Dear Valued Shareholder, April 2008

In 2007, EntreMed continued to make progress in advancing its clinical and preclinical development programs, securing additional funding, and strengthening our executive management team. During the year, we initiated multiple Phase 1 and 2 clinical trials for our oncology programs and submitted IND applications for two of our preclinical compounds: ENMD-2076 and Panzem® for rheumatoid arthritis (RA). We received FDA acceptance for these INDs and recently achieved a critical milestone for the ENMD-2076 program with the commencement of a Phase 1 study. We are on track to initiate early studies for Panzem® in rheumatoid arthritis in 2008. In addition to our clinical and preclinical progress, we strengthened our management team with the addition of Dr. Kenneth W. Bair as Senior Vice President, Research & Development.

Refining Our Strategy for the Development of Multiple Mechanism Drugs

As we move forward, we will continue to pursue our strategy directed to the development of orally administered, small molecule, multi-mechanism drugs for the treatment of cancer and inflammatory diseases. In early 2008, we further refined our strategy to concentrate our resources on those programs where we can demonstrate solid single-agent activity in preclinical studies and where we believe there is the greater commercial potential.

As part of focusing on premium programs, we have redirected our efforts from Panzem® NCD (2ME2) for oncology to Panzem® for rheumatoid arthritis, based on 2ME2's unique mechanisms of action, its extensive safety profile, and the magnitude of the market opportunity. As a result, we will now focus on MKC-1, ENMD-1198, and ENMD-2076 for oncology and 2ME2 for rheumatoid arthritis. During 2008, all four of these compounds will be in various stages of clinical development.

Highlights on EntreMed's Drug Candidates

EntreMed has made solid progress with the clinical development of MKC-1, a novel cell cycle inhibitor. We currently have six clinical trials underway with MKC-1, including a Phase 2 study in metastatic breast cancer, a Phase 1/2 study in non-small cell lung cancer, a Phase 1 study in leukemia, a Phase 2 study in ovarian/endometrial cancers, and a Phase 2 multi-center study in pancreatic cancer. We expect to report results this year from our trials in metastatic breast cancer, leukemia and non-small cell lung cancer. We recently announced the initiation of a continuous dosing study for MKC-1 to determine if we can further improve patient response with continuous vs. intermittent dosing.

ENMD-1198 is a new chemical entity (NCE) for oncology that has multiple mechanisms of action, including induction of apoptosis, G2/M arrest and inhibition of HIF-1α. A Phase 1 dose-escalation clinical trial is currently underway to evaluate the safety, tolerability, pharmacokinetics, and clinical benefit of ENMD-1198 in patients with refractory solid tumors. Patient accrual continues for this study and we anticipate the completion of enrollment the second half of 2008. This year, we plan to either expand our Phase 1 study or initiate a Phase 2 clinical trial with ENMD-1198.

As mentioned previously, we recently initiated a Phase 1 study of ENMD-2076 in advanced cancer patients. ENMD-2076 is a novel, orally-administered selective kinase inhibitor with potent activity against intracellular kinase signaling molecules that are linked to the promotion of cancer and inflammatory diseases. ENMD-2076 acts through distinct pathways resulting in antiproliferative activity and the inhibition of angiogenesis. ENMD-2076 has demonstrated substantial, dose-dependent efficacy as a single agent in multiple preclinical models, including tumor regression in breast, colon, and leukemia models. We are excited about the potential for this clinical program and are seeking a partner to provide funding and help accelerate the program's development.

Based on 2ME2's antiangiogenic activity and safety profile, we are continuing to develop Panzem® (2ME2) for rheumatoid arthritis (RA). We believe that there is an opportunity for 2ME2 to become a first-in-class, oral, potentially non-immunosuppressive disease modifying treatment (DMARD) for the treatment of RA. We submitted an extensive human safety dossier in 300 patients from our oncology studies in support of our IND submission. We plan to initiate early clinical development of 2ME2 in RA, starting with a normal volunteer study as required by the FDA, with the goal of seeking a larger pharmaceutical partner to manage the program's development through larger clinical studies and commercialization.

Moving Forward in 2008

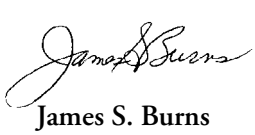
In summary, our plan going forward in 2008 is to concentrate and focus our efforts on our three oncology programs, MKC-1, ENMD-1198 and ENMD-2076, together with advancing 2ME2 for RA into early clinical development. Our 2008 pipeline has a sharper focus and we are devoting increased time and resources to partnering one or several of our programs. While these have been difficult market conditions for micro-cap companies such as EntreMed, we are continuing to invest behind our most promising programs, manage our cash conservatively, and accomplish our milestones.

Our goal is to continue improving the quality of our pipeline, de-risk the Company, and build shareholder value. Through the commitment and dedication of our employees, our clinical partners, and our shareholders, we are well positioned to accomplish our goals for 2008.

We extend our thanks to you, our shareholders, for your continued support.

Sincerely,

Michael M. Tarnow
Chairman of the Board



James S. Burns
President & Chief Executive Officer

ENTREMED, INC. 2007 FORM 10-K

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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, 2007

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:

Common Stock, $0.01 par value	**The NASDAQ Stock Market LLC**
(Title of each class)	**(Name of each exchange on which registered)**

Securities registered pursuant to Section 12(g) of the Act: NONE

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ___No X

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 X

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

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

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

Large accelerated filer ☐	Accelerated filer X
Non-accelerated filer ☐	Smaller reporting company ☐

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

As of June 30, 2007, the aggregate market value of the shares of common stock held by non-affiliates was approximately $113,681,471.

As of February 29, 2008, 85,773,911 shares of the Company’s common stock were outstanding.

Documents Incorporated By Reference

The registrant intends to file a definitive proxy statement pursuant to Regulation 14A within 120 days of the end of the fiscal year ended December 31, 2007. The proxy statement is incorporated herein by reference into the following parts of the Form 10K:

Part III, Item 10, Directors, Executive Officers and Corporate Governance;
Part III, Item 11, Executive Compensation;
Part III, Item 12, Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters;
Part III, Item 13, Certain Relationships and Related Transactions, and Director Independence; and
Part III, Item 14, Principal Accountant Fees and Services.

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ENTREMED, INC.
FORM 10-K - FISCAL YEAR ENDED DECEMBER 31, 2007

Contents and Cross Reference Sheet

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 volatillity of our common stock; our need for additional capital; restrictions imposed by our loan agreement; 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 and the blood vessels that nourish them. We are focused on developing drugs that we believe are safe and convenient, and provide the potential for improved patient outcomes.

Our goal is to develop and commercialize therapeutics based on our scientific expertise in angiogenesis, cell cycle regulation and inflammation -- processes vital to the progression of cancer and other diseases. This 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 histone deactylase (HDAC) inhibition, important targets in the treatment of oncology. We currently have four product candidates in clinical development that are based on these mechanisms.

We currently have four compounds in various stages of clinical development for oncology. Our pipeline of clinical-stage orally-active, multi-mechanism drugs for the treatment of cancer includes MKC-1, a novel cell cycle inhibitor, Panzem® (2-methoxyestradiol or 2ME2), and ENMD-1198, an antimitotic agent. In addition we also have active investigational new drug (IND) applications for our Aurora A/angiogenesis kinase inhibitor, ENMD-2076, and Panzem® for rheumatoid arthritis.

We are developing compounds that have broad therapeutic and commercial potential in oncology. 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.

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, multiple mechanism 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, MKC-1, Panzem® NCD, ENMD-1198 and ENMD-2076.

SCIENTIFIC FOUNDATION

The Company 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. Our 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 antiangiogenic 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. Our 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. Our compounds impact biochemical pathways in cells that result in their death via apoptosis. We believe 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. Our 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 our compounds have demonstrated both anti-inflammatory and antitumor 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 us to develop inhibitors of key kinases involved in these processes. Our current lead kinase inhibitor, ENMD-2076, has dual activity towards both angiogenesis and the cell cycle.

MULTI-MECHANISM PIPELINE

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

Multiple Mechanisms of Action. Our 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. Working through multiple mechanisms of action, we believe that our compounds have 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. Our compounds have versatile potential therapeutic applications. While our preclinical and clinical efforts continue to focus on oncology, we believe that other diseases characterized by angiogenesis represent future opportunities. However, at the present time, our 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. We are 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. We are focusing specifically on oral drug delivery technologies, as well as other convenient administration routes.

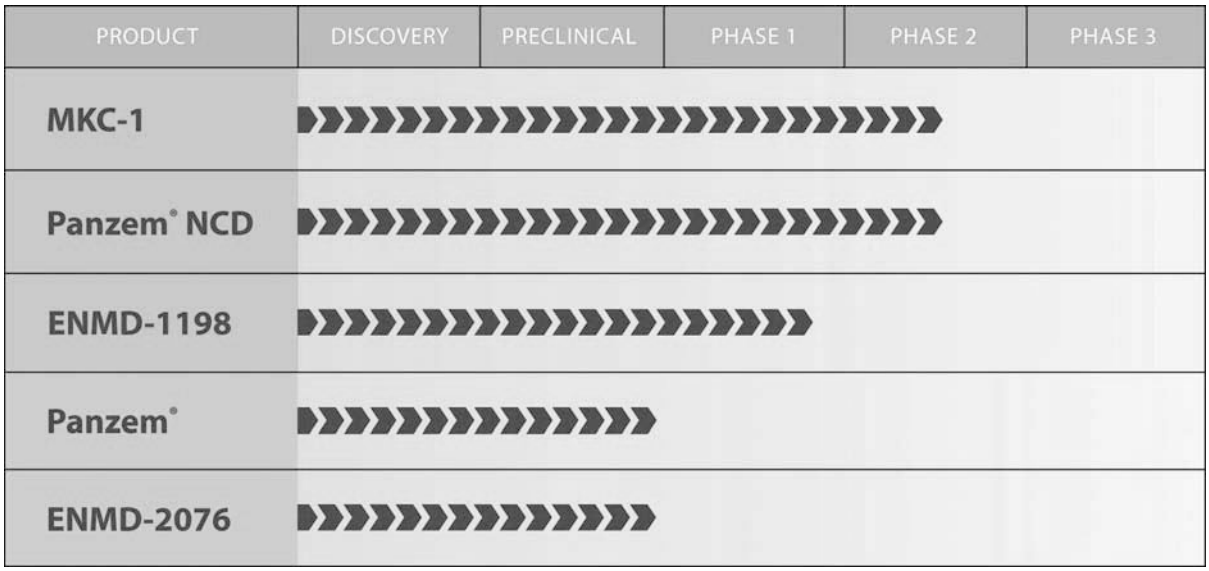
Intellectual Property Position. All of our pipeline programs are backed by strong intellectual property rights. Each product candidate is covered by issued or pending composition, method and use patents. We own, or have licensed on an exclusive basis, a total of 63 issued patents and patent applications in the United States for our product candidates. We have a total of 258 issued patents and pending patent applications in the United States and other countries.

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

DEVELOPMENT PIPELINE

Our pipeline contains a balanced portfolio of clinical product candidates and promising preclinical compounds that have been accepted by the FDA to conduct human clinical trials. The portfolio contains orally-administered compounds that work primarily through multiple mechanisms-of-action and have demonstrated potential in both oncology and inflammatory diseases.

