the assertion of rights by a third party or otherwise, we may be required to obtain licenses to patents or other proprietary rights of others in or outside of the United States. Any licenses required under any such patents or proprietary rights may not be made available on terms acceptable to us, if at all. If we do not obtain such licenses, we could encounter delays in product market introductions while we attempt to design around such patents or could find that the development, manufacture or sale of products requiring such licenses is foreclosed. In addition, we could incur substantial costs in defending ourselves in suits brought against us or in connection with patents to which we hold licenses or in bringing suit to protect our own patents against infringement.

We require employees, Scientific Advisory Board members, Clinical Trial Advisory Board Members, and the institutions that perform our preclinical and clinical tests to enter into confidentiality agreements with us. Those agreements provide that all confidential information developed or made known to the individual during the course of the relationship with us is to be kept confidential and not to be disclosed to third parties, except in specific circumstances. Any such agreement may not provide meaningful protection for our trade secrets or other confidential information in the event of unauthorized use or disclosure of such information.

We depend heavily on our executive officers, directors, and principal consultants and the loss of their services would materially harm our business.

We believe that our success depends, and will likely continue to depend, upon our ability to retain the services of our current executive officers, directors, principal consultants and others, particularly Joel-Tomas Citron, our Chairman of the Board, Dr. David Chaplin, our Executive Vice Chairman of the Board and Chief Scientific Officer, Dr. Richard Chin, our President and Chief Executive Officer and Peter Harris, our Chief Medical Officer. The loss of the services of any of these individuals could have a material adverse effect on us. In addition, we have established relationships with universities, hospitals and research institutions, which have historically provided, and continue to provide, us with access to research laboratories, clinical trials, facilities and patients. Additionally, we believe that we may, at any time and from time to time, materially depend on the services of consultants and other unaffiliated third parties.

Our products may result in product liability exposure, and it is uncertain whether our insurance coverage will be sufficient to cover any claims.

The use of our product candidates in clinical trials and for commercial applications, if any, may expose us to liability claims, in the event such product candidates cause injury or disease, or result in adverse effects. These claims could be made directly by health care institutions, contract laboratories, patients or others using such products. Although we have obtained liability insurance coverage for our ongoing clinical trials, this coverage may not be in amounts sufficient to protect us from any product liability claims or product recalls which could have a material adverse effect on the financial condition and prospects of our company. Further, adverse product and similar liability claims could negatively impact our ability to obtain or maintain regulatory approvals for our technology and product candidates under development.

The price of our common stock is volatile, and is likely to continue to fluctuate due to reasons beyond our control.

The market price of the common stock has been, and likely will continue to be highly volatile. Factors, including our or our competitors' financial results, clinical trial and research development announcements and government regulatory action affecting our potential products in both the United States and foreign countries, have had, and may continue to have, a significant effect on our results of operations and on the market price of our common stock. We cannot assure you that your initial investment in our common stock will not fluctuate significantly. One or more of these factors could significantly harm our business and cause a decline in the price of our common stock in the public market. Substantially all of the shares of our common stock issuable upon exercise of outstanding options have been registered for sale and may be sold from time to time hereafter. Such sales, as well as future sales of our common stock by existing stockholders, or the perception that sales could occur, could adversely affect the market price of our common stock. The price and liquidity of our common stock may also be significantly affected by trading activity and market factors related to the Nasdaq and Stockholm Stock Exchange markets, which factors and the resulting effects may differ between those markets.

Our restated certificate of incorporation, our shareholder rights agreement and Delaware law could defer a change of our management which could discourage or delay offers to acquire us.

Certain provisions of Delaware law and of our restated certificate of incorporation, as amended, and amended and restated by-laws could discourage or make it more difficult to accomplish a proxy contest or other change in our management or the acquisition of control by a holder of a substantial amount of our voting stock. It is possible that these provisions could make it more difficult to accomplish, or could deter, transactions that stockholders may otherwise consider to be in their best interests or the best interests of OXiGENE. Further, the rights issued under the shareholders rights agreement would cause substantial dilution to a person or group that attempts to acquire us on terms not approved in advance by our Board of Directors.

ITEM 1B. *UNRESOLVED STAFF COMMENTS*

None

ITEM 2. *PROPERTIES*

The Company's corporate headquarters is located in Waltham, Massachusetts where it leases a total of approximately 13,000 square feet of office space. The base term of the lease at the Waltham facility is five years and nine months, commencing on September 1, 2003 and expiring in May 2009. The Company continues to pay rent on its former headquarters location in Watertown, Massachusetts which it sublets. The primary lease on the Watertown facility expires in November 2010. The base term of the sublease on the Watertown facility expires in August 2008 and contains an option to extend the sublease for two years and two months from the expiration of the base term. The Company expects that either the current subtenant will exercise its option to extend the sublease or it will be able to find another suitable subtenant for the space for the remainder of the lease term. In September 2005, the Company executed a lease for approximately 600 square feet of office space in the Oxford Science Park, Oxford, United Kingdom. The lease is a month to month lease. The Oxford facility primarily houses research and development personnel. The Company does not own or lease any laboratories or other research and development facilities.

ITEM 3. *LEGAL PROCEEDINGS*

The Company is not a party to any litigation in any court, and management is not aware of any contemplated proceeding by any governmental authority against the Company.

ITEM 4. *SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS*

No matters were submitted to a vote of security holders of the Company during the fiscal quarter ended December 31, 2006.

PART II

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

The Company's common stock is traded on the Nasdaq Global Market under the symbol "OXGN." The Company's shares of common stock are also traded on the OM Stockholm Exchange in Sweden under the symbol "OXGN." The following table sets forth the high and low sales price per share for the Company's common stock on the Nasdaq Global Market for each quarterly period during the two most recent fiscal years.

	Fiscal Year 2006		Fiscal Year 2005	
	High	Low	High	Low
First Quarter	$ 4.70	$ 3.65	$ 6.12	$ 4.02
Second Quarter	4.83	3.31	5.22	3.63
Third Quarter	4.29	2.82	5.66	4.33
Fourth Quarter	$ 5.88	$ 3.72	$ 5.78	$ 3.89

On February 16, 2007, the closing price of the Company's common stock on the Nasdaq Global Market was $4.37 per share.

As of February 16, 2007, there were approximately 90 stockholders of record of the approximately 28,175,000 outstanding shares of the Company's common stock. The Company believes, based on the number of proxy statements and related materials distributed in connection with its 2006 Annual Meeting of Stockholders, that there are approximately 17,000 beneficial owners of its common stock.

The Company has not declared or paid any cash dividends on its common stock since its inception in 1988, and does not intend to pay cash dividends in the foreseeable future. The Company presently intends to retain future earnings, if any, to finance the growth and development of its business.

ITEM 6. ***SELECTED FINANCIAL DATA***

SUMMARY FINANCIAL INFORMATION

The following table sets forth consolidated financial data with respect to the Company for each of the five years in the period ended December 31, 2006. The selected financial data for each of the five years in the period ended December 31, 2006 has been derived from the audited consolidated financial statements of the Company, which financial statements have been audited by Ernst & Young LLP, independent registered public accounting firm. The information below should be read in conjunction with the consolidated financial statements (and notes thereto) and "Management's Discussion and Analysis of Financial Condition and Results of Operation," included in Item 7 of this Annual Report on Form 10-K.

	Years Ended December 31,				
	2002	2003	2004	2005	2006
	(Amounts in thousands, except per share amounts)				
STATEMENT OF OPERATIONS DATA:					
License revenue	$ —	$ 30	$ 7	$ 1	$ —
Operating costs and expenses:					
Research and development	5,201	4,036	5,947	7,098	10,816
General and administrative	7,438	5,282	4,540	5,951	7,100
Total operating costs and expenses	12,639	9,318	10,487	13,049	17,916
Operating loss	(12,639)	(9,288)	(10,480)	(13,048)	(17,916)
Investment income	335	321	470	1,135	2,502
Interest expense	(53)	(36)	—	—	—
Other income (expense), net	1,344	635	(14)	4	(43)
Net loss	$ (11,013)	$ (8,368)	$ (10,024)	$ (11,909)	$ (15,457)
Basic and diluted net loss per common share	(0.88)	(0.63)	(0.611)	(0.61)	(0.56)
Weighted average number of common shares outstanding	$ 12,514	$ 13,184	$ 16,560	$ 19,664	$ 27,626

	Years Ended December 31,				
	2002	2003	2004	2005	2006
	(Amounts in thousands)				
BALANCE SHEET DATA:					
Cash, cash equivalents and available-for-sale securities	$ 11,830	$ 18,572	$ 30,502	$ 58,855	$ 45,839
Working capital	8,446	15,250	21,457	52,221	41,767
Total assets	13,598	20,205	31,757	60,268	47,642
Total liabilities	3,578	3,735	2,622	3,734	4,222
Accumulated deficit	(71,654)	(80,022)	(90,046)	(101,955)	(117,412)
Total stockholders' equity	10,020	16,470	29,135	56,534	43,420

Amounts related to amortization of license agreement were separately stated during the years ended December 31, 2002, 2003 and 2004 but have been reclassified to research and development to conform to the current year presentation.

ITEM 7. *MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATION*

Our management's discussion and analysis of financial condition contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements involve known and unknown risks and uncertainties that may cause the Company's actual results or outcomes to be materially different from those anticipated and discussed herein. Important factors that the Company believes may cause such differences are discussed in the "Risk Factors" section of this Annual Report and in the cautionary statements accompanying the forward-looking statements in this Annual Report. In assessing forward-looking statements contained herein, readers are urged to read carefully all Risk Factors and cautionary statements contained in this Annual Report. Further, the Company operates in an industry sector where securities values are volatile and may be influenced by regulatory and other factors beyond the Company's control.

OVERVIEW

We are a biopharmaceutical company developing novel small-molecule therapeutics to treat cancer and certain eye diseases. Our focus is the development and commercialization of drug candidates that selectively disrupt abnormal blood vessels associated with solid tumor progression and visual impairment. Currently, we have two therapeutic product candidates in clinical and preclinical development. Our lead clinical compound is CA4P, which is in multiple ongoing clinical trials in various oncology and ophthalmic indications.

Currently, we do not have any products available for sale. The only source of potential revenue at this time is from the license to a third party of our formerly owned Nicoplex and Thiol Test technology. Revenue in connection with this license arrangement is earned based on sales of products or services utilizing this technology. Revenue from this license agreement is recognized when payments are received due to the uncertainty of the timing of sales of products or services. Future revenues, if any, from this license agreement are expected to be minimal. We do not expect to generate material revenue or fee income in the near future unless we enter into a major licensing arrangement.

Our Development Programs and Product Candidates

Our primary drug development programs are based on a series of natural products called Combretastatins, which were originally isolated from the African bush willow tree *(Combretum caffrum)* by researchers at Arizona State University, or ASU. ASU has granted us an exclusive, worldwide, royalty-bearing license with respect to the commercial rights to particular Combretastatins. Through *in vitro* and *in vivo* testing, it has been established that certain Combretastatins selectively disrupt the function of newly formed abnormal blood vessels associated with solid cancers and have a similar effect on abnormal blood vessels associated with certain diseases of the eye. We have developed two distinct technologies that are based on Combretastatins. We refer to the first technology as vascular disrupting agents, or VDAs. We are currently developing VDAs for indications in both oncology and ophthalmology. We refer to the second technology as ortho-quinone prodrugs, or OQPs. We are currently developing OQPs for indications in oncology.

Our preclinical studies have shown that VDAs rapidly reduce blood flow within tumors, thereby causing rapid and extensive tumor cell death. Moreover, because VDAs affect the central regions of the tumor, they may have the potential to enhance the effectiveness of currently available cancer therapies. Our most advanced VDA is CA4P, which is being evaluated in multiple ongoing clinical trials in both oncology and ophthalmology, both as a single agent and in combination with other therapies, including chemotherapy, radiotherapy, antibody therapy and anti-VEGF therapy.

Six clinical trials evaluating CA4P for the treatment of advanced solid tumor cancers have been completed. More than 250 patients have been dosed with CA4P, either as a monotherapy or in combination with other cancer-fighting treatments in the clinical trials to date, including 170 patients in our completed clinical trials. Currently, CA4P is being studied in ten clinical trials in oncology that are open or will soon be open for patient enrollment and one clinical trial in ophthalmology.

OQPs exhibit not only the vascular disrupting properties characteristic of our lead vascular targeting agent CA4P, but may also kill tumor cells directly. Preclinical research with OXi4503, our first OQP candidate, suggests that it not only shuts down blood flow, but can then be metabolized into a compound which kills the remaining tumor cells at the periphery of the tumor. Currently, we have an ongoing Phase I clinical trial of OXi4503 in patients with advanced cancer.

