

FORM 10-K
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D. C., 20549
ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF
THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2006
Commission file number 0-20713

ENTREMED, INC.

(Exact name of registrant as specified in its charter)

Delaware	58-1959440
(State of Incorporation)	(I.R.S. Employer Identification No.)
9640 Medical Center Drive, Rockville, MD	20850
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (240) 864-2600

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

Securities registered pursuant to Section 12(g) of the Act: Common Stock, Par Value \$0.01 Per Share

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 15 (d) of the 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 Act). Yes No

As of June 30, 2006, the aggregate market value of the shares of common stock held by non-affiliates was approximately \$108,679,233.

As of February 28, 2007, 84,890,998 shares of the Company's common stock were outstanding.

Documents Incorporated By Reference

Portions of the Registrant's Proxy Statement for its 2007 Annual Meeting of Stockholders (the "Proxy Statement"), to be filed with the Securities and Exchange Commission, are incorporated by reference to Part III of this Form 10-K Report.

ENTREMED, INC.
FORM 10-K — FISCAL YEAR ENDED DECEMBER 31, 2006
Contents and Cross Reference Sheet

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This report contains certain forward-looking statements within the meaning of Section 27A of the Securities Exchange Act of 1933, as amended and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements also may be included in other statements that we make. All statements that are not descriptions of historical facts are forward-looking statements. These statements can generally be identified by the use of forward-looking terminology such as “believes,” “expects,” “intends,” “may,” “will,” “should,” or “anticipates” or similar terminology. These forward-looking statements include, among others, statements regarding the timing of our clinical trials, our cash position and future expenses, and our future revenues.

Our forward-looking statements are based on information available to us today, and we will not update these statements. Although we believe that the expectations reflected in such forward-looking statements are reasonable as of the date thereof, actual results could differ materially from those currently anticipated due to a number of factors, including risks relating to the early stage of our product candidates under development operating losses and anticipated future losses; the value of our common stock; our need for additional capital; intense competition and rapid technological change in the biopharmaceutical industry; uncertainties relating to our patent and proprietary rights; uncertainties relating to clinical trials; estimated clinical trial commencement date; government regulation; and uncertainties of obtaining regulatory approval on a timely basis or at all. Additional information about the factors and risks that could affect our business, financial condition and results of operations, are contained in our filings with the U.S. Securities and Exchange Commission (SEC), which are available at www.sec.gov.

PART I

ITEM 1. BUSINESS.

OVERVIEW

EntreMed, Inc. (“EntreMed” or “the Company”) (Nasdaq: ENMD) is a clinical-stage pharmaceutical company focused on developing multi-mechanism oncology drugs that target disease cells directly and the blood vessels that nourish them. EntreMed is focused on developing drugs that we believe are safe and convenient, and provide the potential for improved patient outcomes.

EntreMed’s goal is to develop and commercialize therapeutics based on the Company’s scientific expertise in angiogenesis, cell cycle regulation and inflammation — processes vital to the progression of cancer and other diseases. The Company’s three clinical product candidates are based on these mechanisms. The Company’s expertise has also led to the identification of new molecules, including new chemical entities derived from 2ME2 (2-methoxyestradiol), as well as new chemical entities associated with multi-kinase inhibition and HDAC inhibition, important targets in the treatment of oncology.

Panzem® (2-methoxyestradiol or 2ME2), one of the Company’s two lead drug candidates, is currently being tested as a cancer therapeutic in four Phase 2 clinical trials, and has been granted U.S. Food and Drug Administration (FDA) Orphan Drug designation in three cancer indications, including glioblastoma multiforme (GBM), multiple myeloma, and ovarian cancer. Our second clinical stage compound is MKC-1, a novel cell cycle inhibitor, which is in Phase 2 clinical trials for cancer. In May 2006, the Company commenced clinical studies with its third clinical-stage compound, ENMD-1198, in patients with advanced cancer.

EntreMed is developing compounds that have broad therapeutic and commercial potential in oncology. In order to further advance its commercial objectives, EntreMed may seek strategic alliances, licensing relationships and co-development partnerships with other companies to develop compounds for both oncology and non-oncology therapeutic areas.

We were incorporated under Delaware law in 1991. Our principal executive offices are located at 9640 Medical Center Drive, Rockville, Maryland 20850, and our telephone number is (240) 864-2600.

MANAGEMENT

EntreMed’s management team has aligned the Company’s business strategy with its core scientific strengths, while maintaining prudent resource management, fiscal responsibility and accountability. Since 2004, the team has redirected EntreMed’s financial resources and R&D strategy to focus on small molecule drug candidates with broad therapeutic potential, manageable development costs, and significant commercial opportunity. Under its senior leadership, EntreMed is moving various small molecule compounds from discovery to clinical trials, including its two lead candidates, Panzem® NCD and MKC-1.

SCIENTIFIC FOUNDATION

EntreMed developed its initial drug pipeline based on comprehensive research into the relationship between malignancy and angiogenesis (the growth of new blood vessels). This research led to a focus on drug candidates that act on the cellular pathways that affect biological processes important in multiple diseases, specifically angiogenesis, inflammation and cell cycle regulation. EntreMed’s drug candidates have potential applications in oncology and other diseases involved with one or more of these pathways:

Angiogenesis. Angiogenesis is a multi-step process in which preexisting blood vessels send out capillary sprouts to produce new blood vessels. This tightly regulated process involves the migration, proliferation and differentiation of endothelial cells. In normal physiology, angiogenesis is a necessary component of the menstrual cycle and wound healing, where the process is regulated through appropriate shifts in the balance of pro-angiogenic and anti-angiogenic signals. This tight regulation of angiogenesis in normal physiology is absent or aberrant in multiple disease settings that are characterized by persistent, inappropriate blood vessel development.

Angiogenesis occurs in more than 80 diseases, particularly in various cancers where the growth of new blood vessels is necessary to sustain tumor growth, as well as arthritis, where inflammation triggers new blood vessel growth and joint erosion. EntreMed scientists, who have studied the process of angiogenesis in-depth for over a decade, are developing drug candidates to inhibit blood vessel formation and, in turn, control or stop diseases resulting from inappropriate blood vessel growth.

Cell Cycle Regulation. Cell cycle regulation is the replication, differentiation and death of cells. One specific aspect of cell cycle regulation is the programmed control of cell death (apoptosis). In certain diseases, such as cancer, the balance between cell proliferation and cell death is altered, resulting in inappropriate cell growth. EntreMed's compounds impact biochemical pathways in cells that result in their death via apoptosis. The Company believes that the selective induction of apoptosis through drugs that block cell cycle activities can either stabilize or cause the regression of cancer, inflammation and other disease processes characterized by inappropriate cell growth. EntreMed's preclinical studies have demonstrated induction of endothelial cell and tumor cell apoptosis.

Inflammation. Inflammation is the process involving the reaction of tissue to injury or disease. The condition may be either local or systemic and can be divided into acute (immediate) and chronic (prolonged) patterns. The endothelial cell and angiogenesis (formation of new blood vessels) are involved in inflammatory diseases. In contrast to acute inflammation, which is defined by vascular changes, edema, and white blood cell accumulation (neutrophils), chronic inflammation is characterized by additional white blood cell changes (macrophages and lymphocytes), tissue destruction, angiogenesis, and scarring. As a result, the cellular pathways involved in acute and chronic inflammation can be overlapping or distinct. Inflammation is a process that is associated with many diseases, including cancer and arthritis. Many of EntreMed's compounds have demonstrated both anti-inflammatory and anti-tumor properties in preclinical models.

Kinase Inhibition. Kinases are enzymes that are primary regulators of many essential processes in living cells. There are approximately 500 different kinases encoded in the human genome, and these proteins act together in intricate communication networks and pathways to control virtually every aspect of cellular function. The reliance of the cell on kinases to regulate function can be disastrous when kinase signaling becomes aberrant. Many human diseases have been linked to these enzymes including all forms of cancer, arthritis, inflammation, diabetes, and cardiovascular disease. The inhibition of kinases as a targeted therapeutic approach has now been validated by several drugs that have advanced successfully through clinical trials to the marketplace. The integral role kinases play in angiogenesis and cell cycle regulation has led EntreMed to develop inhibitors to key kinases involved in these processes. EntreMed's current lead kinase inhibitor ENMD-981693 has dual activity towards both angiogenesis and the cell cycle.

MULTI-MECHANISM PIPELINE

We believe EntreMed's pipeline offers promising and unique product candidates for continued development and commercialization for the following reasons:

Multiple Mechanisms of Action. EntreMed compounds work through multiple mechanisms of action (MOA). Therefore, a single compound can attack a disease through multiple cellular pathways, as well as impact different diseases. For example, 2ME2's MOAs include the inhibition of: 1) angiogenesis; 2) microtubule (cell structure) formation; and 3) hypoxia inducible factor-1 alpha (HIF-1 α), a protein required for angiogenesis and cell survival under stress. Apoptosis (cell death) can also be induced by 2ME2. Working through multiple mechanisms of action, 2ME2 has the potential to attack cancer cells through multiple pathways that affect the formation and replication of tumor cells, and can interrupt the formation of blood vessels that nourish tumor cells and sustain tumor growth.



Versatility. EntreMed's compounds have versatile potential therapeutic applications. While the Company's preclinical and clinical efforts continue to focus on oncology, EntreMed believes that other diseases characterized by angiogenesis represent future opportunities. However, at the present time, the Company's efforts are focused entirely on our core therapeutic programs in oncology and inflammation. Non-core programs will be evaluated on a case-by-case basis, and then only in the context of external license or development alliances.

Convenient Dosing. EntreMed is developing drug candidates that will be easy to use with minimal interruption to the patient's daily routine as compared to other modes of drug administration. The Company is focusing specifically on oral drug delivery technologies, as well as other convenient administration routes.

Intellectual Property Position. All EntreMed pipeline programs are backed by strong intellectual property rights. Each product candidate is covered by issued or pending composition, method and use patents. The Company owns, or has licensed on an exclusive basis, a total of 49 issued patents and patent applications in the United States for our product candidates. The Company has a total of 136 issued patents and pending patent applications in the United States and other countries.

The compounds in EntreMed's pipeline were either discovered internally or licensed from third parties. Panzem® (2ME2) is licensed from Children's Medical Center Corporation, the tubulin inhibitor program is licensed from Celgene Corporation, and MKC-1 is licensed from Roche. Other compounds were discovered and developed internally and, as a result, are EntreMed's sole property. EntreMed has retained commercial rights to all compounds, including our in-licensed compounds.

DEVELOPMENT PIPELINE

EntreMed's pipeline contains a balanced portfolio of clinical product candidates and promising preclinical compounds. The portfolio contains compounds that work primarily through multiple mechanisms-of-action and have demonstrated potential in both oncology and inflammatory diseases.

The Company's pipeline consists of two product candidates (Panzem® NCD and MKC-1) in multiple Phase 2 oncology studies, a Phase 1 oncology product candidate (ENMD-1198), plus late-stage preclinical programs for a multi-kinase inhibitor for the treatment of cancer, and 2ME2 in the treatment of rheumatoid arthritis.

PRODUCT	INDICATION	DISCOVERY	PRECLINICAL	PHASE 1	PHASE 2	PHAS
Panzem[®] NCD (2ME2)	Glioblastoma					
	Carcinoid Tumors					
	Hormone Refractory Prostate Cancer					
	Ovarian Cancer					
	Metastatic Breast Cancer					
MKC-1 (Cell Cycle Inhibitor)	Metastatic Breast Cancer					
	Non-Small Cell Lung Cancer					
	Leukemia					
ENMD-1198 (2ME2 Analogs)	Advanced Cancer					
Panzem[®]	Rheumatoid Arthritis					
Multi-Kinase Inhibitor	Cancer					
Tubulin Inhibitors	Cancer					
HDAC Inhibitors	Cancer					

CLINICAL PROGRAMS

Panzem[®]. Panzem[®] is one of two lead clinical candidates. 2ME2 has multiple mechanisms of action (MOA), including inhibiting angiogenesis, disrupting microtubule (cell structure) formation, down-regulating hypoxia inducible factor-one alpha (HIF-1 α , a survival protein), and inducing apoptosis (cell death). The 2ME2 mechanisms that are particularly relevant to the treatment of cancer involve inhibiting endothelial cell growth (anti-angiogenic activity) and killing tumor cells directly (pro-apoptotic activity).

Preclinical data has also shown that 2ME2 has activity in cell lines that are resistant to various chemotherapy agents including taxanes (microtubule stabilizing agents), etoposide, adriamycin and methotrexate (DNA synthesis interfering agents), and tamoxifen (anti-estrogen agent). Preclinical data has also shown that 2ME2 has an additive or synergistic effect when used in combination with approved cytotoxic agents, such as paclitaxel and temozolomide. Additionally, preclinical models show that 2ME2 has potential therapeutic applications in inflammatory diseases such as rheumatoid arthritis.

Panzem[®] NCD. EntreMed has formulated 2ME2 as an orally-administered liquid suspension (Panzem[®] NCD) using Elan Drug Delivery's (Elan) NanoCrystal[®] Colloidal Dispersion (NCD) technology to enhance 2ME2's bioavailability. NCD is Elan's proprietary technology that is used currently in multiple marketed pharmaceuticals. The NCD technology produces nanometer-sized particles, which are up to 500 times smaller than particles manufactured by conventional milling techniques. While Phase 1 and 2 clinical trials in 171 patients with a prior capsule formulation showed evidence of biological activity, the newer formulation increased bioavailability 5-10 fold to levels where optimum anti-tumor activity was observed in preclinical studies.

Panzem®
Clinical Development Program Overview in Cancer Patients

TRIAL TYPE	PANZEM FORMULATION	INDICATION	# OF PTS	STATUS	COMMENTS
Phase 2 (single agent)	NCD	Ovarian Cancer	17	Enrolling	Assess safety and efficacy.
Phase 2 (single agent)	NCD	Hormone Refractory Prostate Cancer	50	Enrolling	Assess safety and efficacy.
Phase 2 (single agent)	NCD	Glioblastoma	32	Enrolling	Assess safety, pharmacokinetics and efficacy.
Phase 2 in combination with Avastin®	NCD	Carcinoid Cancer	30	Enrolling	Assess safety and efficacy.
Phase 1b in combination with paclitaxel (Taxol®)	NCD	Metastatic Breast Cancer	15	Enrolling	Assess safety, pharmacokinetics and efficacy.
Phase 1b Part B (single agent)	NCD	Advanced Cancers	16	Enrolling	Assess safety, food effect, and modified schedule.
Phase 1b Part A (single agent)	NCD	Advanced Cancers	16	Closed	Well tolerated. Steady state 2ME2 levels achieved. Phase 2 dose determined.
Phase 2 (single agent)	Capsule	Multiple Myeloma	60	Closed	Well tolerated; some patients with stable disease extending 18-60+ months.

Since January 2006, the Company has commenced five additional clinical studies with Panzem® NCD. These studies include: 1) a Phase 2 clinical trial in glioblastoma multiforme (GBM) patients at the Duke University Medical Center Brain Tumor Center; 2) a Phase 1b study of Panzem® NCD in combination with paclitaxel (Taxol®) in patients with metastatic breast cancer, also being conducted at the Duke University Medical Center; 3) a Phase 2 multi-site study in combination with Avastin® in metastatic carcinoid tumor patients; 4) a multi-center Phase 2 study in patients with hormone refractory prostate cancer; and 5) a multi-center Phase 2 study in patients with recurrent or resistant epithelial ovarian cancer. Additional Phase 2 studies under consideration include renal cell cancers and 2ME2 in combination with temozolomide (Temodar®) for the treatment of GBM patients.

MKC-1. MKC-1 is an orally-active, small molecule, cell cycle inhibitor with a unique mechanism of action. Specifically, MKC-1 arrests cellular mitosis by inhibiting a novel intracellular target important in cellular trafficking that has been shown to be involved in cell division. Since January 2006, the Company has commenced three clinical studies with MKC-1. These studies include: 1) a Phase 2 clinical trial of MKC-1 in metastatic breast cancer patients; 2) a Phase 1 study in hematological cancers; and 3) a Phase 2 study of MKC-1 in combination with pemetrexed (Alimta®) in patients with non-small cell lung cancer.



MKC-1
Clinical Development Program Overview in Cancer Patients

TRIAL TYPE	INDICATION	# OF PTS	STATUS	COMMENTS
Phase 2 (single agent)	Metastatic Breast Cancer	60	Enrolling	Assess safety and efficacy.
Phase 2 in combination with Alimta [®]	Advanced Cancer and Non-Small Cell Lung Cancer (NSCLC)	60	Enrolling	Assess safety and efficacy.
Phase 1 (single agent)	Hematological Malignancies	24	Enrolling	Assess safety and efficacy.

ENMD-1198. EntreMed discovered a New Chemical Entity (NCE) that inhibits tumor growth based on modifying the chemical structure of 2-methoxyestradiol (2ME2) to increase its anti-tumor and anti-angiogenic properties, as well as decrease its rate of metabolism. The lead compound from this program, ENMD-1198, demonstrated improved pharmacokinetic parameters and improved metabolism while maintaining 2ME2's multiple mechanisms of action.

ENMD-1198 has shown excellent anti-tumor activity in several preclinical animal models. Preclinical data demonstrated that oral administration of ENMD-1198 leads to pronounced *in vivo* anti-tumor activity in cancer models, resulting in a reduction of tumor burden and/or an increase in survival when compared to controls. Oral daily treatment with ENMD-1198 in an orthotopic animal model of human breast cancer led to the disruption of microtubules within tumor cells and a substantial decrease in tumor cell proliferation and angiogenesis. In May 2006, the Company initiated a Phase 1 trial to evaluate the safety, tolerability, pharmacokinetics, and clinical benefit of ENMD-1198 in patients with advanced cancer.

PRECLINICAL PIPELINE

EntreMed has a portfolio of preclinical compounds and programs that are based on the Company's scientific expertise in angiogenesis, cell cycle regulation and inflammation. The Company's strategy is to continue adding value to its pipeline by advancing its best preclinical assets forward into clinical development, while selectively exploring strategic alliances and co-development partners. EntreMed expects to submit INDs in 2007 for two late-stage preclinical programs — 2ME2 for rheumatoid arthritis and ENMD-981693 for oncology.

2ME2 for Rheumatoid Arthritis. The mechanisms ascribed to 2ME2, namely anti-angiogenesis, pro-apoptosis, down regulation of HIF-1 α , and inhibition of bone resorption, have implicated its use in diseases with inflammatory components, such as rheumatoid arthritis. EntreMed and its collaborators have now established the dose-dependent, anti-arthritis activity of 2ME2 following oral administration in four distinct animal models of rheumatoid arthritis. This activity has been manifested as an inhibition in 1) the infiltration of inflammatory cells, 2) pannus formation, 3) cartilage lesions, and 4) bone resorption.

Treatment with 2ME2 has resulted in a dose-dependent decrease in the severity of RA disease in preclinical models, strongly suggesting disease-modifying anti-rheumatic drug (DMARD) activity – the potential to treat the underlying pathology of rheumatoid arthritis, rather than merely treating symptoms such as pain. Based on these results, EntreMed has initiated IND-enabling toxicology studies for 2ME2 in rheumatoid arthritis. The use of Panzem[®] for rheumatoid arthritis opens the possibility to cross over with 2ME2 into a second therapeutic area with a large, still underserved market.

Aurora Kinase Inhibitors. Aurora kinases are key regulators of the process of mitosis, or cell division, and are often over-expressed in human cancers. Specifically, one of these compounds, ENMD-981693, is a multi-target kinase inhibitor with a unique selectivity profile and multiple mechanisms of action, including antiproliferative activity and the inhibition of angiogenesis. IND-directed studies are currently underway, with the filing of an IND anticipated in the second half of 2007.