Our pipeline consists of two product candidates (MKC-1 and Panzem® NCD) in multiple Phase 2 oncology studies, and a Phase 1 oncology product candidate (ENMD-1198). In addition, we have active INDs for two programs (ENMD-2076 for oncology and Panzem® for the treatment of rheumatoid arthritis).



CLINICAL PROGRAMS

MKC-1. MKC-1 is a novel, orally-active cell cycle inhibitor with *in vitro* and *in vivo* efficacy against a broad range of human solid tumor cell lines, including multi-drug resistant cell lines. Data from previous studies with MKC-1 demonstrate broad-acting antitumor effects, showing tumor growth inhibition or regression in multiple preclinical models, including paclitaxel-resistant models. MKC-1 has been shown to inhibit mitotic spindle formation, prevent chromosome segregation in the M-phase (mitosis) of the cell cycle, and induce apoptosis. Furthermore, MKC-1 inhibits the Akt-mTOR signaling pathways, which may occur through inhibition of the

mTOR/rictor pathway. The Akt-mTOR pathway is the most frequently mutated pathway in human tumors and mutations have been shown to promote tumor progression and decrease survival in cancer patients.

Since January 2006, we have commenced five clinical studies with MKC-1. These studies include: 1) a Phase 2 clinical trial in metastatic breast cancer patients; 2) a Phase 1 study in hematological cancers; 3) a Phase 2 study of MKC-1 in combination with pemetrexed (Alimta®) in patients with non-small cell lung cancer; 4) a Phase 2 study in patients with advanced pancreatic cancer; and most recently 5) a Phase 2 study in patients with advanced ovarian and endometrial cancers.

Panzem® NCD. We have formulated 2ME2 as an orally-administered liquid suspension (Panzem® NCD) using Elan Drug Delivery's (Elan) NanoCrystal® Dispersion (NCD) technology to enhance 2ME2's bioavailability. NCD is Elan's proprietary technology that is currently used 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 and increased bioavailability 5-10 fold to levels where optimum antitumor activity was observed in preclinical studies.

Since January 2006, we have commenced six additional clinical studies with Panzem® NCD. These studies include: 1) a Phase 2 clinical trial in glioblastoma multiforme (GBM) patients; 2) a Phase 1b study of Panzem® NCD in combination with paclitaxel (Taxol®) in patients with metastatic breast cancer; 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; 5) a multi-center Phase 2 study in patients with recurrent or resistant epithelial ovarian cancer; and 6) a multi-center Phase 2 study in combination with Sutent® in patients with renal cell cancer. Of the six trials currently underway, three continue to enroll patients and three are closed to enrollment. Patients continue to be dosed on all studies.

We do not plan to initiate further studies with Panzem® NCD in oncology. However, we will continue to review the composite data from the ongoing Panzem® NCD oncology trials to help us determine alternative research and development strategies.

ENMD-1198. We discovered a New Chemical Entity (NCE) that inhibits tumor growth based on modifying the chemical structure of 2-methoxyestradiol (2ME2) to increase its antitumor and antiangiogenic 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 positive antitumor activity in several preclinical animal models. Preclinical data demonstrated that oral administration of ENMD-1198 leads to pronounced *in vivo* antitumor 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. Combination studies with ENMD-1198 and another microtubule targeting agent commonly used in the treatment of leukemias, vincristine, demonstrate synergistic effects on leukemia cells *in vitro* and tolerability of doses that prolonged survival in leukemia xenograft models. ENMD-1198 was evaluated in a preclinical model of non-small cell lung cancer (NSCLC) and demonstrated a three-fold increase in survival compared to Cisplatin, an approved agent for the treatment of this disease. Approximately 80% of the ENMD-1198 treated models remained on study until tumor dissemination evaluation. In prior preclinical studies, ENMD-1198 has been shown to be an orally-active, antimitotic agent that leads to arrest of cell division and apoptosis in tumor cells. ENMD-1198 also exerts antiangiogenic activity that further contributes to its overall antitumor effects.

ENMD-1198 is currently in a Phase 1 trial to evaluate the safety, tolerability, pharmacokinetics, and clinical benefit of ENMD-1198 in patients with advanced cancer. We anticipate completing enrollment for the Phase 1 study and reporting interim results in the second half of 2008.

2ME2 for Rheumatoid Arthritis. The mechanisms ascribed to 2ME2, namely antiangiogenesis, pro-apoptosis, down regulation of HIF-1α, and inhibition of bone resorption, have implicated its use in diseases with inflammatory components, such as rheumatoid arthritis (RA). We and our collaborators have now established the dose-dependent, antiarthritic 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, we conducted IND-enabling toxicology studies for 2ME2 in rheumatoid arthritis. The use of Panzem® for rheumatoid arthritis opens the possibility to cross over with 2ME2 from oncology into a therapeutic area with a large, still underserved market.

In January 2008, the Food and Drug Administration (FDA) accepted our Investigational New Drug (IND) application. Our strategy in 2008 and 2009 will be to initiate early clinical trials internally and then seek a development partner for larger multi-center clinical trials. We anticipate initiation of a healthy volunteer trial during the second half of 2008.

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-2076, is a multi-target kinase inhibitor with a unique selectivity profile and multiple mechanisms of action, including antiproliferative activity and the inhibition of angiogenesis. ENMD-2076 is a novel, angiogenesis kinase inhibitor with potent activity against Aurora A and tyrosine kinases linked to promoting cancer and inflammatory diseases. ENMD-2076 acts through multiple pathways resulting in antiproliferative activity and the inhibition of angiogenesis. ENMD-2076 has demonstrated substantial dose-dependent efficacy as a single agent in multiple xenograft models, including tumor regression in breast, colon, and leukemia models. Importantly, ENMD-2076 is an oral agent that has shown an acceptable toxicity profile in preclinical studies without cardiovascular effects.

ENMD-2076 is unique in class because it not only inhibits Aurora A selectively over Aurora B, it also inhibits a number of other kinases important in the growth of tumors and, in particular, growth factor receptors critical to angiogenesis. ENMD-2076 has potent antitumor activity in multiple preclinical models including both solid tumors and hematological cancers.

We have an active IND for ENMD-2076 and Phase 1 studies in solid tumors (1H08) and hematological cancers (2H08) are planned.

PRECLINICAL PIPELINE

Our preclinical compound is also based on our scientific expertise in angiogenesis, cell cycle regulation and inflammation. Our strategy is to continue adding value to our pipeline by advancing our best preclinical assets forward into clinical development, while selectively exploring strategic alliances and co-development partners.

HDAC Inhibitors. Inhibitors of histone deacetylases (HDACs) are emerging as a promising new class of anticancer agents. Inhibition of HDAC activities in cancer cells leads to inhibition of tumor cell proliferation, cell cycle arrest and induction of apoptosis. The recent approval of an HDAC inhibitor has provided clinical validation for the concept of HDAC inhibition in the treatment of cancer, and numerous HDAC inhibitors are currently being tested in clinical trials.

EntreMed has developed a series of novel, potent HDAC inhibitors that are currently in preclinical evaluation. The Company's portfolio of HDAC inhibitors encompasses several chemically distinct series of compounds. Comparisons *in vitro* and *in vivo* with benchmark compounds indicate that EntreMed's HDAC inhibitors have superior potency and efficacy, and are potentially less toxic. Additionally, a chemical scaffold that can confer selectivity between Class I and II HDAC isoforms has been identified within a novel chemical series.

Multiple patent applications have been filed, providing excellent protection as well as a good opportunity for second-generation molecules based on existing intellectual property.

BUSINESS DEVELOPMENT STRATEGY

Oncology is our 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, our strategy is to continue developing compounds for oncology and inflammatory diseases, while selectively exploring strategic alliances for our compounds in other therapeutic areas. We may pursue co-development partners for our core pipeline product candidates to help accelerate their development and strengthen the development program with complementary expertise. Likewise, we can provide our 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. We focus primarily on oncology. MKC-1 and Panzem® NCD are currently in multiple Phase 2 clinical studies in cancer. 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. Our goal is to commercialize our pipeline, either in partnership with other pharmaceutical or biotechnology companies or, as practical with our own resources. We are committed to maintaining a balanced portfolio of oncology compounds that can be co-developed with pharmaceutical and biotechnology partners, or commercialized for our own account. We are committed to pursuing value-creating technologies and products, making sound financial decisions, and building the financial capacity to develop our clinical portfolio.

EMPLOYEES

As of December 31, 2007, we had 57 full-time employees. Forty-four 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. In February 2008, the Company received notice that Alchemgen Therapeutics is ceasing operations as of April 30, 2008, therefore terminating the agreement with CMCC as of that date.

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.

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).

- "2-Methoxyestradiol (2ME2) and 2ME2 Analogs as Inhibitors of Hypoxia Inducible Factor-1 alpha (HIF-1α)", National Cancer Institute (Expires September 2008)
- "FGF-2 Vaccination Study in Experimental Demyelination", Henry M. Jackson Foundation (Expires May 2009)

Clinical Trial Centers. As of February 8, 2008, 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
- 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
- University Health Network, Toronto, Ontario, Canada
- University of Wisconsin, Madison, WI

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 Medical Center Corporation ("CMCC"), Boston, EntreMed, Inc. and its subsidiary, Miikana Therapeutics, Inc., own, or have licensed on an exclusive basis, a total of 63 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 258 issued patents and pending patent applications in the United States and other countries.

We have licensed technology exclusively from CMCC, which covers the use of steroid-derived small molecular weight compounds such as Panzem® that are antimitotic and antiangiogenic agents. A U.S. patent application has been issued covering purified Panzem® as a composition of matter. There are 5 pending United States patent applications and 17 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 in the United States are subject to extensive regulations.

In the United States, the Food and Drug Administration (FDA) regulates 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 regulatory 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 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 are 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 has outstanding questions to discuss with the IND sponsor.

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 3 clinical trials generally take

two to five years to complete, but may take longer. The FDA receives reports on the progress of each phase of clinical testing, as well as reports of unexpected adverse experiences occurring during the trial. FDA 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. 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 Good Manufacturing Practices, 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, 2007, we had an accumulated deficit of approximately $334,048,000. Losses have continued since December 31, 2007. 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.

Our Existing Term Loan Contains Operating and Financial Covenants That May Restrict our Business and Financing Activities

We entered into a $20 million loan agreement with General Electric Capital Corporation, as agent for the lenders party thereto, on September 12, 2007. The loan agreement is secured by a pledge of all of our assets other than intellectual property, including the shares of the outstanding capital stock, or other equity interests, of each of our subsidiaries, and contains a variety of operational covenants, including limitations on our ability to incur liens or additional debt, make dispositions, pay dividends, redeem our stock, make certain investments and engage in certain merger, consolidation or asset sale transactions and transactions with affiliates, among other restrictions. Any future debt financing we enter into may involve similar or more onerous covenants that restrict our operations. Our borrowings under the loan agreement or any future debt financing we do will need to be repaid, which creates additional financial risk for our company, particularly if our business, or prevailing financial market conditions, are

not conducive to paying-off or refinancing our outstanding debt obligations. Furthermore, our failure to comply with the covenants in the loan agreement could result in an event of default that, if not cured or waived, could result in the acceleration of all or a substantial portion of our debt, which could have a material adverse effect on our cash position, business, prospects, financial condition and results of operations.

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.

