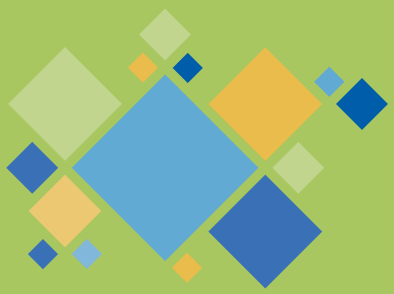
ENTREMED

A Clinical Development Company

2008 FORM 10-K



EntreMed, Inc. (Nasdaq: ENMD) is a clinical-stage pharmaceutical company focused on developing our primary program, ENMD-2076. ENMD-2076 is an Aurora A and angiogenic kinase inhibitor for the treatment of cancer, which is currently in multiple Phase 1 clinical studies.

Dear Valued Shareholder, **April 2009**

2008 was a year of significant challenges for our Company, our industry and our overall economy. Upheaval in the financial markets resulted in the lack of funding for many small healthcare companies and substantial diminution in value for our shareholders. While we saw progress in several of our scientific programs in 2008, it became clear that, in light of market realities, we could no longer maintain a research organization, multiple clinical programs and other aspects of our infrastructure. In December 2008, the Board concluded that focusing our human and financial resources on the clinical development of our Aurora A and angiogenic kinase inhibitor, ENMD-2076, represented the most promising near term opportunity for creating shareholder value.

Given these considerations, we restructured the Company and substantially reduced our operating costs. In early 2009, clinical development activities for ENMD-2076 were expanded to include studies in several oncological indications, including Phase 1 studies in solid tumors and multiple myeloma.

Realigning Our Clinical Development to Focus on ENMD-2076

Consistent with our strategy for developing orally administered, small molecule, multi-mechanism drugs, the Board and the senior management team have reviewed the potential for the programs in our pipeline with the objective of selecting the most promising product candidate to pursue, while maximizing our financial resources in this difficult market. As a result of the review, we have determined that ENMD-2076 represents the most near term and opportunistic clinical development direction for the Company.

The compound is a novel orally-active, Aurora A/angiogenic kinase inhibitor with potent activity against Aurora A and multiple tyrosine kinases linked to cancer and inflammatory diseases. ENMD-2076 is relatively selective for the Aurora A isoform in comparison to Aurora B. Aurora kinases are key regulators of the process of mitosis, or cell division, and are often over-expressed in human cancers.

ENMD-2076 exerts its effects through multiple mechanisms of action, including antiproliferative activity and the inhibition of angiogenesis. The compound has demonstrated significant, dose-dependent preclinical activity as a single agent, including tumor regression in multiple xenograft models (e.g. breast, colon, leukemia), as well as activity towards ex vivo-treated human leukemia patient cells.

Initial results from our Phase 1 study in solid tumors demonstrated antitumor activity as determined by reduction in tumor markers in ovarian and colorectal cancer patients. In addition to the ongoing Phase 1 studies, we anticipate the initiation of additional trials this year, including studies in both solid and hematological malignancies, and the presentation of additional clinical data for ENMD-2076 by mid-2009.

We believe focusing our resources on accelerating the clinical development of this promising drug candidate will provide us with the clinical data required to initiate the next phase of partnering discussions.

Moving Forward in 2009

As unprecedented market conditions continue to plague micro-cap companies and the capital markets as a whole, we will be diligent in our cash conservation, reserving financial resources primarily for priority clinical development activities that add value to our knowledge and the commercial applications for ENMD-2076.

We are confident that with our realignment, current cash, and cost reduction efforts the Company is positioned to extend its operating runway into mid-2010.

On behalf of the Board of Directors, the senior management team and our employees, I would like to thank you, our shareholders, for your continued support.

Sincerely,

Michael M. Tarnow
Executive Chairman of the Board

ENTREMED, INC. 2008 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, 2008

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 ☐
Non-accelerated filer X.	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, 2008, the aggregate market value of the shares of common stock held by non-affiliates was approximately $42,793,491.

As of February 26, 2009, 87,728,644 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, 2008. 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, 2008

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 volatility of our common stock; the possibility that we may be delisted from the Nasdaq Capital Market; the continuing deterioration of the credit and capital markets and the effect on our ability to raise 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.