We are committed to a disciplined financial strategy and as such maintain a limited employee and facilities base, with development, scientific, finance and administrative functions, which include, among other things, product development, regulatory oversight and clinical testing, managed from our Waltham, Massachusetts headquarters. Our research and development team members typically work on a number of development projects concurrently. Accordingly, we do not separately track the costs for each of these research and development projects to enable separate disclosure of these costs on a project-by-project basis. We conduct substantial scientific activities pursuant to collaborative arrangements with universities. Regulatory and clinical testing functions are generally contracted out to third-party, specialty organizations.

In fiscal 2007, we expect to initiate several additional studies with our two main potential product candidates, CA4P and OXi4503 in our two main focus areas, oncology and ophthalmology. These additional studies will require significantly larger financial expenditures than we have incurred over the last several years as they are planned to be larger in scope due to higher numbers of patients anticipated to be enrolled and sites at which the potential product candidate will be evaluated. Our future financial requirements include resources for hiring of staff to manage the broader scope of these later-stage trials, and for covering increased costs for specialty clinical management organizations, higher quantities of clinical study materials, additional pre-clinical support costs and higher general and administrative support costs.

Financial Resources

We have generated a cumulative net loss of approximately $117,412,000 for the period from our inception through December 31, 2006. We expect to incur significant additional operating losses over at least the next several years, principally as a result of our continuing clinical trials and anticipated research and development expenditures. The principal source of our working capital has been the proceeds of private and public equity financing and to a lesser extent the exercise of warrants and stock options. We currently have no material amount of licensing or other fee income.

As of December 31, 2006, we had approximately $45,839,000 in cash, cash equivalents and marketable securities. We primarily invest in commercial paper, money market funds, investment-grade corporate bonds, U.S. government agency and debt securities, asset backed securities and certificates of deposit. Our investment objectives are to preserve principal, maintain a high degree of liquidity to meet operating needs and obtain competitive returns subject to prevailing market conditions. As of December 31, 2006, the weighted average days to maturity of our available-for-sale marketable securities was approximately 100 days, and the yield to maturity based on the cost of those investments was approximately 5%. We expect that income from these investments may decrease in fiscal 2007 as compared to fiscal 2006 due to an expected lower average balance of invested funds.

We have completed four financings over the past three years:

- In June 2003, we completed a private placement with three large institutional investors. We received approximately $13,898,000 in net proceeds after deducting costs and expenses. The investors purchased 1,500,000 shares of our common stock at $10.00 at the price per share and were issued two-year warrants which expired in 2005 to purchase up to an aggregate of 375,000 shares of our common stock at a price of $15 per share. In addition to the cash offering costs of $1,102,000, the placement agent in the offering was issued five-year warrants to purchase up to an aggregate of 150,000 shares at $12.00 per share, which expire in June 2008.
- In January 2004, we received gross proceeds of approximately $24,200,000 from the sale of 2,755,695 shares of our common stock and net proceeds of approximately $22,359,000 after the deduction of fees and expenses, pursuant to a shelf registration statement on Form S-3 filed with the

Securities and Exchange Commission in October 2003, allowing us to sell up to $50,000,000 of our common stock, debt securities and/or warrants to purchase our securities.

- In March 2005, we received gross proceeds of approximately $15,000,000 from the sale of 3,336,117 shares of our common stock and net proceeds of approximately $13,719,000 after the deduction of fees and expenses, pursuant to the shelf registration statement referred to above.
- In December 2005, we received gross proceeds of approximately $27,284,000 from the sale of 7,475,000 shares of our common stock and net proceeds of approximately $25,205,000 after the deduction of fees and expenses, pursuant to a shelf registration statement on Form S-3 filed with the Securities and Exchange Commission in September 2005, allowing us to sell up to $75,000,000 of our common stock, debt securities and/or warrants to purchase our securities.

The actual and planned uses of proceeds from all of the above financings include the continued development of our two lead compounds, CA4P and OXi4503, in oncology and ophthalmology.

We expect to continue to pursue strategic alliances and consider joint development opportunities that may provide us with access to organizations that have capabilities and/or products that are complementary to our own in order to continue the development of our potential product candidates.

Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenues and expenses during the reporting periods. On an ongoing basis, we evaluate our estimates and judgments, including those related to intangible assets. We base our estimates on historical experience and on various other factors that are believed to be appropriate under the circumstances, the results of which form the basis for making the judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

While our significant accounting policies are more fully described in Note 1 to our financial statements included in this report, we believe the following accounting policies are most critical to aid in fully understanding and evaluating our reported financial results.

Available-for-Sale Securities

We view our marketable securities as available for use in our current operations, and accordingly designate our marketable securities as available-for-sale. Available-for-sale securities are carried at fair value with the unrealized gains and losses, net of tax, if any, reported as accumulated other comprehensive income (loss) in stockholders' equity. We review the status of the unrealized gains and losses of our available-for-sale marketable securities on a regular basis. Realized gains and losses and declines in value judged to be other-than-temporary on available-for-sale securities are included in investment income. Interest and dividends on securities classified as available-for-sale are included in investment income. Securities in an unrealized loss position deemed not to be other-than-temporarily impaired, due to management's positive intent and ability to hold the securities until anticipated recovery, with maturation greater than twelve months are classified as long-term assets.

Research and Development

We charge all research and development expenses, both internal and external costs, to operations as incurred. Currently, greater than 50% of our research and development costs represent expenses incurred from the engagement of outside professional service organizations, product manufacturers and consultants associated with the development of our potential product candidates. We recognize expense associated with these arrangements based on the completion of activities as specified in our contracts with them. Costs incurred

under fixed fee contracts are accrued ratably over the contract period absent any knowledge that the services will be performed other than ratably. Costs incurred under contracts with clinical trial sites and principal investigators are generally accrued on a patients-treated basis consistent with the terms outlined in the contract. In determining costs incurred on some of these programs, we take into consideration a number of factors, including estimates and input provided by our internal program managers. Upon termination of such contracts, we are normally only liable for costs incurred or committed to date. As a result, accrued research and development expenses represent our estimated contractual liability to outside service providers at any of the relevant times.

Impairment of Long-lived Assets

On August 2, 1999, we entered into an exclusive license for the commercial development, use and sale of products or services covered by certain patent rights owned by Arizona State University. The present value of the amount payable under the license agreement has been capitalized based on a discounted cash flow model and is being amortized over the term of the agreement (approximately 15.5 years). We update our analysis and review this asset for impairment on a regular basis or if indicators of impairment are present using an undiscounted net cash flows approach, in accordance with the Statement of Financial Accounting Standards No. 144, *Accounting for the Impairment or Disposal of Long-lived Assets* ("SFAS 144"). This analysis includes a number of significant estimates and assessments, including the likelihood of clinical trial success, primary and secondary market opportunities, competition, pricing, and potential partnership options at different phases of development. SFAS 144 requires that if the undiscounted cash flows of an intangible asset are less than the carrying value of an intangible asset, the intangible asset is written down to the discounted cash flow value. Differences in estimates used in assessing the recoverability of these assets could result in impairment charges, which could have a material impact on our results of operations. To date, we have not recorded any impairment in this recorded asset since its initial capitalization.

Stock-Based Compensation

Effective January 1, 2006, we adopted Statement of Financial Accounting Standard No. 123R (SFAS 123R), *Share-Based Payment*, which requires the expense recognition of the estimated fair value of all share based payments issued to employees. Prior to the adoption of SFAS 123R, the estimated fair value associated with such awards was not recorded as an expense, but rather was disclosed in a footnote to our financial statements.

The valuation of employee stock options is an inherently subjective process, since market values are generally not available for long-term, non-transferable employee stock options. Accordingly, an option pricing model is utilized to derive an estimated fair value. In calculating the estimated fair value of our stock options, we use the Black-Scholes pricing model, which requires the consideration of the following six variables for purposes of estimating fair value:

- the stock option exercise price,
- the expected term of the option,
- the grant date price of our common stock, which is issuable upon exercise of the option,
- the expected volatility of our common stock,
- the expected dividends on our common stock (we do not anticipate paying dividends in the foreseeable future), and
- the risk free interest rate for the expected option term

Stock Option Exercise Price and Grant Date Price of our common stock — The closing market price of our common stock on the date of grant.

Expected Term — The expected term of options represents the period of time for which the options are expected to be outstanding and is based on an analysis of historical behavior of option plan participants over time and a review of other similar companies in the biotechnology field.

Expected Volatility — The expected volatility is a measure of the amount by which our stock price is expected to fluctuate during the term of the options granted. We determine the expected volatility based on the historical volatility of our common stock over a period commensurate with the option's expected term.

Expected Dividends — We have never declared or paid any cash dividends on our common stock and do not expect to do so in the foreseeable future. Accordingly, we use an expected dividend yield of zero to calculate the grant date fair value of a stock option.

Risk-Free Interest Rate — The risk-free interest rate is the implied yield available on U.S. Treasury issues with a remaining life consistent with the option's expected term on the date of grant.

Of the variables above, the selection of an expected term and expected stock price volatility are the most subjective. The majority of the stock option expense recorded in fiscal 2006 relates to continued vesting of stock options and restricted stock that were granted prior to January 1, 2006. In accordance with the transition provisions of SFAS 123R, the grant date estimates of fair value associated with prior awards, which were also calculated using the Black-Scholes option pricing model, have not been changed. The specific valuation assumptions that were utilized for purposes of deriving an estimate of fair value at the time that prior awards were issued are as disclosed in our prior annual reports on Form 10-K, as filed with the SEC.

Upon adoption of SFAS 123R, we were also required to estimate the level of award forfeitures expected to occur and record compensation expense only for those awards that are ultimately expected to vest. This requirement applies to all awards that are not yet vested, including awards granted prior to January 1, 2006. Accordingly, we performed a historical analysis of option awards that were forfeited prior to vesting, and ultimately recorded total stock option expense that reflected this estimated forfeiture rate. In our calculation, we segregated participants into two distinct groups, (1) directors and officers and (2) employees. This analysis will be re-evaluated quarterly and the forfeiture rate will be adjusted as necessary. Ultimately, the actual expense recognized over the vesting period will only be for those shares that vest.

Changes in the inputs and assumptions, as described above, can materially affect the measure of estimated fair value of our share-based compensation. As of December 31, 2006, there was approximately $1,766,000 of unrecognized compensation cost related to stock option awards that is expected to be recognized as expense over a weighted average period of 1.8 years.

Recent Accounting Pronouncements

In September, 2006, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards (SFAS) No. 157 ("SFAS 157"), entitled Fair Value Measurements. This Statement defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles (GAAP), and expands disclosures about fair value measurements. SFAS 157 is effective for fiscal years beginning after November 15, 2007. We do not expect the adoption of SFAS 157 to have a material effect on our financial position or results of operations.

On July 13, 2006, the Financial Accounting Standards Board ("FASB") issued FASB Interpretation No. 48 ("FIN 48"), entitled Accounting for Uncertainty in Income Taxes — an Interpretation of FASB Statement No. 109. FIN 48 clarifies the accounting for income taxes by prescribing the minimum recognition threshold a tax position must meet before being recognized in the financial statements. FIN 48 applies to all tax positions related to income taxes subject to FAS 109. This includes tax positions considered to be "routine", as well as those with a high degree of uncertainty. FIN 48 is effective for fiscal years beginning after December 15, 2006. We do not expect the application of FIN 48 to have a material effect on our financial position or results of operations.

RESULTS OF OPERATIONS

Years ended December 31, 2006 and 2005

Revenues

We did not recognize any licensing revenue during the fiscal year ended December 31, 2006 and recognized licensing revenue of approximately $1,000 during the fiscal year ended December 31, 2005. These amounts were received in connection with the license of our nutritional and diagnostic technology. Future revenues, if any, from this license agreement are expected to be minimal.

Our future revenues are dependent upon our ability to establish collaborations and generate revenues from products currently under development by us. We expect that we will not generate meaningful revenue in fiscal 2007 unless and until we enter into new collaborations providing for funding whether through the payment of licensing fees, up-front payments or otherwise.

Costs and Expenses

The following table summarizes our operating expenses for the periods indicated, in thousands and as a percentage of total expenses:

	2005		2006		Increase (Decrease)	
	Amount	% of Total Operating Expenses	Amount	% of Total Operating Expenses	$	%
Research and development	$ 7,098	54%	$ 10,816	60%	$ 3,718	52%
General and administrative	5,951	46%	7,100	40%	1,149	19%
Total operating expenses	$ 3,049	100%	$ 17,916	100%	$ 4,867	37%

We expect that as we continue to develop our two lead potential product candidates, CA4P and OXi4503, the percentage of research and development expenses to total operating expenses will continue to increase.