Our Common Stock May be Delisted From The NASDAQ Global Market, Which Could Negatively Impact the Price of Our Common Stock and Our Ability to Access the Capital Markets

Our common stock is listed on The NASDAQ Global Market. The listing standards of The NASDAQ Global Market provide, among other things, that a company may be delisted if the bid price of its stock drops below $1.00 for a period of 30 consecutive business days. Recently our stock has traded below $1.00, and if we fail to comply with the listing standards applicable to issuers listed on The NASDAQ Global Market, our common stock

may be delisted from The NASDAQ Global Market. The delisting of our common stock would significantly affect the ability of investors to trade our securities and would significantly negatively affect the value and liquidity of our common stock. In addition, the delisting of our common stock could materially adversely affect our ability to raise capital on terms acceptable to us or at all. Delisting from The NASDAQ Global Market could also have other negative results, including the potential loss of confidence by suppliers and employees, the loss of institutional investor interest and fewer business development opportunities.

We are Uncertain Whether Additional Funding Will Be Available For Our Future Capital Needs and Commitments, and If We Cannot Raise Additional Funding, or Access the Credit Markets, 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, 2007, we had cash and cash equivalents and marketable securities of $47,748,191. 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. Our operations require significant amounts of cash. We may be required to seek additional capital, whether from sales of equity or debt or additional borrowings, for the future growth and development of our business. We can give no assurance as to the availability of such additional capital or, if available, whether it would be on terms acceptable to us. The current credit environment has negatively affected the economy, and we have considered how it might affect our business. Events affecting credit market liquidity could increase borrowing costs or limit availability of funds. Moreover, the covenants of our term loan agreement contain provisions that may restrict the debt we may incur in the future. If we are not successful in obtaining sufficient capital because we are unable to access the capital markets at financially economical interest rates, it could reduce our research and development efforts and may materially adversely affect our future growth , results of operations and financial results, and 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 all 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.

Our potential products may conflict with composition, method, and use of 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, being unable to profitably deploy assets acquired in the transaction, such as drug candidates, possible dilution to our shareholders, and the loss of key employees due to changes in management. 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. Our current lease contains a five-year renewal option at the same terms, which is available to us with six month's notice. 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.

No matters were submitted to a vote of security holders during the fourth quarter of the fiscal year covered by this report.

PART II

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

Market for Common Equity

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
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
2007:		
First Quarter	$ 1.70	$ 1.43
Second Quarter	1.91	1.53
Third Quarter	1.56	1.07
Fourth Quarter	1.60	1.08
2008:		
First Quarter (through February 26, 2008)	$ 1.25	$ .85

On February 26, 2008, the closing price of our common stock, as reported by the Nasdaq National Market, was $.92 per share. As of February 26, 2008 there were approximately 916 holders of record of our common stock.

Dividend Policy

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

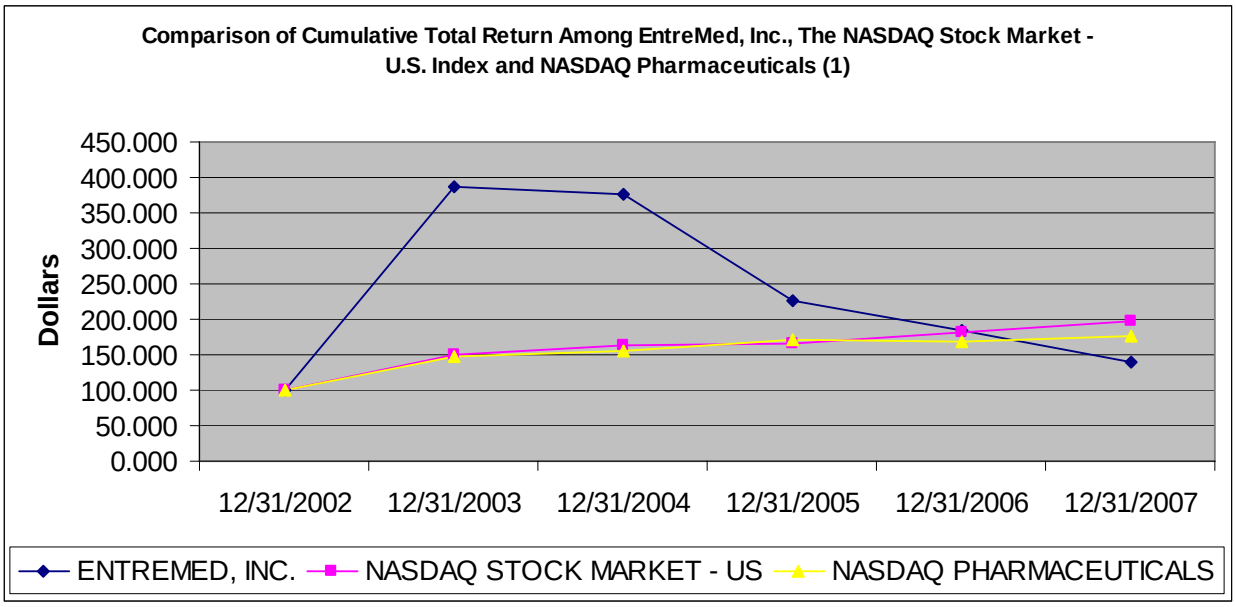
The following table discloses certain information about the options issued and available for issuance under all outstanding Company option plans, as of December 31, 2007.

	(a)	(b)	(c)
Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	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	8,671,308	$6.81	455,162
Equity compensation plans not approved by security holders	131,113	$3.71	0
Total	8,802,421	$6.79	455,162

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.



	12/31/02	12/31/03	12/31/04	12/31/05	12/31/06	12/31/07
ENTREMED, INC.	100.000	386.047	376.744	225.581	183.721	139.535
NASDAQ STOCK MARKET - US	100.000	149.521	162.719	166.178	182.574	197.978
NASDAQ PHARMACEUTICALS	100.000	146.588	156.132	171.930	168.293	176.974

(1) Assumes $100 invested on December 31, 2002 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, 2007. 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,				
STATEMENTS OF OPERATIONS DATA:	2007	2006	2005	2004	2003
Revenues					
Collaborative research and development	$ -	$ -	$ -	$ -	$ 667,796
License fees	-	-	590,992	495,496	310,496
Grant revenues	-	-	-	-	508,243
Royalty revenues	7,393,463	6,881,799	5,310,439	5,918	2,705
Other	2,188	12,559	16,624	12,581	86,306
Total revenues	7,395,651	6,894,358	5,918,055	513,995	1,575,546
Expenses:					
Research and development	23,739,392	21,671,117	17,325,048	10,523,252	14,252,196
General and administrative	7,386,570	7,393,722	5,920,455	6,570,664	7,022,986
Acquired In-Process R&D	-	29,481,894	-	-	-
Interest expense	793,393	156,787	-	-	-
Investment income	(2,112,583)	(1,867,204)	(1,010,771)	(313,940)	(205,580)
Gain on sale of asset	-	(52,901)	(3,420)	(124,083)	-
Gain on sale of securities	-	-	-	(520,000)	-
Gain on sale of royalty interest	-	-	-	(3,000,000)	-
Net loss	$ (22,411,121)	$ (49,889,057)	$ (16,313,257)	$ (12,621,898)	$ (19,494,056)
Dividends on Series A convertible preferred stock	(1,005,000)	(1,005,000)	(1,005,000)	(1,005,000)	(1,005,000)
Net loss attributable to common shareholders	$ (23,416,121)	$ (50,894,057)	$ (17,318,257)	$ (13,626,898)	$ (20,499,056)
Net loss per share	$ (0.28)	$ (0.71)	$ (0.36)	$ (0.37)	$ (0.68)
Weighted average number of shares outstanding	84,166,552	71,873,734	48,176,914	37,170,544	29,943,161

	As of December 31,				
	2007	2006	2005	2004	2003
BALANCE SHEET DATA:					
Cash and cash equivalents and short-term investments	$ 47,748,191	$ 50,570,097	$ 30,082,388	$ 34,539,516	$ 36,941,430
Working capital	42,929,602	46,268,554	28,510,176	34,979,936	33,405,818
Total assets	53,014,908	55,719,534	36,431,885	39,404,002	40,153,764
Deferred revenue, less Current portion	-	-	-	95,496	192,993
Accumulated deficit	(334,048,007)	(311,636,886)	(261,747,829)	(245,434,572)	(232,812,674)
Total stockholders' equity	26,896,978	46,963,219	29,369,190	35,704,754	34,858,883

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" in Item 1A of this Annual Report.

OVERVIEW

We are a clinical-stage pharmaceutical company developing novel multi-mechanism drugs for the treatment of cancer and inflammatory diseases. We are focused on developing drugs that are safe and convenient, and provide the potential for improved patient outcomes. MKC-1, a novel cell cycle inhibitor, is in Phase 2 clinical trials for cancer. Panzem® (2-methoxyestradiol or 2ME2) is also currently in multiple Phase 2 clinical trials for cancer, and ENMD-1198, a novel antimitotic agent discovered by EntreMed, is currently in a Phase 1 clinical trial for cancer. In late 2007, we also filed and had accepted, an IND for ENMD-2076, a novel, Aurora A/angiogenesis kinase inhibitor in oncology and we expect to begin clinical trials in early 2008. Additionally, the FDA has accepted our IND filing for Panzem®. Our development plans are to initiate clinical trials in healthy volunteers to support this indication. With multiple product candidates in clinical development, we expect research and development expenses to remain at similar levels or increase through 2008 as we support the existing clinical programs and also bring one or more additional development candidates forward. 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. We currently have four product candidates in clinical development that 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 2007 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. The Company also is 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 are also eligible to receive royalties from Oxford Biomedica, PLC from the net sales of products developed for the treatment of ophthalmic (eye) diseases. We did not receive royalties under either of these agreements in 2007. 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 preclinical 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.

- Expenses for Clinical Trials – Expenses for clinical trials are incurred from planning through patient enrollment to reporting of the underlying data. We estimate expenses incurred for clinical trials that are in process based on patient enrollment and based on clinical data collection and management. Costs that are associated with patient enrollment are recognized as each patient in the clinical trial completes enrollment. Estimated clinical trial costs related to enrollment can vary based on numerous factors, including expected number of patients in trials, the number of patients that do not complete participation in a trial, and when a patient drops out of a trial. Information about patient enrollment can become available significantly after we report our expenses for clinical trials, in which case we would change our estimate of the remaining cost of a trial. Costs that are based on clinical data collection and management are recognized based on estimates of unbilled goods and services received in the reporting period. In the event of early termination of a clinical trial, we would accrue an amount based on estimates of the remaining non-cancelable obligations associated with winding down the clinical trial.

- 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 was effective 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 are impacted by the recognition of non-cash expense related to the fair value of our share-based compensation awards. Share-based compensation expense recognized in the years ended December 31, 2007 and 2006 totaled $1,455,000 and $1,656,000, respectively.

  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.

RESULTS OF OPERATIONS

Years Ended December 31, 2007, 2006 and 2005.

Revenues. Revenues increased 7% in 2007 to $7,396,000 from $6,894,000 in 2006 after increasing 16% in 2006 from $5,918,000 in 2005. The three years presented reflect royalty revenues and licensing revenues. The increases in 2007 and 2006 revenues result 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 2007, 2006 and 2005 surpassed the sharing point in the third quarter and we recorded estimated royalty revenues of $7,350,000, $6,882,000 and $5,310,000, respectively.

We did not record any licensing revenues in 2007 and 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.