Tubulin Inhibitors. Tubulin inhibitors comprise a broad family of compounds that bind to tubulin and disrupt microtubules, resulting in programmed cell death (apoptosis). In March 2005, the Company in-licensed Celgene's tubulin inhibitor program. The Company has obtained an exclusive worldwide license to a broad grouping of these compounds for oncology and assumed responsibility for the preclinical and clinical development of the tubulin inhibitors for oncology applications. Results from *in vitro* and *in vivo* studies have shown that Celgene's tubulin inhibitors prevent tumor cell proliferation in a dose-dependent manner and, based on *in vitro* studies, inhibit angiogenesis.

HDAC Inhibitors. A histone deacetylase (HDAC) inhibitor program is currently in preclinical evaluation. HDAC inhibitors have been shown to arrest cancer cell growth and/or induce apoptosis both *in vivo* and *in vitro*.

BUSINESS DEVELOPMENT STRATEGY

Oncology is EntreMed's principal clinical and commercial focus, although recent data support further development of our compounds in certain non-oncology applications, such as rheumatoid arthritis. As a result, EntreMed's strategy is to continue developing compounds for oncology and inflammatory diseases, while selectively exploring strategic alliances for its compounds in other therapeutic areas. The Company may pursue co-development partners for its core pipeline product candidates to help accelerate their development and strengthen the development program with complementary expertise. Likewise, EntreMed can provide its co-development partners with substantial know-how relating to small molecules that inhibit angiogenesis and inflammation, as well as regulate cell cycle pathways.

Oncology Focus with Multi-Therapeutic Potential. EntreMed is focused on oncology. Panzem[®] NCD and MKC-1, our two lead oncology product candidates, are currently in Phase 2 clinical studies in glioblastoma, carcinoid, prostate, ovarian, non-small cell lung, and metastatic breast cancer patients. ENMD-1198 is currently in Phase 1b dose-escalation studies in advanced cancer patients. These product candidates play to our strength in angiogenesis, cell cycle regulation and inflammation.

Commercialization Goal. EntreMed's goal is to commercialize its pipeline, led by Panzem[®] NCD, MKC-1, and ENMD-1198. The Company is committed to maintaining a balanced portfolio of oncology compounds that can be co-developed with pharmaceutical and biotechnology partners, or commercialized for the Company's own account. EntreMed is committed to pursuing value-creating technologies and products, making sound financial decisions, and building the financial capacity to develop its clinical portfolio.

EMPLOYEES

As of December 31, 2006, we had 57 employees, consisting of 56 full-time employees and 1 part-time employee. Forty employees work in our research and development department. Certain of our activities, such as manufacturing and clinical trial operations, are outsourced at the present time. We may hire additional personnel, in addition to utilizing part-time or temporary consultants, on an as-needed basis. None of our employees are represented by a labor union, and we believe our relations with our employees are satisfactory.

RELATIONSHIPS – CORPORATE AND NON-PROFIT

Corporate Transactions.

- Celgene. In March 2005, we in-licensed Celgene’s tubulin inhibitor program. We have assumed the responsibility for the preclinical and clinical development of tubulin inhibitors for oncology applications under this program. Celgene is our largest shareholder.
- Children’s Medical Center Corporation (CMCC). As part of our three-way agreement with Alchemgen Therapeutics, Inc. executed in February 2004, CMCC holds the licenses for Endostatin and Angiostatin for all markets outside of Asia.

Contract Manufacturing. The manufacturing efforts for the production of our clinical trial materials are performed by contract manufacturing organizations. Established relationships, coupled with supply agreements, have secured the necessary resources to ensure adequate supply of clinical materials to support our clinical development program. We believe that our current strategy of outsourcing manufacturing is cost-effective and allows for the flexibility we require.

2ME2 drug substance is currently bulk manufactured by Akzo Nobel and Panzem® NCD is currently manufactured by Elan Drug Delivery, Inc. We do not anticipate any challenges in securing contract manufacturing capacity at either of these facilities to produce Panzem® NCD.

Sponsored Research Agreements. To complement our in-house research and development efforts, we have entered into sponsored research agreements with outside scientists to conduct specific projects as outlined below. Under these agreements, we have secured the rights to intellectual property and to develop under exclusive license any discoveries resulting from these collaborations. The funds we provide in accordance with these agreements partially support the scientists’ laboratory, research personnel and research supplies.

Cooperative Research and Development Agreements (CRADAs). EntreMed extended its existing CRADA with the National Cancer Institute:

- “Preclinical and Clinical Development of 2ME2 (Panzem®)” (Expires April 2007).
- “2-Methoxyestradiol (2ME2) and 2ME2 Analogs as Inhibitors of Hypoxia Inducible Factor-1 alpha (HIF-1 α)” (Expires September 2008).

Clinical Trial Centers. As of February 7, 2007, we are conducting clinical trials at the following institutions:

- Dana-Farber Cancer Institute, Boston, MA
- Duke University Medical Center, Durham, NC
- Indiana University Cancer Center, Indianapolis, IN
- Mayo Clinic, Rochester, MN
- Wisconsin Comprehensive Cancer Center, Madison, WI
- Johns Hopkins University, Baltimore, MD
- MD Anderson Cancer Center, Houston, TX
- The Don and Sybil Harrington Cancer Center, Amarillo, TX
- University of Iowa, Iowa City, IA
- University of Maryland, Baltimore, MD
- University of Colorado Cancer Center, Aurora, CO

– St. Vincent Hospital and Health Care Centers, Inc., Indianapolis, IN
PATENTS, LICENSES AND PROPRIETARY RIGHTS

Our success will depend in part on our ability to obtain patent protection for our products, both in the United States and abroad. The patent position of biotechnology and pharmaceutical companies, in general, is highly uncertain and involves complex legal and factual questions.

Following the February 2004 transfer of the licenses for endostatin and angiostatin back to Children's Hospital, Boston, EntreMed, Inc. and its subsidiary, Miikana Therapeutics, Inc., own, or have licensed on an exclusive basis, a total of 61 issued patents and patent applications in the United States for our product candidates. EntreMed, Inc. and its subsidiary, Miikana Therapeutics, Inc., have a total of 205 issued patents and pending patent applications in the United States and other countries.

We have licensed technology exclusively from Children's Hospital, Boston, which covers the use of steroid-derived small molecular weight compounds such as Panzem[®] that are antimetabolic and antiangiogenic agents. A U.S. patent application has been issued covering purified Panzem[®] as a composition of matter. There are eight pending United States patent applications and **fourteen** allowed or issued United States patents covering Panzem[®] technology. Patent applications also cover estrogen-related compounds with anti-fungal activity and the treatment of localized atherosclerosis. The terms of the licenses for Panzem[®] extend until the last underlying patent expires.

We have patent applications filed in both the U.S. and selected international jurisdictions that cover the steroid-derived small molecule designated ENMD 1198 that is currently in the clinic. In addition, we have patent applications and patents filed in both the U.S. and selected international jurisdictions that cover the small molecule designated MKC-1 that is currently in the clinic.

We own the technology associated with our 2ME2 analogs, PAR-2 inhibitors, TFPI peptides, and NCEs for oncology and inflammation.

Many patent applications corresponding to the above-described United States patent applications have been filed in Europe, Japan, Canada, Australia, and other selected countries.

EntreMed, Inc. and its subsidiary, Miikana Therapeutics, Inc. have registered the trademarks ENTREMED, MIIKANA, PANZEM[®] and THE ANGIOGENESIS COMPANY in the U.S. Patent and Trademark Office and have applied for registration of the marks in selected foreign countries.

GOVERNMENT REGULATION

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

In the United States, the Food and Drug Administration (FDA) will regulate our product candidates currently being developed as drugs or biologics. New drugs are subject to regulation under the Federal Food, Drug, and Cosmetic Act (FFDCA), and biological products, in addition to being subject to certain provisions of that Act, are regulated under the Public Health Service Act (PHSA). We believe that the FDA is likely to regulate the products currently being developed by us or our collaborators as new drugs. Both the FFDCA and PHSA and corresponding regulations govern, among other things, the testing, manufacturing, safety, efficacy, labeling, storage, recordkeeping, advertising and other promotion of biologics or new drugs, as the case may be. FDA clearances or approvals must be obtained before clinical testing, and before manufacturing and marketing of biologics or drugs.

Preparing drug candidates for approval has historically been a costly and time-consuming process. Generally, in order to gain FDA permission to test a new agent, a developer first must conduct preclinical studies in the laboratory and in animal model systems to gain preliminary information on an agent's effectiveness and to identify any safety problems. The results of these studies are submitted as a part of an Investigational New Drug (IND) application for a drug or biologic, which the FDA must review before human clinical trials of an investigational drug can begin. In addition to the known safety and effectiveness data on the drug or biologic, the IND must include a detailed description of the clinical investigations proposed to be undertaken. Based on the current FDA organizational structure, Panzem[®], 2ME2 analogs, and other compounds in our small molecule programs are expected to be regulated as new drugs by the FDA's Center for Drug Evaluation and Research (CDER). Generally, as new chemical entities like our small molecules are discovered, formal IND-directed toxicology studies will be required prior to initiating human testing. Clinical testing may begin 30 days after submission of an IND to the FDA unless FDA objects to the initiation of the study, or at such earlier time as FDA expressly permits.

In order to commercialize any drug or biological products, we or our collaborators must sponsor and file an IND and conduct clinical studies to demonstrate the safety and effectiveness necessary to obtain FDA approval of such products. For studies conducted under INDs sponsored by us or our collaborators, we or our collaborators will be required to select qualified investigators (usually physicians within medical institutions) to supervise the administration of the products, test or otherwise assess patient results, and collect and maintain patient data; monitor the investigations to ensure that they are conducted in accordance with applicable requirements, including the requirements set forth in the general investigational plan and protocols contained in the IND; and comply with applicable reporting and recordkeeping requirements.

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

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

The testing and approval processes require substantial time and effort and there can be no assurance that any approval will be obtained on a timely basis, if at all. Although it is the policy of the FDA to complete the review of the initial submission of NDAs within six to twelve months, the entire FDA review process may take several years to receive approval. Notwithstanding the submission of relevant data, the FDA may ultimately decide that the NDA does not satisfy its regulatory criteria and deny the approval. Further, the FDA may require additional clinical studies before making a decision on approval. In addition, the FDA may condition marketing approval on the conduct of specific post-marketing studies to further evaluate safety and effectiveness. Even if FDA regulatory clearances are obtained, a marketed product is subject to continuing regulatory requirements and review relating to GMP, adverse event reporting, promotion and advertising, and other matters. Discovery of previously unknown problems or failure to comply with the applicable regulatory requirements may result in restrictions on the marketing of a product or withdrawal of the product from the market, as well as possible civil or criminal sanctions.

COMPETITION

Competition in the pharmaceutical, biotechnology and biopharmaceutical industries is intense and based significantly on scientific and technological factors, the availability of patent and other protection for technology and products, the ability and length of time required to obtain governmental approval for testing, manufacturing and marketing and the ability to commercialize products in a timely fashion. Moreover, the biopharmaceutical industry is characterized by rapidly evolving technology that could result in the technological obsolescence of any products that we develop.

We compete with many specialized biopharmaceutical firms, as well as a growing number of large pharmaceutical companies that are applying biotechnology to their operations. Many biopharmaceutical companies have focused their development efforts in the human therapeutics area, including oncology and inflammation, and many major pharmaceutical companies have developed or acquired internal biotechnology capabilities or made commercial arrangements with other biopharmaceutical companies. These companies, as well as academic institutions, governmental agencies and private research organizations, also compete with us in recruiting and retaining highly qualified scientific personnel and consultants.

Our competition will be determined in part by the potential indications for which our product candidates may be developed and ultimately approved by regulatory authorities. We may rely on third parties to commercialize our products, and accordingly, the success of these products will depend in significant part on these third parties' efforts and ability to compete in these markets. The success of any collaboration will depend in part upon our collaborative partners' own competitive, marketing and strategic considerations, including the relative advantages of alternative products being developed and marketed by our collaborative partners and our competitors.

Many of our existing or potential competitors have substantially greater financial, technical and human resources than we do and may be better equipped to develop, manufacture and market products. In addition, many of these competitors have extensive experience in preclinical testing and human clinical trials and in obtaining regulatory approvals. The existence of competitive products, including products or treatments of which we are not aware, or products or treatments that may be developed in the future, may adversely affect the marketability of products that we may develop.

Available Information

Through our website at www.entremed.com, we make available, free of charge, our filings with the Securities and Exchange Commission ("SEC"), including our annual proxy statements, annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, and all amendments thereto, as soon as reasonably practicable after such reports are filed with or furnished to the Securities and Exchange Commission. Our filings are also available through the Securities and Exchange Commission via their website, <http://www.sec.gov>. You may also read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The information contained on our website is not incorporated by reference in this annual report on Form 10-K and should not be considered a part of this report.

ITEM 1A. RISK FACTORS.

We Have a History of Losses and Anticipate Future Losses

To date, we have been engaged primarily in research and development activities. Although we have received license fees and research and development funding from a former collaborator, limited revenues on royalties from sales of Thalomid[®] and certain research grants, we have not derived significant revenues from operations.

At December 31, 2006, we had an accumulated deficit of approximately \$311,637,000. Losses have continued since December 31, 2006. We will also be required to conduct substantial research and development and clinical testing activities for our proposed products. We expect that these activities will result in operating losses for the foreseeable future before we commercialize any products, if ever. In addition, to the extent we rely on others to develop and commercialize our products, our ability to achieve profitability will depend upon the success of these other parties. To support our research and development of certain product candidates, we also may rely on cooperative agreements from governmental and other organizations as a source of support. If our cooperative agreements were to be reduced to any substantial extent, it may impair our ability to continue our research and development efforts. Even if we do achieve profitability, we may be unable to sustain or increase it.

The Market Price of Our Common Stock May Be Highly Volatile or May Decline Regardless of Our Operating Performance.

Our stock price has fluctuated from year-to-year and quarter-to-quarter and will likely continue to be volatile. The valuations of many biotechnology companies without consistent product revenues and earnings are extraordinarily high based on conventional valuation standards, such as price to earnings and price to sales ratios. These trading prices and valuations may not be sustained. In the future, our operating results in a particular period may not meet the expectations of any securities analysts whose attention we may attract, or those of our investors, which may result in a decline in the market price of our common stock. Any negative change in the public's perception of the prospects of biotechnology companies could depress our stock price regardless of our results of operations. These factors may materially and adversely affect the market price of our common stock.

Development of Our Products is at an Early Stage and is Uncertain

Our proposed products and research programs are in the early stage of clinical development and require significant, time-consuming and costly research and development, testing and regulatory clearances. In developing our products, we are subject to risks of failure that are inherent in the development of products and therapeutic procedures. For example, it is possible that any or all of our proposed products will be ineffective or toxic, or otherwise will fail to receive necessary FDA clearances. There is a risk that the proposed products will be uneconomical to manufacture or market or will not achieve market acceptance. There is also a risk that third parties may hold proprietary rights that preclude us from marketing our proposed products or that others will market a superior or equivalent product. Further, our research and development activities might never result in commercially viable products.

Our product candidates are at the clinical and preclinical stages of development. Although several of our product candidates have demonstrated some promising results in early clinical (human) trials and preclinical (animal) studies, they may not prove to be effective in humans. For example, testing on animals may occur under different conditions than testing in humans and therefore the results of animal studies may not accurately predict human experience. Likewise, early clinical studies may not be predictive of eventual safety or effectiveness results in larger-scale pivotal clinical trials.

There are many regulatory steps that must be taken before any of these product candidates will be eligible for FDA approval and subsequent sale, including the completion of preclinical and clinical trials. We do not expect that these product candidates will be commercially available for several years, if ever.

Even If Panzem[®] is Approved, the Commercial Success of Our Oncology Business is Uncertain and We May Not Be Able to Recover the Value of Our Investment.

Even if Panzem[®] is approved by the FDA, the market for oncology treatments is competitive and complex. The commercial success of the product will be limited if we cannot successfully manufacture, distribute and sell it in jurisdictions in which it is approved. There can be no assurance that demand for our drugs will support a volume and price that will achieve a profit in accordance with our expectations, or that our revenues for these products will exceed our cost of goods.

Technological Developments By Competitors May Render Our Products Obsolete.

If competitors were to develop superior technologies, our technologies could be rendered noncompetitive or obsolete, resulting in a material adverse effect to our business. Developments in the biotechnology and pharmaceutical industries are expected to continue at a rapid pace. Success depends upon achieving and maintaining a competitive position in the development of products and technologies. Competition from other biotechnology and pharmaceutical companies can be intense. Many competitors have substantially greater research and development capabilities, marketing, financial and managerial resources and experience in the industry. Even if a competitor creates a technology that is not superior, we may not be able to compete with such technology.

We are Uncertain Whether Additional Funding Will Be Available For Our Future Capital Needs and Commitments, and If We Cannot Raise Additional Funding, We May Be Unable to Complete Development of Our Product Candidates.

We will require substantial funds in addition to our existing working capital to develop our product candidates and otherwise to meet our business objectives. We have never generated sufficient revenue during any period since our inception to cover our expenses and have spent, and expect to continue to spend, substantial funds to continue our research and development and clinical programs. Any one of the following factors, among others, could cause us to require additional funds or otherwise cause our cash requirements in the future to increase materially:

- results of research and development activities;
- progress of our preclinical studies or clinical trials;
- results of clinical trials;
- changes in or terminations of our relationships with strategic partners;
- changes in the focus, direction, or costs of our research and development programs;
- competitive and technological advances;
- establishment of marketing and sales capabilities;
- manufacturing;
- the regulatory approval process; or
- product launch.

At December 31, 2006, we had cash and cash equivalents and marketable securities of \$50,570,097. We currently have no commitments or arrangements for any financing. We may continue to seek additional capital through public or private financing or collaborative agreements. If adequate funds are not available to us as we need them, we may be required to curtail significantly, or eliminate at least temporarily, one or more of our drug development programs.

We Must Show the Safety and Efficacy of Our Product Candidates Through Clinical Trials, the Results of Which are Uncertain

Before obtaining regulatory approvals for the commercial sale of our products, we must demonstrate, through preclinical studies (animal testing) and clinical trials (human testing), that our proposed products are safe and effective for use in each target indication. Testing of our product candidates will be required, and failure can occur at any stage of testing. Clinical trials may not demonstrate sufficient safety and efficacy to obtain the required regulatory approvals or result in marketable products. The failure to adequately demonstrate the safety and efficacy of a product under development could delay or prevent regulatory approval of the potential product.

Clinical trials for the product candidates we are developing may be delayed by many factors, including that potential patients for testing are limited in number. The failure of any clinical trials to meet applicable regulatory standards could cause such trials to be delayed or terminated, which could further delay the commercialization of any of our product candidates. Newly emerging safety risks observed in animal or human studies also can result in delays of ongoing or proposed clinical trials. Any such delays will increase our product development costs. If such delays are significant, they could negatively affect our financial results and the commercial prospects for our products.

The Independent Clinical Investigators and Contract Research Organizations That We Rely Upon to Assist in the Conduct of Our Clinical Trials May Not Be Diligent, Careful or Timely, and May Make Mistakes, in the Conduct of Our Trials.

We depend on independent clinical investigators and contract research organizations, or CROs, to assist in the conduct of our clinical trials under their agreements with us. The investigators are not our employees, and we cannot control the amount or timing of resources that they devote to our programs. If independent investigators fail to devote sufficient time and resources to our drug development programs, or if their performance is substandard, it will delay the approval of our FDA applications and our introduction of new drugs. The CROs we contract with to assist with the execution of our clinical trials play a significant role in the conduct of the trials and the subsequent collection and analysis of data. Failure of the CROs to meet their obligations could adversely affect clinical development of our products.

The Success of Our Business Depends Upon the Members of Our Senior Management Team, Our Scientific Staff and Our Ability to Continue to Attract and Retain Qualified Scientific, Technical and Business Personnel.