Research and development expenses

The table below summarizes the most significant components of our research and development expenses for the periods indicated, in thousands and as a percentage of total research and development expenses and provides the changes in these components and their percentages:

	2005		2006		Increase (Decrease)	
	Amount	% of Expense Category	Amount	% of Total Operating Expenses	$	%
Employee compensation and related	$ 2,418	34%	$ 4,007	37%	$ 1,589	66%
External services	4,394	62%	6,064	56%	1,670	38%
Stock-based compensation	76	1%	474	4%	398	524%
Other	210	3%	271	3%	61	29%
Total research and development	$ 7,098	100%	$ 10,816	100%	$ 3,718	52%

Increases in both employee compensation and related expenses and external services-related expenses account for 88% of the increase in research and development expenses overall. The increase in employee compensation and related costs is attributable to both a restructuring charge of approximately $468,000 in the third quarter of fiscal 2006 and an increase in the average number of employees in fiscal 2006 over fiscal 2005 of approximately 30%. The purpose for the restructuring was primarily to streamline the clinical development operations in order to improve the effectiveness of efforts to develop our potential product candidates.

External services expenses are comprised of costs incurred for consultants and contractors that assist in the management and support of our development programs. The increase in these costs in fiscal 2006 over fiscal 2005 is attributable to the further development of our two primary potential product candidates, CA4P in both oncology and ophthalmology and OXi4503 in oncology. The increase in stock-based compensation expense is attributable to the adoption of SFAS 123R in 2006 requiring the recognition of an expense for all stock-based compensation awards.

We expect that with the continued development of our two lead candidates, CA4P and OXi4503, in our two main focus indications, oncology and ophthalmology, as well as our discovery efforts for novel new compounds, our research and development expenses will continue to increase. As a result, we expect that the percentage of external services expenses to total research and development expenses will continue to increase as well.

General and administrative expenses

The table below summarizes the most significant components of our general and administrative expenses for the periods indicated, in thousands and as a percentage of total general and administrative expenses and provides the changes in these components and their percentages:

	2005		2006			
	Amount	% of Expense Category	Amount	% of Total Operating Expenses	Increase (Decrease) $	Increase (Decrease) %
Employee compensation and related	$ 1,384	23%	$ 2,137	30%	$ 753	54%
Consulting and professional services	2,889	49%	1,994	28%	(895)	(31)%
Facilities related	639	11%	561	8%	(78)	(12)%
Stock-based compensation	232	4%	1,392	20%	1,160	500%
Other	807	13%	1,016	14%	209	26%
Total research and development	$ 5,951	100%	$ 7,100	100%	$ 1,149	19%

The single largest increase in general and administrative expenses in fiscal 2006 from fiscal 2005 related to stock-based compensation. This increase was due to our adoption of SFAS 123R in 2006 as well as recognition of a full year of expense for restricted stock granted in the fourth quarter of 2005. The resulting adoption of SFAS 123R requires the recognition of an expense for all stock-based compensation awards. The increase in employee compensation and related expenses is attributable to costs of approximately $332,000 in the second quarter of 2006 in connection with a change in senior management and an increase in average number of employees of approximately 18%. This was offset by a decrease in consulting and professional services costs primarily in connection with market analysis work we incurred in fiscal 2005 and did not repeat in fiscal 2006.

We expect that we will continue to incur general and administrative expenses at an appropriate level to support the ongoing development of our potential product candidates and to meet the requirements of being a public company.

Other Income and Expenses

Investment income increased by approximately $1,367,000, or 120%, in fiscal 2006, compared to fiscal 2005, primarily due to higher average interest rates and returns on investments and, to a lesser extent, higher average cash, cash equivalents and available-for-sale marketable securities balances during the respective periods.

Tax Matters

As of December 31, 2006, we had net operating loss carry-forwards of approximately $111,500,000 for U.S. income tax purposes, which expire through 2026. Due to the degree of uncertainty related to the ultimate

use of these loss carry-forwards, we have fully reserved this future benefit. Additionally, the future utilization of the U.S. net operating loss carry-forwards is subject to limitations under the change in stock ownership rules of the Internal Revenue Service. The valuation allowance increased by approximately $6,483,000 and approximately $4,843,000 for the years ended December 31, 2006 and 2005, respectively, due primarily to the increase in net operating loss carry-forwards.

Years ended December 31, 2005 and 2004

Revenues

We recognized licensing revenue of approximately $1,000 and $7,000 during the fiscal years ended December 31, 2005 and 2004, respectively. These amounts were received in connection with the license of our nutritional and diagnostic technology. Future revenues, if any, from this license agreement are expected to be minimal.

Costs and Expenses

The following table summarizes our operating expenses for the periods indicated, in thousands and as a percentage of total expenses:

	2004		2005			
	Amount	% of Total Operating Expenses	Amount	% of Total Operating Expenses	Increase (Decrease) $	Increase (Decrease) %
Research and development	$ 5,947	57%	$ 7,098	54%	$ 1,151	19%
General and administrative	4,540	43%	5,951	46%	1,411	31%
Total operating expenses	$ 10,487	100%	$ 13,049	100%	$ 2,562	24%

Research and development expenses

The table below summarizes the most significant components of our research and development expenses for the periods indicated, in thousands and as a percentage of total research and development expenses and provides the changes in these components and their percentages:

	2004		2005			
	Amount	% of Expense Category	Amount	% of Expense Category	Increase (Decrease) $	Increase (Decrease) %
Employee compensation and related	$ 1,208	20%	$ 2,418	34%	$ 1,210	100%
External services	4,473	75%	4,394	62%	(79)	(2)%
Stock-based compensation	120	2%	76	1%	(44)	(37)%
Other	146	3%	210	3%	64	44%
Total research and development	$ 5,947	100%	$ 7,098	100%	$ 1,151	19%

The increase in research and development expenses in fiscal 2005 from fiscal 2004 is primarily attributable to the increase in employee compensation and related costs due to an increase in the average number of employees in our research and development group of approximately 65%. The increase was made to support the ongoing development of our two lead potential product candidates CA4P in both oncology and ophthalmology and OXi4503. .

General and administrative expenses

The table below summarizes the most significant components of our general and administrative expenses for the periods indicated, in thousands and as a percentage of total general and administrative expenses and provides the changes in these components and their percentages:

	2004		2005		Increase (Decrease)	
	Amount	% of Expense Category	Amount	% of Expense Category	$	%
Employee compensation and related	$ 1,104	24%	$ 1,384	23%	$ 280	25%
Consulting and professional services	2,508	55%	2,889	49%	381	15%
Facilities related	329	7%	639	11%	310	94%
Stock-based compensation	37	1%	232	4%	195	527%
Other	562	13%	807	13%	245	44%
Total general and administrative	$ 4,540	100%	$ 5,951	100%	$ 1,411	31%

General and administrative expenses increased in fiscal 2005 from 2004 relatively evenly across all categories. In general, we increased the average number of our employees by approximately 50%. As noted above, the increase in the research and development average number of employees in 2005 was approximately 65%. Accordingly, in fiscal 2005 we also increased the level of administrative support for the research and development group. This included the modification of our lease at our Waltham, Massachusetts headquarters which resulted in an additional charge of approximately $247,000. In addition, in 2005, we incurred increased costs to recruit key members of the Board of Directors.

Other Income and Expenses

Investment income increased by approximately $665,000 or 141% in fiscal 2005, or 141%, compared to fiscal 2004, primarily due to higher average interest rates and returns on investments and, to a lesser extent, higher average cash, cash equivalents and available-for-sale marketable securities balances during the respective periods.

LIQUIDITY AND CAPITAL RESOURCES

To date, we have financed our operations principally through net proceeds received from private and public equity financing. We have experienced net losses and negative cash flow from operations each year since our inception, except in fiscal 2000. As of December 31, 2006, we had an accumulated deficit of approximately $117,412,000. We expect to incur increased expenses, resulting in losses, over at least the next several years due to, among other factors, our continuing clinical trials and anticipated research and development activities. We had cash, cash equivalents and available-for-sale securities of approximately $45,839,000 at December 31, 2006.

The following table summarizes our cash flow activities for the periods indicated, in thousands:

	Year Ended December 31,		
	2004	2005	2006
Operating activities:			
Net loss	$ (10,024)	$ (11,909)	$ (15,457)
Non-cash adjustments to net loss	283	450	2,051
Changes in operating assets and liabilities:	(650)	961	103
Net cash used in operating activities	(10,391)	(10,498)	(13,303)
Investing activities:			
Net (increase) decrease in available-for-sale securities	3,218	(11,988)	(3,576)
Purchase of furniture, fixtures and equipment	(50)	(112)	(194)
Other	(160)	(37)	5
Net cash provided by (used in) investing activities	3,008	(12,137)	(3,765)
Financing activities:			
Proceeds from issuance of common stock	22,411	38,934	411
Other	82	57	
Net cash provided by financing activities	22,493	38,991	411
Increase (Decrease) in cash and cash equivalents	15,110	16,356	(16,657)
Cash and cash equivalents at beginning of year	878	15,988	32,344
Cash and cash equivalents at end of year	$ 15,988	$ 32,344	$ 15,687

Approximately 90% or $1,865,000 of the non-cash adjustments to net loss amount relates to compensation expense related to the issuance of options and restricted stock. Proceeds from issuance of common stock relates to the exercise of stock options.

We anticipate that our cash, cash equivalents and available-for-sale marketable securities, will be sufficient to satisfy the Company's projected cash requirements at least through the first half of 2008. Our primary anticipated uses of funds during the 2007 fiscal year involve the preclinical and clinical developments of our product candidate under development and potential in-licenses or other acquisition of technology. Our cash requirements may vary materially from those now planned for or anticipated by management due to numerous risks and uncertainties. These risks and uncertainties include, but are not limited to: the progress of and results of our pre-clinical testing and clinical trials of our VDAs and OQPs under development, including CA4P, our lead compound, and OXi4503; the progress of our research and development programs; the time and costs expended and required to obtain any necessary or desired regulatory approvals; the resources, if any, that we devote to developing manufacturing methods and advanced technologies; our ability to enter into licensing arrangements, including any unanticipated licensing arrangements that may be necessary to enable us to continue our development and clinical trial programs; the costs and expenses of filing, prosecuting and, if necessary, enforcing our patent claims, or defending ourselves against possible claims of infringement by us of third party patent or other technology rights; the costs of commercialization activities and arrangements, if any, undertaken by us; and, if and when approved, the demand for our products, which demand is dependent in turn on circumstances and uncertainties that cannot be fully known, understood or quantified unless and until the time of approval, for example the range of indications for which any product is granted approval.

If our existing funds are not sufficient to continue operations, we would be required to seek additional funding and/or take other measures. If additional financing is needed, there can be no assurance that additional financing will be available on acceptable terms when needed, if at all.

Contractual Obligations

The following table presents information regarding our contractual obligations and commercial commitments as of December 31, 2006 in thousands:

		Payments Due by Period			
	Total	Less Than 1 Year	1-3 Years	4-5 Years	After 5 Years
Clinical development and related commitments	$ 6,671	$ 6,568	$ 93	$ 10	$ —
Operating leases	2,206	702	1,207	297	$ —
Total contractual cash obligations	$ 8,877	$ 7,270	$ 1,300	$ 307	$ —

Payments under clinical development and related commitments are based on the completion of activities as specified in the contract. The amounts in the table above assume the successful completion, by the third-party contractor, of all of the activities contemplated in the agreements. In addition, not included in operating leases above, is sublease income which totals approximately $211,000 and $143,000 for fiscal 2007 and 2008, respectively.

Our primary drug development programs are based on a series of natural products called Combretastatins. In August 1999, we entered into an exclusive license for the commercial development, use and sale of products or services covered by certain patent rights owned by Arizona State University. This agreement was subsequently amended in June 2002. From the inception of the agreement through December 31, 2006, we have paid a total of $2,400,000 in connection with this license. The agreement provides for additional payments in connection with the license arrangement upon the initiation of certain clinical trials or the completion of certain regulatory approvals, which payments could be accelerated upon the achievement of certain financial milestones, as defined in the agreement. The license agreement also provides for additional payments upon our election to develop certain additional compounds, as defined in the agreement. Future milestone payments under this agreement could total $300,000. We are also required to pay royalties on future net sales of products associated with these patent rights.