Research and Development Expenses. Our 2007 research and development expenses, which totaled $23,739,000, a 10% increase from 2006, reflect an expanded clinical base including multiple trials for Panzem® NCD and MKC-1, a Phase 1 clinical trial for ENMD-1198, and also the costs associated with the preparation and submission of two IND filings. The two IND filings, Panzem® NCD in rheumatoid arthritis and ENMD-2076 in oncology, accounted for the increase in our 2007 R&D expenses. The 2007 amount reflects direct project costs for Panzem® of $7,673,000, $2,200,000 for ENMD-1198, $3,241,000 for MKC-1 and $3,958,000 for ENMD-2076. In 2006, our research and development expenses totaled $21,671,000, reflecting direct project costs for Panzem® of $7,814,000, $2,095,000 for ENMD-1198, $3,000,000 for MKC-1 and $1,457,000 for ENMD-2076. Research and development expenses totaled $17,325,000 in 2005, which included direct project costs of $7,594,000 for Panzem® and $3,237,000 related to ENMD-1198. The 2006 increase was attributable to our January 2006 acquisition of Miikana Therapeutics, Inc. In 2006, we incurred 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 2007 and 2006 R&D expenses also include non-cash stock-based compensation, pursuant to the adoption of SFAS 123R, totaling $353,000 and $352,000, respectively. The 2006 and 2005 expenditures reflect an increase in clinical and regulatory activity along with associated contract manufacturing activities.

MKC-1 is currently being administered in four Phase 2 oncology trials and is also currently in a Phase 1 study for hematological cancers. Panzem® NCD is being studied in multiple Phase 1 and 2 clinical trials and will also be evaluated as a potential product candidate in the treatment of rheumatoid arthritis. ENMD-1198, a an antimitotic agent, continues in the early stage of clinical development with an ongoing Phase 1 clinical trial in oncology. At December 31, 2007, accumulated direct project expenses for Panzem® were $50,775,000, ENMD-1198 totaled $9,668,000, and since acquired, accumulated direct project expenses for MKC-1 totaled $6,241,000 and for ENMD-2076 totaled $5,415,000. 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, 2007, we have three proprietary product candidates in clinical trials along with two accepted IND filings. We expect our R&D expenses in 2008 to increase 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
Phase I	1 Year
Phase II	1-2 Years
Phase 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 $23,739,000 in 2007 from $21,671,000 in 2006, also an increase from $17,325,000 in 2005. The 2007 increase reflects the cost of the preparation and submission of two IND filings in addition to the ongoing clinical costs related to our three clinical-stage drug candidates. In 2007, we expanded our clinical trial base with the initiated one and two Phase 2 trials for MKC-1 and Panzem® NCD, respectively. The 2006 increase resulted from our acquisition of Miikana in Janaury 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 was the company's 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 the addition of MKC-1 as a Phase 2 oncology

clinical candidate. The research and development expenditures in 2005 reflect increased clinical and regulatory activity along with associated contract manufacturing activities related primarily to the increased costs associated with further development of various drug candidates.

The increases in R&D expenses reflected in 2007 and 2006 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 spent $2,871,000 in 2007, $3,621,000 in 2006 and $2,399,000 in 2005 on these activities. In 2007, the primary components of our outside services were directed towards toxicity studies to support the ENMD-2076 IND filing, while in 2006, these same activities were conducted to support the Panzem® NCD IND filing for rheumatoid arthritis. In 2006, we also conducted *in vivo* studies investigating solid dosage forms for ENMD-1198. The 21% decrease in expenditures for outside services in 2007 was due to the different activities conducted in connection with the ENMD-2076 studies, as compared to the outside service activities utilized in support of Panzem® NCD in 2006.

- Collaborative Research Agreements -- We made payments to our collaborators of $470,000, $231,000 and $673,000 in years 2007, 2006 and 2005, respectively. Our collaborative efforts are primarily directed towards exploration of the mechanism-of-action (MOA) of our drug candidates and also *in vivo* testing of potential therapeutic combinations. Sponsored research payments to academic collaborators include payments to Children's Hospital of $225,000 in 2005.

- Clinical Trial Costs -- Clinical costs increased to $4,282,000 in 2007 from $3,406,000 in 2006, which increased from $1,090,000 in 2005. The significant increases in clinical trial costs in 2007 and 2006 reflect the progression of our clinical candidates and also, in 2006, the addition of a second Phase 2 oncology clinical candidate, MKC-1, acquired with Miikana Therapeutics. Our 2007 clinical expense reflects the initiation of two Phase 2 trials for Panzem® NCD, the initiation of one additional Phase 2 trial for MKC-1, and support of the ongoing studies that were initiated in 2006 for both compounds. 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. 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 increased slightly in 2007 to $5,681,000 from $5,595,000 in 2006. The 2007 contract manufacturing spending increase reflects the costs of supplying finished drug product to support the new and ongoing trials for our three clinical drug candidates and also the cost of securing clinical material to support Phase 1 trials for ENMD-2076, which are expected to start in early 2008. Our 2006 expenses included $1,079,000 related to the manufacture of MKC-1, with the balance of the manufacturing activities related primarily to supporting our Phase 2 Panzem® NCD trials. Product manufacturing costs were $5,606,000 in 2005, which 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.

- Personnel Costs -- Personnel costs increased to $5,301,000 in 2007 from $4,368,000 in 2006. The increase in 2007 is attributed to general compensation increases and also the hiring of additional employees, including the Senior Vice President of R&D and a director in Medicinal Chemistry. Included in the 2006 costs is $1,212,000 related to Miikana employees. Personnel costs were $2,864,000 in 2005.

Also reflected in our 2007 research and development expenses are patent costs of $1,251,000, facility and related expenses of $1,500,000, laboratory supplies and animal costs of $1,111,000, consulting fees of $627,000 and travel expenses of $243,000. In 2006, these expenses totaled $766,000, $1,503,000, $1,062,000, $624,000 and $235,000, respectively, and in 2005, these expenses totaled $654,000, $1,351,000, $772,000, $296,000 and $200,000, respectively. The 2007 increase in these R&D expenses, which is primarily attributed to patent costs, results from 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 decreased to approximately $7,387,000 in 2007 from $7,394,000 in 2006. General and administrative expenses were $5,920,000 in 2005. The increases in 2007 and 2006 from our 2005 expenses relate primarily to the recording of non-cash stock-based compensation, pursuant to the adoption of SFAS 123R, in the amount of $1,102,000 and $1,303,000, respectively.

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 our 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, 2007 increased to approximately $793,000 from approximately $157,000 in 2006. The increase results from of a financing transaction with General Electric Capital Corporation (GECC) in September 2007 and the related interest expense. The 2006 interest expense related to debt with Venture Lending & Leasing IV, LLC, which we assumed pursuant to our acquisition of Miikana Therapeutics in January 2006, and which was paid in full in September, 2007. We had no interest-bearing debt during 2005.

Investment income. Investment income increased by 13% in 2007 to $2,113,000 as a result of higher yields on higher invested balances in interest-bearing cash accounts and investments. Investment income was $1,867,000 in 2006, an increase of 85% from $1,011,000 in 2005.

Dividends on Series A convertible preferred stock. The Consolidated Statements of Operations for the years ended December 31, 2007, 2006 and 2005 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.

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 2007 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 early 2008. A dosing of the first patient triggers a purchase price adjustment milestone of $2 million, which we expect to be due (in cash or stock at our discretion) in the first half of 2008. 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 2008. 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. We do not expect to trigger any of these milestone payments in 2008. 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, 2007, we had cash and short-term investments of $47,748,191 with working capital of $42,929,602. We invest our capital resources with the primary objective of capital preservation. As a result of trends in interest rates in 2007, 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, 2007. Our short-term investments consist primarily of corporate debt securities, all of which mature within one year.

FINANCING ACTIVITIES

On September 12, 2007, we entered into a Loan and Security Agreement with General Electric Capital Corporation ("GECC"), as agent, Merrill Lynch Capital and Oxford Finance Corporation (collectively with GECC, "the Lenders"). The Loan Agreement provided for a term loan issued by the Lenders to the Company in the aggregate amount of $20 million. In connection with the transaction, we issued warrants with an exercise price of $2.00 per share to the Lenders providing rights to purchase their respective *pro rata* share of 250,000 shares of common stock of the Company.

The loan accrues interest in arrears at a fixed annual interest rate of 10.47% until fully repaid. The loan is to be repaid by the Company to GECC, for the ratable benefit of the Lenders, as nine consecutive monthly payments of interest only, each in the amount of $174,500, which commenced on November 1, 2007, and thirty consecutive monthly payments of principal and interest, each in the amount of $760,606, commencing on August 1, 2008.

The Loan Agreement contains customary affirmative and negative covenants. We were in compliance with such covenants as of December 31, 2007.

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.

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.

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 2008, we expect to have four compounds under clinical investigation and we expect our 2008 results of operations to reflect a net loss of approximately $30,200,000, including non-cash charges of approximately $4,600,000. Management may deviate from its current operating plans throughout the fiscal year, based on the results received from our ongoing trials and our research and development efforts, and therefore we may increase or decrease funding of, or abandon, certain clinical investigations or other compounds in our pipeline. Any material change to our corporate strategy and drug candidate development pipeline may result in higher or lower aggregate net losses for fiscal 2008. In addition to the continued clinical development of MKC-1 and ENMD-1198, we plan to begin clinical evaluation of ENMD-2076 in oncology. We expect that the majority of our 2008 revenues will continue to be from royalties on the sale of Thalomid®. Based on the historical sales trends for Thalomid®, we expect to record royalty-sharing revenues of approximately $7.0 million in 2008; 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 2008.

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 at least twelve months from December 31, 2007. 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 and acquisitions that will provide resources for the further development of our product candidates or expand our product pipeline. 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, 2007.

CONTRACTUAL OBLIGATIONS	PAYMENTS DUE BY PERIOD				
	Total	Less than 1 year	1-3 years	3 - 5 years	More than 5 years
Operating Leases Obligations	$ 1,216,000	$ 1,044,000	$ 172,000	$ ---	$ ---
Loan Payable, including interest	20,000,000	2,982,000	17,018,000		
Obligations under Licensing and Miikana Merger Agreements (1)	---	---	---	---	---
Purchase Obligations					
Clinical Trial Contracts	5,971,000	4,777,000	1,194,000	---	---
Contract Manufacturing	1,523,000	1,523,000	---	---	---
Outside Service Contracts	258,000	258,000	---	---	---
Other Contracts	140,000	140,000	---	---	---
Total Contractual Cash Obligations	$ 29,108,000	$ 10,724,000	$ 18,384,000	$ ---	$ ---

(1) In the event that we reach certain development milestones for Panzem and MKC-1, such as initiation of Phase 3 trials and multiple regulatory approvals (US, Europe and Japan), we could be obligated to make future milestone payments of up to $35.75 million under the related license agreements. Of this amount, up to $10 million could become payable while these product candidates are in clinical development. We would also be obligated to make annual-sales-based-royalty payments if we successfully commercialize either compound. Our other development programs are in Phase 1 or earlier stages of development. Under the terms of the Miikana merger agreement we could be obligated to make additional payments to Miikana's selling shareholders of $18 million upon the attainment of certain clinical milestones for two acquired preclinical programs. We anticipate that one of the two programs will advance to clinical trials in 2008 and, upon dosing of the first patient, we would be obligated to make a payment of $2 million, which is payable in cash or stock at our discretion. In addition, under the terms of our license agreement with Celgene, we could make future development and commercialization milestone payments, including payments for approvals in the U.S. and other countries, totaling $25.25 million. Of the milestones, $5.25 million would be payable if a product candidate successfully moves through clinical trials. We would also be required to pay annual-sales-based-royalties under this agreement. Other than the $2 million Miikana clinical milestone noted above, we cannot forecast with any degree of certainty whether any of product candidates will reach additional developmental milestones. We therefore have excluded the milestone amounts and any royalty payments from the above table. The $2 million Miikana milestone is excluded because we anticipate making the payment in shares of our common stock.