We are dependent on the principal members of our management team and scientific staff for our business success. The loss of any of these people could impede the achievement of our development and business objectives. We do not carry key man life insurance on the lives of any of our key personnel. There is intense competition for human resources, including management, in the scientific fields in which we operate and there can be no assurance that we will be able to attract and retain qualified personnel necessary for the successful development of our product candidates, and any expansion into areas and activities requiring additional expertise. In addition, there can be no assurance that such personnel or resources will be available when needed. In addition, we rely on a significant number of consultants to assist us in formulating our research and development strategy and other business activities. All of our consultants may have commitments to, or advisory or consulting agreements with, other entities that may limit their availability to us.

We May Need New Collaborative Partners to Further Develop and Commercialize Products, and if We Enter Into Such Arrangements, We May Give Up Control Over the Development and Approval Process and Decrease our Potential Revenue

We plan to develop and commercialize our product candidates both with and without corporate alliances and partners. Nonetheless, we intend to explore opportunities for new corporate alliances and partners to help us develop, commercialize and market our product candidates. We expect to grant to our partners certain rights to commercialize any products developed under these agreements, and we may rely on our partners to conduct research and development efforts and clinical trials on, obtain regulatory approvals for, and manufacture and market any products licensed to them. Each individual partner will seek to control the amount and timing of resources devoted to these activities generally. We anticipate obtaining revenues from our strategic partners under such relationships in the form of research and development payments and payments upon achievement of certain milestones. Since we generally expect to obtain a royalty for sales or a percentage of profits of products licensed to third parties, our revenues may be less than if we retained all commercialization rights and marketed products directly. In addition, there is a risk that our corporate partners will pursue alternative technologies or develop competitive products as a means for developing treatments for the diseases targeted by our programs.

We may not be successful in establishing any collaborative arrangements. Even if we do establish such collaborations, we may not successfully commercialize any products under or derive any revenues from these arrangements. Our strategy also involves entering into multiple, concurrent strategic alliances to pursue commercialization of our core technologies. There is a risk that we will be unable to manage simultaneous programs successfully. With respect to existing and potential future strategic alliances and collaborative arrangements, we will depend on the expertise and dedication of sufficient resources by these outside parties to develop, manufacture, or market products. If a strategic alliance or collaborative partner fails to develop or commercialize a product to which it has rights, we may not recognize any revenues on that particular product.

We Have No Current Manufacturing or Marketing Capacity and Rely on Only One Supplier For Some of Our Products

We do not expect to manufacture or market products in the near term, but we may try to do so in certain cases. We do not currently have the capacity to manufacture or market products and we have limited experience in these activities. If we elect to perform these functions, we will be required to either develop these capacities, or contract with others to perform some or all of these tasks. We may be dependent to a significant extent on corporate partners, licensees, or other entities for manufacturing and marketing of products. If we engage directly in manufacturing or marketing, we will require substantial additional funds and personnel and will be required to comply with extensive regulations. We may be unable to develop or contract for these capacities when required to do so in connection with our business.

We are currently manufacturing products for clinical trials on a contract basis. Panzem[®] NCD, our lead small molecule clinical drug candidate, is currently manufactured by Elan. We do not have arrangements in place with alternative suppliers if our current supplier Elan was unable to deliver the product in necessary quantities.

We depend on our third-party manufacturers to perform their obligations effectively and on a timely basis. These third parties may not meet their obligations and any such non-performance may delay clinical development or submission of products for regulatory approval, or otherwise impair our competitive position. Any significant problem experienced by one of our suppliers could result in a delay or interruption in the supply of materials to us until such supplier resolves the problem or an alternative source of supply is located. Any delay or interruption would likely lead to a delay or interruption of manufacturing operations, which could negatively affect our operations. Although we have identified alternative suppliers for our product candidates, we have not entered into contractual or other arrangements with them. If we needed to use an alternate supplier for any product, we would experience delays while we negotiated an agreement with them for the manufacture of such product. In addition, we may be unable to negotiate manufacturing terms with a new supplier that are as favorable as the terms we have with our current suppliers.

Problems with any manufacturing processes could result in product defects, which could require us to delay shipment of products or recall products previously shipped. In addition, any prolonged interruption in the operations of the manufacturing facilities of one of our sole-source suppliers could result in the cancellation of shipments. A number of factors could cause interruptions, including equipment malfunctions or failures, or damage to a facility due to natural disasters or otherwise. Because our manufacturing processes are or are expected to be highly complex and subject to a lengthy FDA approval process, alternative qualified production capacity may not be available on a timely basis or at all. Difficulties or delays in our manufacturing could increase our costs and damage our reputation.

The manufacture of pharmaceutical products can be an expensive, time consuming, and complex process. Manufacturers often encounter difficulties in scaling-up production of new products, including quality control and assurance and shortages of personnel. Delays in formulation and scale-up to commercial quantities could result in additional expense and delays in our clinical trials, regulatory submissions, and commercialization.

Failure of Manufacturing Facilities Producing Our Product Candidates to Maintain Regulatory Approval Could Delay or Otherwise Hinder Our Ability to Market Our Product Candidates

Any manufacturer of our product candidates will be subject to applicable Good Manufacturing Practices (GMP) prescribed by the FDA or other rules and regulations prescribed by foreign regulatory authorities. We and any of our collaborators may be unable to enter into or maintain relationships either domestically or abroad with manufacturers whose facilities and procedures comply or will continue to comply with GMP and who are able to produce our small molecules in accordance with applicable regulatory standards. Failure by a manufacturer of our products to comply with GMP could result in significant time delays or our inability to obtain marketing approval or, should we have market approval, for such approval to continue. Changes in our manufacturers could require new product testing and facility compliance inspections. In the United States, failure to comply with GMP or other applicable legal requirements can lead to federal seizure of violated products, injunctive actions brought by the federal government, inability to export product, and potential criminal and civil liability on the part of a company and its officers and employees.

Manufacturing Our Product Candidates May Not Be Commercially Feasible

The manufacturing processes for several of the small molecules we are developing have not yet been tested at commercial levels, and it may not be possible to manufacture these materials in a cost-effective manner.

We Depend on Patents and Other Proprietary Rights, Some of Which are Uncertain

Our success will depend in part on our ability to obtain patents for our products, both in the United States and abroad. The patent position of biotechnology and pharmaceutical companies in general is highly uncertain and involves complex legal and factual questions. Risks that relate to patenting our products include the following:

- our failure to obtain additional patents;
- challenge, invalidation, or circumvention of patents already issued to us;
- failure of the rights granted under our patents to provide sufficient protection;
- independent development of similar products by third parties; or
- ability of third parties to design around patents issued to our collaborators or us.

For several of the products that we are developing, including Panzem[®], composition of matter patents is not available because the compounds are in the public domain. In these cases, only patents covering the “use” of the product are available. In general, patents covering a new use for a known compound can be more difficult to enforce against infringers of the use claims in the patent.

Our potential products may conflict with patents that have been or may be granted to competitors, universities or others. As the biotechnology industry expands and more patents are issued, the risk increases that our potential products may give rise to claims that may infringe the patents of others. Such other persons could bring legal actions against us claiming damages and seeking to enjoin clinical testing, manufacturing and marketing of the affected products. Any such litigation could result in substantial cost to us and diversion of effort by our management and technical personnel. If any of these actions are successful, in addition to any potential liability for damages, we could be required to obtain a license in order to continue to manufacture or market the affected products. We may not prevail in any action and any license required under any needed patent might not be made available on acceptable terms, if at all.

We are a party to sponsored research agreements and license agreements that require us to make milestone payments upon attainment of certain regulatory milestones. Failure to meet such milestones could result in the loss of certain rights to compounds covered under such license agreements.

We also rely on trade secret protection for our confidential and proprietary information. However, trade secrets are difficult to protect and others may independently develop substantially equivalent proprietary information and techniques and gain access to our trade secrets and disclose our technology. We may be unable to meaningfully protect our rights to unpatented trade secrets. We require our employees to complete confidentiality training that specifically addresses trade secrets. All employees, consultants, and advisors are required to execute a confidentiality agreement when beginning an employment or a consulting relationship with us. The agreements generally provide that all trade secrets and inventions conceived by the individual and all confidential information developed or made known to the individual during the term of the relationship automatically become our exclusive property. Employees and consultants must keep such information confidential and may not disclose such information to third parties except in specified circumstances. However, these agreements may not provide meaningful protection for our proprietary information in the event of unauthorized use or disclosure of such information.

To the extent that consultants, key employees, or other third parties apply technological information independently developed by them or by others to our proposed projects, disputes may arise as to the proprietary rights to such information. Any such disputes may not be resolved in our favor. Certain of our consultants are employed by or have consulting agreements with other companies and any inventions discovered by them generally will not become our property.

Our Potential Products Are Subject to Government Regulatory Requirements and an Extensive Approval Process

Our research, development, preclinical and clinical trials, manufacturing, and marketing of most of our product candidates are subject to an extensive regulatory approval process by the FDA and other regulatory agencies in the United States and abroad. The process of obtaining FDA and other required regulatory approvals for drug and biologic products, including required preclinical and clinical testing, is time consuming and expensive. Even after spending time and money, we may not receive regulatory approvals for clinical testing or for the manufacturing or marketing of any products. Our collaborators or we may encounter significant delays or costs in the effort to secure necessary approvals or licenses. Even if we obtain regulatory clearance for a product, that product will be subject to continuing review. Later discovery of previously unknown defects or failure to comply with the applicable regulatory requirements may result in restrictions on a product's marketing or withdrawal of the product from the market, as well as possible civil or criminal penalties.

Potential Products May Subject Us to Product Liability for Which Insurance May Not Be Available

The use of our potential products in clinical trials and the marketing of any pharmaceutical products may expose us to product liability claims. We have obtained a level of liability insurance coverage that we believe is adequate in scope and coverage for our current stage of development. However, our present insurance coverage may not be adequate to protect us from liabilities we might incur. In addition, our existing coverage will not be adequate as we further develop products and, in the future, adequate insurance coverage and indemnification by collaborative partners may not be available in sufficient amounts or at a reasonable cost. If a product liability claim or series of claims are brought against us for uninsured liabilities, or in excess of our insurance coverage, the payment of such liabilities could have a negative effect on our business and financial condition.

We Have Engaged In and May Continue to Engage in Acquisitions, Which Could Negatively Affect Our Business and Earnings

In January 2006, we acquired Miikana Therapeutics, Inc., a clinical-stage biopharmaceutical company. We intend to continue to be opportunistic in acquiring companies that we believe are a strategic fit with our business or complement our existing product candidates. There are risks associated with such activities. These risks include, among others, incorrectly assessing the asset quality of a prospective merger partner, encountering greater than anticipated costs in integrating acquired businesses and being unable to profitably deploy assets acquired in the transaction, such as drug candidates. Further, acquisitions may place additional constraints on our resources by diverting the attention of our management from our business operations. To the extent we issue securities in connection with additional transactions, these transactions and related issuances may have a dilutive effect on earnings per share and our ownership. Our earnings, financial condition, and prospects after an acquisition depend in part on our ability to successfully integrate the operations of the acquired business or technologies. We may be unable to integrate operations successfully or to achieve expected cost savings. Any cost savings which are realized may be offset by losses in revenues or other charges to earnings.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES.

We currently lease approximately 46,000 square feet of space (approximately 32,000 square feet of which is laboratory space) in Rockville, Maryland. The lease expires in February 2009. We believe that our existing facilities will be adequate to accommodate the implementation of our current business plan.

ITEM 3. LEGAL PROCEEDINGS.

EntreMed is subject in the normal course of business to various legal proceedings in which claims for monetary or other damages may be asserted. Management does not believe such legal proceedings, except as otherwise disclosed herein, are material.

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

Not applicable.

PART II

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

Our common stock began trading publicly on the Nasdaq National Market under the symbol "ENMD" on June 12, 1996. The following table sets forth the high and low closing price for our common stock by quarter, as reported by the Nasdaq National Market, for the periods indicated:

	HIGH	LOW
2005:		
First Quarter	\$ 4.64	\$ 2.10
Second Quarter	3.11	2.19
Third Quarter	3.31	2.30
Fourth Quarter	2.52	1.88
2006:		
First Quarter	\$ 2.87	\$ 1.99
Second Quarter	2.54	1.51
Third Quarter	1.93	1.45
Fourth Quarter	2.20	1.52

On February 28, 2007, the closing price of our common stock, as reported by the Nasdaq National Market, was \$1.56 per share. As of February 28, 2007 there were approximately 965 holders of record of our common stock.

Since our initial public offering in 1996, we have not paid cash dividends on our common stock. We currently anticipate that any earnings will be retained for the continued development of our business and we do not anticipate paying any cash dividends on our common stock in the foreseeable future.

Options under Employee Benefit Plans

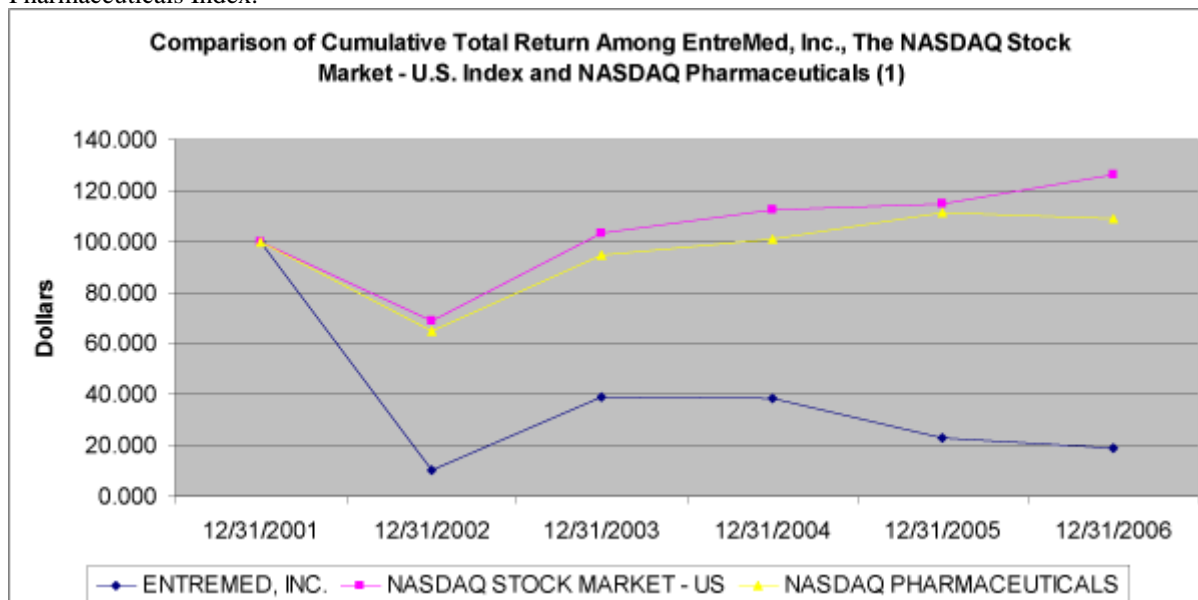
The following table discloses certain information about the options issued and available for issuance under all outstanding Company option plans, as of December 31, 2006.

Plan category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights	(b) Weighted-average exercise price of outstanding options, warrants and rights	(c) Number of securities remaining available for future issuance under equity compensation plans [excluding securities reflected in column (a)]
Equity compensation plans approved by security holders	8,111,086	\$ 7.87	788,097
Equity compensation plans not approved by security holders	142,370	\$ 4.00	0
Total	8,253,456	\$ 7.80	788,097

Warrants issued under the unauthorized plans represent compensation for consulting services rendered by the holders.

STOCK PRICE PERFORMANCE PRESENTATION

The following chart compares the cumulative total stockholder return on the Company's Shares with the cumulative total stockholder return of the NASDAQ Stock Market – U. S. Index, and the NASDAQ Pharmaceuticals Index.



	<u>12/31/01</u>	<u>12/31/02</u>	<u>12/31/03</u>	<u>12/31/04</u>	<u>12/31/05</u>	<u>12/31/06</u>
ENTREMED, INC.	<u>100.000</u>	<u>10.178</u>	<u>39.290</u>	<u>38.343</u>	<u>22.959</u>	<u>18.698</u>
NASDAQ STOCK MARKET — US	<u>100.000</u>	<u>69.131</u>	<u>103.365</u>	<u>112.489</u>	<u>114.881</u>	<u>126.216</u>
NASDAQ PHARMACEUTICALS	<u>100.000</u>	<u>64.616</u>	<u>94.718</u>	<u>100.885</u>	<u>111.093</u>	<u>108.753</u>

(1) Assumes \$100 invested on December 31, 2001 and assumes dividends are reinvested. Measurement points begin with the date of the assumed investment and include the last day of each of the subsequent 5 years through and including December 31, 2006. The material in this chart is not soliciting material, is not deemed filed with the SEC and is not incorporated by reference in any filing of the Company under the Securities Act of 1933, as amended, (the “1933 Act”) or the 1934 Act, whether made before or after the date of this proxy statement and irrespective of any general incorporation language in such filing.

ITEM 6. SELECTED FINANCIAL DATA.

The following selected consolidated financial data set forth below has been derived from our audited consolidated financial statements. The data should be read in conjunction with the consolidated financial statements and related notes, Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7 and other financial information included elsewhere in this annual report on Form 10-K.

	Year Ended December 31,				
	2006	2005	2004	2003	2002
STATEMENTS OF OPERATIONS DATA:					
Revenues:					
Collaborative research and development	\$ —	\$ —	\$ —	\$ 667,796	\$ 835,493
Licenses fees	—	590,992	495,496	310,496	115,496
Grant revenues	—	—	—	508,243	131,681
Royalty revenues	6,881,799	5,310,439	5,918	2,705	38,790
Other	12,559	16,624	12,581	86,306	55,030
Total revenues	6,894,358	5,918,055	513,995	1,575,546	1,176,490
Expenses:					
Research and development	21,671,117	17,325,048	10,523,252	14,252,196	31,308,427
General and administrative	7,393,722	5,920,455	6,570,664	7,022,986	13,932,133
Required In-Process R&D	29,481,894	—	—	—	—
Interest expense	156,787	—	—	—	390,941
Investment income	(1,867,204)	(1,010,771)	(313,940)	(205,580)	(317,910)
Gain on discharge of liabilities	—	—	—	—	(2,174,765)
Gain on sale of asset	(52,901)	(3,420)	(124,083)	—	(2,940,184)
Gain on sale of securities	—	—	(520,000)	—	—
Gain on sale of royalty interest	—	—	(3,000,000)	—	—
Net loss	\$(49,889,057)	\$(16,313,257)	\$(12,621,898)	\$(19,494,056)	\$(39,022,152)
Dividends on Series A convertible preferred stock	(1,005,000)	(1,005,000)	(1,005,000)	(1,005,000)	—
Net loss attributable to common shareholders	\$(50,894,057)	\$(17,318,257)	\$(13,626,898)	\$(20,499,056)	\$(39,022,152)
Net loss per share	\$ (0.71)	\$ (0.36)	\$ (0.37)	\$ (0.68)	\$ (1.78)
Weighted average number of shares outstanding					
	71,873,734	48,176,914	37,170,544	29,943,161	21,892,520

	As of December 31,				
	2006	2005	2004	2003	2002
BALANCE SHEET DATA:					
Cash and cash equivalents and short-term investments	\$ 50,570,097	\$ 30,082,388	\$ 34,539,516	\$ 36,941,430	\$ 24,067,045
Working capital	46,268,554	28,510,176	34,979,936	33,405,818	7,716,002
Total assets	55,719,534	36,431,885	39,404,002	40,153,764	27,810,212
Preferred revenue, less current portion	—	—	95,496	192,993	286,488
Accumulated deficit	(311,636,886)	(261,747,829)	(245,434,572)	(232,812,674)	(213,318,618)
Total stockholders' equity	46,963,219	29,369,190	35,704,754	34,858,883	10,493,646

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

The following discussion should be read in conjunction with the Consolidated Financial Statements and Notes thereto appearing elsewhere in this report. See "Risk Factors."