ITEM 7A. *QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK*

At December 31, 2006, we did not hold any derivative financial instruments, commodity-based instruments or other long-term debt obligations. We have adopted an Investment Policy, the primary objectives of which are to preserve principal, maintain proper liquidity to meet operating needs and maximize yields while preserving principal. Although our investments are subject to credit risk, we follow procedures to limit the amount of credit exposure in any single issue, issuer or type of investment. Our investments are also subject to interest rate risk and will decrease in value if market interest rates increase. However, due to the conservative nature of our investments and relatively short duration, we believe that interest rate risk is mitigated. Our cash and cash equivalents are maintained in U.S. dollar accounts. Although we conduct a number of our trials and studies outside of the U.S., we believe our exposure to foreign currency risk to be limited as the arrangements are in jurisdictions with relatively stable currencies.

ITEM 8. *FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA*

See Item 15 for a list of OXiGENE's Financial Statements and Schedules and Supplementary Information filed as part of this Annual Report.

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

Not applicable.

ITEM 9A. *CONTROLS AND PROCEDURES*

Evaluation of our Disclosure Controls and Procedures

The Securities and Exchange Commission requires that as of the end of the period covered by this Annual Report on Form 10-K, the Chief Executive Officer, CEO, and the Chief Financial Officer, CFO, evaluate the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e)) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and report on the effectiveness of the design and operation of our disclosure controls and procedures. Based upon that evaluation, our CEO and CFO concluded that our disclosure controls and procedures were effective to provide reasonable assurance that we record, process, summarize and report the information we must disclose in reports that we file or submit under the Exchange Act, within the time periods specified in the SEC's rules and forms.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting, identified in connection with the evaluation of such control that occurred during the fourth quarter of our fiscal year ended December 31, 2006, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Under the supervision and with the participation of our management, including our CEO and CFO, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2006 based on the framework in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on that evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2006.

Management's assessment of the effectiveness of our internal control over financial reporting as of December 31, 2006 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report, below.

Important Considerations

The effectiveness of our disclosure controls and procedures and our internal control over financial reporting is subject to various inherent limitations, including cost limitations, judgments used in decision making, assumptions about the likelihood of future events, the soundness of our systems, the possibility of human error, and the risk of fraud. Moreover, 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 the risk that the degree of compliance with policies or procedures may deteriorate over time. Because of these limitations, there can be no assurance that any system of disclosure controls and procedures or internal control over financial reporting will be successful in preventing all errors or fraud or in making all material information known in a timely manner to the appropriate levels of management.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
OXiGENE, Inc.

We have audited management's assessment, included in the accompanying Management Report on Internal Control over Financial Reporting, that OXiGENE, Inc. maintained effective internal control over financial reporting as of December 31, 2006, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). OXiGENE, Inc.'s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on management's assessment and an opinion on the effectiveness of the company's internal control over financial reporting based on our audit.

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

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

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

In our opinion, management's assessment that OXiGENE, Inc. maintained effective internal control over financial reporting as of December 31, 2006, is fairly stated, in all material respects, based on the COSO criteria. Also, in our opinion, OXiGENE, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2006, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the balance sheets of OXiGENE, Inc. as of December 31, 2006 and 2005 and the related statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2006 and our report dated March 7, 2007 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Boston, Massachusetts
March 7, 2007

ITEM 9B. ***OTHER INFORMATION***

Not applicable.

PART III

ITEM 10. ***DIRECTORS , EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE***

The response to this item is incorporated by reference from the discussion responsive thereto under the captions "Proposal 1 — Election of Directors," "Board and Committee Meetings," "Section 16(a) Beneficial Ownership Reporting Compliance," "Executive Officers of the Company" and "Code of Conduct and Ethics" in the Company's Proxy Statement for the 2007 Annual Meeting of Stockholders.

ITEM 11. ***EXECUTIVE COMPENSATION***

The response to this item is incorporated by reference from the discussion responsive thereto under the caption "Executive Compensation" in the Company's Proxy Statement for the 2007 Annual Meeting of Stockholders.

ITEM 12. ***SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS***

The response to this item is incorporated by reference from the discussion responsive thereto under the captions "Security Ownership of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information" in the Company's Proxy Statement for the 2007 Annual Meeting of Stockholders.

ITEM 13. ***CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE***

The response to this item is incorporated by reference from the discussion responsive thereto under the captions "Certain Relationships and Related Transactions," "Board and Committee Meetings" and "Executive Compensation" in the Company's Proxy Statement for the 2007 Annual Meeting of Stockholders.

ITEM 14. ***PRINCIPAL ACCOUNTING FEES AND SERVICES***

The response to this item is incorporated by reference from the discussion responsive thereto under the caption "Audit Fees" in the Company's Proxy Statement for the 2007 Annual Meeting of Stockholders.

PART IV

ITEM 15. ***EXHIBITS, FINANCIAL STATEMENT SCHEDULES***

(a) The following documents are filed as part of this Annual Report on Form 10-K.

(1) *Financial Statements*

See financial statements listed in the accompanying "Index to Consolidated Financial Statements" covered by the Report of Independent Registered Public Accounting Firm.

(2) *Financial Statement Schedules*

None.

(3) *Exhibits*

The following is a list of exhibits filed as part of this Annual Report on Form 10-K.

Exhibit Number	Description
3.1	Restated Certificate of Incorporation of the Registrant.*
3.2	Amended and Restated By-Laws of the Registrant.%
3.3	Certificates of Amendment of Certificate of Incorporation, dated June 21, 1995 and November 15, 1996.**
3.4	Certificate of Amendment of Restated Certificate of Incorporation, dated July 14, 2005.!
4.1	Specimen Common Stock Certificate.*
4.2	Form of Warrant, dated as of June 10, 2003, issued to Roth Capital Partners, LLC.&&&
10.1	OXiGENE 1996 Stock Incentive Plan, as amended.+@
10.2	Collaborative Research Agreement, dated as of August 1, 1997, between the Registrant and Boston Medical Center Corporation.***
10.3	Technology Development Agreement, dated as of May 27, 1997, between the Registrant and the Arizona Board of Regents, acting for and on behalf of Arizona State University.***
10.4	Office Lease, dated February 28, 2000, between the Registrant and Charles River Business Center Associates, L.L.C.###
10.5	Research Collaboration and License Agreement, dated as of December 15, 1999, between OXiGENE Europe AB and Bristol-Myers Squibb Company.++
10.6	Employment Agreement between the Registrant and Joel Citron dated as of January 2, 2002.+++#@
10.7	Termination Agreement by and between the Registrant and Bristol-Myers Squibb Company, dated as of February 15, 2002.+++##
10.9	Independent Contractor Agreement For Consulting Services, dated as of April 1, 2001, between Registrant and David Chaplin Consultants, Ltd.#@
10.10	Employment Agreement, dated as of April 1, 2001, between the Registrant and Dr. David Chaplin.#@
10.11	Restricted Stock Agreement for Employees, dated as of January 2, 2002, between the Registrant and Dr. David Chaplin.#@
10.13	Form of Compensation Award Stock Agreement for Non-Employee Directors, dated as of January 2, 2002.#@
10.14	Amendment and Confirmation of License Agreement No. 206-01.LIC, dated as of June 10, 2002, between the Registrant and the Arizona Board of Regents, acting for and on behalf of Arizona State University.#
10.15	License Agreement No. 206-01.LIC by and between the Arizona Board of Regents, acting on behalf of and for Arizona State University, and OXiGENE Europe AB, dated August 2, 1999.&
10.16	Research and License Agreement between the Company and Baylor University, dated June 1, 1999.&
10.17	Agreement to Amend Research and License Agreement between the Company and Baylor University, dated April 23, 2002.&
10.18	"Addendum" to Research and License Agreement between the Company and Baylor University, dated April 14, 2003.&
10.19	License Agreement by and between Active Biotech AB ("Active") and the Company dated November 16, 2001.&
10.20	License Agreement by and between Active and the Company dated April 23, 2002.&
10.21	Funded Research Agreement by and between the Company and The Foundation Fighting Blindness, effective as of October 30, 2002.&&
10.22	Registration Rights Agreement, dated as of June 10, 2003, among the Registrant and the Purchasers signatory thereto.&&&
10.23	Employment Agreement, dated as of February 23, 2004, between the Registrant and James B. Murphy.%@
10.24	Lease by and between The Realty Associates Fund III and the Registrant, dated as of August 8, 2003.%%

Exhibit Number	Description
10.25	Sublease by and between Schwartz Communications, Inc. and the Registrant, dated as of March 16, 2004.%%
10.26	Stockholder Rights Agreement.!!
10.27	OXiGENE 2005 Stock Plan.!!!@
10.28	Form of Incentive Stock Option Agreement under OXiGENE 2005 Stock Plan.$@
10.29	Form of Non-Qualified Stock Option Agreement under OXiGENE 2005 Stock Plan.$@
10.30	Form of Restricted Stock Agreement under OXiGENE 2005 Stock Plan.$@
10.31	Description of Director Compensation Arrangement.!!!!@
10.32	Description of Named Executive Officers Compensation Arrangements.!!!!@
10.33	Lease Modification Agreement No. 1 by and between The Realty Associates Fund III and the Registrant, dated as of May 25, 2005.!!!!
10.34	Second Amendment to Lease by and between BP Prospect Place LLC and the Registrant, dated as of March 28, 2006.$$
10.35	Employment Agreement, dated as of April 25, 2006, between the Registrant and Peter Harris, M.D. $$$@
10.36	Employment Agreement, dated as of June 29, 2006, between the Registrant and Dr. Richard Chin. $$$$@
10.37	Separation Agreement dated as of June 29, 2006, between the Registrant and Mr. Frederick W. Driscoll. $$$$@
10.38	Amendment No. 1 to Employment Agreement, dated September 26, 2006, between the Registrant and Joel-Tomas Citron.$$$$$@
14	Corporate Code of Conduct and Ethics.####
23	Consent of Ernst & Young LLP.
31.1	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32	Certification of Chief Executive and Financial Officers Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

* Incorporated by reference to the Registrant's Registration Statement on Form S-1 (file no. 33-64968) and any amendments thereto.

** Incorporated by reference to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1996.

*** Incorporated by reference to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1997.

**** Incorporated by reference to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1999.

Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2002.

Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2002.

Incorporated by reference to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2000.

Incorporated by reference to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2002.

\+ Incorporated by reference to the Registrant's Registration Statement on Form S-8 (file no. 333-92747) and any amendments thereto.

++ Incorporated by reference to the Registrant's Current Report on Form 8-K, filed on December 28, 1999.

&	Incorporated by reference to Amendment No. 3 to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2002.
&&	Incorporated by reference to Amendment No. 4 to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2002.
&&&	Incorporated by reference to the Registrant's Registration Statement on Form S-3 (file no. 333-106307) and any amendments thereto.
&&&&	Incorporated by reference to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2003.
%	Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2004.
%%	Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2004.
!	Incorporated by reference to the Registrant's Registration Statement on Form S-8 (file no. 333-126636) and any amendments thereto.
!!	Incorporated by reference to the Registrant's Registration Statement on Form 8-A, dated March 30, 2005 and any amendments thereto.
!!!	Incorporated by reference to the Registrant's Current Report on Form 8-K, filed on July 11, 2005.
!!!!	Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2005.
$	Incorporated by reference to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2005.
$$	Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2006.
$$$	Incorporated by reference to the Registrant's Current Report on Form 8-K, filed on June 19, 2006.
$$$$	Incorporated by reference to the Registrant's Current Report on Form 8-K, filed on July 6, 2006.
$$$$$	Incorporated by reference to the Registrant's Current Report on Form 8-K, filed on September 29, 2006.
+++	Confidential treatment requested as to certain portions of the document, which portions have been omitted and filed separately with the Securities and Exchange Commission.
@	Management contract or compensatory plan or arrangement required to be filed as an exhibit to this Form 10-K pursuant to Item 15(a) of this report.

SIGNATURES

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

OXiGENE, Inc.

By: /s/ Richard Chin
Richard Chin, M.D.
President and Chief Executive Officer

Date: March 15, 2007

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

Signature	Title	Date
/s/ Joel-Tomas Citron Joel-Tomas Citron	Chairman of the Board and Director	March 15, 2007
/s/ David Chaplin David Chaplin Ph.D	Chief Scientific Officer and Head of Research and Development, Executive Vice Chairman of the Board and Director	March 15, 2007
/s/ Richard Chin Richard Chin M.D.	President, Chief Executive Officer and Director (Principal executive officer)	March 15, 2007
/s/ James B. Murphy James B. Murphy	Vice President and Chief Financial Officer (Principal financial and accounting officer)	March 15, 2007
/s/ Arthur B. Laffer Arthur B. Laffer Ph.D.	Director	March 15, 2007
/s/ William N. Shiebler William N. Shiebler	Director	March 15, 2007
/s/ Per-Olof Söderberg Per-Olof Söderberg	Director	March 15, 2007
/s/ J. Richard Zecher J. Richard Zecher Ph.D	Director	March 15, 2007

Form 10-K Item 15(a)(1)

OXiGENE, Inc.