OFF-BALANCE-SHEET ARRANGEMENTS

We had no significant off-balance sheet arrangements during fiscal year 2007.

NEW ACCOUNTING PRONOUNCEMENTS

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. 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 condition.

In February 2007, the FASB issued SFAS No. 159, *"The Fair Value Option for Financial Assets and Financial Liabilities,"* (SFAS 159), which provides companies with an option to report selected financial assets and liabilities at fair value. SFAS 159 establishes presentation and disclosure requirements designed to facilitate comparisons between companies that choose different measurement attributes for similar types of assets and liabilities and highlights the effect of a company's choice to use fair value on its earnings. It also requires a company to display the fair value of those assets and liabilities for which it has chosen to use fair value on the face of the balance sheet. SFAS 159 will be effective for us beginning January 1, 2008 and is not expected to have a material impact on our consolidated financial statements.

In June 2007, the FASB issued EITF No. 07-3, *Accounting for Nonrefundable Advance Payments for Goods or Services Received for use in Future Research and Development Activities* ("EITF No. 07-3"). EITF No. 07-3 states that nonrefundable advance payments for goods or services that will be used or rendered for future research and development activities should be deferred and capitalized. Such amounts should be recognized as an expense as the related goods are delivered or the related services are performed. Entities should continue to evaluate whether they expect the goods to be delivered or services to be rendered. If an entity does not expect the goods to be delivered or services to be rendered, the capitalized advance payment should be charged to expense. The provisions of EITF No. 07-3 will be effective for us on a prospective basis beginning January 1, 2008 and evaluated on a contract by contract basis.

In December 2007, the FASB issued SFAS No. 141(R), a revised version of SFAS No. 141, *"Business Combinations."* The revision is intended to simplify existing guidance and converge rulemaking under U.S. generally accepted accounting principles with international accounting standards. This statement applies prospectively to business combinations where the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. An entity may not apply it before that date. We are currently evaluating the impact of the provisions of the revision on our consolidated results of operations and financial condition.

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, 2007.

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.

None.

ITEM 9A. CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures

As of the end of the period covered by this Annual Report, we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief

Financial Officer (its principal executive officer and principal financial officer), of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in the Securities Exchange Act of 1934 Rules 13a-15(e) and 15d-15(e)). Our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures are effective to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission and that such information is accumulated and communicated to our management (including our Chief Executive Officer and Chief Financial Officer) to allow timely decisions regarding required disclosures. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded these disclosure controls are effective as of December 31, 2007.

Changes in Internal Control Over Financial Reporting

During the quarter ended December 31, 2007, 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

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Securities Exchange Act Rules 13a-15(f) and 15d-15(f). Our internal control over financial reporting is designed to provide reasonable assurance to our management and board of directors regarding the reliability of financial reporting and the preparation and fair presentation 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.

Under the supervision and with the participation of our management, including our chief executive officer and chief financial officer, we conducted an assessment of the effectiveness of our internal control over financial reporting using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control — Integrated Framework*. Based on our assessment, we concluded that our internal control over financial reporting was effective as of December 31, 2007.

Ernst & Young LLP, the independent registered public accounting firm that has audited our consolidated financial statements included herein, has issued an attestation report on the effectiveness of our internal control over financial reporting as of December 31, 2007, a copy of which is included in this Annual Report on Form 10-K.

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 EntreMed, Inc.'s internal control over financial reporting as of December 31, 2007, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). 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 included in the accompanying "Management's Report on Internal Control over Financial Reporting." Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

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

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

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

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

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of EntreMed, Inc. as of December 31, 2007 and 2006, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2007 of EntreMed, Inc. and our report dated March 5, 2008 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

McLean, Virginia

March 5, 2008

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 2008 Annual Meeting of Stockholders, to be filed pursuant to Regulation 14A with the Securities and Exchange Commission within 120 days of December 31, 2007. 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 2008 Annual Meeting of Stockholders, to be filed pursuant to Regulation 14A with the Securities and Exchange Commission within 120 days of December 31, 2007. 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 2008 Annual Meeting of Stockholders, to be filed pursuant to Regulation 14A with the Securities and Exchange Commission within 120 days of December 31, 2007. 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 2008 Annual Meeting of Stockholders, to be filed pursuant to Regulation 14A with the Securities and Exchange Commission within 120 days of December 31, 2007. 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 2008 Annual Meeting of Stockholders, to be filed pursuant to Regulation 14A with the Securities and Exchange Commission within 120 days of December 31, 2007. 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-Q for the quarter ended June 30, 2006 previously filed with the Securities and Exchange Commission)
3.2	By-laws of EntreMed, Inc. (incorporated by reference from our Form 8-K filed on December 6, 2007 previously filed with the Securities and Exchange Comission)
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 Securities and Exchange 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 Securities and Exchange Commission on January 15, 2003)
4.3	Warrant to Purchase Common Stock, dated September 12, 2007, issued by EntreMed, Inc. in favor of General Electric Capital Corporation (incorporated by reference from our Form 10-Q for the quarter ended September 30, 2007 previously filed with the Securities and Exchange Commission)
4.4	Warrant to Purchase Common Stock, dated September 12, 2007, issued by EntreMed, Inc. in favor of Merrill Lynch Capital (incorporated by reference from our Form 10-Q for the quarter ended September 30, 2007 previously filed with the Securities and Exchange Commission)
4.5	Warrant to Purchase Common Stock, dated September 12, 2007, issued by EntreMed, Inc. in favor of Oxford Finance Corporation (incorporated by reference from our Form 10-Q for the quarter ended September 30, 2007 previously filed with the Securities and Exchange Commission)
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*

10.10.1(7) Purchase Agreement between Bioventure Investments kft and EntreMed, Inc., dated June 15, 2001+

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, as amended*

10.15(11) Employment Agreement between EntreMed and Dane Saglio effective July 1, 2004, as amended*

10.18(16) Letter Agreement between EntreMed and Dane Saglio dated May 20, 2005*

10.19(12) Employment Agreement between EntreMed and Carolyn F. Sidor, M.D. effective December 1, 2004, as amended*

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*

10.25(16) Employment Agreement by and between EntreMed and Marc Corrado, dated as of May 20, 2005*

10.25(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+

10.26(18)	Description of Compensation of Directors*
10.27(20)	Employment Agreement by and between EntreMed and Cynthia Wong, dated as of June 1, 2006, as amended*
10.28(21)	Letter Agreement between EntreMed and Dane Saglio dated June 21, 2006*
10.29(22)	License Agreement, dated January 9, 2006, by and between Elan Pharma International Limited and EntreMed, Inc. +
10.30(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.+
10.31 (23)	Loan and Security Agreement dated September 12, 2007 among General Electric Capital Corporation, Oxford Finance Corporation, Merrill Lynch Capital, as the lenders and EntreMed, Inc. and Miikana Therapeutics, Inc. as the loan parties
10.32 (23)	Promissory Note dated September 12, 2007 to General Electric Capital Corporation
10.33 (23)	Promissory Note dated September 12, 2007 to Merrill Lynch Capital
10.34 (23)	Promissory Note dated September 12, 2007 to Oxford Finance Corporation
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 May 12, 2006.

(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, as amended on Form 8-K filed on April 17, 2007 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, as amended on Form 8-K filed on April 17, 2007 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, as amended on Form 8-K filed on April 17, 2007 previously filed with the Securities and Exchange Commission.

(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 April 17, 2007.

(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.

(23) Incorporated by reference from our Form 10-Q for the quarter ended September 30, 2007 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.

March 5, 2008

ENTREMED, INC.

By: /s/James S. Burns.
James S. Burns
President and Chief
Executive Officer

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.

SIGNATURE	TITLE	DATE
/s/Michael M. Tarnow Michael M. Tarnow	Chairman of the Board	March 3, 2008
/s/James S. Burns James S. Burns	President and Chief Executive Officer	March 5, 2008
/s/ Dane R. Saglio Dane R. Saglio	Chief Financial Officer (Principal Financial and Accounting Officer)	March 1, 2008
/s/Donald S. Brooks Donald S. Brooks	Director	March 3, 2008
/s/Dwight L. Bush Dwight L. Bush	Director	March 1, 2008
/s/Jennie C. Hunter-Cevera Jennie C. Hunter-Cevera	Director	March 3, 2008
/s/Mark C. M. Randall Mark C. M. Randall	Director	March 3, 2008
/s/Ronald Cape Ronald Cape	Director	March 3, 2008
/s/Peter S. Knight Peter S. Knight	Director	March 1, 2008

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements of EntreMed, Inc. and in the related Prospectuses of our reports dated March 5, 2008, with respect to the consolidated financial statements of EntreMed, Inc. and the effectiveness of internal control over financial reporting of EntreMed, Inc., included in this Annual Report (Form 10-K) for the year ended December 31, 2007.

(1) Registration Statement Number 333-67063 on Form S-8
(2) Registration Statement Number 333-41218 on Form S-8
(3) Registration Statement Number 333-68048 on Form S-8
(4) Registration Statement Number 333-101617 on Form S-8
(5) Registration Statement Number 333-80193 on Form S-3
(6) Registration Statement Number 333-84907 on Form S-3
(7) Registration Statement Number 333-76824 on Form S-3
(8) Registration Statement Number 333-104380 on Form S-3
(9) Registration Statement Number 333-110604 on Form S-3
(10) Registration Statement Number 333-122309 on Form S-3
(11) Registration Statement Number 333-87940 on Form S-3
(12) Registration Statement Number 333-129276 on Form S-3
(13) Registration Statement Number 333-133190 on Form S-3
(14) Registration Statement Number 333-132715 on Form S-3

/s/Ernst & Young LLP

McLean, VA
March 5, 2008

Exhibit 31.1

CERTIFICATION OF PRESIDENT AND CHIEF EXECUTIVE OFFICER

I, James S. Burns, certify that:

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

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

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

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

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

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

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

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

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

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

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

Date: March 5, 2008

/s/ James S. Burns
James S. Burns
President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER

I, Dane R. Saglio, certify that:

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

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

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

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

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

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

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

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

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

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

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

Date: March 5, 2008

/s/ Dane R. Saglio
Dane R. Saglio
Chief Financial Officer

Exhibit 32.1

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

In connection with the Annual Report of EntreMed, Inc. (the "Company") on Form 10-K as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, James S. Burns, as Chief Executive Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge, that:

(1) The Report fully complies with the requirements of section 13(a) of the Securities Exchange Act of 1934; and

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

This certificate is being made for the exclusive purpose of compliance by the Chief Executive Officer of the Company with the requirements of Section 906 of the Sarbanes-Oxley Act of 2002, and may not be used by any person or for any reason other than as specifically required by law.

/s/ James S. Burns
March 5, 2008 James S. Burns
President and CEO

Exhibit 32.2

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

In connection with the Annual Report of EntreMed, Inc. (the "Company") on Form 10-K as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Dane R. Saglio, as Chief Financial Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge, that:

(1) The Report fully complies with the requirements of section 13(a) of the Securities Exchange Act of 1934; and

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

This certificate is being made for the exclusive purpose of compliance by the Chief Financial Officer of the Company with the requirements of Section 906 of the Sarbanes-Oxley Act of 2002, and may not be used by any person or for any reason other than as specifically required by law.