OVERVIEW

We are a clinical-stage pharmaceutical company focused on developing next generation multi-mechanism oncology and anti-inflammatory drugs that target disease cells directly and the blood vessels that nourish them. We are focused on developing drugs that are safe and convenient, and provide the potential for improved patient outcomes. Panzem[®] (2-methoxyestradiol or 2ME2), one of our lead drug candidates, is currently in Phase 2 clinical trials for cancer, as well as in preclinical development for rheumatoid arthritis. MKC-1, a novel cell cycle inhibitor, is also in Phase 2 clinical trials for cancer. ENMD-1198, a novel tubulin binding agent discovered by EntreMed, is currently in a Phase 1 clinical trial for cancer. As our research and development efforts have shifted to a more clinical focus, expenditures have increased and will continue to increase as we secure material to support on-going and planned trials for our three clinical-stage candidates.

In January 2006, we acquired Miikana Therapeutics, Inc., a clinical-stage biopharmaceutical company with research laboratories in Toronto, Canada. As a result of the transaction, we enhanced our pipeline with the addition of a Phase 2 drug candidate, MKC-1, and two preclinical programs, one in aurora kinase inhibition and one in HDAC inhibition, both for the treatment of cancer.

Our goal is to develop and commercialize drugs based on our scientific expertise in angiogenesis, cell cycle regulation and inflammation — processes vital to the progression of cancer and other diseases. Our three product candidates are based on these mechanisms.

In order to further advance our commercial objectives, we may seek strategic alliances, licensing relationships and co-development partnerships with other companies to develop compounds for both oncology and non-oncology therapeutic areas.

CRITICAL ACCOUNTING POLICIES AND THE USE OF ESTIMATES

The preparation of our financial statements in conformity with accounting principles generally accepted in the U.S. requires management to make estimates and assumptions that affect the amounts reported in our consolidated financial statements and accompanying notes. Actual results could differ materially from those estimates. Our critical accounting policies, including the items in our financial statements requiring significant estimates and judgments, are as follows:

- Revenue Recognition — We recognize revenue in accordance with the provisions of Staff Accounting Bulletin No. 104, Revenue Recognition, whereby revenue is not recognized until it is realized or realizable and earned. Revenue is recognized when all of the following criteria are met: persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price to the buyer is fixed and determinable and collectibility is reasonably assured.
- Royalty Revenue — Royalties from licenses are based on third-party sales and recorded as earned in accordance with contract terms, when third-party results are reliably measured and collectibility is reasonably assured. The majority of our 2006 revenues were from royalties on the sale of Thalomid[®], which we began to recognize in the third quarter. In 2004 certain provisions of a purchase agreement dated June 14, 2001 by and between Bioventure Investments kft ("Bioventure") and the Company were satisfied, and, as a result, beginning in 2005 we became entitled to share in the royalty payments received by Royalty Pharma Finance Trust, successor to Bioventure, on annual Thalomid[®] sales above a certain threshold. Based on the licensing agreement royalty formula, annual royalty sharing commences with Thalomid[®] annual sales of approximately \$225 million. We are also eligible to receive royalty payments under a February 2004 agreement with Children's Medical Center Corporation ("CMCC") and Alchemgen Therapeutics. Under the agreement, Alchemgen received rights to market endostatin and angiostatin in Asia. We did not receive royalties under this agreement in 2006. In the future, royalty payments, if any, will be recorded as revenue when received and/or when collectibility is reasonably assured.

- Research and Development — Research and development expenses consist primarily of compensation and other expenses related to research and development personnel, research collaborations, costs associated with pre-clinical testing and clinical trials of our product candidates, including the costs of manufacturing the product candidates, and facilities expenses. Research and development costs are expensed as incurred.

- Stock-Based Compensation – Issued in December 2004, Statement of Financial Accounting Standards No. 123R (“SFAS 123R”) requires companies to recognize expense associated with share-based compensation arrangements, including employee stock options and stock purchase plans, using a fair value-based option pricing model, and eliminates the alternative to use the intrinsic value method of accounting for share-based payments. SFAS 123R is effective for our fiscal year beginning January 1, 2006. Adoption of the expense provisions of SFAS 123R has a material impact on our results of operations. We have applied the modified prospective transition method; accordingly, compensation expense is reflected in the financial statements beginning January 1, 2006 with no restatement of prior periods. Compensation expense is recognized for awards that are granted, modified, repurchased or cancelled on or after January 1, 2006, as well as for the portion of awards previously granted that have not vested as of January 1, 2006. For the adoption of SFAS 123R, we have selected the straight-line expense attribution method, whereas our previous expense attribution method was the graded-vesting method, an accelerated method, described by FIN 28. Our results of operations for fiscal 2006 were impacted by the recognition of non-cash expense related to the fair value of our share-based compensation awards. Share-based compensation expense recognized under SFAS 123R for the year ended December 31, 2006 totaled approximately \$1,656,000.

The determination of fair value of stock-based payment awards on the date of grant using the Black-Scholes model is affected by our stock price, as well as the input of other subjective assumptions. These assumptions include, but are not limited to, the expected term of stock options and our expected stock price volatility over the term of the awards. Changes in the assumptions can materially affect the fair value estimates.

Any future changes to our share-based compensation strategy or programs would likely affect the amount of compensation expense recognized under SFAS 123R and the comparability to our prior period footnote disclosures of pro forma net earnings and earnings per share.

RESULTS OF OPERATIONS

Years Ended December 31, 2006, 2005 and 2004.

Revenues. Revenues increased 16% in 2006 to \$6,894,000 from \$5,918,000 in 2005 after increasing 1,051% in 2005 from \$514,000 in 2004. The fluctuation between periods results from changes in the revenue components and also from the manner and timing of when certain revenues are recorded. The three years presented reflect the following revenue types: royalty revenues and licensing revenues. The increase in revenues in 2006 results from increased royalty revenue earned on sales of Thalomid[®]. Beginning in 2005, we are entitled to share in the royalty payments received by Royalty Pharma Finance Trust on annual Thalomid[®] sales above approximately \$225 million. Thalomid[®] sales in 2005 and 2006 surpassed the sharing point in the third quarter and we recorded estimated royalty revenues of \$5,310,000 and \$6,882,000, respectively. No royalty revenues were recorded on Thalomid[®] sales in 2004.

We did not record any licensing revenues in 2006, versus \$591,000 in 2005. The 2005 amount reflects the accelerated recognition of deferred licensing revenues from the January 2002 agreement with Allergan, which was terminated in April 2005 by Allergan in accordance with the terms of the agreement, and the recognition of a \$400,000 licensing payment from Alchemgen in May 2005. This amount was recorded as revenue when collectibility was deemed to be reasonably assured. Licensing revenues of \$495,000 were recorded in 2004. This amount included the recognition of amortized licensing revenues from the February 2004 agreement with Alchemgen in addition to the revenues from the 2002 five-year strategic alliance with Allergan.

Research and Development Expenses. Our 2006 research and development expenses, which totaled \$21,671,000, reflect our expanded clinical base including the cost of initiating and supporting multiple trials for Panzem[®] NCD and MKC-1 and also a Phase 1 clinical trial for ENMD-1198. The increase in our 2006 R&D expenses is primarily attributable to our January 2006 acquisition of Miikana Therapeutics, Inc. We recorded R&D expenses of \$5,167,000 related to initiating multiple MKC-1 clinical trials, advancement of two acquired pre-clinical programs and supporting the Toronto based research group. Our 2006 R&D expenses also include \$352,000 in non-cash stock-based compensation, pursuant to the adoption of SFAS 123R. The 2006 amount reflects direct project costs for Panzem[®] of \$7,814,000, \$2,085,000 for ENMD-1198 and \$3,000,000 for MKC-1. In 2005 our research and development expenses totaled \$17,325,000 which included direct project costs of \$7,594,000 for Panzem[®] and \$3,237,000 related to ENMD-1198. Research and development expenses were \$10,523,000 in 2004, with project costs for Panzem[®] of \$3,558,000 and \$2,135,000 for ENMD-1198. The 2005 and 2006 expenditures reflect an increase in clinical and regulatory activity along with associated contract manufacturing activities. Panzem[®] NCD moved into Phase 2 oncology trials in January 2006 and is currently being studied in multiple Phase 1 and 2 clinical trials and is also being evaluated as an IND candidate to treat rheumatoid arthritis. MKC-1 is being administered in two Phase 2 oncology trials and is also currently in a Phase 1 study for hematological cancers. ENMD-1198, a tubulin binding agent, commenced clinical development with the initiation of a Phase 1 clinical trial in oncology in early 2006. At December 31, 2006, accumulated direct project expenses for Panzem[®], our lead drug candidate, totaled \$43,109,000 and for ENMD-1198, a tubulin binding agent that has entered Phase 1 trials for cancer, totaled \$7,457,000. The balance of our R&D expenditures includes facilities costs and other departmental overhead, and expenditures related to the advancement of our pre-clinical programs.

The expenditures that will be necessary to execute our business plan are subject to numerous uncertainties, which may adversely affect our liquidity and capital resources. As of December 31, 2006, we have three proprietary product candidates in clinical trials. We expect our R&D expenses to trend higher as these compounds advance through the various stages of clinical development. Completion of clinical trials may take several years or more, but the length of time generally varies substantially according to the type, complexity, novelty and intended use of a product candidate.

We estimate that clinical trials of the type we generally conduct are typically completed over the following timelines:

CLINICAL PHASE	ESTIMATED COMPLETION PERIOD
ase I	1 Year
ase II	1-2 Years
ase III	2-4 Years

The duration and the cost of clinical trials may vary significantly over the life of a project as a result of differences arising during the clinical trial protocol, including, among others, the following:

- the number of patients that ultimately participate in the trial;
- the duration of patient follow-up that seems appropriate in view of the results;
- the number of clinical sites included in the trials; and
- the length of time required to enroll suitable patient subjects.

We test our potential product candidates in numerous pre-clinical studies to identify indications for which they may be product candidates. We may conduct multiple clinical trials to cover a variety of indications for each product candidate. As we obtain results from trials, we may elect to discontinue clinical trials for certain product candidates or for certain indications in order to focus our resources on more promising product candidates or indications.

Our proprietary product candidates also have not yet achieved FDA regulatory approval, which is required before we can market them as therapeutic products. In order to proceed to subsequent clinical trial stages and to ultimately achieve regulatory approval, the FDA must conclude that our clinical data establish safety and efficacy. Historically, the results from preclinical testing and early clinical trials have often not been predictive of results obtained in later clinical trials. A number of new drugs and biologics have shown promising results in clinical trials, but subsequently failed to establish sufficient safety and efficacy data to obtain necessary regulatory approvals.

An important element of our business strategy is to pursue the research and development of a range of product candidates for a variety of oncology and non-oncology indications. This allows us to diversify the risks associated with our research and development expenditures. As a result, we intend to pursue development of our existing product candidates internally or through development partnerships, as well as through the acquisition and subsequent development of promising candidates. The goal is to align our future capital requirements with multiple product candidates and to increase the likelihood that our future financial success is not substantially dependent on any one product candidate. To the extent we are unable to maintain a broad range of product candidates, our dependence on the success of one or a few product candidates would increase.

Furthermore, our business strategy includes the option of entering into collaborative arrangements with third parties to complete the development and commercialization of our products. In the event that third parties take over the clinical trial process for one of our product candidates, the estimated completion date would largely be under the control of that third party rather than us. We cannot forecast with any degree of certainty which proprietary products or indications, if any, will be subject to future collaborative arrangements, in whole or in part, and how such arrangements would affect our capital requirements.

As a result of the uncertainties discussed above, among others, we are unable to estimate the duration and completion costs of our research and development projects. Our inability to complete our research and development projects in a timely manner or our failure to enter into collaborative agreements, when appropriate, could significantly increase our capital requirements and could adversely impact our liquidity. These uncertainties could force us to seek additional, external sources of financing from time to time in order to continue with our business strategy. There can be no assurance that we would be able to raise additional capital if needed. Our inability to raise additional capital, or to do so on terms reasonably acceptable to us, would jeopardize the future success of our business.

Research and development expenses consist primarily of compensation and other expenses related to research and development personnel, research collaborations, costs associated with internal and contract pre-clinical testing and clinical trials of our product candidates, including the costs of manufacturing the product candidates, and facilities expenses. Overall research and development expenses increased to approximately \$21,671,000 in 2006 from \$17,325,000 in 2005, also an increase from \$10,523,000 in 2004. The 2006 increase primarily results from our acquisition of Miikana in January 2006. Our 2006 expenditures include \$5,167,000 for R&D activities associated with MKC-1, two acquired pre-clinical programs and support for the Toronto-based research group. Reflected in the 2006 increase is the company's continued shift to a more clinical focus resulting in the advancement to Phase 2 trials for Panzem[®] NCD, the initiation of clinical development in oncology for ENMD-1198 and, through Miikana, the addition of MKC-1 a Phase 2 oncology clinical candidate. The higher research and development expenditures in 2005 versus 2004 result from increased clinical and regulatory activity along with associated contract manufacturing activities primarily related to the reformulated Panzem[®]. In 2005 Panzem[®] NCD completed enrollment in two Phase 1B oncology trials and moved into Phase 2 oncology trials in January 2006. IND-directed toxicity studies for ENMD-1198 were conducted and an IND was submitted and accepted in late 2005. ENMD-1198, a tubulin binding agent, commenced clinical

development with the initiation of clinical trials in oncology in early 2006. Increases in contract manufacturing expenses included material to support the respective 2005 activities and also the acquisition of API to support Panzem[®] NCD and ENMD-1198 clinical programs in 2006. In 2005 we also incurred formulation

costs for finished drug product for both candidates including certain Panzem[®] NCD contract manufacturing milestones triggered by clinical events. The 2005 amount also reflects increased costs associated with further development of various drug candidates, including a \$1 million upfront fee associated with the license of Celgene's small molecule tubulin inhibitor compounds for the treatment of cancer and a \$200,000 success fee to Ferghana Partners, Inc., a related party, in connection with the license agreement. The increases in R&D expenses reflected in 2006 and 2005 were specifically impacted by the following:

- Outside Services – We utilize outsourcing to conduct our product development activities. Larger-scale small molecule synthesis, *in vivo* testing and data analysis are examples of the services that we outsource. We expended \$3,621,000 in 2006, \$2,399,000 in 2005 and \$1,741,000 in 2004 on these activities. The 2006 and 2005 increases resulted from continued development work on our preclinical pipeline programs, including IND-directed toxicity studies for ENMD-1198 in 2005 and Panzem[®] NCD for rheumatoid arthritis in 2006. Additionally, through a series of pre-clinical studies we identified a lead compound for the acquired Aurora Kinase program and the compound, ENMD-981693, is headed into toxicology studies with the goal of filing an IND in 2007. The lower costs in 2004 reflect our then single clinical candidate status and our specific focus on reformulating and optimizing Panzem[®] and the selection of our lead 2ME2 analog candidate, ENMD-1198.
- Collaborative Research Agreements — We made payments to our collaborators of \$231,000, \$673,000 and \$622,000 in years 2006, 2005 and 2004, respectively. Our collaborative efforts are primarily directed towards further exploration of 2ME2 mechanism-of-action (MOA) in-vivo testing of therapeutic combination studies, and Panzem[®] non-oncology applications. Sponsored research payments to academic collaborators include payments to Children's Hospital of \$225,000 in 2005 and \$300,000 in 2004.
- Clinical Trial Costs — Clinical costs increased to \$3,406,000 in 2006 from \$1,090,000 in 2005, which was a small increase from \$1,008,000 in 2004. The significant increase in clinical trial costs reflects the progression of our clinical candidates and also the addition of a second Phase 2 oncology clinical candidate, MKC-1, acquired with Miikana Therapeutics. The 2006 expenses include initiating and supporting multiple trials for Panzem[®] NCD, the initiation of a Phase 1 clinical trial for ENMD-1198 and the initiation of multiple trials for MKC-1. Our 2005 clinical expenses reflect two Phase 1b clinical trials for the reformulated Panzem[®] NCD. The 2004 amount supported a Phase 1a clinical trial to test various dosing approaches for reformulated Panzem[®] along with continuing clinical trials of the capsule Panzem[®] formulation. Costs of such trials include the clinical site fees, monitoring costs and data management costs.
- Contract Manufacturing Costs — The costs of manufacturing the material used in clinical trials for our product candidates is reflected in contract manufacturing. These costs include bulk manufacturing, formulation, encapsulation and fill finish services, product release costs and also payments to contract manufacturers for technology access or licensing fees. Contract manufacturing costs decreased slightly in 2006 to \$5,595,000 from \$5,606,000 in 2005. The 2006 expenses include \$1,079,000 related to the manufacture of MKC-1. The balance of the manufacturing activities relate primarily to supporting our Phase 2 Panzem[®] NCD trials. Our 2005 expenses included material to support 2005 activities and also the acquisition of API for the Panzem[®] and ENMD-1198 clinical programs in 2006. In 2005, we also incurred formulation costs for finished drug product for both candidates including certain Panzem[®] NCD contract manufacturing milestones triggered by clinical events. Product manufacturing costs were \$1,392,000 in 2004. The 2004 costs reflect expenditures for the preparation of Panzem[®] NCD for preclinical and clinical use and encapsulation runs for the capsule form to support our Phase 2 and NCI clinical trials.
- Personnel Costs — Personnel costs increased to \$4,368,000 in 2006 from \$2,864,000 in 2005. Included in the 2006 costs is \$1,212,000 related to Miikana employees. Personnel costs were \$3,020,000 in 2004.

Also reflected in our 2006 research and development expenses are patent costs of \$756,000, facility and related expenses of \$1,503,000, laboratory supplies and animal costs of \$1,062,000, consulting fees of \$624,000 and travel expenses of \$235,000. In 2005, these expenses totaled \$654,000, \$1,351,000, \$772,000, \$296,000 and \$200,000, respectively, and in 2004, these expenses totaled \$493,000, \$1,551,000, \$531,000, \$174,000 and \$69,000, respectively. The 2006 increases relate primarily to supporting our broader pipeline.

General and Administrative Expenses. General and administrative expenses include compensation and other expenses related to finance, business development and administrative personnel, professional services and facilities.

General and administrative expenses increased to approximately \$7,394,000 in 2006 from \$5,920,000 in 2005. General and administrative expenses were \$6,571,000 in 2004. The 2006 increase relates primarily to the recording of non-cash stock-based compensation, pursuant to the adoption of SFAS 123R, in the amount of \$1,303,000. The 2005 decrease primarily reflected a reduced level of professional services related to compliance with provisions of the Sarbanes-Oxley Act of 2002, as compared to the amount incurred in 2004, the first year we were required to comply with these provisions.

Acquired In-Process R&D. In January 2006, we acquired Miikana Therapeutics, a private biotechnology company. Pursuant to the Merger Agreement, we acquired all of the outstanding capital stock of Miikana Therapeutics, Inc. in exchange for 9.96 million shares of common stock and the assumption of certain obligations. Miikana was a development stage company. Accordingly, the acquisition of Miikana was treated as an asset purchase. In accordance with EITF 98-3 "Determining Whether a Nonmonetary Transaction Involves Receipt of Productive Asset or of a Business," and Statement 141 "Business Combinations" the \$30.1 million purchase price was first allocated to the tangible assets acquired (\$600,000) based on the estimated fair values at the acquisition date. The balance of the purchase price (\$29,500,000) was allocated to intangible assets and recorded as in-process research and development as the research and development projects in Miikana's pipeline, as of the acquisition date, had not reached technological feasibility and had no alternative use. We believe the fair values assigned to the assets acquired and liabilities assumed are based upon reasonable assumptions given current available facts and circumstances. The total purchase price allocated was \$30.1 million, consisting of 9,964,000 shares of our common stock with a fair value of \$21.9 million, assumed debt of \$1.5 million, assumed current liabilities of \$2.7 million, \$1 million loaned to Miikana prior to the closing and acquisition costs of \$3 million. The fair value of common stock was determined using the closing price at the date of acquisition.