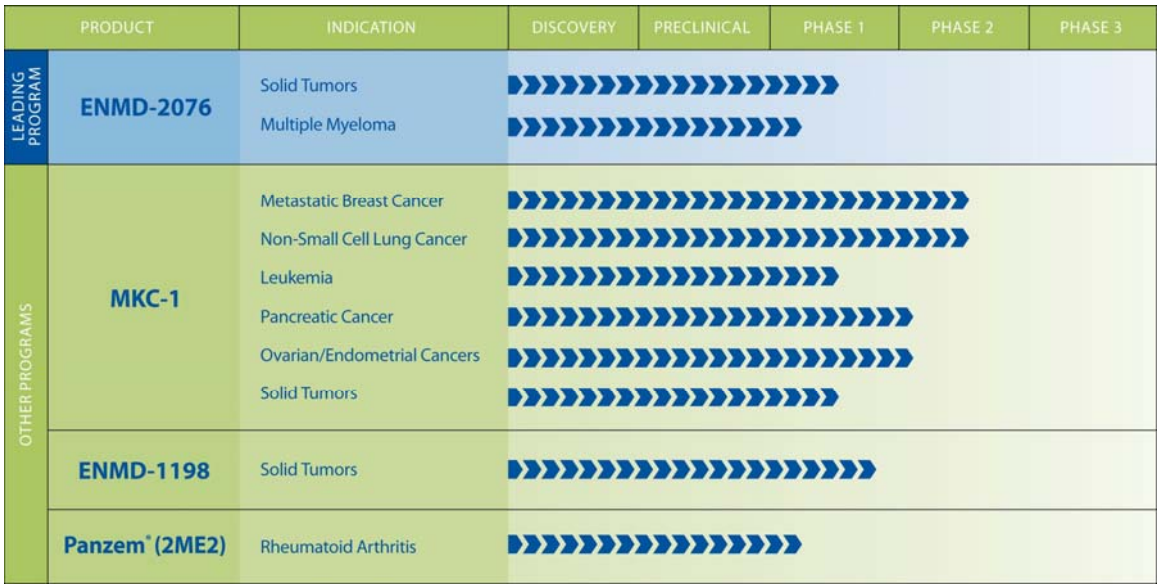
OVERVIEW

EntreMed, Inc. ("EntreMed" or "the Company") (Nasdaq: ENMD) is a clinical-stage pharmaceutical company focused on developing our primary program, ENMD-2076, an Aurora A and angiogenic kinase inhibitor for the treatment of cancer. ENMD-2076 is currently in Phase 1 studies in advanced cancers and multiple myeloma. Our other therapeutic candidates include MKC-1, an oral cell-cycle inhibitor with activity against the mTOR pathway currently in multiple Phase 2 clinical trials for cancer, and ENMD-1198, a novel antimitotic agent currently in Phase 1 studies in advanced cancers. We also have an approved Investigational New Drug Application (IND) for the use of Panzem® in rheumatoid arthritis (RA) treatment. All of our candidates are multi-mechanism drugs that target disease cells and the blood vessels that nourish them, which we believe can be developed to be safe and convenient, and provide the potential for improved patient outcomes.

CLINICAL PROGRAMS

Our pipeline illustrated below contains a portfolio of three clinical-stage product candidates. All of the product candidates are orally-administered compounds that have demonstrated potential in oncology and inflammatory diseases. In addition to our oncology drug candidates, we have a Phase 1 candidate, Panzem®, for the treatment of rheumatoid arthritis.

Our priority program, ENMD-2076, is currently in multiple Phase 1 oncology studies. Although our other clinical product candidates (MKC-1 and ENMD-1198) continue to be in various stages of Phase 1 and 2 oncology studies, we do not intend to initiate additional new studies for these programs unless additional significant financing becomes available to us and we have completed the clinical data set from current active studies. This reprioritization allows us to redirect the majority of our resources to the clinical development of ENMD-2076.