/s/ Dane R. Saglio
March 5, 2008 Dane R. Saglio
Chief Financial Officer

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

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. as of December 31, 2007 and 2006, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December, 31 2007. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of EntreMed, Inc. at December 31, 2007 and 2006, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2007, in conformity with U.S. generally accepted accounting principles.

As discussed in Note 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), EntreMed, Inc.'s internal control over financial reporting as of December 31, 2007, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 5, 2008 expressed an unqualified opinion thereon.

/s/Ernst & Young LLP

McLean, Virginia

March 5, 2008

EntreMed, Inc.
Consolidated Balance Sheets

	DECEMBER 31, 2007	DECEMBER 31, 2006
ASSETS		
Current assets:		
Cash and cash equivalents	$ 29,675,899	$ 20,896,141
Short-term investments	18,072,292	29,673,956
Accounts receivable	3,901,554	3,845,000
Interest receivable	144,191	73,895
Prepaid expenses and other	464,083	377,871
Total current assets	52,258,019	54,866,863
Property and equipment, net	620,456	847,561
Other assets	136,433	5,110
Total assets	$ 53,014,908	$ 55,719,534
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 4,550,892	$ 5,946,852
Accrued liabilities	1,675,814	1,828,164
Current portion of loan payable	2,982,117	751,093
Current portion of deferred rent	119,594	89,849
Total current liabilities	9,328,417	8,615,958
Loan payable, less current portion	16,768,749	-
Deferred rent, less current portion	20,764	140,357
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, 2007 and 2006 (liquidation value - $33,500,000 at December 31, 2007 and 2006)	3,350,000	3,350,000
Common stock, $.01 par value: 170,000,000 and 170,000,000 shares authorized; 85,712,992 and 84,839,585 shares issued and outstanding at December 31, 2007 and 2006, respectively	857,125	848,400
Additional paid-in capital	364,705,150	362,318,737
Treasury stock, at cost: 874,999 shares held at December 31, 2007 and 2006	(8,034,244)	(8,034,244)
Accumulated other comprehensive income	66,954	117,212
Accumulated deficit	(334,048,007)	(311,636,886)
Total stockholders' equity	26,896,978	46,963,219
Total liabilities and stockholders' equity	$ 53,014,908	$ 55,719,534

See accompanying notes.

EntreMed, Inc.
Consolidated Statements of Operations

	YEAR ENDED DECEMBER 31,		
	2007	2006	2005
Revenues:			
Licensing	$ -	$ -	$ 590,992
Royalties	7,393,463	6,881,799	5,310,439
Other	2,188	12,559	16,624
	7,395,651	6,894,358	5,918,055
Costs and expenses:			
Research and development	23,739,392	21,671,117	17,363,890
General and administrative	7,386,570	7,393,722	5,881,613
Acquired In-Process R&D	-	29,481,894	-
	31,125,962	58,546,733	23,245,503
Investment income	2,112,583	1,867,204	1,010,771
Interest expense	(793,393)	(156,787)	-
Gain on sale of assets	-	52,901	3,420
Net loss	(22,411,121)	(49,889,057)	(16,313,257)
Dividends on Series A convertible preferred stock	(1,005,000)	(1,005,000)	(1,005,000)
Net loss attributable to common shareholders	$ (23,416,121)	$ (50,894,057)	$ (17,318,257)
Net loss per share (basic and diluted)	$ (0.28)	$ (0.71)	$ (0.36)
Weighted average number of shares outstanding (basic and diluted)	84,166,552	71,873,734	48,176,914

See accompanying notes.

ENTREMED, INC.

CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY
Periods Ended December 31, 2007, 2006 and 2005

	Preferred Stock		Common Stock		Treasury	Additional Paid-in	Deferred Stock	Accumulated Other Comprehensive	Accumulated	
	Shares	Amount	Shares	Amount	Stock	Capital	Compensation	Income	Deficit	Total
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
Issuance of common stock for options exercised	-	-	67,070	671	-	80,685	-	-	-	81,356
Issuance of common stock for warrants exercised	-	-	7,355,166	73,552	-	9,826,448	-	-	-	9,900,000
Stock issuance costs	-	-	-	-	-	(76,651)	-	-		(76,651)
Deferred stock-based compensation	-	-	56,448	564	-	174,424	(174,989)	-	-	-
Amortization of deferred stock-based compensation						-	72,989	-		72,989
Net 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
Issuance of common stock for options exercised	-	-	7,500	75	-	8,100	-	-	-	8,175
Issuance of common stock for acquisition	-	-	9,964,000	99,640	-	21,821,160	-	-	-	21,920,800
Sale of common stock at $2.31 per share of Miikana, net of stock issuance costs	-	-	12,972,966	129,730	-	16,580,322	-	-	-	16,710,052
Fair value of warrants issued	-	-	-	-	-	11,156,752	-	-	-	11,156,752
Sale 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
Transition from FAS123 to FAS123R	-	-	-	-	-	-	-	-	-	-
Comprehensive (loss):										
Net loss	-	-	-	-	-	-	-	-	(49,889,057)	(49,889,057)
Unrealized 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
Issuance of common stock for options exercised	-	-	75,000	750	-	81,000	-	-	-	81,750
Issuance of common stock for warrants exercised	-	-	675,000	6,750	-	666,774	-	-	-	673,523
Fair value of warrants issued pursuant to debt settlement agreements	-	-	-	-	-	190,000	-	-	-	190,000
Restricted stock grants, net of issuance cost	-	-	123,407	1,225	-	187,729	-	-	-	188,954
Stock-based compensation expense, net of forfeitures	-	-	-	-	-	1,260,910	-	-	-	1,260,910
Comprehensive loss:										
Net loss	-	-	-	-	-	-	-	-	(22,411,121)	(22,411,121)
Unrealized loss on investments	-	-	-	-	-	-	-	(50,258)	-	(50,258)
Comprehensive loss	-	-	-	-	-	-	-	-	-	(22,461,379)
Balance at December 31, 2007	3,350,000	$ 3,350,000	84,837,993	$ 857,125	$ (8,034,244)	$ 364,705,150	$ -	$ 66,954	$ (334,048,007)	$ 26,896,978

EntreMed, Inc.
Consolidated Statements of Cash Flows

	YEAR ENDED DECEMBER 31,		
	2007	2006	2005
CASH FLOWS FROM OPERATING ACTIVITIES			
Net loss	$ (22,411,121)	$ (49,889,057)	$ (16,313,257)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	333,827	444,680	475,848
Write-off of in-process R&D	-	29,481,894	-
Gain on sale of assets	-	(52,901)	(3,420)
Stock-based compensation expense	1,454,864	1,553,672	-
Amortization of deferred stock-based compensation	-	102,000	72,988
Amortization of discount on short-term investments	(1,112,976)	(1,015,815)	(393,815)
Non-cash interest	62,428	-	-
Changes in operating assets and liabilities:			
Accounts receivable	(56,554)	(72,285)	(472,650)
Note receivable	-	-	(1,000,000)
Interest receivable	(70,296)	107,336	(96,142)
Prepaid expenses and other	(86,085)	7,705	(150,969)
Accounts payable	(1,395,960)	155,827	3,964,660
Accrued liabilities	(152,352)	(1,537,025)	(377,291)
Deferred rent	(89,848)	(60,969)	(32,931)
Deferred revenue	-	-	(190,992)
Net cash used in operating activities	(23,524,073)	(20,774,938)	(14,517,971)
CASH FLOWS FROM INVESTING ACTIVITIES			
Proceeds from sale of property and equipment, net	-	52,901	11,000
Acquisition, net of cash received	-	(2,906,218)	-
Purchases of short term investments	(43,999,618)	(72,786,954)	(51,491,900)
Maturities of short term investments	56,664,000	62,920,760	47,325,000
Purchases of furniture and equipment	(106,721)	(227,435)	(248,677)
Net cash provided by (used in) investing activities	12,557,661	(12,946,946)	(4,404,577)
CASH FLOWS FROM FINANCING ACTIVITIES			
Repayment of loan	(751,093)	(697,030)	-
Proceeds from issuance of loan and warrants, net of discount	19,900,000	-	-
Debt issuance costs	(153,012)	-	-
Net proceeds from sale of common stock	750,275	43,907,403	9,904,705
Net cash provided by financing activities	19,746,170	43,210,373	9,904,705
Net increase (decrease) in cash and cash equivalents	8,779,758	9,488,489	(9,017,843)
Cash and cash equivalents at beginning of year	20,896,141	11,407,652	20,425,495
Cash and cash equivalents at end of year	$ 29,675,899	$ 20,896,141	$ 11,407,652
Supplemental disclosure of cash flow information:			
Cash paid during the year for interest	$ 554,660	$ 156,787	$ -
Non-cash investing activity:			
Stock issued in connection with the acquisition of Miikana	$ -	$ 21,920,800	$ -

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

DESCRIPTION OF BUSINESS AND BASIS OF PRESENTATION

EntreMed, Inc. ("EntreMed" or "the Company") (Nasdaq: ENMD) is a clinical-stage pharmaceutical company developing multi-mechanism drugs for the treatment of cancer and inflammatory diseases. The Company's drug candidates target disease cells and the blood vessels that nourish them. EntreMed is focused on developing drugs that the Company believes are safe and convenient, and provide the potential for improved patient outcomes. The Company currently has four compounds in clinical development with a pipeline of orally-active, multi-mechanism drugs for the treatment of cancer including; MKC-1, a novel cell cycle inhibitor, Panzem® (2-methoxyestradiol or 2ME2), and ENMD-1198, an antimitotic agent. The Company also has active INDs for its Aurora A/angiogenesis kinase inhibitor, ENMD-2076, and Panzem® for rheumatoid arthritis.

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 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.

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. Cytokine Sciences, Inc., whose operations were insignificant, was dissolved as of December 2007 and, therefore, will not be part of our consolidated financial statements beginning in 2008.

To date, the Company has been engaged primarily in research and development activities. As a result, the Company has incurred operating losses through 2007 and expects to continue to incur operating losses for 2008 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 3 to 10 years. Depreciation is determined on a straight-line basis. Depreciation expense was $333,827, $444,680 and $475,848 in 2007, 2006 and 2005, respectively. Property and equipment consists of the following:

	DECEMBER 31	
	2007	2006
Furniture and equipment	$ 4,889,864	$ 4,783,143
Leasehold improvements	1,288,791	1,288,791
	6,178,655	6,071,934
Less: accumulated depreciation	(5,558,199)	(5,224,373)
	$ 620,456	$ 847,561

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 losses of $50,258 were recorded in 2007 and unrealized gains of $117,212 were recorded in 2006. 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 2007 realized gains were $75,400, and in 2006 realized losses were $24,272. Short-term investments are principally uninsured and subject to normal credit risk.

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, 2007 and 2006.

As of December 31, 2007 and 2006, one individual customer represented 100% and 99%, respectively, of the total accounts receivable.