Interest expense. Interest expense for the year ended December 31, 2006 was approximately \$157,000. We assumed certain interest-bearing debt when we acquired Miikana in January 2006 and had no interest-bearing debt during 2005 or 2004.

Investment income. Investment income increased by 85% in 2006 to \$1,867,000 as a result of higher yields on higher invested balances in interest-bearing cash accounts and investments. Investment income was \$1,011,000 in 2005, an increase of 222% from \$314,000 in 2004.

Dividends on Series A convertible preferred stock. The Consolidated Statements of Operations for the years ended December 31, 2006, 2005 and 2004 reflect dividends of \$1,005,000 relating to Series A Convertible Preferred Stock held by Celgene pursuant to a Securities Purchase Agreement dated December 31, 2002. The holders of Series A Preferred Stock will accumulate dividends at a rate of 6% and will participate in dividends declared and paid on the common stock, if any. All accumulated dividends must be paid before any dividends may be declared or paid on the Common Stock. We have no plans to pay any dividends in the foreseeable future.

Gain on sale of securities. The Consolidated Statement of Operations for the year ended December 31, 2004 reflects a gain of \$520,000 resulting from the sale of certain securities of an independent private biotechnology company. The securities were acquired in 1996 through 1999 and accounted for using the equity method. The cost of these securities was written off in prior periods and we had no residual cost basis in the securities when sold. As such, we have recorded a gain on the sale equal to the sale proceeds.

Gain on sale of royalty interest. The Consolidated Statement of Operations for the year ended December 31, 2004 reflects a gain of \$3,000,000, which represents a one-time sale price adjustment pursuant to a purchase agreement dated August 6, 2001 by and between Bioventure and the Company. The adjustment was triggered by \$800,000,000 in cumulative Thalomid® sales through December 31, 2004.

LIQUIDITY AND CAPITAL RESOURCES

To date, we have been engaged primarily in research and development activities. As a result, we have incurred operating losses for 2006 and expect to continue to incur operating losses in the foreseeable future before we commercialize any products. In January 2006, we acquired Miikana Therapeutics, a private biotechnology company. Pursuant to the Merger Agreement, we acquired all of the outstanding capital stock of Miikana Therapeutics, Inc. in exchange for 9.96 million shares of common stock and the assumption of certain obligations. In addition, based on the success of the acquired pre-clinical programs, we may pay up to an additional \$18 million upon the achievement of certain clinical and regulatory milestones. Such additional payments will be made in cash or shares of stock at our option. We expect that the Aurora Kinase pre-clinical program will advance to a Phase 1 clinical trial in 2007. A dosing of the first patient triggers a purchase price adjustment milestone of \$2 million, which is expected to be due (in cash or stock at the our discretion) in 2007. Through the acquisition, we acquired rights to MKC-1, a Phase 2 clinical candidate licensed from Hoffman-LaRoche, Inc. ("Roche") by Miikana in April 2005. Under the terms of the agreement, Roche may be entitled to receive future payments upon successful attainment of certain clinical, regulatory and commercialization milestones, we do not expect to trigger any of these milestone payments in 2007. Under the terms of the license agreements for 2ME2 and Celgene's tubulin inhibitor program, we must be diligent in bringing potential products to market and we may be required to make future milestone payments totaling approximately \$500,000 and \$25.25 million, respectively. As a result of progress on these licensed clinical and preclinical programs, milestones requiring payments totaling \$250,000 could be reached in 2007. If we fail to comply with the milestones or fail to make any required sponsored research or milestone payment, we could face the termination of the relevant license agreement.

At December 31, 2006, we had cash and short-term investments of \$50,570,097 with working capital of \$46,268,554. We invest our capital resources with the primary objective of capital preservation. As a result of trends in interest rates in 2006, we have invested in some securities with maturity dates of more than 90 days to enhance our investment yields. As such, some of our invested balances are classified as short-term investments rather than cash equivalents in our consolidated financial statements at December 31, 2006.

In February 2006, we completed a private placement to institutional investors of units consisting of our common stock and warrants. We issued 12,972,966 shares of stock and warrants that are currently exercisable and remain exercisable until February 7, 2011 at an exercise price of \$2.50 per share. We received net proceeds from the financing of approximately \$27.9 million.

In December 2006, we completed a registered direct offering of 10,727,500 shares of our common stock at a price of \$1.60 per share, for net proceeds of \$15.9 million, after transaction-related expenses.

To accomplish our business plans, we will be required to continue to conduct substantial development activities for some or all of our proposed products. Under our current operating plans in 2007 we expect to have four compounds under clinical investigation and we expect our 2007 results of operations to reflect a net loss of approximately \$37,000,000, including non-cash charges of approximately \$4,700,000. In addition to the continued clinical development of Panzem[®] NCD, MKC-1 and ENMD-1198 we plan to begin clinical evaluation for the treatment of rheumatoid arthritis with Panzem[®] NCD and also anticipate initiating clinical evaluation in oncology of ENMD-981693. We expect that the majority of our 2007 revenues will continue to be from royalties on the sale of Thalomid[®]. Based on historical trend and analyst consensus for Thalomid[®] sales in 2006, we expect to record royalty-sharing revenues in excess of \$6.0 million in 2007; however, there can be no assurance in this regard. In addition, under our licensing agreement with Oxford Biomedica, PLC and Oxford Biomedica (UK) Limited Oxford, we are entitled to receive payments upon the achievement of certain milestones. However, we do not control the drug development efforts of Oxford and have no control over when or whether such milestones will be reached. We do not believe that we will receive any developmental milestone payments under these agreements in 2007.

Based on our assessment of our current capital resources coupled with anticipated inflows, in the absence of additional financing, we believe that we will have adequate resources to fund planned operations for more than twelve months from December 31, 2006. Our estimate may change, however, based on our decisions with respect to future clinical trials related to our product candidates, the timing of receipt of milestone payments, developments in our business including the acquisition of additional intellectual property, other investments in new or complimentary technology, and our success in executing our current business plan.

To address our long-term capital needs, we intend to continue to pursue strategic relationships that will provide resources for the further development of our product candidates. There can be no assurance, however, that these discussions will result in relationships or additional funding. In addition, we may continue to seek capital through the public or private sale of securities, if market conditions are favorable for doing so. If we are successful in raising additional funds through the issuance of equity securities, stockholders will likely experience substantial dilution, or the equity securities may have rights, preferences or privileges senior to those of the holders of our common stock. If we raise funds through the issuance of debt securities, those securities would have rights, preferences and privileges senior to those of our common stock. There can be no assurance that we will be successful in seeking additional capital.

INFLATION AND INTEREST RATE CHANGES

Management does not believe that our working capital needs are sensitive to inflation and changes in interest rates.

CONTRACTUAL OBLIGATIONS

The table below sets forth our contractual obligations at December 31, 2006.

CONTRACTUAL OBLIGATIONS	PAYMENTS DUE BY PERIOD				
	Total	Less than 1 year	1-3 years	3 - 5 years	More than years
Operating Leases Obligations	\$2,214,000	\$1,013,000	\$1,201,000	\$ —	\$ —
Accrued Payable, including interest	848,000	848,000	—	—	—
Purchase Obligations					
Clinical Trial Contracts	5,516,000	4,591,000	855,000	70,000	—
Contract Manufacturing	638,000	638,000	—	—	—
Outside Service Contracts	337,000	337,000	—	—	—
Other Contracts	92,000	92,000	—	—	—
Total Contractual Obligations	\$9,645,000	\$7,519,000	\$2,056,000	\$ 70,000	\$ —

OFF-BALANCE-SHEET ARRANGEMENTS

We had no significant off-balance sheet arrangements during fiscal year 2006.

NEW ACCOUNTING PRONOUNCEMENTS

In May 2005, the FASB issued SFAS No. 154, "Accounting Changes and Error Corrections — a replacement of APB Opinion No. 20 and FASB Statement No. 3" ("SFAS 154"). SFAS 154 replaces APB Opinion No. 20, "Accounting Changes" and SFAS No. 3, "Reporting Accounting Changes in Interim Financial Statements," and changes the requirements for accounting for and reporting a change in accounting principle. SFAS 154 requires restatement of prior period financial statements, unless impracticable, for voluntary changes in accounting principle. The retroactive application of a change in accounting principle should be limited to the direct effect of the change. Changes in depreciation, amortization or depletion methods should be accounted for prospectively as a change in accounting estimate. Corrections of accounting errors will be accounted for under the guidance contained in APB Opinion No. 20. The effective date of this new pronouncement is for fiscal years beginning after December 15, 2005 and prospective application is required. The adoption of SFAS 154 did not have a material impact on our results of operations and financial condition.

On January 1, 2006, we adopted Statement of Financial Accounting Standards No. 123R “Share Based Payment” (“SFAS 123R”), which addresses the accounting for share-based payment transactions in which we receive employee services in exchange for equity instruments. The statement eliminates our ability to account for share-based compensation transactions as prescribed by Accounting Principles Board Opinion No. 25, “Accounting for Stock Issued to Employees” (“APB No. 25”), and generally requires that equity instruments issued in such transactions be accounted for using a fair-value based method and the fair value of such equity instruments be recognized as expenses in the consolidated statements of operations. The impact of this statement is disclosed in footnotes 1 and 8.

In July 2006, the Financial Accounting Standards Board (FASB) issued FASB Interpretation No. 48, “Accounting for Uncertainty in Income Taxes, an interpretation of FASB Statement No. 109” (FIN 48). FIN 48 clarifies the accounting for uncertainty in income taxes by prescribing the recognition threshold a tax position is required to meet before being recognized in the financial statements. It also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition. FIN 48 is effective for fiscal years beginning after December 15, 2006 and is required to be adopted by us in 2007. We do not expect the adoption of FIN 48 to have a material impact on our consolidated results of operations and financial condition.

In September 2006, the FASB issued SFAS No. 157, “Fair Value Measurements” (SFAS 157). SFAS 157 provides guidance for using fair value to measure assets and liabilities. It also responds to investors’ requests for expanded information about the extent to which companies measure assets and liabilities at fair value, the information used to measure fair value, and the effect of fair value measurements on earnings. SFAS 157 applies whenever other standards require (or permit) assets or liabilities to be measured at fair value, and does not expand the use of fair value in any new circumstances. SFAS 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007. We are currently evaluating the effect that the adoption of SFAS 157 will have on our consolidated results of operations and financial condition and are not yet in a position to determine such effects.

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

The primary objective of our investment activities is to preserve our capital until it is required to fund operations while at the same time maximizing the income we receive from our investments without incurring investment market volatility risk. Our investment income is sensitive to the general level of U.S. interest rates. In this regard, changes in the U.S. interest rates affect the interest earned on our cash and cash equivalents. Due to the short-term nature of our cash and cash equivalent holdings, a 10% movement in market interest rates would not materially impact on the total fair market value of our portfolio as of December 31, 2006.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

The response to this item is submitted in a separate section of this report. See Index to Consolidated Financial Statements on Page F-1.

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

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of the Company's President and Chief Executive Officer and its Chief Financial Officer (its principal executive officer and principal financial officer), management has reviewed and evaluated the effectiveness of the design and operation of the Company's disclosure controls and procedures. Based on that evaluation, the President and Chief Executive Officer and the Chief Financial Officer have concluded that these disclosure controls and procedures are effective as of December 31, 2006.

Changes in Internal Control Over Financial Reporting

During the quarter ended December 31, 2006, there were no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting except as described below.

Management's Report on Internal Control Over Financial Reporting

The management of EntreMed, Inc. is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended). EntreMed's internal control over financial reporting was designed to provide reasonable assurance to EntreMed's management and board of directors regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Any internal control over financial reporting, no matter how well designed, has inherent limitations. As a result of these inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Therefore, even those internal controls determined to be effective can provide only reasonable assurance with respect to reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

EntreMed's management assessed the effectiveness of EntreMed's internal control over financial reporting as of December 31, 2006 based on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control – Integrated Framework*. Management's assessment included an evaluation of the design of EntreMed's internal control over financial reporting and testing of the operational effectiveness of EntreMed's internal control over financial reporting. Based on this assessment, EntreMed's management has concluded that our internal control over financial reporting was effective as of December 31, 2006. Ernst & Young LLP, the independent registered public accounting firm that audited the consolidated financial statements included in this Annual Report on Form 10-K, has issued an attestation report on management's assessment of the effectiveness of our internal control over financial reporting as of December 31, 2006. This report which expresses an unqualified opinion on management's assessment of and the effectiveness of our internal control over financial reporting as of December 31, 2006 is included herein.

**Report of Independent Registered Public Accounting Firm
On Internal Control Over Financial Reporting**

The Board of Directors and Stockholders of EntreMed, Inc.:

We have audited management's assessment, included in the accompanying Management's Report on Internal Control Over Financial Reporting, that EntreMed, 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). EntreMed, 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 EntreMed, 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, EntreMed, 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 consolidated balance sheets as of December 31, 2006 and 2005 and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2006 of EntreMed, Inc. and our report dated March 8, 2007, expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

McLean, Virginia
March 8, 2007

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information required by this item will be contained in our Definitive Proxy Statement for our 2007 Annual Meeting of Stockholders, to be filed pursuant to Regulation 14A with the Securities and Exchange Commission within 120 days of December 31, 2006. Such information is incorporated herein by reference.

We have adopted a Code of Ethics, as defined in applicable SEC and NASD rules, that applies to directors, officers and employees, including our principal executive officer and principal financial and accounting officer. The Code of Ethics is available on the Company's website at www.entremed.com.

ITEM 11. EXECUTIVE COMPENSATION

Information required by this item will be contained in our Definitive Proxy Statement for our 2007 Annual Meeting of Stockholders, to be filed pursuant to Regulation 14A with the Securities and Exchange Commission within 120 days of December 31, 2006. Such information is incorporated herein by reference.

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

Information required by this item will be contained in our Definitive Proxy Statement for our 2007 Annual Meeting of Stockholders, to be filed pursuant to Regulation 14A with the Securities and Exchange Commission within 120 days of December 31, 2006. Such information is incorporated herein by reference.

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

Information required by this item will be contained in our Definitive Proxy Statement for our 2007 Annual Meeting of Stockholders, to be filed pursuant to Regulation 14A with the Securities and Exchange Commission within 120 days of December 31, 2006. Such information is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES.

Information required by this item will be contained in our Definitive Proxy Statement for our 2007 Annual Meeting of Stockholders, to be filed pursuant to Regulation 14A with the Securities and Exchange Commission within 120 days of December 31, 2006. Such information is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES.

(a) 1. FINANCIAL STATEMENTS — See index to Consolidated Financial Statements.

2. Schedules

All financial statement schedules are omitted because they are not applicable, not required under the instructions or all the information required is set forth in the financial statements or notes thereto.

3. Exhibits

- 2.1(19) Agreement and Plan of Merger, dated as of December 22, 2005 among EntreMed, Inc., E.M.K. Sub, Inc., Miikana Therapeutics, Inc., and Andrew Schwab
- 3.1 Amended and Restated Certificate of Incorporation of EntreMed, Inc. (incorporated by reference from our Form 10-K for the year ended December 31, 2002 previously filed with the Securities and Exchange Commission)
- 3.2(1) By-laws of EntreMed, Inc.
- 4.1 Certificate of Designations of the Series A Convertible Preferred Stock (incorporated by reference to Exhibit 99.4 of our Form 8-K dated December 31, 2002, and filed with the Commission on January 15, 2003)
- 4.2 Warrant to Purchase Common Stock, dated January 13, 2003, issued by EntreMed, Inc. in favor of Celgene Corporation (incorporated by reference to Exhibit 99.5 of our Form 8-K dated December 31, 2002, and filed with the Commission on January 15, 2003)
- 10.1(1) 1992 Stock Incentive Plan*
- 10.2(1) Amended and Restated 1996 Stock Option Plan*
- 10.3(1) Form of Stock Option Agreement, under Amended and Restated 1996 Stock Option Plan*
- 10.4(2) License Agreement between Children's Hospital Medical Center Corporation and EntreMed, Inc. signed December 20, 1996 regarding Estrogenic Compounds as Anti-Mitotic Agents
- 10.5(3) Amendment to the 1996 Stock Option Plan*
- 10.6(4) License Agreement between Celgene Corporation and EntreMed, Inc. signed December 9, 1998 regarding thalidomide intellectual property
- 10.7(4) Lease Agreement between EntreMed, Inc. and Red Gate III Limited Partnership, dated June 10, 1998
- 10.8(5) 1999 Long-Term Incentive Plan*
- 10.9(6) EntreMed, Inc. 2001 Long-Term Incentive Plan*
- 10. Purchase Agreement between Bioventure Investments kft and EntreMed, Inc., dated June 15, 2001+
- 10.1(7)
- 10.10.2(7) Amendment 1 to Purchase Agreement between Bioventure Investments kft and EntreMed, Inc., dated July 13, 2001

- 10.10.3(7) Amendment 2 to Purchase Agreement between Bioventure Investments kft and EntreMed, Inc., dated July 30, 2001
- 10.10.4(7) Amendment 3 to Purchase Agreement between Bioventure Investments kft and EntreMed, Inc., dated August 3, 2001
- 10.11(8) Board Service Agreement, dated February 5, 2003, between Michael M. Tarnow and EntreMed, Inc. *
- 10.12(9) Securities Purchase Agreement by and among EntreMed, Inc., and Celgene Corporation, dated as of December 31, 2002
- 10.13(9) Investor and Registration Rights Agreement by and between EntreMed, Inc. and Celgene Corporation, dated as of December 31, 2002
- 10.14(10) Employment Agreement between EntreMed and James S. Burns effective June 15, 2004*
- 10.15(11) Employment Agreement between EntreMed and Dane Saglio effective July 1, 2004*
- 10.19(12) Employment Agreement between EntreMed and Carolyn F. Sidor, M.D. effective December 1, 2004*
- 10.20(13) Securities Purchase Agreement by and among EntreMed and Certain Institutional Investors, dated as of December 23, 2004
- 10.21(14) EntreMed, Inc. 2001 Long Term Incentive Plan Non-Qualified Stock Option Grant Agreement (Director)*
- 10.22(14) EntreMed, Inc. 2001 Long Term Incentive Plan Non-Qualified Stock Option Grant Agreement (Non-Director Employee)*
- 10.23(15) Form of Letter Agreement between EntreMed and James S. Burns*
- 10.24(15) Form of Restricted Stock Award under EntreMed, Inc. 2001 Long Term Incentive Plan*
- 10.18(16) Letter Agreement between EntreMed and Dane Saglio dated May 20, 2005*
- 10.25(16) Employment Agreement by and between EntreMed and Marc Corrado, dated as of May 20, 2005*
- 10.26(17) License Agreement between EntreMed and Celgene Corporation signed March 24, 2005 regarding the development and commercialization of Celgene's small molecule tubulin inhibitor compounds for the treatment of cancer+
- 10.27(18) Description of Compensation of Directors*
- 10.28(20) Employment Agreement by and between EntreMed and Cynthia Wong, dated as of June 1, 2006*
- 10.29(21) Letter Agreement between EntreMed and Dane Saglio dated June 21, 2006*

- 10.30(22) License Agreement, dated January 9, 2006, by and between Elan Pharma International Limited and EntreMed, Inc. +
- 10.31(22) Research, Development and Commercialization Agreement, dated as of April 20, 2005, by and between Hoffman-La Roche Inc. and F. Hoffman La Roche Ltd. (together, "Roche"), and Miikana Therapeutics Inc.+
- 23.1 Consent of Independent Registered Public Accounting Firm

- 31.1 Rule 13a-14(a) Certification of President and CEO
- 31.2 Rule 13a-14(a) Certification of Chief Financial Officer
- 32.1 Rule 13a-14(b) Certification by President and CEO
- 32.2 Rule 13a-14(b) Certification by Chief Financial Officer

* Compensatory Plan, Contract or Arrangement.