Index to Consolidated Financial Statements

The following consolidated financial statements of OXiGENE, Inc. are included in Item 8:

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
OXiGENE, Inc.

We have audited the accompanying balance sheets of OXiGENE, Inc. as of December 31, 2006 and 2005, and the related statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2006. 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 financial position of OXiGENE, Inc. at December 31, 2006 and 2005, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2006, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of OXiGENE, Inc.'s internal control over financial reporting as of December 31, 2006, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 7, 2007 expressed an unqualified opinion thereon.

As discussed in Note 1 to the financial statements, effective January 1, 2006, OXiGENE, Inc. adopted Statement of Financial Accounting Standards (SFAS) No. 123 (Revised 2004), "Share-Based Payment".

/s/ Ernst & Young LLP

Boston, Massachusetts
March 7, 2007

OXiGENE, Inc.

Balance Sheets
Amounts in thousands
except per share amounts

	Year Ended December 31	
	2006	2005
ASSETS		
Current assets:		
Cash and cash equivalents	$ 15,687	$ 32,344
Available-for-sale securities	29,661	23,355
Prepaid expenses	270	81
Other assets	371	175
Total current assets	45,989	55,955
Furniture and fixtures, equipment and leasehold improvements	1,248	1,054
Accumulated depreciation	(1,007)	(919)
	241	135
Available-for-sale securities — long term	491	3,156
License agreements, net of accumulated amortization of $724 and $626 at December 31, 2006 and 2005, respectively	777	873
Deposits	144	149
Total assets	$ 47,642	$ 60,268
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 683	$ 693
Accrued research and development	2,603	1,719
Accrued other	936	1,322
Total current liabilities	4,222	3,734
Commitments and contingencies (Note 5)		
Stockholders' equity:		
Common stock, $.01 par value, 100,000 shares authorized; 28,175 shares in 2006 and 28,037 shares in 2005, issued and outstanding	282	280
Additional paid-in capital	160,569	160,885
Accumulated deficit	(117,412)	(101,955)
Accumulated other comprehensive loss	(19)	(85)
Notes receivable	—	(187)
Deferred compensation	—	(2,404)
Total stockholders' equity	43,420	56,534
Total liabilities and stockholders' equity	$ 47,642	$ 60,268

See accompanying notes.

OXiGENE, Inc.

Statements of Operations
(All amounts in thousands, except per share amounts)

	Year Ended December 31		
	2006	2005	2004
License revenue	$ —	$ 1	$ —
Operating costs and expenses:(1)			
Research and development	10,816	7,098	5,947
General and administrative	7,100	5,951	4,540
Total operating costs and expenses	17,916	13,049	10,487
Loss from Operations	(17,916)	(13,048)	(10,480)
Investment income	2,502	1,135	470
Other (expense) income, net	(43)	4	(14)
Net loss	$ (15,457)	$ (11,909)	$ (10,024)
Basic and diluted net loss per common share	$ (0.56)	$ (0.61)	$ (0.61)
Weighted-average number of common shares outstanding	27,626	19,664	16,560
(1) Includes share-based compensation expense as follows:			
Research and development	$ 473	$ 76	$ 120
General and administrative	1,392	232	38

See accompanying notes.

OXiGENE, Inc.

Statements of Stockholders' Equity
(All amounts in thousands)

	Common Stock $.01 Par Value		Additional Paid-in		Accumulated Other Comprehensive			Total Stockholders'
	Shares	Amount	Capital	Accumulated Deficit	(Loss)	Notes Receivable	Deferred Compensation	Equity
Balance at December 31, 2003	13,994	$ 140	$ 97,674	$ (80,022)	$ (132)	$ (962)	$ (228)	$ 16,470
Unrealized gain from available-for-sale securities	—	—	—	—	38	—	—	38
Net loss	—	—	—	(10,024)	—	—	—	(10,024)
Comprehensive loss				—	—	—	—	(9,986)
Issuance of common stock in connection with private financing, net of expenses of $1,837	2,756	27	22,332	—	—	—	—	22,359
Issuance of common stock upon exercise of options	20	—	52	—	—	—	—	52
Compensation expense related to restricted stock	(9)	—	(26)	—	—	—	156	130
Payment of notes receivable	—	—	—	—	—	82	—	82
Interest on notes receivable	—	—	21	—	—	(21)	—	—
Cancellation of notes receivable	(47)	—	(517)	—	—	517	—	—
Options issued for services provided by non-employees	—	—	(9)	—	—	—	37	28
Balance at December 31, 2004	16,714	167	119,527	(90,046)	(94)	(384)	(35)	29,135
Unrealized gain from available-for-sale securities	—	—	—	—	9	—	—	9
Net loss	—	—	—	(11,909)	—	—	—	(11,900)
Comprehensive loss								(11,900)
Issuance of common stock in connection with equity financings, net of expenses of $3,372	10,811	108	38,816	—	—	—	—	38,924
Issuance of common stock upon exercise of options	3	—	10	—	—	—	—	10
Issuance of restricted stock	520	5	2,691	—	—	—	(2,696)	—
Compensation expense related to restricted stock	—	—	—	—	—	—	303	303
Payment of notes receivable	—	—	—	—	—	57	—	57
Interest on notes receivable	—	—	11	—	—	(11)	—	—
Cancellation of notes receivable	(11)	—	(151)	—	—	151	—	—
Options issued for services provided by non-employees	—	—	(19)	—	—	—	24	5
Balance at December 31, 2005	28,037	280	160,885	(101,955)	(85)	(187)	(2,404)	56,534
Unrealized gain from available-for-sale securities	—	—	—	—	66	—	—	66
Net loss	—	—	—	(15,457)	—	—	—	(15,457)
Comprehensive loss	—	—	—	—	—	—	—	(15,391)

Issuance of common stock upon exercise of options	168	2	410	—	—	—	—	412
Stock-based compensation expense	—	—	1,865	—	—	—	—	1,865
Reclassification of deferred compensation	—	—	(2.404)	—	—	—	2,404	—
Forfeiture of restricted stock	(10)	—	—	—	—	—	—	—
Interest on notes receivable	—	—	7	—	—	(7)	—	—
Cancellation of notes receivable	(20)	—	(194)	—	—	194	—	—
Balance at December 31, 2006	28,175	$ 282	$ 160,569	$ (117,412)	$ (19)	$ —	$ —	$ 43,420

OXiGENE, Inc.

Statements of Cash Flows
(Amounts in thousands)

	Year Ended December 31		
	2006	2005	2004
Operating activities:			
Net loss	$ (15,457)	$ (11,909)	$ (10,024)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation	88	44	27
Amortization of license agreement	98	98	98
Stock-based compensation	1,865	308	158
Changes in operating assets and liabilities:			
Restricted cash	—	—	364
Prepaid expenses and other current assets	(385)	(151)	(56)
Accounts payable, accrued expenses and other payables	488	1,112	(958)
Net cash used in operating activities	(13,303)	(10,498)	(10,391)
Investing activities:			
Purchase of available-for-sale securities	(53,287)	(33,392)	(9,777)
Proceeds from sale of available-for-sale securities	49,711	21,404	12,995
Amount paid for license agreements	—	—	(155)
Purchase of furniture, fixtures and equipment	(194)	(112)	(50)
Deposits	5	(37)	(5)
Net cash provided by (used in) investing activities	(3,765)	(12,137)	3,008
Financing activities:			
Proceeds from issuance of common stock	411	38,934	22,411
Payment of notes receivable and related interest	—	57	82
Net cash provided by financing activities	411	38,991	22,493
Increase (decrease) in cash and cash equivalents	(16,657)	16,356	15,110
Cash and cash equivalents at beginning of year	32,344	15,988	878
Cash and cash equivalents at end of year	$ 15,687	$ 32,344	$ 15,988
Non-cash disclosures:			
Reclassification of deferred compensation	$ 2,404	$ —	$ —
Cancellation of notes receivable	$ 194	$ 151	$ 517

See accompanying notes.

OXiGENE, INC.

Notes to Financial Statements
December 31, 2006

1. Description of Business and Significant Accounting Policies

Description of Business

OXiGENE, Inc. (the "Company"), incorporated in 1988 in the state of New York and reincorporated in 1992 in the state of Delaware, is a biopharmaceutical company developing novel small-molecule therapeutics to treat cancer and certain eye diseases. The Company's focus is the development and commercialization of drug candidates that selectively disrupt abnormal blood vessels associated with solid tumor progression and visual impairment. Currently, the Company does not have any products available for sale; however, it has two therapeutic product candidates in various stages of clinical and preclinical development, as well as a pipeline of additional product candidates currently in research and development.

OXiGENE's primary drug development programs are based on a series of natural products called Combretastatins. The Company has developed two distinct technologies that are based on Combretastatins. It refers to the first technology as vascular disrupting agents, or VDAs. The Company is currently developing VDAs for indications in both oncology and ophthalmology. OXiGENE refers to the second technology as ortho-quinone prodrugs, or OQPs. The Company is currently developing OQPs for indications in oncology. OXiGENE's most advanced clinical compound is CA4P, a VDA, which is in multiple ongoing clinical trials in various oncology and ophthalmic indications. The Company conducts scientific activities pursuant to collaborative arrangements with universities. Regulatory and clinical testing functions are generally contracted out to third party, specialty organizations.

The Company anticipates that its cash, cash equivalents and available-for-sale marketable securities, will be sufficient to satisfy the Company's projected cash requirements at least through the first half of 2008. The Company's primary anticipated uses of funds during the 2007 fiscal year involve the preclinical and clinical developments of its product candidates under development and potential in-licenses or other acquisition of technology. The Company's cash requirements may vary materially from those now planned for or anticipated by management due to numerous risks and uncertainties.

If the Company's existing funds are not sufficient to continue operations, it would be required to seek additional funding and/or take other measures. If additional financing is needed, there can be no assurance that additional financing will be available on acceptable terms when needed, if at all.

Basis of Presentation

Amounts related to amortization of license agreement were separately stated during the years ended December 31, 2003 and 2004, but have been reclassified to research and development to conform to the current year presentation.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles 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 income and expenses during the reporting period. Actual results could differ from those estimates.

Concentration of Credit Risk

The Company has no significant off balance sheet concentration of credit risk. Financial instruments that potentially subject the Company to concentrations of credit risk primarily consist of cash and cash equivalents

and short- and long-term investments. The Company places its cash, cash equivalents and short-term and long-term investments with high credit quality financial institutions.

Cash and Cash Equivalents

The Company considers all highly liquid financial instruments with maturities of three months or less when purchased to be cash equivalents.

Available-for-Sale Securities

In accordance with the Company's investment policy, surplus cash is invested primarily in investment-grade corporate bonds, U.S. government agency debt securities, asset backed securities and certificates of deposit. In accordance with Statement of Financial Accounting Standards No. 115 ("SFAS 115"), *Accounting for Certain Investments in Debt and Equity Securities*, the Company separately discloses cash and cash equivalents from investments in marketable securities. The Company designates its marketable securities as available-for-sale securities. Available-for-sale securities are carried at fair value with the unrealized gains and losses, net of tax, if any, reported as accumulated other comprehensive income (loss) in stockholders' equity. The Company reviews the status of the unrealized gains and losses of its available-for-sale marketable securities on a regular basis. Realized gains and losses and declines in value judged to be other-than-temporary on available-for-sale securities are included in investment income. Interest and dividends on securities classified as available-for-sale are included in investment income. Securities in an unrealized loss position deemed not to be other-than-temporarily impaired, due to the Company's positive intent and ability to hold the securities until anticipated recovery, with maturation greater than twelve months are classified as long-term assets.

The Company's investment objectives are to preserve principal, maintain a high degree of liquidity to meet operating needs and obtain competitive returns subject to prevailing market conditions. The Company assesses the market risk of its investments on an ongoing basis so as to avert risk of loss. The Company assesses the market risk of its investments by continuously monitoring the market prices of its investments and related rates of return, continuously looking for the safest, most risk-averse investments that will yield the highest rates of return in their category.

OXiGENE, INC.