ENMD-2076 for Oncology. Our primary focus is the clinical development of our priority program, ENMD-2076. ENMD-2076 is a novel orally-active, Aurora A/angiogenic kinase inhibitor with potent activity against Aurora A and multiple tyrosine kinases linked to cancer and inflammatory diseases. ENMD-2076 is relatively selective for the Aurora A isoform in comparison to Aurora B. Aurora kinases are key regulators of the process of mitosis, or cell division, and are often over-expressed in human cancers.

ENMD-2076 exerts its effects through multiple mechanisms of action, including antiproliferative activity and the inhibition of angiogenesis. ENMD-2076 has demonstrated significant, dose-dependent preclinical activity as a single agent, including tumor regression, in multiple xenograft models (e.g. breast, colon, leukemia), as well as activity towards ex vivo-treated human leukemia patient cells.

ENMD-2076 is currently in Phase 1 clinical studies in solid tumors and multiple myeloma. We anticipate the initiation of additional trials this year, including studies in both solid and hematological malignancies, and the presentation of additional clinical data for ENMD-2076 by mid-2009.

MKC-1 for Oncology. MKC-1 is an orally-active, small molecule, 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. MKC-1 acts through multiple mechanisms of action, arresting cellular mitosis and inducing cell death (apoptosis) by binding to a number of different cellular proteins including tubulin and members of the importin β family. MKC-1 also inhibits activation of the oncogenic kinase Akt and the mTOR pathway through a mechanism that is a subject of intensive investigation by EntreMed scientists.

MKC-1 has demonstrated broad antitumor effects in multiple preclinical models, including paclitaxel-resistant models, and was evaluated in several Phase 1 and 2 clinical studies involving nearly 270 patients prior to the licensing of the drug from Hoffman La Roche. These studies have provided extensive pharmacokinetic and safety data. Since acquired by EntreMed, MKC-1 has shown single agent antitumor activity in breast cancer patients and in combination with Alimta® in NSCLC patients.

Although MKC-1 is currently in various stages of Phase 1 and 2 oncology studies, we do not intend to initiate additional new studies for this program in 2009 unless additional significant financing becomes available to us and we have completed the clinical data set from the current active studies.

ENMD-1198 for Oncology. ENMD-1198 is a potent, orally-active, antimitotic agent that induces cell cycle arrest and apoptosis in tumor cells. ENMD-1198 has shown pronounced antitumor activity as well as substantial synergistic effects in combination with standard of care chemotherapeutic agents in numerous preclinical models.

ENMD-1198 does not exhibit sensitivity to multi-drug resistance mechanisms in preclinical studies. ENMD-1198 also has shown preclinical activity towards taxane and vinca alkaloid resistant tumor cells. Additionally, ENMD-1198 decreases the activity of three oncogenic proteins (HIF-1α, NF-κB and STAT3) that are known to promote tumor growth and progression. ENMD-1198 is currently being evaluated in a Phase 1 clinical trial for safety, tolerability, pharmacokinetics, and clinical benefit in advanced cancer patients.

Although ENMD-1198 is currently in a Phase 1 study in patients with solid tumors, we do not intend to initiate additional new studies for this program in 2009 unless additional significant financing becomes available to us and we have completed the clinical data set from the current active study.

Panzem® (2ME2) for Rheumatoid Arthritis. Panzem® is an orally active compound that has antiproliferative, antiangiogenic and anti-inflammatory properties. Panzem® attacks tumor cells through multiple mechanisms of action including the inhibition of angiogenesis. Panzem® inhibits production of the transcription factor hypoxia inducible factor-1 alpha (HIF-1α), which is a protein required for angiogenesis and cell survival. The inhibition of angiogenesis is an important approach to the treatment of both cancer and rheumatoid arthritis. Panzem® has potential as a single agent in rheumatoid arthritis based on its antiangiogenic, anti-inflammatory, and anti-osteoclastic (bone resorption) properties.