+ Certain portions of this exhibit have been omitted based upon a request for confidential treatment. The omitted portions have been filed with the Commission pursuant to our application for confidential treatment.

- (1) Incorporated by reference from our Registration Statement on Form S-1 (File No. 333-3536) declared effective by the Securities and Exchange Commission on June 11, 1996.
- (2) Incorporated by reference from our Form 10-K for the year ended December 31, 1996 previously filed with the Securities and Exchange Commission.
- (3) Incorporated by reference from our Form 10-K for the year ended December 31, 1997 previously filed with the Securities and Exchange Commission.
- (4) Incorporated by reference from our Form 10-K for the year ended December 31, 1998 previously filed with the Securities and Exchange Commission.
- (5) Incorporated by reference from our Form 10-Q for the quarter ended June 30, 1999 previously filed with the Securities and Exchange Commission.
- (6) Incorporated by reference from Exhibit A to our definitive proxy statement filed with the Securities and Exchange Commission on June 27, 2005.
- (7) Incorporated by reference from our Form 10-Q for the quarter ended June 30, 2001 previously filed with the Securities and Exchange Commission.
- (8) Incorporated by reference from our Form 10-K/A for the year ended December 31, 2002 previously filed with the Securities and Exchange Commission.
- (9) Incorporated by reference from our Form 8-K dated December 31, 2002 filed with the Securities and Exchange Commission on January 15, 2003.
- (10) Incorporated by reference from our Form 10-Q for the quarter ended June 30, 2004 previously filed with the Securities and Exchange Commission.
- (11) Incorporated by reference from our Form 10-Q for the quarter ended September 30, 2004 previously filed with the Securities and Exchange Commission.
- (12) Incorporated by reference from our Form 8-K filed with the Securities and Exchange Commission on December 6, 2004.
- (13) Incorporated by reference from our Form 8-K filed with the Securities and Exchange

Commission on December 29, 2004.

- (14) Incorporated by reference from our Form 8-K filed with the Securities and Exchange Commission on February 23, 2005.
- (15) Incorporated by reference from our Form 8-K filed with the Securities and Exchange Commission on March 11, 2005.
- (16) Incorporated by reference from our Form 8-K filed with the Securities and Exchange Commission on May 24, 2005.
- (17) Incorporated by reference from our Form 10-Q for the quarter ended March 31, 2005 previously filed with the Securities and Exchange Commission.
- (18) Incorporated by reference from our Form 8-K filed with the Securities and Exchange Commission on August 2, 2005.
- (19) Incorporated by reference from our Form 8-K filed with the Securities and Exchange Commission on December 29, 2005.
- (20) Incorporated by reference from our Form 8-K filed with the Securities and Exchange Commission on June 6, 2006.
- (21) Incorporated by reference from our Form 8-K filed with the Securities and Exchange Commission on June 22, 2006.
- (22) Incorporated by reference from our Form 10-Q for the quarter ended March 31, 2006 previously filed with the Securities and Exchange Commission.

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.

ENTREMED, INC.

By: /s/ James S. Burns.

James S. Burns
President and Chief
Executive Officer
March 15, 2007

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

<u>SIGNATURE</u>	<u>TITLE</u>	<u>DATE</u>
/s/ Michael M. Tarnow Michael M. Tarnow	Chairman of the Board	March 8, 2007
/s/ James S. Burns James S. Burns	President and Chief Executive Officer	March 8, 2007
/s/ Dane R. Saglio Dane R. Saglio	Chief Financial Officer (Principal Financial and Accounting Officer)	March 8, 2007
/s/ Donald S. Brooks Donald S. Brooks	Director	March 10, 2007
/s/ Dwight L. Bush Dwight L. Bush	Director	March 8, 2007
/s/ Jennie C. Hunter-Cevera Jennie C. Hunter-Cevera	Director	March 13, 2007
/s/ Mark C. M. Randall Mark C. M. Randall	Director	March 8, 2007
/s/ Ronald Cape Ronald Cape	Director	March 8, 2007
/s/ Peter S. Knight Peter S. Knight	Director	March 8, 2007

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

Report of Independent Registered Public Accounting Firm	F-2
Consolidated Balance Sheets as of December 31, 2006 and 2005	F-3
Consolidated Statements of Operations for the years ended December 31, 2006, 2005 and 2004	F-4
Consolidated Statements of Stockholders' Equity for the years ended December 31, 2006, 2005 and 2004	F-5
Consolidated Statements of Cash Flows for the years ended December 31, 2006, 2005 and 2004	F-6
Notes to Consolidated Financial Statements	F-7

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of EntreMed, Inc.:

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

As discussed in Note 1 to the consolidated financial statements, effective January 1, 2006 the Company changed its accounting for stock-based compensation in connection with the adoption of FASB Statement No. 123(R), "Share-Based Payment."

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of EntreMed, 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 8, 2007, expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

McLean, Virginia
March 8, 2007

EntreMed, Inc.
Consolidated Balance Sheets

	DECEMBER 31,	
	2006	2005
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 20,896,141	\$ 11,407,652
Short-term investments	29,673,956	18,674,736
Accounts receivable	3,845,000	3,723,433
NOTE receivable	—	1,000,000
Interest receivable	73,895	181,231
Prepaid expenses and other	377,871	338,462
Total current assets	54,866,863	35,325,514
Property and equipment, net	847,561	915,337
Other assets	5,110	191,034
Total assets	\$ 55,719,534	\$ 36,431,885
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 5,909,317	\$ 5,487,014
Payable to related parties	37,535	228,380
Accrued liabilities	1,810,515	1,038,975
Current portion of deferred rent	89,849	60,969
Loan payable	751,093	—
Total current liabilities	8,598,309	6,815,338
Deferred rent, less current portion	140,357	230,206
Minority interest	17,649	17,151
Stockholders' equity:		
Convertible preferred stock, \$1.00 par value; 5,000,000 shares authorized and 3,350,000 shares issued and outstanding at December 31, 2006 and 2005 (liquidation value — \$33,500,000 at December 31, 2006 and 2005)	3,350,000	3,350,000
Common stock, \$.01 par value: 10,000,000 and 120,000,000 shares authorized; 84,839,585 and 51,106,857 shares issued and outstanding at December 31, 2006 and 2005, respectively	848,400	511,069
Additional paid-in capital	362,318,737	295,392,194
Deferred stock-based compensation	—	(102,000)
Treasury stock, at cost: 874,999 shares held at December 31, 2006 and 2005	(8,034,244)	(8,034,244)
Accumulated other comprehensive income	117,212	—
Accumulated deficit	(311,636,886)	(261,747,829)
Total stockholders' equity	46,963,219	29,369,190
Total liabilities and stockholders' equity	\$ 55,719,534	\$ 36,431,885

See accompanying notes.

EntreMed, Inc.
Consolidated Statements of Operations

	YEAR ENDED DECEMBER 31,		
	2006	2005	2004
Revenues:			
Licensing	\$ —	\$ 590,992	\$ 495,496
Royalties	6,881,799	5,310,439	5,918
Other	12,559	16,624	12,581
	<u>6,894,358</u>	<u>5,918,055</u>	<u>513,995</u>
Costs and expenses:			
Research and development	21,671,117	17,325,048	10,523,252
General and administrative	7,393,722	5,920,455	6,570,664
Acquired In-Process R&D	29,481,894	—	—
	<u>58,546,733</u>	<u>23,245,503</u>	<u>17,093,916</u>
Investment income	1,867,204	1,010,771	313,940
Interest expense	(156,787)	—	—
Gain on sale of assets	52,901	3,420	124,083
Gain on sale of securities (Note 2)	—	—	520,000
Gain on sale of royalty interest (Note 4)	—	—	3,000,000
	<u>(49,889,057)</u>	<u>(16,313,257)</u>	<u>(12,621,898)</u>
Dividends on Series A convertible preferred stock	(1,005,000)	(1,005,000)	(1,005,000)
	<u>\$(50,894,057)</u>	<u>\$(17,318,257)</u>	<u>\$(13,626,898)</u>
Net loss attributable to common shareholders			
	<u>\$ (0.71)</u>	<u>\$ (0.36)</u>	<u>\$ (0.37)</u>
Weighted average number of shares outstanding (basic and diluted)	<u>71,873,734</u>	<u>48,176,914</u>	<u>37,170,544</u>
See accompanying notes.			

ENTREMED, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
YEARS ENDED DECEMBER 31, 2006, 2005 and 2004

	Preferred Stock		Common Stock		Treasury Stock	Additional Paid-in Capital	Deferred Stock Compensation	Accumulated Other Comprehensive Income	Accumulated Deficit	Total
	Shares	Amount	Shares	Amount						
Balance at December 31, 2003	3,350,000	\$3,350,000	36,973,012	\$378,480	\$(8,034,244)	\$271,977,321	\$ —	\$ —	\$(232,812,674)	\$ 34,858,883
Issuance of common stock for options and warrants exercised	—	—	208,946	2,090	—	5,677	—	—	—	7,767
Issuance of common stock at \$2.55 per share	—	—	5,490,198	54,902	—	10,781,472	—	—	—	10,836,374
Recognition of non cash stock compensation	—	—	81,018	810	—	174,189	—	—	—	174,999
Value of warrants issued	—	—	—	—	—	2,448,629	—	—	—	2,448,629
Loss	—	—	—	—	—	—	—	—	(12,621,898)	(12,621,898)
Balance at December 31, 2004	3,350,000	\$3,350,000	42,753,174	\$436,282	\$(8,034,244)	\$285,387,288	\$ —	\$ —	\$(245,434,572)	\$ 35,704,754
Exercise of common stock for options	—	—	67,070	671	—	80,685	—	—	—	81,356
Exercise of common stock for warrants	—	—	7,355,166	73,552	—	9,826,448	—	—	—	9,900,000
Stock issuance costs	—	—	—	—	—	(76,651)	—	—	—	(76,651)
Restricted stock-based compensation	—	—	56,448	564	—	174,424	(174,989)	—	—	—
Amortization of deferred stock-based compensation	—	—	—	—	—	—	72,989	—	—	72,989
Loss	—	—	—	—	—	—	—	—	(16,313,257)	(16,313,257)
Balance at December 31, 2005	3,350,000	\$3,350,000	50,231,858	\$511,069	\$(8,034,244)	\$295,392,194	\$ (102,000)	\$ —	\$(261,747,829)	\$ 29,369,191
Exercise of common stock for options	—	—	7,500	75	—	8,100	—	—	—	8,175
Issuance of common stock for acquisition of common stock at \$2.31 per share of Miikana, net of stock issuance costs	—	—	9,964,000	99,640	—	21,821,160	—	—	—	21,920,800
Value of warrants issued	—	—	12,972,966	129,730	—	16,580,322	—	—	—	16,710,052
Value of warrants issued of common stock at \$1.60 per share, net of stock issuance costs	—	—	10,727,500	107,275	—	15,807,148	—	—	—	15,914,423
Restricted stock grants	—	—	60,762	611	—	94,178	—	—	—	94,789
Amortization of deferred stock-based compensation	—	—	—	—	—	—	102,000	—	—	102,000
Stock-based compensation expense, net of forfeitures	—	—	—	—	—	1,458,883	—	—	—	1,458,883
Comprehensive loss:										
Loss	—	—	—	—	—	—	—	—	(49,889,057)	(49,889,057)
Realized gain on investments	—	—	—	—	—	—	—	117,212	—	117,212
Comprehensive loss	—	—	—	—	—	—	—	—	—	(49,771,845)
Balance at December 31, 2006	3,350,000	\$3,350,000	83,964,586	\$848,400	\$(8,034,244)	\$362,318,737	\$ —	\$ 117,212	\$(311,636,886)	\$ 46,963,219

See accompanying notes.

EntreMed, Inc.
Consolidated Statements of Cash Flows

	YEAR ENDED DECEMBER 31,		
	2006	2005	2004
CASH FLOWS FROM OPERATING ACTIVITIES			
Net loss	\$(49,889,057)	\$(16,313,257)	\$(12,621,898)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	444,680	475,848	773,775
Write-off of in-process R&D	29,481,894	—	—
Gain on sale of assets	(52,901)	(3,420)	(124,083)
Gain on sale of securities	—	—	(520,000)
Gain on sale of royalty interest	—	—	(3,000,000)
Stock-based compensation expense	1,553,672	—	—
Amortization of deferred stock-based compensation	102,000	72,988	174,999
Amortization of premium on short-term investments	(1,015,815)	(393,815)	(15,447)
Minority interest	498	178	(127)
Changes in operating assets and liabilities:			
Accounts receivable	(72,285)	(472,650)	178,196
Due receivable	—	(1,000,000)	—
Interest receivable	107,336	(96,142)	177,103
Prepaid expenses and other	7,705	(150,969)	151,120
Accounts payable	346,672	3,936,601	(2,248,891)
Payable to related parties	(190,845)	28,059	47,108
Accrued liabilities	(1,537,523)	(377,469)	709,483
Deferred rent	(60,969)	(32,931)	(5,709)
Deferred revenue	—	(190,992)	(97,496)
Net cash used in operating activities	<u>(20,774,938)</u>	<u>(14,517,971)</u>	<u>(16,421,867)</u>
CASH FLOWS FROM INVESTING ACTIVITIES			
Proceeds from sale of property and equipment, net	52,901	11,000	355,275
Proceeds from sale of securities	—	—	520,000
Acquisition, net of cash received	(2,906,218)	—	—
Purchases of short term investments	(72,786,954)	(51,491,900)	(37,718,991)
Maturities of short term investments	62,920,760	47,325,000	25,750,000
Purchases of furniture and equipment	(227,435)	(248,677)	(163,539)
Net cash used in investing activities	<u>(12,946,946)</u>	<u>(4,404,577)</u>	<u>(11,257,255)</u>
CASH FLOWS FROM FINANCING ACTIVITIES			
Net proceeds from sale of common stock	43,907,403	9,904,705	13,292,770
Payment of loan	(697,030)	—	—
Net cash provided by financing activities	<u>43,210,373</u>	<u>9,904,705</u>	<u>13,292,770</u>
Net increase (decrease) in cash and cash equivalents	9,488,489	(9,017,843)	(14,386,352)
Cash and cash equivalents at beginning of year	<u>11,407,652</u>	<u>20,425,495</u>	<u>34,811,847</u>
Cash and cash equivalents at end of year	<u>\$ 20,896,141</u>	<u>\$ 11,407,652</u>	<u>\$ 20,425,495</u>
Supplemental disclosure of cash flow information:			
Cash paid during the year for interest	\$ 156,787	\$ —	\$ —

non-cash investing activity:

Stock issued in connection with the acquisition of Miikana	\$ 21,920,800	\$	—	\$	—
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EntreMed, Inc.
Notes to Consolidated Financial Statements
December 31, 2006

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES
DESCRIPTION OF BUSINESS AND BASIS OF PRESENTATION

EntreMed, Inc. (EntreMed or the Company) is a clinical-stage pharmaceutical company focused on developing next generation multi-mechanism oncology and antiinflammatory drugs that target disease cells directly and the blood vessels that nourish them. EntreMed is focused on developing drugs that are safe and convenient, and provide the potential for improved patient outcomes. Panzem® (2-methoxyestradiol or 2ME2), one of the Company's lead drug candidates, is currently being tested as a cancer therapeutic in four Phase 2 clinical trials, and has been granted U.S. Food and Drug Administration (FDA) Orphan Drug designation in three cancer indications, including glioblastoma multiforme (GBM), multiple myeloma, and ovarian cancer. MKC-1, a novel cell cycle inhibitor, is also in Phase 2 clinical trials for cancer. In May 2006, the Company commenced clinical studies with its third clinical-stage compound, ENMD-1198, in patients with advanced cancer.

EntreMed's goal is to develop and commercialize therapeutics based on the Company's scientific expertise in angiogenesis, cell cycle regulation and inflammation — processes vital to the progression of cancer and other diseases. The Company's three clinical product candidates are based on these mechanisms.

In order to further advance its commercial objectives, EntreMed may seek strategic alliances, licensing relationships and co-development partnerships with other companies to develop compounds for both oncology and non-oncology therapeutic areas.

The accompanying consolidated financial statements include the accounts of the Company's controlled subsidiaries, Miikana Therapeutics, Inc. (Miikana) and Cytokine Sciences, Inc. All intercompany balances and transactions have been eliminated in consolidation. The Company refers to EntreMed and its consolidated subsidiaries.

To date, the Company has been engaged primarily in research and development activities. As a result, the Company has incurred operating losses through 2006 and expects to continue to incur operating losses for 2007 and the foreseeable future before commercialization of any products. To accomplish the Company's business plans, EntreMed will be required to continue to conduct substantial development activities for all proposed products. The Company intends to continue to pursue strategic relationships to provide resources for the further development of our product candidates. There can be no assurance, however, that these discussions will result in relationships or additional funding. In addition, the Company will continue to seek capital through the public or private sale of securities. There can be no assurance that EntreMed will be successful in seeking such additional capital.

SEGMENT INFORMATION

The Company currently operates in one business segment, which is the development of therapeutics primarily for the treatment of cancer. The Company is managed and operated as one business. A single management team that reports to the Company's President and Chief Executive Officer comprehensively manages the entire business. The Company does not operate separate lines of business with respect to its products or product candidates. Accordingly, the Company does not have separately reportable segments as defined by FASB Statement No. 131, *Disclosures about Segments of an Enterprise and Related Information*.

RESEARCH AND DEVELOPMENT

Research and development expenses consist primarily of compensation and other expenses related to research and development personnel, research collaborations, costs associated with pre-clinical testing and clinical trials of our product candidates, including the costs of manufacturing the product candidates, and facilities expenses. Research and development costs are expensed as incurred, including costs incurred in filing, defending and maintaining patents.

PROPERTY AND EQUIPMENT

Furniture and equipment and leasehold improvements are stated at cost and are depreciated over their estimated useful lives of 5 to 10 years. Depreciation is determined on a straight-line basis. Depreciation expense was \$444,680, \$475,848 and \$773,775 in 2006, 2005 and 2004, respectively. Property and equipment consists of the following:

	DECEMBER 31	
	2006	2005
Furniture and equipment	\$ 4,673,562	\$ 4,321,634
Leasehold improvements	1,288,791	1,288,791
	<u>5,962,353</u>	<u>5,610,425</u>
Less: accumulated depreciation	<u>(5,114,792)</u>	<u>(4,695,088)</u>
	<u>\$ 847,561</u>	<u>\$ 915,337</u>

CASH AND CASH EQUIVALENTS

Cash and cash equivalents include cash and highly liquid investments with original maturities of less than 90 days. Substantially all of the Company's cash equivalents are held in short-term money market accounts of banks and brokerage houses.

SHORT-TERM INVESTMENTS

The Company accounts for short-term investments in accordance with Statement of Financial Accounting Standards, No. 115, *Accounting for Certain Investments in Debt and Equity Securities*. Short-term investments consist primarily of corporate debt securities, all of which mature within one year. The Company has classified these investments as available for sale. Such securities are carried at fair market value. The cost of securities sold is calculated using the specific identification method. Unrealized gains and losses on these securities, if any, are reported as accumulated other comprehensive income (loss), which is a separate component of stockholders' equity. Unrealized gains of \$117,212 were recorded in 2006. No such amounts were recorded in 2005. Realized gains and losses and declines in value judged to be other than temporary on securities available for sale, if any, are included in operations. In 2006 and 2005, realized losses were \$24,272 and \$97,384, respectively. Short-term investments are principally uninsured and subject to normal credit risk. (See Note 2 for Gain on Sale of Securities)

ACCOUNTS RECEIVABLE

Accounts receivable are stated net of allowances for doubtful accounts. Allowances for doubtful accounts are determined on a specific item basis. Management reviews the credit worthiness of individual customers and past payment history to determine the allowance for doubtful accounts. There is no allowance for doubtful accounts at December 31, 2006 and 2005.