Notes to Financial Statements — (Continued)

The following is a summary of the fair values of available-for-sale securities: (Amounts in thousands)

	December 31, 2006			
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Current				
Government bonds and notes				
Maturing in less than 2 years	$ 1,995	$ —	$ (13)	$ 1,982
Corporate bonds				
Maturing in less than 2 years	12,529	—	(5)	12,524
Commercial Paper	11,654	—	—	11,654
Certificates of deposit	3,501	—	—	3,501
Subtotal current available-for-sale securities	29,679	—	(18)	29,661
Long Term				
Corporate bonds				
Maturing in less than 2 years	492	—	(1)	491
Subtotal long term available-for-sale securities	492	—	(1)	491
Total available-for-sale securities	$ 30,171	—	$ (19)	$ 30,152

	December 31, 2005			
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Current				
Government bonds and notes				
Maturing in less than 2 years	$ 3,782	$ —	$ (1)	$ 3,781
Corporate bonds				
Maturing in less than 2 years	4,806	—	(28)	4,778
Maturing in 2 to 4 years	1,203	—	—	1,203
Subtotal corporate bonds	6,009	—	(28)	5,981
Commercial Paper	9,334	—	(1)	9,333
Asset backed securities	3,268	—	(8)	3,260
Certificates of deposit	1,000	—	—	1,000
Subtotal current available-for-sale securities	23,393	—	(38)	23,355
Long Term				
Government bonds and notes				
Maturing in less than 2 years	1,500	—	(28)	1,472
Corporate bonds				
Maturing in less than 2 years	1,703	—	(19)	1,684
Subtotal long term available-for-sale securities	3,203	—	(47)	3,156
Total available-for-sale securities	$ 26,596	$ —	$ (85)	$ 26,511

At December 31, 2006, the Company determined that one floating rate note and two of its corporate bonds were judged to be other-than-temporarily impaired by approximately $9,000 and reduced the applicable

values to their fair values as of that date. As of December 31, 2006, 13 of the Company's remaining available-for-sale securities are in an unrealized loss position, primarily attributable to increases in short to medium-term interest rates over the course of 2006. The Company has determined that these unrealized losses are temporary, after taking into consideration its current cash and cash equivalent balances and its expected cash requirements over the next two years. Securities in an unrealized loss position deemed not to be other-than-temporarily impaired, due to management's positive intent and ability to hold the securities until anticipated recovery, with maturation greater than twelve months, are classified as long-term assets.

Research and Development

The Company charges all research and development expenses, both internal and external costs, to operations as incurred. The Company's research and development costs represent expenses incurred from the engagement of outside professional service organizations, product manufacturers and consultants associated with the development of its potential product candidates. The Company recognizes expense associated with these arrangements based on the completion of activities as specified in the applicable contracts. Costs incurred under fixed fee contracts are accrued ratably over the contract period absent any knowledge that the services will be performed other than ratably. Costs incurred under contracts with clinical trial sites and principal investigators are generally accrued on a patients-treated basis consistent with the terms outlined in the contract. In determining costs incurred on some of these programs, the Company takes into consideration a number of factors, including estimates and input provided by internal program managers. Upon termination of such contracts, the Company is normally only liable for costs incurred or committed to date. As a result, accrued research and development expenses represent the Company's estimated contractual liability to outside service providers at any of the relevant times.

Income Taxes

The Company accounts for income taxes based upon the provisions of SFAS No. 109, *Accounting for Income Taxes* ("SFAS 109"). Under SFAS 109, deferred taxes are recognized using the liability method whereby tax rates are applied to cumulative temporary differences between carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes based on when and how they are expected to affect the tax return.

License Agreement

The present value of the amount payable under the license agreement with Arizona State University (see Note 5) has been capitalized and is being amortized over the term of the agreement (approximately 15.5 years). Over the next five years, the Company expects to record amortization expense of approximately $98,000 per year, or $490,000 over the five-year period, related to this license agreement. The difference between amounts actually paid and the carrying value was charged to interest expense in the accompanying consolidated statements of operations. Under SFAS 144, Company management has conducted an impairment analysis of its long-lived assets and has concluded that no fair value adjustment was necessary for the year ended December 31, 2006. In addition, the agreement provides for additional payments in connection with the license arrangement upon the initiation of certain clinical trials or the completion of certain regulatory approvals, which payments could be accelerated upon the achievement of certain financial milestones as defined in the agreement. The Company expenses these payments to research and development in the period the criteria, as defined in the agreement, is accomplished.

Depreciation

Furniture and fixtures, equipment and leasehold improvements are recorded at cost. Depreciation is recorded using the straight-line method over the estimated useful lives of the assets, which range from three to

five years. The Company had approximately $135,000 and $241,000 in net leasehold improvements, equipment and furniture and fixtures at December 31, 2005 and 2006, respectively.

Patents and Patent Applications

The Company has filed applications for patents in connection with technologies being developed. The patent applications and any patents issued as a result of these applications are important to the protection of the Company's technologies that may result from its research and development efforts. Costs associated with patent applications and maintaining patents are expensed as general and administrative expense as incurred.

Net Loss Per Share

Basic and diluted net loss per share was calculated in accordance with the provisions of SFAS No. 128, *Earnings Per Share*, by dividing the net loss per share by the weighted-average number of shares outstanding. Diluted net loss per share includes the effect of all dilutive, potentially issuable common shares using the treasury stock method. All outstanding options, warrants and unvested common shares issued by the Company were anti-dilutive due to the Company's net loss for all periods presented and accordingly, excluded from the calculation of weighted-average shares. Common stock equivalents of 2,119,000, 2,342,000 and 2,082,000 at December 31, 2004, 2005 and 2006, respectively, were excluded from the calculation of weighted average shares for diluted loss per share.

Stock-Based Compensation

Effective January 1, 2006, the Company adopted Statement of Financial Accounting Standards 123R, "Share-Based Payment" ("SFAS 123R"), which requires the expense recognition of the estimated fair value of all share-based payments issued to employees. For the periods prior to the adoption of SFAS 123R, the Company had elected to follow Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB 25"), and related interpretations in accounting for share-based payments. The Company had elected the disclosure-only alternative under Statement of Financial Accounting Standards 123, "Accounting for Stock-Based Compensation" ("SFAS 123"). Accordingly, when options granted to employees had an exercise price equal to the market value of the stock on the date of grant, no compensation expense was recognized. The Company adopted SFAS 123R under the modified prospective method. Under this method, beginning January 1, 2006, the Company recognizes compensation cost for all share-based payments to employees (1) granted prior to but not yet vested as of January 1, 2006 based on the grant date fair value determined under the provisions of SFAS 123 and (2) granted subsequent to January 1, 2006 based on the grant date estimate of fair value determined under SFAS 123R for those awards. Prior period financial information has not been restated.

For the fiscal year ended December 31, 2006, the Company recorded approximately $1,012,000 of expense associated with share-based payments, which would not have been recorded prior to the adoption of SFAS 123R. As a result of the adoption of SFAS 123R, the Company's net loss was higher by $1,012,000 for the year ended December 31, 2006 than if the Company had continued to account for the share-based compensation under APB 25. Basic and diluted net loss per share for the year ended December 31, 2006 was $0.04 more as a result of the adoption of SFAS 123R.

OXiGENE, INC.

Notes to Financial Statements — (Continued)

The following table illustrates the effect on net loss and net loss per share as if the Company had applied the fair value recognition provisions of SFAS 123 to its stock-based employee compensation for the fiscal years 2004 and 2005.

	Year Ended December 31,	
	2004	2005
	(In thousands, except per share data)	
Reported net loss	$ (10,024)	$ (11,909)
Add: stock-based employee compensation included in reported net loss	129	303
Less: stock-based employee compensation expense determined under the fair value method for all stock options	(2,250)	(1,814)
Pro forma net loss	$ (12,145)	$ (13,420)
Reported basic and diluted loss per share	$ (0.61)	$ (0.61)
Pro forma basic and diluted loss per share	$ (0.73)	$ (0.68)

Compensation cost associated with options issued under the 1996 and 2005 Plans was approximately $1,012,000 and $0 for the fiscal years ended December 31, 2006 and 2005, respectively. The stock options were valued using the Black-Scholes method of valuation, and the resulting fair value is recorded as compensation cost on a straight-line basis over the option vesting period. During the fiscal year ended December 31, 2006, options to purchase 462,000 shares of the Company's common stock were granted. The weighted average fair values of the options granted based on the assumptions outlined in the table below were $4.84, $4.06 and $2.90 for the fiscal years ended 2004, 2005 and 2006, respectively.

The fair value for the employee stock awards were estimated at the date of grant using a Black-Scholes option pricing model with the following weighted-average assumptions for 2004, 2005 and 2006:

Weighted Average Assumptions	2004	2005	2006
Risk-free interest rate	2.57%	4.19%	5.04%
Expected life	4 years	4 years	5 years
Expected volatility	118%	133%	95%
Dividend yield	0.00%	0.00%	0.00%

In calculating the estimated fair value of our stock options, the Black-Scholes pricing model requires the consideration of the following six variables for purposes of estimating fair value:

- the stock option exercise price,
- the expected term of the option,
- the grant date price of our common stock, which is issuable upon exercise of the option,
- the expected volatility of our common stock,
- the expected dividends on our common stock (we do not anticipate paying dividends in the foreseeable future), and
- the risk free interest rate for the expected option term

Stock Option Exercise Price and Grant Date Price of our common stock — The closing market price of our common stock on the date of grant.

Expected Term — The expected term of options represents the period of time for which the options are expected to be outstanding and is based on an analysis of historical behavior of option plan participants over time and a review of other similar companies in the biotechnology field.

OXiGENE, INC.

Notes to Financial Statements — (Continued)

Expected Volatility — The expected volatility is a measure of the amount by which the company stock price is expected to fluctuate during the term of the options granted. The Company determines the expected volatility based on the historical volatility of its common stock over a period commensurate with the option's expected term.

Expected Dividends — The Company has never declared or paid any cash dividends on its common stock and do not expect to do so in the foreseeable future. Accordingly, it uses an expected dividend yield of zero to calculate the grant date fair value of a stock option.

Risk-Free Interest Rate — The risk-free interest rate is the implied yield available on U.S. Treasury issues with a remaining life consistent with the option's expected term on the date of grant.

In 2004, 2005 and 2006, the Company recorded stock-based compensation expense of approximately $28,000, $5,000 and $0 respectively, in connection with options issued to non-employees.

Comprehensive Income (Loss)

SFAS No. 130, *"Reporting Comprehensive Income"* ("SFAS 130"), establishes rules for the reporting and display of comprehensive income (loss) and its components and requires unrealized gains or losses on the Company's available-for-sale securities and the foreign currency translation adjustments to be included in other comprehensive income (loss). Accumulated other comprehensive loss consisted of unrealized loss on available-for-sale securities of $85,000 and $19,000 at December 31, 2005 and 2006, respectively.

Revenue Recognition

Currently, the Company does not have any products available for sale. The only source of potential revenue at this time is from the license to a third party of the Company's formerly owned Nicoplex and Thiol Test technology. Revenue in connection with this license arrangement is earned based on sales of products or services utilizing this technology. Revenue is recognized under this agreement when payments are received due to the uncertainty of the timing of sales of products or services. License revenue of $7,000, $1,000 and $0 was recognized during the years ended December 31, 2004, 2005 and 2006, respectively, in connection with this license arrangement.

Agreements

In June 2006, the Company entered into a separation agreement with Frederick Driscoll, its former President and Chief Executive Officer. Pursuant to the separation agreement, Mr. Driscoll will receive aggregate severance payments of $325,000 and other miscellaneous fees and expenses, as described in the agreement. The Company also accelerated the vesting of the 80,000 shares of restricted stock granted to Mr. Driscoll in October 2005 so that the restrictions on such shares lapsed on June 29, 2006, and extended the exercise period until December 31, 2006 for any vested options as of the separation date. All unvested options as of June 29, 2006 were forfeited. As a result of the separation agreement, the Company recognized severance expense of approximately $335,000 and $192,000 of share-based compensation in June 2006. In accordance with the agreement, certain severance payments were made in the third quarter of 2006. A severance in the amount of $88,000 remains unpaid as of December 31, 2006 and is expected to be paid in 2007.

In June 2006, the Company entered into an employment agreement with Dr. Richard Chin to serve as the Company's President and Chief Executive Officer. As described in the agreement, Dr. Chin will receive annual cash compensation, a $200,000 commencement bonus, a portion of which is required to be repaid if Dr. Chin leaves the Company for any reason within one year, potential annual cash and equity bonuses, relocation expenses, an option to purchase 250,000 shares of the Company's common stock at an exercise price equal to the fair market value on the date of hire, vesting in equal annual increments over the next four years. The Company will grant to Dr. Chin 250,000 shares of restricted common stock on January 2, 2007 vesting in

equal annual increments over the four-year period commencing July 6, 2006. The expense for these restricted shares will be recognized in equal increments over a 3.5 year period beginning on the date of grant. The agreement also contains certain termination clauses described in the agreement. The termination clauses provide for immediate vesting of equity awards granted and earned on the date of termination in connection with the incentive compensation component of Dr. Chin's employment agreement with the Company. As a result of the employment agreement, the Company will recognize compensation and share-based compensation expense consistent with the terms outlined in the agreement beginning in the third quarter of 2006.