EXPENSES FOR CLINICAL TRIALS

Expenses for clinical trials are incurred from planning through patient enrollment to reporting of the underlying data. The Company estimates expenses incurred for clinical trials that are in process based on patient enrollment and based on clinical data collection and management. Costs that are associated with patient enrollment are

recognized as each patient in the clinical trial completes enrollment. Estimated clinical trial costs related to enrollment can vary based on numerous factors, including expected number of patients in trials, the number of patients that do not complete participation in a trial, and when a patient drops out of a trial. Information about patient enrollment can become available significantly after expenses are reported for clinical trials, in which case the Company would change its estimate of the remaining cost of a trial. Costs that are based on clinical data collection and management are recognized based on estimates of unbilled goods and services received in the reporting period. In the event of early termination of a clinical trial, the Company would accrue an amount based on estimates of the remaining non-cancelable obligations associated with winding down the clinical trial. As of December 31, 2007 and 2006, clinical trial accruals were $1,377,635 and $774,732, respectively and are included in Accounts Payable in the accompanying consolidated balance sheets.

INCOME TAXES

Income tax expense is accounted for in accordance with SFAS No. 109, *Accounting of Income Taxes*, or SFAS 109. Income tax expense has been provided using the liability method. Deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities as measured by the enacted tax rates that will be in effect when these differences reverse. The Company provides a valuation allowance against net deferred tax assets if, based upon the available evidence, it is not more likely than not that the deferred tax assets will be realized.

Effective January 1, 2007, the Company adopted the provisions of Financial Accounting Standard Board, Financial Interpretation No. 48, *Accounting for Uncertainty in Income Taxes — an interpretation of FASB Statement No. 109*, ("FIN 48"). FIN 48 specifies how tax benefits for uncertain tax positions are to be recognized, measured and derecognized in financial statements; requires certain disclosures of uncertain tax matters; specifies how reserves for uncertain tax positions should be classified on the balance sheet; and provides transition and interim-period guidance, among other provisions.

At the date of adoption of FIN 48, the Company had no unrecognized tax benefits and expected no significant changes in unrecognized tax benefits in the next 12 months.

The Company's policy is to recognize interest and penalties related to the underpayment of income taxes as a component of income tax expense. To date, there have been no interest or penalties charged to the Company in relation to the underpayment of 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 2007, 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. In February 2008, the Company received notice that Alchemgen Therapeutics is ceasing operations as of April 30, 2008, therefore terminating the agreement with CMCC as of that date.

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 17,856,416 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 and loss on investments as follows:

	Years ended December 31,		
	2007	2006	2005
Net loss	$(22,411,121)	$(49,889,057)	$(16,313,257)
Other comprehensive (loss) income	(50,258)	117,212	-
Comprehensive loss	$(22,461,379)	$(49,771,845)	$(16,313,257)

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:

	Year ended December 31, 2005
Actual net loss	$ (16,313,257)
Deduct: Stock-based employee compensation expense if SFAS No.123 had been applied to all awards	(1,923,575)
Add: Stock-based employee compensation included in reported net loss	72,988
Proforma net loss	$ (18,163,844)
Dividend on Series A convertible preferred stock	(1,005,000)
Proforma net loss per share available to common shareholders	$ (19,168,844)
Net loss per share:	
Basic and diluted – as reported	$ (0.36)
Basic and diluted – pro forma	$ (0.40)

NEW ACCOUNTING PRONOUNCEMENTS

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 15, 2007. The Company will adopt SFAS 157 as of January 1, 2008. 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 the Company's current use of fair value measurements, SFAS 157 is not expected to have a material effect on its results of operations or financial position.

In February 2007, the FASB issued SFAS No. 159, *"The Fair Value Option for Financial Assets and Financial Liabilities,"* (SFAS 159), which provides companies with an option to report selected financial assets and liabilities at fair value. SFAS 159 establishes presentation and disclosure requirements designed to facilitate comparisons between companies that choose different measurement attributes for similar types of assets and liabilities and highlights the effect of a company's choice to use fair value on its earnings. It also requires a company to display the fair value of those assets and liabilities for which it has chosen to use fair value on the face of the balance sheet. SFAS 159 will be effective beginning January 1, 2008 and is not expected to have a material impact on the Company's consolidated financial statements.

In June 2007, the FASB issued EITF No. 07-3, *Accounting for Nonrefundable Advance Payments for Goods or Services Received for use in Future Research and Development Activities* ("EITF No. 07-3"). EITF No. 07-3 states that nonrefundable advance payments for goods or services that will be used or rendered for future research and development activities should be deferred and capitalized. Such amounts should be recognized as an expense as the related goods are delivered or the related services are performed. Entities should continue to evaluate whether they expect the goods to be delivered or services to be rendered. If an entity does not expect the goods to be delivered or services to be rendered, the capitalized advance payment should be charged to expense. The provisions of EITF No. 07-3 will be effective for the Company on a prospective basis beginning January 1, 2008 and evaluated on a contract by contract basis.

In December 2007, the FASB issued SFAS No. 141(R), a revised version of SFAS No. 141, *"Business Combinations."* The revision is intended to simplify existing guidance and converge rulemaking under U.S. generally accepted accounting principles with international accounting standards. This statement applies prospectively to business combinations where the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. An entity may not apply it before that date. The Company is currently evaluating the impact of the provisions of the revision on its consolidated results of operations and financial condition.

FAIR VALUE OF 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. The carrying value and estimated value of debt, before discount, were $20,000,000 and approximately $20,252,000, respectively, at December 31, 2007. The fair value was estimated based on the quoted market price.

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.

RECLASSIFICATIONS

Certain prior year balances have been reclassified to conform to the current year presentation.

2. ACQUISITION

In January 2006, the Company acquired Miikana, a private biotechnology company. Pursuant to the merger agreement entered into in connection with the acquisition, the Company acquired all of the outstanding capital stock of Miikana in exchange for 9.96 million shares of the Company's 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 the filing of an IND (Investigational New Drug) application and commence clinical trials in 2008. A dosing of the first patient 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 2008. 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 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 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.

Acquired In-Process Research and Development

Acquired in-process research and development, or IPR&D, represents the fair value assigned to research and development projects that we acquire which have not been completed at the date of acquisition and which have no future alternative use. Accordingly, the fair value of such projects is recorded as research and development expense as of the acquisition date.

The value assigned to acquired IPR&D was determined by estimating the costs to develop the acquired technology into commercially viable products, estimating the resulting net cash flows from the projects, and discounting the net cash flows to present value. The revenue and cost projections used to value IPR&D were, as applicable, reduced based on the probability of developing a new drug. Additionally, the projections considered the relevant market sizes and growth factors and expected trends in technology. The resulting net cash flows from such projects are based on management's estimates of cost of sales, operating expenses, and income taxes from such projects. The rates utilized to discount the net cash flows to their present value were based on estimated cost of capital calculations.

The Company believes that the foregoing assumptions used in the IPR&D analysis were reasonable at the time of the acquisition. No assurance can be given, however, that the underlying assumptions used to estimate expected project sales, development costs or profitability, or the events associated with such projects, will transpire as estimated.

The total purchase price allocated was $30.1 million, consisting of 9,964,000 shares of the Company's 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 Company allocated the purchase price to the tangible assets based on their estimated fair market value of $600,000 with the balance being allocated to IPR&D, with a project allocation of approximately $23.0 million to MKC-1 and the balance of approximately $6.5 million to the acquired preclinical programs.

3. LOAN PAYABLE

At December 31, 2006, the Company had a loan payable to Venture Lending & Leasing IV, Inc. for approximately $751,000 at an interest rate of 13.4%. This loan was paid off in 2007.

On September 12, 2007, EntreMed, Inc. and Miikana Therapeutics, Inc., its wholly owned subsidiary, entered into a Loan and Security Agreement ("Loan Agreement") with General Electric Capital Corporation ("GECC"), as agent, Merrill Lynch Capital and Oxford Finance Corporation (collectively, "the Lenders"). The Loan Agreement provides for (i) a term loan ("Term Loan") issued by the Lenders to the Company in the aggregate amount of $20,000,000 and (ii) the issuance and sale to the Lenders of stock purchase warrants evidencing the Lenders' right to acquire their respective *pro rata* share of 250,000 shares of common stock of the Company ("Warrants").

The Term Loan will accrue interest in arrears at a fixed annual interest rate of 10.47% until the Term Loan is fully repaid. The Term Loan will be repaid by the Company to GECC, for the ratable benefit of the Lenders, as: (i) nine consecutive monthly payments of interest only, each in the amount of $174,500, commencing on November 1, 2007 and (ii) thirty consecutive monthly payments of principal and interest, each in the amount of $760,606, commencing on August 1, 2008. The Term Loan expires on the earlier of (i) January 1, 2011 or (ii) the date the Term Loan otherwise becomes due and payable under the Loan Agreement, whether by acceleration of the obligations under the Term Loan or otherwise.

The Company will have the right to voluntarily prepay the Term Loan, in full or in part, upon five business days' written notice to GECC. Under certain circumstances, the prepayment of the aggregate amount outstanding under the Term Loan triggers a prepayment penalty equal to: (i) 3% on such prepayment amount, if such prepayment is made on or before the one year anniversary of the closing date, (ii) 2% on such prepayment amount, if such prepayment is made after the one year anniversary of the closing date but on or before the two year anniversary of the closing date, and (iii) 1% on such prepayment amount, if such prepayment is made after the two year anniversary of the closing date but on or before the Term Loan maturity date. The Loan Agreement contains customary events of default that permits GECC to accelerate the Company's outstanding obligations if an event of default occurs and it is not cured within the applicable grace periods. The Loan Agreement also provides for automatic acceleration upon bankruptcy and other insolvency events.

The Term Loan will be used for general corporate purposes and is secured by the personal property owned by the Company, except for any intellectual property owned by the Company. Notwithstanding the foregoing, the collateral for the Term Loan includes (i) all cash, royalty fees and other proceeds that consist of rights of payment or proceeds from the sale, licensing or other disposition of all or any part of, or rights in, the intellectual property and the Thalidomide Royalty Agreement and (ii) the Company's rights under the Thalidomide Royalty Agreement.

The Loan Agreement contains customary affirmative and negative covenants. The Company was in compliance with such covenants as of December 31, 2007.

As of December 31, 2007, principal payments due are as follows:

Less than one year	$ 2,982,117
One to two years	7,708,451
Two to three years	8,555,404
Three to four years	754,028
Total	$ 20,000,000

The Warrants are exercisable by the Lenders until September 12, 2012 at an exercise price of $2.00 per share. The fair value of the Warrants issued was $190,000, calculated using a Black-Scholes value of $.76 with an expected and contractual life of 5 years, an assumed volatility of 98%, and a risk-free interest rate of 4.11%. The value of the Warrants, and an upfront underwriting fee of $100,000 paid to one of the Lenders, are recorded as a discount on the loan and are amortized as interest expense over the life of the loan. The Company also incurred certain debt issuance costs that were deferred and are included in other assets in the Company's balance sheet as of December 31, 2007. Amortization of these fees and the discount results in an effective interest rate of 11.40%. Non-cash interest expense related to the amortization of debt issuance costs and debt discount was $62,428 for the year ended December 31, 2007.

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, thus triggering 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 2007, 2006 and 2005 Thalomid® sales surpassed the royalty-sharing point and the Company recognized estimated royalty revenues of $7,393,000, $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, 2007. 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 ("Elan") 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, 2007. 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 and $1,180,000 in 2006 and 2005 respectively. The amounts reflected as research and development, of $551,000 and $779,000 in 2006 and 2005, respectively, in the table below primarily represent patent work. The amounts reflected as general and administrative, of $119,000 and $351,000 in 2006 and 2005, respectively, represent legal services. Also paid in 2006 are costs related to the Miikana acquisition of $16,000.