As of December 31, 2006 and 2005, one individual customer represented 99% and 98%, respectively, of the total accounts receivable.

NOTE RECEIVABLE

In December 2005, the Company loaned Miikana Therapeutics \$1 million to repay certain obligations. This is reflected as a note receivable in the accompanying December 31, 2005 consolidated balance sheet. Upon

consummation of the acquisition of Miikana Therapeutics (See Note 3), the note receivable was used to pay a portion of the purchase price obligation.

LOAN PAYABLE

As of December 31, 2006, the Company has a loan payable to Venture Lending & Leasing IV, Inc. for approximately \$751,000 at an interest rate of 13.4% payable in 2007.

INCOME TAXES

Income taxes have been provided using the liability method in accordance with Statement of Financial Accounting Standards No. 109, *Accounting for Income Taxes*.

REVENUE RECOGNITION

The Company recognizes revenue in accordance with the provisions of Staff Accounting Bulletin No. 104, Revenue Recognition, whereby revenue is not recognized until it is realized or realizable and earned. Revenue is recognized when all of the following criteria are met: persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price to the buyer is fixed and determinable and collectibility is reasonably assured.

Royalty Revenue — Royalties from licenses are based on third-party sales and recorded as earned in accordance with contract terms, when third-party results are reliably measured and collectibility is reasonably assured. The majority of the Company's 2006 and 2005 revenues were from royalties on the sale of Thalomid[®], which the Company began to recognize in the third quarter of each year. In 2004, certain provisions of a purchase agreement dated June 14, 2001 by and between Bioventure Investments kft ("Bioventure") and the Company were satisfied, and, as a result, in 2005 the Company became entitled to share in the royalty payments received by Royalty Pharma Finance Trust, successor to Bioventure, on annual Thalomid[®] sales above a certain threshold. Based on the licensing agreement royalty formula, annual royalty sharing commences with Thalomid[®] annual sales of approximately \$225 million. The Company is also eligible to receive royalty payments under a February 2004 agreement with Children's Medical Center Corporation ("CMCC") and Alchemgen Therapeutics. Under the agreement, Alchemgen received rights to market endostatin and angiostatin in Asia. Future royalty payments, if any, will be recorded as revenue when received and/or when collectibility is reasonably assured.

Licensing Revenue – The Company has recognized licensing revenues resulting from the January 2002 five-year strategic alliance with Allergan to develop and commercialize small molecule angiogenic inhibitors for treatment and prevention of diseases and conditions of the eye. The initial net fee was being amortized to revenue over the five-year license term. In April 2005, Allergan terminated the license in accordance with its terms, which resulted in the accelerated recognition of deferred revenue. In February 2004, the Company transferred rights to the proteins, endostatin and angiostatin, in an agreement with Children's Medical Center Corporation ("CMCC") and Alchemgen Therapeutics. Under the agreement, the Company received an upfront and a second cash payment. The upfront licensing cash payment was fully amortized in 2004, as the Company had completed its obligations to transfer data and material. Due to rights negotiations between the licensee and CMCC, the second and final licensing cash payment in the amount of \$400,000 was received in May 2005. Management concluded collectibility was not reasonably assured until the funds were received.

NET LOSS PER SHARE

Net loss per share (basic and diluted) was computed by dividing net loss available to common stock by the weighted average number of shares of common stock outstanding. Common stock equivalents, including Preferred Series A common stock equivalents, totaling 19,366,099 were anti-dilutive and, therefore, were not included in the computation of weighted average shares used in computing diluted loss per share.

COMPREHENSIVE LOSS

Under Financial Accounting Standard No. 130 (“SFAS 130”), *Reporting Comprehensive Income*, the Company is required to display comprehensive loss and its components as part of the consolidated financial statements. Comprehensive loss is comprised of net loss and unrealized gain on investments as follows:

	Years ended December 31,		
	2006	2005	2004
Net loss	\$(49,889,057)	\$(16,313,257)	\$(12,621,898)
Other comprehensive income	117,212	—	—
Comprehensive loss	<u>\$(49,771,845)</u>	<u>\$(16,313,257)</u>	<u>\$(12,621,898)</u>

SHARE-BASED COMPENSATION

Prior to January 1, 2006, the Company accounted for share-based compensation under the recognition and measurement principles of Accounting Principles Board Opinion No. 25, “*Accounting for Stock Issued to Employees*” (APB 25).

Effective January 1, 2006, the Company began recording compensation expense associated with stock options and other equity-based compensation in accordance with provisions of Statement 123 (revised 2004) “*Share-Based Payment*” (“SFAS 123R”) and interpretative literature within SEC Staff Accounting Bulletin No. 107, *Share-Based Payment*, (SAB 107), using the modified prospective transition method and therefore has not restated results for prior periods. Under the modified prospective transition method, share-based compensation expense for 2006 includes 1) compensation expense for all share-based awards granted on or after January 1, 2006 as determined based on the grant-date fair value estimated in accordance with the provisions of SFAS 123R and 2) compensation expense for share-based compensation awards granted prior to, but not yet vested as of January 1, 2006, based on the grant date fair value estimated in accordance with the original provisions of SFAS 123. The Company recognizes these compensation costs for stock options granted prior to January 1, 2006 on an accelerated method, and for stock options granted after January 1, 2006, the compensation costs are recognized based on a straight-line method over the requisite service period, which is generally the option vesting term of three years.

For stock options granted prior to the adoption of SFAS 123R, the following table illustrates the pro forma effect on net loss and net loss per share, as if the Company had applied the fair value recognition provisions of SFAS 123 in determining stock-based compensation:

	Years ended December 31,	
	2005	2004
Actual net loss	\$(16,313,257)	\$(12,621,898)
Adjustment: Stock-based employee compensation expense if SFAS No.123 had been applied to all awards	(1,923,575)	(6,664,579)
Adjusted: Stock-based employee compensation included in reported net loss	<u>72,988</u>	<u>174,999</u>
Pro forma net loss	<u>\$(18,163,844)</u>	<u>\$(19,111,478)</u>
Dividend on Series A convertible preferred stock	<u>(1,005,000)</u>	<u>(1,005,000)</u>
Pro forma net loss per share available to common shareholders	<u>\$(19,168,844)</u>	<u>\$(20,116,478)</u>
Net loss per share:		
Basic and diluted – as reported	\$ (0.36)	\$ (0.37)
Basic and diluted – pro forma	\$ (0.40)	\$ (0.54)

NEW ACCOUNTING PRONOUNCEMENTS

In July 2006, the FASB issued FASB Interpretation No. 48, "Accounting for Uncertainty in Income Taxes, an interpretation of FASB Statement No. 109" (FIN 48). FIN 48 clarifies the accounting for uncertainty in income taxes by prescribing the recognition threshold a tax position is required to meet before being recognized in the financial statements. It also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition. FIN 48 is effective for fiscal years beginning after December 15, 2006 and is required to be adopted by the Company in 2007. The Company does not expect the adoption of FIN 48 to have a material impact on its consolidated results of operations and financial condition.

In September 2006, the FASB issued SFAS No. 157, "*Fair Value Measurements*" ("SFAS 157"), which defines fair value, establishes a framework for measuring fair value in accordance with generally accepted accounting principles ("GAAP") in the United States of America, and expands disclosures about fair value measurements. SFAS 157 does not require any new fair value measurements under GAAP and is effective for fiscal years beginning after November 17, 2007. The effects of adoption will be determined by the types of instruments carried at fair value in our financial statements at the time of adoption, as well as the method utilized to determine their fair values prior to adoption. Based on our current use of fair value measurements, SFAS 157 is not expected to have a material effect on our results of operations or financial position.

On January 1, 2006, the Company adopted Statement of Financial Accounting Standards No. 123R "*Share Based Payment*" ("SFAS 123R"), which addresses the accounting for share-based payment transactions in which the Company receives employee services in exchange for equity instruments. The statement eliminates the Company's ability to account for share-based compensation transactions as prescribed by Accounting Principles Board Opinion No. 25, "*Accounting for Stock Issued to Employees*" ("APB No. 25"), and generally requires that equity instruments issued in such transactions be accounted for using a fair-value based method and the fair value of such equity instruments be recognized as expenses in the consolidated statements of operations. The impact of this statement is disclosed in a preceding section of footnote 1.

In May 2005, the FASB issued SFAS No. 154, "*Accounting Changes and Error Corrections — a replacement of APB Opinion No. 20 and FASB Statement No. 3*" ("SFAS 154"). SFAS 154 replaces APB Opinion No. 20, "*Accounting Changes*" and SFAS No. 3, "*Reporting Accounting Changes in Interim Financial Statements*," and changes the requirements for accounting for and reporting a change in accounting principle. SFAS 154 requires restatement of prior period financial statements, unless impracticable, for voluntary changes in accounting principle. The retroactive application of a change in accounting principle should be limited to the direct effect of the change. Changes in depreciation, amortization or depletion methods should be accounted for prospectively as a change in accounting estimate. Corrections of accounting errors will be accounted for under the guidance contained in APB Opinion No. 20. The effective date of this new pronouncement is for fiscal years beginning after December 15, 2005 and prospective application is required. The adoption of SFAS 154 did not have a material impact on the Company's results of operations and financial condition.

In November 2005, the Financial Accounting Standards Board issued FASB Staff Position ("FSP") FAS 115-1, *The Meaning of Other-Than-Temporary Impairment and Its Application to Certain Investments* ("FSP FAS 115-1"). FSP FAS 115-1, which is effective for reporting periods beginning after December 15, 2005, provides guidance on other-than-temporary impairment models for marketable debt and equity securities accounted for under SFAS No. 115 and non-marketable equity securities accounted for under the cost method. FSP FAS 115-1 provides a basic three-step model to evaluate whether an investment is other-than-temporarily impaired. Under FSP FAS 115-1, other than temporary losses on short-term investments would be expensed rather than included in stockholders' equity. The Company currently does not have any investments scheduled to mature greater than one year. The adoption of FSP FAS 115-1 did not have a material effect on the Company's results of operations, financial condition or liquidity.

FINANCIAL INSTRUMENTS AND CONCENTRATIONS OF RISK

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash and cash equivalents, short-term investments, accounts receivable and note receivable. The Company maintains its cash and cash equivalents in bank deposit accounts, which, at times, may exceed federally insured amounts. The Company believes it is not exposed to any significant credit risk on cash and cash equivalents or short-term investments. The carrying amount of current assets and liabilities approximates their fair values due to their short-term maturities.

USE OF ESTIMATES

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates, and such differences may be material to the consolidated financial statements.

2. SALE OF SECURITIES

In September 2004, the Company sold certain securities of an independent private biotechnology company. The securities were acquired in 1996 through 1999 and accounted for using the equity method. Consistent with this approach, the cost of these securities was written down to \$0 in prior periods as the Company recorded its share of losses, and the Company had no residual cost basis in the securities when sold. As such, the Company recorded a gain on the sale in 2004 equal to the sale proceeds of \$520,000.

3. ACQUISITION

In January 2006 the Company acquired Miikana Therapeutics, a private biotechnology company. Pursuant to the Merger Agreement, the Company acquired all of the outstanding capital stock of Miikana Therapeutics, Inc. in exchange for 9.96 million shares of common stock and the assumption of certain obligations. In addition, based on the success of the acquired pre-clinical programs, the Company may pay up to an additional \$18 million upon the achievement of certain clinical and regulatory milestones. Such additional payments will be made in cash or shares of stock at the Company's option. The Company expects that the Aurora Kinase pre-clinical program will advance to a Phase 1 clinical trial in 2007. A dosing of the first patient, expected in 2007, triggers a purchase price adjustment milestone of \$2 million. Through the acquisition, the Company acquired rights to MKC-1, a Phase 2 clinical candidate licensed from Hoffman-LaRoche, Inc. ("Roche") by Miikana in April 2005. Under the terms of the agreement, Roche may be entitled to receive future payments upon successful completion of developmental milestones. The Company does not anticipate reaching any of these milestones in 2007. Roche is also eligible to receive royalties on sales and certain one-time payments based on attainment of annual sales milestones.

Miikana purchase price allocation

Miikana is a development stage company, accordingly, the acquisition of Miikana is treated as an asset purchase. In accordance with EITF 98-3 "*Determining Whether a Nonmonetary Transaction Involves Receipt of Productive Asset or of a Business*," and Statement 141 "*Business Combinations*" the purchase price was first allocated to the tangible assets acquired and liabilities assumed based on the estimated fair values at the acquisition date. The balance of the purchase price was allocated to intangible assets and recorded as in-process research and development as the research and development projects in Miikana's pipeline, as of the acquisition date, had not reached technological feasibility and had no alternative use.

We believe the fair values assigned to the assets acquired and liabilities assumed are based upon reasonable assumptions given current available facts and circumstances.

The total purchase price allocated was \$30.1 million, consisting of 9,964,000 shares of our common stock with a fair value of \$21.9 million, assumed debt of \$1.5 million, assumed current liabilities of \$2.7 million, \$1 million loaned to Miikana prior to the closing and acquisition costs of \$3 million. The fair value of common stock was determined using the closing price at the date of acquisition.

The allocation is as follows:

fair value of net tangible assets acquired	\$ 600,000
· process research and development	<u>29,500,000</u>
total	<u>\$30,100,000</u>

4. LICENSE AGREEMENTS

Pursuant to a purchase agreement dated June 14, 2001 by and between Bioventure Investments kft (“Bioventure”) and the Company, as amended July 13, 2001, July 30, 2001 and August 3, 2001 (the “Purchase Agreement”), Bioventure purchased all of the Company’s right, title and interest to the net royalty payments payable by Celgene Corporation (“Celgene”) to the Company under the agreement dated as of December 9, 1998 by and between the Company and Celgene (the “Celgene Sublicense”).

A provision of the Bioventure purchase agreement provided the potential for an adjustment in the purchase price if cumulative sales of Thalomid[®] exceeded \$800 million by December 31, 2004. Based on Thalomid[®] sales reported publicly by Celgene, the Company concluded that cumulative Thalomid[®] sales had reached this milestone by December 31, 2004. As such, the Company recorded a gain on the sale of our royalty rights and a corresponding receivable of \$3.0 million. The Company received payment of this amount in March 2005. In addition to triggering this one-time adjustment in the purchase price, exceeding the \$800 million cumulative sales amount also triggers a royalty sharing provision. Beginning the year after cumulative sales reach \$800 million, EntreMed is entitled to share in the royalty payments received by Royalty Pharma Finance Trust, successor to Bioventure, on annual Thalomid[®] sales above a certain threshold. In 2006 and 2005 Thalomid[®] sales surpassed the royalty-sharing point and the Company recognized estimated royalty revenues of \$6,882,000 and \$5,310,000, respectively. There can be no assurance that the Company will receive additional material royalties under the royalty sharing provision in the future.

In March 2005, the Company entered into an exclusive worldwide license agreement with Celgene Corporation for the development and commercialization of Celgene’s small molecule tubulin inhibitor compounds for the treatment of cancer. Under the terms of the agreement, Celgene received an upfront licensing fee and may receive additional payments upon successful completion of certain clinical, regulatory and sales milestones. No such milestones have been reached through December 31, 2006. EntreMed will assume responsibility for preclinical and clinical development of the tubulin inhibitors for oncology applications. The upfront license fee of \$1,000,000 was recorded as a component of research and development expense in the Consolidated Statement of Operations for the year ended December 31, 2005.

In January 2006, the Company entered into a License Agreement with Elan Corporation, plc in which the Company has been granted rights to utilize Elan’s proprietary NanoCrystal Technology to develop the oncology product candidate, Panzem[®] NCD. Under the terms of the License Agreement, Elan is eligible to receive payments upon the achievement of certain clinical, manufacturing, and regulatory milestones. Milestones related to the initiation of Phase 2 clinical trials have been paid and there are no additional milestones achieved as of December 31, 2006. Additionally, Elan will receive royalty payments based on sales of Panzem[®] NCD. Under the License Agreement and corresponding Services Agreement, Elan will manufacture EntreMed’s Panzem[®] NCD, a NanoCrystal Technology formulation with improved bioavailability and absorption.

5. RELATED PARTY TRANSACTIONS

Until September 2006, the Company received legal services from a law firm with which one of the Company's former officers was associated. Total expenses for service from this law firm were \$686,000, \$1,180,000 and \$1,015,000 in 2006, 2005 and 2004, respectively. The amounts reflected as research and development, of \$551,000, \$779,000 and \$628,000 in 2006, 2005 and 2004, respectively, in the table below primarily represent patent work. The amounts reflected as general and administrative, of \$119,000, \$351,000 and \$387,000 in 2006, 2005 and 2004, respectively, represent legal services. Also paid in 2006 are costs related to the Miikana acquisition of \$16,000.

In 2005 and 2004 the Company also received financial advisory services from Ferghana Partners, Inc., a provider of corporate financial advice to firms in the Life Sciences field. Until December 2006, the Company's chairman and CEO both held a de minimis ownership interest in Ferghana Partners, Inc. They no longer have an ownership interest. Pursuant to a series of business transactions, the Company paid \$785,000 and \$100,000 in fees to Ferghana Partners, Inc. in 2005 and 2004, respectively. The 2005 amount includes financial advisory fees of \$60,000, a \$200,000 fee associated with the March 2005 Celgene license agreement and a \$525,000 fee resulting from Celgene's March 2005 exercise of a warrant, issued as part of the 2002 transaction for 7,000,000 shares of common stock. The \$60,000 paid in advisory fees were recorded as general and administrative costs, the \$200,000 fee was recorded as research and development expense. The balance of the 2005 fees paid to Ferghana and all of the fees paid to Ferghana in 2004 were recorded as offsets against gross equity transaction proceeds and, as such, are not reflected as expenses in the current period.

The Company completed two sales of securities during 2006. In February 2006, the Company sold common stock and warrants to institutional investors. Celgene Corporation, the Company's largest shareholder, acquired 864,864 shares of common stock and 432,432 warrants convertible into shares of common stock in the transaction (see footnote 7), on the same terms and conditions as the other purchasers in the transaction. In December 2006, Celgene also acquired 2,500,000 shares of the Company's common stock on the same terms and conditions as the other purchasers in a separate sale to institutional investors. The 2005 research and development amount also includes a \$1 million upfront licensing fee paid to Celgene pursuant to our license of Celgene's tubulin inhibitor program.

Expenses from related parties are included in the following accounts within the consolidated financial statements, \$37,535, \$228,380 and \$200,321 of which are included in accounts payable at December 31, 2006, 2005 and 2004, respectively:

	2006	2005	2004
search and development	\$551,000	\$1,979,000	\$ 628,000
neral and administrative	119,000	411,000	387,000
ditional paid in capital	—	525,000	100,000
quisition costs	16,000	50,000	—
	<u>\$686,000</u>	<u>\$2,965,000</u>	<u>\$1,115,000</u>

6. INCOME TAXES

The Company has net operating loss carryforwards for income tax purposes of approximately \$290,457,000 at December 31, 2006 (\$261,541,000 at December 31, 2005) that expire in years 2007 through 2026. The Company also has research and development tax credit carryforwards of approximately \$11,005,000 as of December 31, 2006 that expire in years 2007 through 2025. These net operating loss carryforwards include approximately \$20,000,000, related to exercises of stock options for which the income tax benefit, if realized, would increase additional paid-in capital. The utilization of the net operating loss and research and development carryforwards may be limited in future years due to changes in ownership of the Company pursuant to Internal Revenue Code Section 382. For financial reporting purposes, a valuation allowance has been recognized to reduce the net deferred tax assets to zero due to uncertainties with respect to the Company's ability to generate taxable income in the future sufficient to realize the benefit of deferred income tax assets.