Restructuring

In August 2006, the Company implemented a restructuring plan in which it terminated 10 full-time employees, or approximately 30% of its work force. The purpose of the restructuring was primarily to streamline the clinical development operations in order to improve the effectiveness of efforts to develop the Company's potential product candidates. In connection with this restructuring, the Company recognized approximately $468,000 of research and development restructuring expenses and approximately $7,000 of general and administrative restructuring expenses in the quarter ended September 30, 2006. The restructuring expenses include severance payments and related taxes, which are expected to be paid through the end of fiscal 2007. In addition, the agreements with the affected employees include the payment by the Company of certain health and medical benefits during the severance period, which are expected to be paid through August 2007. The cost of health and medical benefits will be expensed as incurred and is expected to total approximately $26,000 for the 10 employees affected.

The following table sets forth the components of the Company's restructuring for the twelve-month period ended December 31, 2006 (in thousands):

	Original Charges	Adjustment	Adjusted Charges	Amounts Paid Through December 31, 2006	Amounts Accrued as of December 31, 2006
General and Administrative					
Employee severance and related costs	$ 7	$ —	$ 7	$ 7	$ —
Research and development					
Employee severance and related costs	468	7	475	144	331
Total restructuring	$ 475	$ 7	$ 482	$ 151	$ 331

Recent Accounting Pronouncements

In September, 2006, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards (SFAS) SFAS No. 157, entitled *Fair Value Measurements ("SFAS 157")*. This Statement defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles (GAAP), and expands disclosures about fair value measurements. SFAS 157 is effective for fiscal years beginning after November 15, 2007. The Company does not expect the adoption of SFAS 157 to have a material effect on its financial position or results of operations.

On July 13, 2006, the Financial Accounting Standards Board ("FASB") issued FASB Interpretation No. 48, ("FIN 48"), entitled *Accounting for Uncertainty in Income Taxes — an Interpretation of FASB Statement No. 109.* FIN 48 clarifies the accounting for income taxes by prescribing the minimum recognition threshold a tax position must meet before being recognized in the financial statements. FIN 48 applies to all tax positions related to income taxes subject to FAS 109. This includes tax positions considered to be

"routine", as well as those with a high degree of uncertainty. FIN 48 is effective for fiscal years beginning after December 15, 2006. The Company does not expect the adoption of FIN 48 to have a material affect on its financial position or results of operations.

2. Related Party Transactions

At December 31, 2005, the Company had approximately $187,000 in an outstanding note receivable from a director, in connection with a stock option award, which was included as a component of stockholders' equity. In November 2006, the note expired and the related shares were forfeited in settlement of the outstanding note.

3. Stockholders' Equity

In March 2005, the Company received gross proceeds of approximately $15,000,000 from the sale of 3,336,117 shares of its common stock and net proceeds of approximately $13,719,000 after the deduction of fees and expenses, pursuant to a shelf registration statement on Form S-3 filed with the Securities and Exchange Commission in October 2003, allowing it to sell up to $50,000,000 of its common stock, debt securities and/or warrants to purchase its securities. This shelf registration expired and no further amounts can be drawn.

In December 2005, the Company received gross proceeds of approximately $27,284,000 from the sale of 7,475,000 shares of its common stock and net proceeds of approximately $25,205,000 after the deduction of fees and expenses, pursuant to a shelf registration statement on Form S-3 filed with the Securities and Exchange Commission in September 2005, allowing it to sell up to $75,000,000 of its common stock, debt securities and/or warrants to purchase its securities. The Company has approximately $48,000,000 available on this shelf registration as of December 31, 2006.

Stock Incentive Plans

In 1996, the Company established the 1996 Stock Incentive Plan (the "1996 Plan"). Under the 1996 Plan, certain directors, officers and employees of the Company and its subsidiary and consultants and advisors thereto were eligible to be granted options to purchase shares of common stock of the Company. Under the terms of the 1996 Plan, "incentive stock options" ("ISOs") within the meaning of Section 422 of the Internal Revenue Code, "nonqualified stock options" ("NQSOs") and stock appreciation rights ("SARs") could be granted. A maximum of 2,500,000 shares could be awarded as either ISOs, NQSOs and SARs under the 1996 Plan.

In January 2002, under a Restricted Stock Program adopted in 2002, 208,541 shares of restricted common stock were issued to employees and consultants in connection with an offer to cancel options with exercise prices significantly above the market value of the Company's common stock on the date of adoption of the program. The restricted shares were subject to forfeiture and transfer restrictions until they vested, generally over a three-year period. As a result, the Company recognized a total non-cash compensation expense of approximately $703,000, including $130,000 in fiscal 2004, relating to this grant.

In July 2005, the stockholders approved the 2005 Stock Plan at the Company's Annual Meeting of Stockholders. Under the 2005 Stock Plan eligible employees, directors and consultants of the Company may be granted shares of common stock of the Company, stock-based awards and/or incentive or non-qualified stock options. A maximum of 2,500,000 shares could be awarded under the 2005 Plan. All awards to date vest in equal annual installments over 4 years, and the contractual life is 10 years. In the third quarter ended September 30, 2005, directors and officers of the Company were awarded a total of 520,000 shares of restricted common stock pursuant to the Company's 2005 Stock Plan. These shares have full voting rights and are eligible for dividends should they be declared. The restricted stock agreements contain lapsing repurchase

rights under which a portion of the shares granted would be forfeited to the Company should the director or officer no long serve in his capacity as a director or officer prior to the end of the four-year vesting term. The aggregate fair market value of the awards granted during the third quarter was approximately $2,403,000 and is based on the closing market value of the Company's common stock on the date of grant. On October 3, 2005, the Company cancelled 480,000 of these awards and immediately granted those directors and officers of the Company 480,000 shares of replacement restricted stock under the provisions of the Company's 2005 Stock Plan, in order to avail the participants of potential tax election benefits. The terms of the replacement awards are similar to those of the original award. The replacement grant resulted in a new measurement date and additional compensation expense of approximately $293,000, which in addition to the unamortized intrinsic value of the initial grant is amortized beginning in October 2005 over the remaining vesting period of the replacement grant. The Company recognized as an expense related to restricted stock $303,000 and $853,000 in 2005 and 2006, respectively. Fiscal year 2006 compensation expense includes $267,000 related to separation agreements in which the Company agreed to accelerate the vesting of 110,000 shares held by two recipients.

Options, Warrants and Non-Vested Stock

The following is a summary of the Company's stock option activity under the 1996 and 2005 Plans:

	Shares (In thousands)	Weighted-Average Exercise Price	Weighted Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value (In thousands)
Options outstanding at December 31, 2005	1,672	$ 6.31		
Granted	462	3.88		
Exercised	(168)	2.44		
Forfeited	(334)	5.84		
Options outstanding at December 31, 2006	1,632	$ 6.11	7.28	$ 877
Option exercisable at December 31, 2005	1,119	$ 6.19	5.80	$ 522
Option exercisable at December 31, 2006	1,024	$ 6.90	6.33	$ 493
Options vested or expected to vest at December 31, 2006	1,587	$ 6.16	7.23	$ 856

All of the stock options listed above are non-qualified stock options except for 98,036 options granted in 2006 which have an exercise price of $4.08

The weighted average grant date fair value of options granted during the fiscal years ended December 31, 2006, 2005 and 2004 was $2.90, $4.06 and $4.84, respectively. The total intrinsic value of options exercised during the fiscal years ended December 31, 2006, 2005 and 2004 was approximately $258,000, $9,000 and $146,000, respectively. As of December 31, 2006, there was approximately $1,766,000 of unrecognized compensation cost related to stock option awards that is expected to be recognized as expense over a weighted average period of 1.8 years. The total fair value of stock options that vested during the fiscal years ended December 31, 2006, 2005 and 2004 was approximately $936,000, $2,191,000 and $1,347,000, respectively.

In June 2003, the Company issued five-year warrants in connection with a private placement with three large institutional investors. As of December 31, 2006, there were 150,000 of such warrants outstanding and

exercisable, which expire in June 2008. The weighted average exercise price of the outstanding and exercisable warrants was $12.00 at December 31, 2006.

The following table summarizes the activity for unvested stock

	Shares (In thousands)	Weighted-Average Fair Value
Unvested at January 1, 2006	520	$ 5.18
Vested	(210)	5.19
Forfeited	(10)	5.20
Unvested at December 31, 2006	300	$ 5.18

In the third quarter of 2005, the Company awarded a total of 520,000 shares of restricted common stock pursuant to the Company's 2005 Stock Plan. These shares have full voting rights and are eligible to receive dividends should they be declared. The restricted stock agreements contain lapsing repurchase rights under which a portion of the shares granted would be forfeited to the Company should the director or officer no longer serve in his capacity as a director or officer prior to the end of the four-year vesting term. In October 2005, the Company canceled 480,000 of these awards and immediately granted those directors and officers of the Company 480,000 shares of replacement restricted common stock under the provisions of the Company's 2005 Stock Plan, in order to avail the participants of the ability to make a tax election under Section 83(b) of the Internal Revenue Code of 1986, as amended. The terms of the replacement awards are similar to those of the original awards. The replacement grant resulted in a new measurement date for those awards.

The restricted stock awards were valued based on the closing price of the Company's common stock on the date of grant, and compensation expense is recorded on a straight-line basis over the restricted share vesting period. The Company recorded expense of approximately $853,000 and $303,000 related to restricted stock awards in the fiscal years ended December 31, 2006 and 2005, respectively. In June 2006, as part of a separation agreement, the Company agreed to the lapsing of restrictions and accelerated the vesting of 80,000 shares held by one recipient. As a result, the Company re-measured the fair value of the shares as of the separation date, which resulted in a charge of approximately $188,000. In December 2006, as part of a separation agreement, the Company agreed to the lapsing of restrictions and accelerated the vesting of 30,000 shares held by one recipient. As a result, the Company re-measured the fair value of the shares as of the separation date, which resulted in a charge of approximately $79,000. As of December 31, 2006, there was approximately $1,348,000 of unrecognized compensation expense related to restricted stock awards that will be recognized as expense over a weighted average period of 2.7 years.

Notes Receivable

Certain stock options were exercised with the presentation of non-recourse promissory notes to the Company. The interest rate on the non-recourse promissory notes was 5.6% with maturity terms of one to three years. If the notes are not paid in accordance with their terms, the shares are forfeited. As of December 31, 2006 no notes were outstanding. In November 2006 the last remaining note expired upon and the corresponding 20,000 shares of the Company's common stock were forfeited in settlement of the outstanding note. In 2005, 10,856 shares were forfeited in connection with the expired notes.

Under the terms of the Restricted Stock Program, participants were permitted to request a loan from the Company, the proceeds of which were to be used to satisfy any participant tax obligations that arose from the awards. Each of these loans was evidenced by a promissory note. Principal amounts outstanding under the promissory note accrued interest at a rate of 10% per year, compounded annually. The principal amount, together with accrued interest on the principal amount, were scheduled to be repaid in three equal installments, on the first three anniversary dates of the stock grant date, unless extended by the Company. During 2004,

payments of principal and interest of $82,000 were received. During 2005, payments of principal and interest of approximately $57,000 were received. As of December 31, 2005, there were no remaining balances of principal and interest due to the Company.

Common Stock Available for Issuance

As of December 31, 2006, the Company has approximately 1,813,000 shares of its common stock available for future grant under the 2005 Stock Plan.

4. Income Taxes

At December 31, 2006, the Company had net operating loss carry-forwards of approximately $111,500,000 for U.S. income tax purposes, which will be expiring for U.S. purposes through 2026. Due to the degree of uncertainty related to the ultimate use of these loss carry-forwards, the Company has fully reserved this tax benefit. Additionally, the future utilization of the net operating loss carry-forwards are subject to limitations under the change in stock ownership rules of the Internal Revenue Service.

Components of the Company's deferred tax asset at December 31, 2006 and 2005 are as follows: (Amounts in thousands)

	2006	2005
Net operating loss carry-forwards	$ 45,360	$ 39,412
Stock-based awards	306	(60)
Research & development credits	882	685
Rent loss accrual	174	228
Other	63	37
Total deferred tax asset	46,785	40,302
Valuation allowance	$ (46,785)	$ (40,302)
Net deferred tax asset	$ —	$ —

The valuation allowance increased by approximately $6,483,000 and approximately $4,843,000 for the years ended December 31, 2006 and 2005, respectively, due primarily to the increase in net operating loss carry-forwards.