We have an IND to develop Panzem® (2-methoxyestradiol, 2ME2) in rheumatoid arthritis (RA) based on its safety profile demonstrated throughout the oncology development effort, and preclinical research results showing that 2ME2 has disease modifying or "DMARD" activity in a variety of animal models of RA. DMARDs are drugs that have the ability to slow down disease progression in rheumatoid arthritis and other autoimmune diseases, in contrast to non-steroidal anti-inflammatory drugs which only treat the immune reaction resulting from tissue damage. We have generated substantial preclinical data demonstrating the positive effects of 2ME2 treatment on

inflammation and disease progression in standard animal models of RA. Radiographic and immunohistochemical staining results from these preclinical studies have shown consistent therapeutic effects on the hallmarks of the disease, including the inhibition of the highly angiogenic pannus, infiltrating cells, cartilage lesions and bone resorption.

We believe that a significant opportunity exists for 2ME2 to become a novel, non-immunosuppressive DMARD for the treatment of RA. We are seeking a development partner for 2ME2 in RA. We believe that this opportunity represents a safe, orally administered small molecule alternative to current biologicals and a potential "first in class" opportunity in RA.

The FDA has accepted our IND for 2ME2 in RA, which included an extensive human safety dossier in 300 patients from the oncology studies. We believe that Panzem® for RA represents a safe, orally-administered, small molecule alternative to current biologicals and a potential "first-in-class" cross-over opportunity from oncology. In 2008, we completed a healthy volunteer clinical trial for Panzem® and are currently seeking a development partner to manage larger multi-arm Phase 2 and Phase 3 studies.

Our focus is on clinical development. Accordingly, we are not devoting any significant resources to our preclinical pipeline. We believe our preclinical pipeline, including our HDAC inhibitor program, offers promising product candidates for continued development and commercialization for the right partner and is backed by strong intellectual property rights.

DISCONTINUANCE OF 2ME2 (PANZEM® NCD) FOR ONCOLOGY

In 2008, we discontinued clinical development of 2ME2 (Panzem® NCD) for oncology. Substantial clinical trial and manufacturing/process development costs would be required to narrow the oncology indications for larger registration-track randomized studies. These expenditures would require the commitment of a disproportionate amount of resources and limit clinical development efforts on the remainder of our pipeline. Patients still participating in clinical oncology trials are continuing to receive Panzem® NCD.

LOOKING AHEAD IN 2009

In 2009, we will continue to focus on three principal objectives:

- to concentrate our resources on ENMD-2076 in order to accelerate clinical objectives so that we can provide a more direct path forward to product registration and ultimately to the market;
- to conserve our cash by deferring new program initiatives; and
- to be opportunistic in seeking partnerships for our principle assets.

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

OPERATING LOSSES

To date, we have been engaged exclusively in research and development activities. As a result, we have incurred operating losses through December 31, 2008 and expect to continue to incur operating losses for the foreseeable future before commercialization of any products. We spent $20,069,000 on research and development, which includes costs associated with Panzem® oncology of $3,343,000, with ENMD-1198 of $3,298,000, with MKC-1 of $3,716,000 and with ENMD-2076 of $3,707,000, in 2008, as compared to $23,739,000 in 2007 and $21,671,000 in 2006. To accomplish our business goals, we, or prospective development partners, will be required to conduct substantial development activities for all proposed products that we intend to pursue to commercialization. We intend 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, we may continue to seek capital through the public or private sale of securities. There can be no assurance that we will be successful in seeking such additional capital.

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. The team has redirected EntreMed's financial resources and R&D strategy to focus primarily on the development of our Aurora A/angiogenic kinase inhibitor, ENMD-2076.

The current senior management team includes: Carolyn F. Sidor, M.D., Vice President & Chief Medical Officer; Mark R. Bray, Ph.D., Vice President, Research; Cynthia W. Hu, Vice President, General Counsel & Secretary who has been appointed Chief Operating Officer; and Kathy R. Wehmeir-Davis, Controller who has been appointed Principal Accounting Officer. This senior management team reports directly to a newly formed Executive Committee of the Board comprised of three independent directors: Michael M. Tarnow, Dwight L. Bush and Jennie Hunter-Cevera, Ph.D. Mr. Tarnow serves as our Executive Chairman.

SCIENTIFIC FOUNDATION

We developed our 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 mitosis. Our drug candidates, including ENMD-2076, have potential applications in oncology and other diseases involved with one or more of these pathways.

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

Cell Cycle Regulation. Precise regulation of the cell cycle is essential for healthy cell functions including the replication, growth, and differentiation. 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 induce cell cycle arrest 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 in response to our drugs.