Deferred income taxes reflect the net effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's deferred income tax assets and liabilities as of December 31, 2006 and 2005 are as follows:

	DECEMBER 31,	
	2006	2005
Deferred income tax assets (liabilities):		
Net operating loss carryforwards	\$ 112,174,000	\$ 101,005,000
Research and development credit carryforward	11,005,000	10,616,000
Equity investment	70,000	70,000
Other	2,812,000	735,000
Depreciation	301,000	161,000
Valuation allowance for deferred income tax assets	<u>(126,362,000)</u>	<u>(112,587,000)</u>
Net deferred income tax assets	<u>\$ —</u>	<u>\$ —</u>

A reconciliation of the provision for income taxes to the federal statutory rate is as follows:

	2006	2005	2004
Tax benefit at statutory rate	\$(16,963,000)	\$(5,547,000)	\$(4,291,000)
State taxes	(942,000)	(754,000)	(505,000)
Other	66,000	273,000	383,000
Permanent M-1s	10,027,000	29,000	6,000
Change in valuation allowance	7,944,000	7,565,000	4,407,000
Change in estimated effective rate	—	(1,566,000)	—
	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>

During 2006, the valuation allowance increased by \$5,831,000 related to Miikana deferred tax assets fully reserved as of the date of acquisition.

7. STOCKHOLDERS' EQUITY

In 2002, the Company issued 3,350,000 shares of Series A Preferred Stock to Celgene. The Series A Preferred Stock is convertible, at the option of Celgene, at any time, into common stock at an initial per common share conversion price of \$1.00 (1 share of preferred converts into 5 shares of common). The value of the common stock at the date the Series A Preferred Stock was issued was \$0.86. The conversion price is subject to change for certain dilutive events, as defined. The Company may cause the Series A Preferred Stock to convert automatically provided all of the following conditions are met:

- (i) As of the conversion date, the common stock is traded and was traded during the 60 trading days preceding the conversion date, on a national securities exchange;
- (ii) The average per share closing price of the common stock is greater than \$5.00 over a 60-trading day period ending on the conversion date, and
- (iii) A registration statement with respect to resale of the common stock issuable in the conversion to the holders of the Series A Preferred Stock has been filed with the SEC, such registration statement is effective and the Company has agreed to maintain the effectiveness of the registration statement for at least 180 consecutive days beginning with the conversion date.

The Series A Preferred Stock accrues and accumulates dividends at a rate of 6% and will participate in dividends declared and paid on the common stock, if any. At December 31, 2006, cumulative unpaid preferred stock dividends totaled \$4,020,000 or \$1.20 per share. All unpaid preferred stock dividends must be paid before any dividends may be declared or paid on the Common Stock, and will be added to the liquidation preference of the Series A Preferred Stock payable upon the liquidation, dissolution or winding up of the Company. The liquidation preference is equal to the greater of:

- (i) Two times the original per share purchase price plus accrued and unpaid dividends or

- (ii) The amount per share that would be payable to a holder of shares of the Series A Preferred Stock had all of the shares been converted to common stock immediately prior to a liquidation event.

The liquidation preference of the Series A Preferred Stock on a converted basis at December 31, 2006 totaled approximately \$33,500,000, excluding cumulative unpaid preferred stock dividends as discussed above. This value is calculated based on the contractual liquidation preference articulated in the Series A Preferred Stock agreement. There can be no assurance what impact the conversion of the Series A Preferred to common stock would have on the trading value of the Company's common stock.

Holders of the Series A Preferred Stock generally vote together with the holders of common stock, with each share of Series A Preferred Stock representing the number of votes equal to that number of shares of common stock into which it is then convertible.

In December 2004, the Company completed a private placement of 5,490,198 shares of its common stock and warrants to purchase a total of 1,098,040 shares of common stock at an exercise price of \$3.67, resulting in gross proceeds, prior to the deduction of fees and commissions of approximately \$14.0 million (net proceeds of \$13.3 million).

In March 2005, the Company issued 7,000,000 shares of its common stock pursuant to the exercise of a warrant held by Celgene Corporation. The warrant, exercisable at \$1.50 per share was issued to Celgene as part of the 2002 transaction and resulted in gross proceeds, prior to the deduction of fees and commissions of \$10.5 million (net proceeds of \$9.9 million).

In January 2006, the Company acquired Miikana Therapeutics, a private biotechnology company. Pursuant to the merger Agreement, the Company acquired all of the outstanding capital stock of Miikana Therapeutics, Inc. in exchange for 9.96 million shares of common stock and the assumption of certain obligations.

In February 2006, the Company completed a private placement of 12,972,966 shares of its common stock and warrants to purchase a total of 6,486,484 shares of common stock at an exercise price of \$2.50, resulting in gross proceeds, prior to the deduction of fees and commissions, of approximately \$30 million (net proceeds of approximately \$27.9 million). The fair value of warrants issued was \$11,156,752, calculated using a Black-Scholes value of \$1.72 with an expected life of 5 years with no dividend yield. We assumed volatility was 103.84%, and used a risk free interest rate of 4.52%.

In December 2006, the Company completed a registered direct offering of 10,727,500 shares of its common stock resulting in gross proceeds, prior to the deduction of fees and commissions, of approximately \$17 million (net proceeds of approximately \$15.9 million).

8. SHARE-BASED COMPENSATION

The Company has adopted incentive and nonqualified stock option plans whereby 11,983,333 shares of the Company's common stock were reserved for grants to various executive, scientific and administrative personnel of the Company as well as outside directors and consultants, of which 788,097 shares remain available for grant under the Company's 2001 Long-term Incentive Plan as of December 31, 2006. These options vest over periods varying from immediately to three years and generally expire 10 years from the date of grant.

The Company recorded non-cash compensation charges of \$197,000, \$73,000 and \$175,000 in 2006, 2005 and 2004, respectively, related to the issuance of restricted stock to members of our Board of Directors, as each non-employee director receives an annual retainer fee of \$25,000 that is payable in restricted stock. As of December 31, 2006, \$80,000 represents the non-vested restricted stock compensation awards expected to vest and be recognized in 2007.

Prior to the adoption of SFAS 123R, the Company recorded share-based compensation under Accounting Principles Board ("APB") Opinion No. 25, "*Accounting for Stock Issued to Employees*" ("APB 25"). Accordingly, no share-based compensation expense for such options is reflected in net loss for the years ended December 31, 2005 and 2004, as exercise price equals fair market value of stock on date of grant.

As a result of the adoption of SFAS 123R, the Company's net loss for the year ended December 31, 2006 includes \$1,655,672 of compensation expense related to the Company's share-based compensation awards. The compensation expense related to the Company's share-based compensation arrangements is recorded as components of general and administrative expense and research and development expense, as follows:

Research and development	\$ 352,280
General and administrative	<u>1,303,392</u>
Share-based compensation expense	<u>\$1,655,672</u>
Per share-based compensation expense, per common share:	
Basic and diluted	<u>\$ 0.023</u>

Stock Options. The Company uses the Black-Scholes-Merton valuation model to estimate the fair value of stock options granted to employees. Option valuation models, including Black-Scholes-Merton, require the input of highly subjective assumptions, and changes in the assumptions used can materially affect the grant date fair value of an award. These assumptions include the risk free rate of interest, expected dividend yield, expected volatility, and the expected life of the award.

Expected Volatility—Volatility is a measure of the amount by which a financial variable such as a share price has fluctuated (historical volatility) or is expected to fluctuate (expected volatility) during a period. The Company uses the historical volatility based on the weekly price observations of its common stock during the period immediately preceding the share-based award grant that is equal in length to the award's expected term (up to a maximum of five years). EntreMed believes that historical volatility within the last five years represents the best estimate of future long term volatility.

Risk-Free Interest Rate—This is the average interest rate consistent with the yield available on a U.S. Treasury note (with a term equal to the expected term of the underlying grants) at the date the option was granted.

Expected Term of Options—This is the period of time that the options granted are expected to remain outstanding. EntreMed adopted SAB 107's simplified method for estimating the expected term of share-based awards granted during the year ended December 31, 2006.

Expected Dividend Yield—EntreMed has never declared or paid dividends on its common stock and does not anticipate paying any dividends in the foreseeable future. As such, the dividend yield percentage is assumed to be zero.

Forfeiture Rate—This is the estimated percentage of options granted that are expected to be forfeited or cancelled on an annual basis before becoming fully vested. The Company estimates the forfeiture rate based on historical forfeiture experience for similar levels of employees to whom options were granted.

Following are the weighted-average assumptions used in valuing the stock options granted to employees during the years ended December 31, 2006, 2005 and 2004:

	Years ended December 31,		
	2006	2005	2004
Expected Volatility	101.70%	105.74%	113.35%
Risk free interest rate	4.82%	4.25%	3.73%
Expected term of option	5 years	5 years	5 years
Forfeiture rate	5.00%	N/A	N/A
Expected dividend yield	—	—	—

The weighted average fair value of stock options granted was \$1.25, \$2.13 and \$2.00 in 2006, 2005 and 2004, respectively.

Share-based compensation expense recognized in the Consolidated Statement of Operations for the year ended December 31, 2006 is based on awards ultimately expected to vest, net of estimated forfeitures. SFAS 123R requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

A summary of the Company's stock option plans and of changes in options outstanding under the plans during the years ended December 31, is as follows:

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term In years	Aggregate Intrinsic Value
Outstanding at December 31, 2003	7,507,277	\$10.48		
Exercised	(7,125)	\$ 1.09		
Granted	1,176,728	\$ 2.39		
Cancelled	(308,902)	\$ 6.29		
Outstanding at December 31, 2004	8,367,978	\$ 9.33		
Exercised	(67,070)	\$ 1.21		
Granted	604,692	\$ 2.68		
Cancelled	(943,582)	\$12.66		
Outstanding at December 31, 2005	7,962,017	\$ 9.05		
Exercised	(7,500)	\$ 1.09		
Granted	1,022,132	\$ 1.61		
Expired	(855,563)	\$11.56		
Forfeited	(10,000)	\$ 5.29		
Outstanding at December 31, 2006	<u>8,111,086</u>	\$ 7.87	5.76	\$543,508
Expected and expected to vest at December 31, 2006	8,044,056	\$ 7.92	5.66	\$534,537
Exercisable at December 31, 2006	<u>6,770,485</u>	\$ 9.02	5.12	\$364,102

The aggregate intrinsic value is calculated as the difference between (i) the closing price of the common stock at December 31, 2006 and (ii) the weighted average exercise price of the underlying awards, multiplied by the number of options that had an exercise price less than the closing price on the last trading day of 2006. The aggregate intrinsic value of options exercised was \$3,675, \$48,961 and \$15,319 for the years ended December 31, 2006, 2005 and 2004, respectively, that had an exercise price less than the closing price on the last trading day of the respective year.

Cash received from option exercises under all share-based payment arrangements for the years ended December 31, 2006, 2005 and 2004, was \$8,175, \$81,356 and \$7,767, respectively. Due to the availability of net operating loss carryforwards and research tax credits, tax deductions for option exercises were not recognized in the year ended December 31, 2006.

The following summarizes information about stock options granted to employees and directors outstanding at December 31, 2006:

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Number Outstanding at 12/31/06	Weighted Average Remaining Contractual Life in Years	Weighted Average Exercise Price	Number Exercisable at 12/31/06	Weighted Average Exercise Price
\$0.00 – \$1.50	1,094,239	5.9	\$ 1.11	1,084,149	\$ 1.10
\$1.51 – \$3.00	2,465,970	8.4	\$ 1.94	1,367,974	\$ 2.08
\$3.01 – \$4.50	937,205	7.7	\$ 3.49	704,690	\$ 3.59
\$4.51 – \$6.00	216,272	5.8	\$ 4.99	216,272	\$ 4.99

\$6.01 – \$10.00	1,261,242	3.5	\$ 9.13	1,261,242	\$ 9.13
\$10.01 – \$15.00	634,977	3.1	\$12.07	634,977	\$12.07
\$15.01 – \$25.00	924,450	3.2	\$19.27	924,450	\$19.27
\$25.01 – \$35.00	554,608	3.1	\$27.60	554,608	\$27.60
\$35.01 – \$50.00	3,611	3.6	\$44.82	3,611	\$44.82
\$50.01 – \$65.00	18,512	3.3	\$53.20	18,512	\$53.20
	<u>8,111,086</u>	5.8	<u>\$ 7.87</u>	<u>6,770,485</u>	<u>\$ 9.02</u>

As of December 31, 2006, there was approximately \$1,248,000 of total unrecognized compensation cost related to nonvested employee stock options. That cost is expected to be recognized over a weighted-average period of 1.6 years.

Warrants. Warrants granted generally expire after 5 years from the date of grant. Stock warrant activity to non-employees is as follows:

	Number of Shares	Weighted Average Exercise Price
Outstanding at December 31, 2003	12,047,581	\$ 4.12
Granted	1,098,040	\$ 3.67
Exercised	(337,500)	\$.94
Expired	<u>(566,071)</u>	\$32.55
Outstanding at December 31, 2004	12,242,050	\$ 2.85
Granted	—	—
Exercised	(7,562,500)	\$ 1.46
Expired	<u>(74,672)</u>	\$ 6.60
Outstanding at December 31, 2005	4,604,878	\$ 5.06
Granted	6,486,484	\$ 2.50
Exercised	—	—
Expired	<u>(743,763)</u>	\$11.87
Outstanding at December 31, 2006	<u>10,347,599</u>	\$ 2.96
Exercisable at December 31, 2006	<u>10,347,599</u>	\$ 2.96

9. COMMITMENTS AND CONTINGENCIES

Commitments

The Company entered into two license agreements with Children’s Hospital, Boston for the exclusive, worldwide, royalty-bearing licenses to make, use and sell Endostatin and 2-methoxyestradiol (“2ME2”), both inhibitors of angiogenesis. In February 2004, the Company transferred rights to Endostatin in an agreement with Children’s Medical Center Corporation and Alchemgen Therapeutics. Therefore, the Company has no future milestone payment obligations related to Endostatin. In consideration for retaining the 2ME2 rights, the Company must pay a royalty on any sublicensing fees, as defined in the agreement, to Children’s Hospital, Boston. The agreement obligates the Company to pay up to \$1,000,000 “upon the attainment of certain milestones.” As of December 31, 2006, the Company has paid \$150,000 and accrued an additional \$350,000 under this agreement for the milestones that have been achieved to date.

In March 2005, the Company entered into an exclusive worldwide license agreement with Celgene Corporation for the development and commercialization of Celgene’s small molecule tubulin inhibitor compounds for the treatment of cancer. Under the terms of the agreement, Celgene received an upfront licensing fee of \$1,000,000 and may receive additional payments up to approximately \$25.25 million based upon the attainment of certain milestones. No such milestones have been reached through December 31, 2006.

In January 2006, the Company entered into a License Agreement with Elan Corporation, plc in which the Company has been granted rights to utilize Elan’s proprietary NanoCrystal Technology to develop the oncology product candidate, Panzem[®] NCD. Under the terms of the License Agreement, Elan is eligible to receive payments upon the achievement of certain clinical, manufacturing, and regulatory milestones. Milestones related to the initiation of Phase 2 clinical trials, totaling \$500,000, were paid in 2005 and there are no additional milestones achieved as of December 31, 2006. Additionally, Elan will receive royalty payments based on sales of Panzem[®] NCD. Under the License Agreement and corresponding Services Agreement, Elan will manufacture EntreMed’s Panzem[®] NCD, a NanoCrystal Technology formulation with improved bioavailability and absorption.

In January 2006, the Company acquired Miikana Therapeutics, a private biotechnology company. Pursuant to the Merger Agreement, the Company acquired all of the outstanding capital stock of Miikana Therapeutics, Inc. in exchange for 9.96 million shares of common stock and the assumption of certain obligations. In addition, based on the success of the acquired pre-clinical programs, the Company may pay up to an additional \$18 million upon the achievement of certain clinical and regulatory milestones. Such additional payments will be made in cash or shares of stock at the Company’s option. The Company expects that the Aurora Kinase pre-clinical program will advance to a Phase 1 clinical trial in 2007. A

dosing of the first patient, expected in 2007, triggers a purchase price adjustment milestone of \$2 million, payable in either stock or cash, at the Company's discretion.. Through the acquisition, the Company acquired rights to MKC-1, a Phase 2 clinical candidate licensed from Hoffman-LaRoche, Inc. ("Roche") by Miikana in April 2005. Under the terms of the agreement, Roche may be

entitled to receive future payments upon successful completion of Phase 3 developmental milestones. The Company does not anticipate reaching any of these milestones in 2007. Roche is also eligible to receive royalties on sales and certain one-time payments based on attainment of annual sales milestones. The Company is also obligated to make certain “success fee” payments to ProPharma based on successful completion of developmental milestones under the Roche license agreement.

The Company leases its primary facilities through February 2009. The lease agreement provides for escalation of the lease payments over the term of the lease; however, rent expense is recognized under the straight-line method. Additionally, the Company leases office equipment under operating leases. The future minimum payments under its facilities and equipment leases as of December 31, 2006 are as follows:

07	1,013,211
08	1,028,935
09	171,644
ereafter	—
total minimum payments	<u>\$2,213,790</u>

Rental expense for the years ended December 31, 2006, 2005 and 2004 was \$1,044,000, \$929,000, and \$926,000, respectively.

Contingencies

EntreMed is subject in the normal course of business to various legal proceedings in which claims for monetary or other damages may be asserted. Management does not believe such legal proceedings, unless otherwise disclosed herein, are material.

10. EMPLOYEE RETIREMENT PLAN

The Company sponsors the EntreMed, Inc. 401(k) and Trust. The plan covers substantially all employees and enables participants to contribute a portion of salary and wages on a tax-deferred basis. Contributions to the plan by the Company are discretionary. Contributions by the Company totaled \$89,000, \$77,000 and \$87,000 in 2006, 2005 and 2004, respectively.

11. QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

Summarized unaudited quarterly financial information for the years ended December 31, 2006 and 2005 is as follows:

	QUARTER ENDED			
	MARCH 31,	JUNE 30,	SEPTEMBER 30,	DECEMBER 31,
2006				
Revenues	\$ —	\$ —	\$ 3,023,185	\$ 3,871,173
Research and development costs	4,011,100	4,258,206	5,544,134	7,857,677
General and administrative expenses	1,816,694	1,942,652	1,497,612	2,136,764
Required In-Process R&D	29,128,061	353,833	—	—
	34,955,855	6,554,691	7,041,746	9,994,441
Investment income	278,465	569,617	529,661	489,461
Interest expense	(48,713)	(42,575)	(36,098)	(29,401)
Gain on sale of assets	15,400	1,925	—	35,576
Net loss	(34,710,703)	(6,025,724)	(3,524,998)	(5,627,632)
Dividends on Series A convertible preferred stock	(251,250)	(251,250)	(251,250)	(251,250)
Net loss attributable to common Shareholders	(34,961,953)	(6,276,974)	(3,776,248)	(5,878,882)
Net loss per share (basic and diluted)	\$ (0.53)	\$ (0.09)	\$ (0.05)	\$ (0.08)
2005				
Revenues	\$ 25,249	\$ 579,461	\$ 1,249,600	\$ 4,063,745
Research and development costs	4,379,356	3,812,353	4,128,756	5,004,583
General and administrative expenses	1,260,822	1,339,150	1,786,868	1,533,615
	5,640,178	5,151,503	5,915,624	6,538,198
Investment income	158,461	271,832	284,195	296,283
Gain on sale of assets	—	—	2,000	1,420
Net loss	(5,456,468)	(4,300,210)	(4,379,829)	(2,176,750)
Dividends on Series A convertible preferred stock	(251,250)	(251,250)	(251,250)	(251,250)
Net loss attributable to common Shareholders	(5,707,718)	(4,551,460)	(4,631,079)	(2,428,000)
Net loss per share (basic and diluted)	\$ (0.13)	\$ (0.09)	\$ (0.09)	\$ (0.05)