5. Commitments and Contingencies

Leases

The Company relocated its corporate headquarters in September 2003 from Watertown, Massachusetts to Waltham, Massachusetts. In the process, the Company executed a sublease for the space it is committed to in Watertown for a period of time that coincided with its commitment of space in Waltham, approximately five years from the date of the move. In May 2005, the Company executed a modification to its existing lease for its Waltham, Massachusetts headquarters. The lease modification expands the amount of space leased and extends the base term to May 2009. The modification resulted in a change in the Company's estimate of whether it would reoccupy its former headquarters location resulting in a charge of approximately $247,000 in the second quarter of 2005. The amount represents the difference between the amounts owed to the landlord of the Company's former Watertown headquarters and the amounts due from the Company's subtenant of that space over the remaining life of the lease.

The Company's rent expense for the year ended December 31, 2004 was approximately $134,000. Rent expense for the year ended December 31, 2005 was approximately $433,000, which included a charge of

approximately $247,000. Rent expense for the year ended December 31, 2006 was approximately $324,000. In June 2006, the Company executed a lease for 3,422 square feet of office space on the 6th floor of its Waltham, Massachusetts location. The lease term expires in May 2009. In September 2005, the Company executed a lease for approximately 600 square feet of office space in the Oxford Science Park, Oxford, UK. The lease is a month to month lease. Rent expense relating to the lease amounted to approximately $13,000 and $53,000 for 2005 and 2006, respectively.

The minimum annual rent commitments for the above leases are as follows: (Amounts in thousands)

	Gross Commitments	Receipts from Sublease	Net Commitments
2007	$ 702	$ (211)	$ 491
2008	716	(143)	573
2009	491	—	491
2010	297	—	297
2011	—	—	—
Thereafter	—	—	—
	$ 2,206	$ (354)	$ 852

License Agreements

In August 1999, the Company entered into an exclusive license for the commercial development, use and sale of products or services covered by certain patent rights owned by Arizona State University. The Company has paid a total of $1,800,000 in connection with the initial terms of the license. The Company capitalized the net present value of the total amount paid, or $1,500,000, and is amortizing this amount over the patent life or 15.5 years. In June 2002, this agreement was amended and provides for additional payments in connection with the license arrangement upon the initiation of certain clinical trials or the completion of certain regulatory approvals, which payments could be accelerated upon the achievement of certain financial milestones, as defined in the agreement. The license agreement also provides for additional payments upon the Company's election to develop certain additional compounds, as defined in the agreement. As of December 31, 2006, additional accelerated payments that have previously been expensed and paid, due to achievement of certain financial milestones, totaled $600,000, future milestone payments under this agreement could total up to an additional $300,000. These accelerated payments were expensed to research and development as triggered by the achievements defined in the agreement. The Company is also required to pay royalties on future net sales of products associated with these patent rights.

Litigation

From time to time, the Company may be a party to actions and claims arising from the normal course of its business. The Company will vigorously defend actions and claims against it. To the best of the Company's knowledge, there are no material suits or claims pending or threatened against the Company.

6. Retirement Savings Plan

The Company sponsors a savings plan available to all domestic employees, which qualifies under Section 401(k) of the Internal Revenue Code. Employees may contribute to the plan from 1% to 20% of their pre-tax salary subject to statutory limitations. At the present time, the Company does not provide matching contributions to the plan.

OXiGENE, INC.

Notes to Financial Statements — (Continued)

7. Quarterly Results of Operations (Unaudited)

The following is a summary of the quarterly results of operations for the years ended December 31, 2005 and 2006: (Amounts in thousands)

	Three Months Ended			
	March 31, 2005	June 30, 2005	September 30 2005	December 31, 2005
License revenue	$ —	$ —	$ —	$ —
Net loss	(2,028)	(3,058)	(3,444)	(3,379)
Basic and diluted net loss per share	$ (0.12)	$ (0.15)	$ (0.17)	$ (0.16)

	March 31, 2006	June 30, 2006	September 30, 2006	December 31, 2006
License revenue	$ —	$ —	$ —	$ —
Net loss	(3,336)	(4,995)	(3,730)	(3,396)
Basic and diluted net loss per share	$ (0.12)	$ (0.18)	$ (0.14)	$ (0.12)

Exhibit Number	Description
3.1	Restated Certificate of Incorporation of the Registrant.*
3.2	Amended and Restated By-Laws of the Registrant.%
3.3	Certificates of Amendment of Certificate of Incorporation, dated June 21, 1995 and November 15, 1996.**
3.4	Certificate of Amendment of Restated Certificate of Incorporation, dated July 14, 2005. !
4.1	Specimen Common Stock Certificate.*
4.2	Form of Warrant, dated as of June 10, 2003, issued to Roth Capital Partners, LLC.&&&
10.1	OXiGENE 1996 Stock Incentive Plan, as amended.+@
10.2	Collaborative Research Agreement, dated as of August 1, 1997, between the Registrant and Boston Medical Center Corporation.***
10.3	Technology Development Agreement, dated as of May 27, 1997, between the Registrant and the Arizona Board of Regents, acting for and on behalf of Arizona State University.***
10.4	Office Lease, dated February 28, 2000, between the Registrant and Charles River Business Center Associates, L.L.C.###
10.5	Research Collaboration and License Agreement, dated as of December 15, 1999, between OXiGENE Europe AB and Bristol-Myers Squibb Company.++
10.6	Employment Agreement between the Registrant and Joel Citron dated as of January 2, 2002.+++#@
10.7	Termination Agreement by and between the Registrant and Bristol-Myers Squibb Company, dated as of February 15, 2002.+++##
10.9	Independent Contractor Agreement For Consulting Services, dated as of April 1, 2001, between Registrant and David Chaplin Consultants, Ltd.#@
10.10	Employment Agreement, dated as of April 1, 2001, between the Registrant and Dr. David Chaplin.#@
10.11	Restricted Stock Agreement for Employees, dated as of January 2, 2002, between the Registrant and Dr. David Chaplin.#@
10.13	Form of Compensation Award Stock Agreement for Non-Employee Directors, dated as of January 2, 2002.#@
10.14	Amendment and Confirmation of License Agreement No. 206-01.LIC, dated as of June 10, 2002, between the Registrant and the Arizona Board of Regents, acting for and on behalf of Arizona State University.#
10.15	License Agreement No. 206-01.LIC by and between the Arizona Board of Regents, acting on behalf of and for Arizona State University, and OXiGENE Europe AB, dated August 2, 1999.&
10.16	Research and License Agreement between the Company and Baylor University, dated June 1, 1999.&
10.17	Agreement to Amend Research and License Agreement between the Company and Baylor University, dated April 23, 2002.&
10.18	“Addendum” to Research and License Agreement between the Company and Baylor University, dated April 14, 2003.&
10.19	License Agreement by and between Active Biotech AB (“Active”) and the Company dated November 16, 2001.&
10.20	License Agreement by and between Active and the Company dated April 23, 2002.&
10.21	Funded Research Agreement by and between the Company and The Foundation Fighting Blindness, effective as of October 30, 2002.&&
10.22	Registration Rights Agreement, dated as of June 10, 2003, among the Registrant and the Purchasers signatory thereto.&&&
10.23	Employment Agreement, dated as of February 23, 2004, between the Registrant and James B. Murphy.%@
10.24	Lease by and between The Realty Associates Fund III and the Registrant, dated as of August 8, 2003.%%
10.25	Sublease by and between Schwartz Communications, Inc. and the Registrant, dated as of March 16, 2004.%%
10.26	Stockholder Rights Agreement.!!
10.27	OXiGENE 2005 Stock Plan.!!!@

Exhibit Number	Description
10.28	Form of Incentive Stock Option Agreement under OXiGENE 2005 Stock Plan.$@
10.29	Form of Non-Qualified Stock Option Agreement under OXiGENE 2005 Stock Plan.$@
10.30	Form of Restricted Stock Agreement under OXiGENE 2005 Stock Plan.$@
10.31	Description of Director Compensation Arrangement.!!!!@
10.32	Description of Named Executive Officers Compensation Arrangements.!!!!@
10.33	Lease Modification Agreement No. 1 by and between The Realty Associates Fund III and the Registrant, dated as of May 25, 2005. !!!!
10.34	Second Amendment to Lease by and between BP Prospect Place LLC and the Registrant, dated as of March 28, 2006. $$
10.35	Employment Agreement, dated as of April 25, 2006, between the Registrant and Peter Harris, M.D. $$$@
10.36	Employment Agreement, dated as of June 29, 2006, between the Registrant and Dr. Richard Chin. $$$$@
10.37	Separation Agreement dated as of June 29, 2006, between the Registrant and Mr. Frederick W. Driscoll. $$$$@
10.38	Amendment No. 1 to Employment Agreement, dated September 26, 2006, between the Registrant and Joel-Tomas Citron.$$$$$@
14	Corporate Code of Conduct and Ethics.####
23	Consent of Ernst & Young LLP.
31.1	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32	Certification of Chief Executive and Financial Officers Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

* Incorporated by reference to the Registrant's Registration Statement on Form S-1 (file no. 33-64968) and any amendments thereto.

** Incorporated by reference to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1996.

*** Incorporated by reference to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1997.

**** Incorporated by reference to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1999.

Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2002.

Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2002.

Incorporated by reference to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2000.

Incorporated by reference to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2002.

\+ Incorporated by reference to the Registrant's Registration Statement on Form S-8 (file no. 333-92747) and any amendments thereto.

++ Incorporated by reference to the Registrant's Current Report on Form 8-K, filed on December 28, 1999.

& Incorporated by reference to Amendment No. 3 to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2002.

&& Incorporated by reference to Amendment No. 4 to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2002.

&&& Incorporated by reference to the Registrant's Registration Statement on Form S-3 (file no. 333-106307) and any amendments thereto.

&&&&	Incorporated by reference to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2003.
%	Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2004.
%%	Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2004.
!	Incorporated by reference to the Registrant's Registration Statement on Form S-8 (file no. 333-126636) and any amendments thereto.
!!	Incorporated by reference to the Registrant's Registration Statement on Form 8-A, dated March 30, 2005 and any amendments thereto.
!!!	Incorporated by reference to the Registrant's Current Report on Form 8-K, filed on July 11, 2005.
!!!!	Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2005.
$	Incorporated by reference to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2005.
$$	Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2006.
$$$	Incorporated by reference to the Registrant's Current Report on Form 8-K, filed on June 19, 2006.
$$$$	Incorporated by reference to the Registrant's Current Report on Form 8-K, filed on July 6, 2006.
$$$$$	Incorporated by reference to the Registrant's Current Report on Form 8-K, filed on September 29, 2006.
+++	Confidential treatment requested as to certain portions of the document, which portions have been omitted and filed separately with the Securities and Exchange Commission.
@	Management contract or compensatory plan or arrangement required to be filed as an exhibit to this Form 10-K pursuant to Item 15(a) of this report.

Exhibit 23

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statements (Form S-3 Nos. 333-128528, 333-106307 and 333-109433, and Form S-8 Nos. 333-05787, 333-92747, 333-32958, 333-84870, 333-84872, 333-117083 and 333-126636) of OXiGENE, Inc. and in the related Prospectuses, of our reports dated March 7, 2007, with respect to the financial statements of OXiGENE, Inc., OXiGENE, Inc. management's assessment of the effectiveness of internal control over financial reporting, and the effectiveness of internal control over financial reporting of OXiGENE, Inc., included in this Annual Report (Form 10-K) for the year ended December 31, 2006.

/s/ Ernst & Young LLP

Boston, Massachusetts
March 7, 2007

Exhibit 31.1

CERTIFICATION UNDER SECTION 302

I, Richard Chin, certify that:

1. I have reviewed this annual report on Form 10-K of OXiGENE, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ RICHARD CHIN
Richard Chin M.D.
Chief Executive Officer

Date: March 15, 2007

Exhibit 31.2

CERTIFICATION UNDER SECTION 302

I, James B. Murphy, certify that:

1. I have reviewed this annual report on Form 10-K of OXiGENE, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ James B. Murphy
James B. Murphy
Chief Financial Officer

Date: March 15, 2007

Exhibit 32

Certification
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code), each of the undersigned officers of OXiGENE, Inc., a Delaware corporation (the "Company"), does hereby certify, to such officer's knowledge, that:

The Annual Report for the year ended December 31, 2006 (the "Form 10-K") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and the information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 15, 2007

/s/ Richard Chin
Richard Chin, M.D. Chief Executive Officer

Dated: March 15, 2007

/s/ James B. Murphy
James B. Murphy, Chief Financial Officer

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.