In 2005 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 in fees to Ferghana Partners, Inc. in 2005. 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 was recorded as offsets against gross equity transaction proceeds and, as such, are not reflected as expenses in that 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 for 2006 and 2005. There were no expenses from related parties in 2007 and no payables as of December 31, 2007. Included in accounts payable as of December 31, 2006 was $37,535 payable to related parties.

	2006	2005
Research and development	$ 551,000	$1,979,000
General and administrative	119,000	411,000
Additional paid in capital	-	525,000
Acquisition costs	16,000	50,000
	$686,000	$2,965,000

6. INCOME TAXES

The Company has net operating loss carryforwards for income tax purposes of approximately $309,997,000 at December 31, 2007 ($290,457,000 at December 31, 2006) that expire in years 2008 through 2027. The Company also has research and development tax credit carryforwards of approximately $8,837,000 as of December 31, 2007 that expire in years 2008 through 2026. 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, 2007 and 2006 are as follows:

	DECEMBER 31,	
	2007	2006
Deferred income tax assets (liabilities):		
Net operating loss carryforwards	$123,091,000	$ 112,174,000
Research and development credit carryforward	8,837,000	11,005,000
Equity investment	72,000	70,000
Other	3,427,000	2,812,000
Depreciation	286,000	301,000
Valuation allowance for deferred income tax assets	(135,713,000)	(126,362,000)
Net deferred income tax assets	$ -	$ -

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

	2007	2006	2005
Tax benefit at statutory rate	$ (7,620,000)	$ (16,963,000)	$ (5,547,000)
State taxes	(1,282,000)	(942,000)	(754,000)
Net R&D credit adjustment	2,125,000	-	-
Attribute expiration and other	703,000	66,000	273,000
Permanent M-1s	(13,000)	10,027,000	29,000
Change in valuation allowance	9,351,000	7,944,000	7,565,000
Change in estimated effective rate	(3,264,000)	-	(1,566,000)
	$ -	$ -	$ -

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

The Company has adopted the provisions of Financial Accounting Board Interpretation No. 48, *Accounting for Uncertainty in Income Taxes* (“FIN 48”), an interpretation of FASB Statement No. 109, as of January, 1, 2007. The Company had no unrecognized tax benefits as of January 1, 2007 and provides a full valuation allowance on the

net deferred tax asset recognized in the consolidated financial statements. As a result, the adoption of FIN 48 effective January 1, 2007 had no effect on the Company's financial position as of such date, or on net operating losses available to offset future taxable income.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

Unrecognized tax benefits balance at January 1, 2007	$2,751,000
Additions for Tax Positions of Prior Periods	208,000
Reductions for Tax Positions of Prior Periods	-
Additions for Tax Positions of Current Period	-
Reductions for Tax Positions of Current Period	-
Settlements	-
Lapse of statute of limitations	-
Unrecognized tax benefits balance at December 31, 2007	$2,959,000

The Company recognizes interest and penalties related to uncertain tax positions as a component of income tax expense. As of January 1, 2007 and December 31, 2007, the Company had no accrued interest or penalties related to uncertain tax positions, respectively.

The tax returns for all years in the Company's major tax jurisdictions are not settled as of December 31, 2007. Due to the existence of tax attribute carryforwards (which are currently offset by a full valuation allowance), the Company treats all years' tax positions as unsettled due to the taxing authorities' ability to modify these attributes.

The Company believes that the total unrecognized tax benefit, if recognized, would impact the effective rate, however, such reversal may be offset by a corresponding adjustment to the valuation allowance.

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, 2007, cumulative unpaid preferred stock dividends totaled $5,025,000 or $1.50 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, 2007 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 Thereapeutics, 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 and contractual 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).

In September 2007, as discussed in Note 3, the Company issued 250,000 warrants with an exercise price of $2.00 per share to the Lenders of the Term Loan.

In December 2007, the Company issued 675,000 shares of its common stock pursuant to the exercise of certain warrants, resulting in net proceeds of approximately $674,000.

8. SHARE-BASED COMPENSATION

The Company has adopted incentive and nonqualified stock option plans whereby 12,983,333 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 455,162 shares remain available for grant under the Company's 2001 Long-term Incentive Plan as of December 31, 2007. 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 $194,000, $197,000 and $73,000 in 2007, 2006 and 2005, 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. Additionally, two Board members elected to receive restricted stock in lieu of cash retainers totaling $35,000. As of December 31, 2007, $96,000 represents the non-vested restricted stock compensation awards expected to vest and be recognized in 2008.

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 year ended December 31, 2005, 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 years ended December 31, 2007 and 2006 includes $1,454,864 and $1,655,672, respectively, 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:

	2007	2006
Research and development	$ 352,999	$ 352,280
General and administrative	1,101,865	1,303,392
Share-based compensation expense	$ 1,454,864	$ 1,655,672
Net share-based compensation expense, per common share:		
Basic and diluted	$ 0.017	$ 0.023

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, 2007.

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, 2007, 2006 and 2005:

	Years ended December 31,		
	2007	2006	2005
Expected Volatility	94.46%	101.70%	105.74%
Risk free interest rate	4.50%	4.82%	4.25%
Expected term of option	5 years	5 years	5 years
Forfeiture rate	5.00%	5.00%	N/A
Expected dividend yield	-	-	-

The weighted average fair value of stock options granted was $1.03, $1.25 and $2.13 in 2007, 2006 and 2005, respectively.

Share-based compensation expense recognized in the Consolidated Statement of Operations for the years ended December 31, 2007 and 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, 2004	8,367,978	$ 9.33		
Exercised	(67,070)	$ 1.21		
Granted	604,692	$ 2.68		
Canceled	(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	8,111,086	$ 7.87		
Exercised	(75,000)	$ 1.09		
Granted	1,327,732	$ 1.39		
Expired	(628,784)	$ 10.18		
Forfeited	(63,726)	$ 1.73		
Outstanding at December 31, 2007	8,671,308	$ 6.81	5.67	$ 111,334
Vested and expected to vest at December 31, 2007	8,595,673	$ 6.86	5.31	$ 111,328
Exercisable at December 31, 2007	7,158,602	$ 7.91	4.94	$ 111,216

The aggregate intrinsic value is calculated as the difference between (i) the closing price of the common stock at December 31, 2007 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 2007. The aggregate intrinsic value of options exercised was $8,250, $3,675 and $48,961 for the years ended December 31, 2007, 2006 and 2005, 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, 2007, 2006 and 2005, was $81,750, $8,175 and $81,356, 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, 2007.

The following summarizes information about stock options granted to employees and directors outstanding at December 31, 2007:

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number Outstanding at 12/31/07	Weighted Average Remaining Contractual Life in Years	Weighted Average Exercise Price	Number Exercisable at 12/31/07	Weighted Average Exercise Price
$0.00 - $1.50	1,893,631	7.3	$ 1.18	1,134,348	$ 1.12
$1.51 - $3.00	2,824,920	7.5	$ 1.90	2,153,227	$ 1.97
$3.01 - $4.50	917,085	5.9	$ 3.50	834,355	$ 3.52
$4.51 - $6.00	216,272	4.8	$ 4.99	216,272	$ 4.99
$6.01 - $10.00	842,567	3.8	$ 8.71	842,567	$ 8.71
$10.01 - $15.00	495,152	2.8	$ 12.23	495,152	$ 12.23
$15.01 - $25.00	912,450	2.2	$ 19.21	912,450	$ 19.21
$25.01 - $35.00	547,108	2.1	$ 27.58	547,108	$ 27.58
$35.01 - $50.00	3,611	2.6	$ 44.82	3,611	$ 44.82
$50.01 - $65.00	18,512	2.3	$ 53.20	18,512	$ 53.20
	8,671,308	5.7	$ 6.81	7,158,602	$ 7.92

As of December 31, 2007, there was approximately $1,409,000 of total unrecognized compensation cost related to nonvested employee stock options. That cost is expected to be recognized over a weighted-average period of 1.5 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, 2004	12,242,050	$ 2.85
Granted	-	-
Exercised	(7,562,500)	$ 1.46
Expired	(74,672)	$ 6.60
Outstanding at December 31, 2005	4,604,878	$ 5.06
Granted	6,486,484	$ 2.50
Exercised	-	-
Expired	(743,763)	$ 11.87
Outstanding at December 31, 2006	10,347,599	$ 2.96
Granted	250,000	$ 1.13
Exercised	(675,000)	1.00
Expired	(123,336)	$ 11.61
Outstanding at December 31, 2007	9,799,263	$ 2.94
Exercisable at December 31, 2007	9,799,263	$ 2.94

9. COMMITMENTS AND CONTINGENCIES

Commitments

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 a molecule from the acquired Aurora Kinase pre-clinical program will advance to a Phase 1 clinical trial in 2008. A dosing of the first patient with ENMD-2076, expected in 2008, 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 2008. 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.

In January 2006, the Company entered into a License Agreement with Elan Corporation, plc ("Elan") 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, have been paid and there are no additional milestones achieved as of December 31, 2007. 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 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, 2007.

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, 2007, the Company has paid $500,000 under this agreement for the milestones that have been achieved to date.

Pursuant to the commitments detailed above, in aggregate, the Company could potentially pay up to $75.5 million if each licensed technology is fully developed and approved for commercial use in all of the major territories of the world. In this event, the Company would also be obligated to pay annual sales-based royalties under the license agreements. However, the Company cannot forecast with any degree of certainty whether any of the other product candidates will reach additional developmental milestones. As such, the timing of any future payments, if any, cannot be determined. As all of the milestone payments under these agreements are contingent upon successful development and ultimate advancement to commercialization, there can be no assurances that all or any of the triggering events will occur.

As of December 31, 2007, the Company also has purchase obligation commitments, in the normal course of business, for clinical trial contracts and contract manufacturing totaling $5,971,000 and $1,523,000, respectively.

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, 2007 are as follows:

2008	1,044,620
2009	171,644
Thereafter	-
Total minimum payments	$ 1,216,264

Rental expense for the years ended December 31, 2007, 2006 and 2005 was $955,000, $1,044,000, and $929,000, 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 approximately $103,000, $89,000 and $77,000 in 2007, 2006 and 2005, respectively.

11. QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

Summarized unaudited quarterly financial information for the years ended December 31, 2007 and 2006 is as follows:

	QUARTER ENDED			
	MARCH 31,	JUNE 30,	SEPTEMBER 30,	DECEMBER 31,
2007				
Revenues	$ -	$ -	$ 3,520,259	$ 3,875,392
Research and development costs	6,398,696	6,581,287	5,109,257	5,650,152
General and administrative expenses	1,831,326	1,869,811	1,706,451	1,978,982
	8,230,022	8,451,098	6,815,708	7,629,134
Investment income	578,913	531,722	428,980	572,968
Interest expense	(22,477)	(15,317)	(168,877)	(586,722)
Net loss	(7,673,586)	(7,934,693)	(3,035,346)	(3,767,496)
Dividends on Series A convertible preferred stock	(251,250)	(251,250)	(251,250)	(251,250)
Net loss attributable to common Shareholders	(7,924,836)	(8,185,943)	(3,286,596)	(4,018,746)
Net loss per share (basic and diluted)	$ (0.09)	$ (0.10)	$ (0.04)	$ (0.05)
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
Acquired 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)