Angiogenesis. Angiogenesis is a multi-step process whereby new blood vessels are formed. 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.

Inappropriate 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 in arthritis, where inflammation triggers new blood vessel growth and joint erosion. Our scientists, who have studied the process of angiogenesis 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.

Inflammation. Inflammation is the process resulting from 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. Chronic inflammation is characterized by tissue destruction, angiogenesis, and scarring. Inflammation is a process that is associated with many diseases, including cancer and arthritis. Consequently, drugs with mechanisms of action that confer activity in oncology may have utility in inflammatory diseases as well. Panzem® (2ME2) is an example of a drug originally developed to treat cancer by EntreMed that is now being developed for use in rheumatoid arthritis.

BUSINESS DEVELOPMENT AND COMMERCIALIZATION STRATEGY

Oncology is our principle clinical and commercial focus. Based on the compound's strong preclinical antitumor activity, favorable safety profile and bioavailability, we believe that ENMD-2076 has significant therapeutic potential in a broad range of tumor types and have selected ENMD-2076 as our priority program. ENMD-2076 represents an exciting clinical-stage partnering opportunity. As a result, our strategy is to pursue the development of ENMD-2076 for oncology, obtain additional clinical data while being selective and opportunistic in exploring strategic alliances for this and other compounds in our pipeline. We may pursue co-development partners for our other 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.

RELATIONSHIPS RELATING TO CLINICAL PROGRAMS

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. 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.

Clinical Trial Centers. As of February 2, 2009, we are conducting clinical trials at the following institutions:

- Dana-Farber Cancer Institute, Boston, MA
- Massachusetts General Hospital, Boston, MA
- Indiana University Cancer Center, Indianapolis, IN
- Mayo Clinic, Rochester, MN
- Wisconsin Comprehensive Cancer Center, Madison, WI
- Johns Hopkins University, Baltimore, MD
- Princess Margaret Hospital, Toronto, Ontario
- University of Colorado Cancer Center, Aurora, CO
- St. Vincent Hospital and Health Care Centers, Inc., Indianapolis, IN
- University Health Network, Toronto, Ontario, Canada
    - Princess Margaret Hospital, Toronto, Ontario
    - University of Western Ontario, London Health Sciences Centre
    - Centre Hospitalier de l'Université de Montréal, Montréal, Québec
    - Credit Valley Hospital, Mississsauga Ontario
    - Hamilton Health Sciences Corporation, Hamilton, Ontario
    - Board of Governors of Kingston Hospital, Kingston, Ontario

- British Columbia Cancer Agency, Vancouver, British Columbia

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.

All of our programs are backed by strong intellectual property rights. Each product candidate is covered by issued or pending composition, method and use patents. With respect to our leading program, ENMD-2076, the Company directly owns patent applications for the lead compound, ENMD-2076, and also for a library of over 600 analogs. Ownership includes 4 US applications and 39 foreign applications that are pending. Pending patent applications for ENMD-2076 provide coverage through 2026. Patent applications pending for the over 600 analogs provide coverage ranging from 2025 to 2028.

With respect to our entire patent estate for all of our product candidates, the Company directly owns 37 U.S. issued patents and patent applications and 86 foreign issued patents and patent applications; and has exclusively in-licensed 24 U.S. issued patents and patent applications and 168 foreign issued patents and patent applications. The Company reviews and assesses its portfolio on a regular basis to ensure protection and to align our patent strategy with our overall business strategy.

We have registered the trademarks ENTREMED, MIIKANA, and PANZEM in the U.S. Patent and Trademark Office and have applications pending 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.

EMPLOYEES

In December 2008, we prioritized ENMD-2076 as our leading program and accordingly realigned our human resources to support and accelerate the development of ENMD-2076. As a result of the realignment, we currently have 21 full-time employees. 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.

CORPORATE HEADQUARTERS

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. We also lease office space in Durham, North Carolina where our clinical and regulatory operations are based and lease laboratory space in Toronto, Ontario where our research facility is currently based.

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 receive limited revenues on royalties from sales of Thalomid® and in the past have received license fees and research and development funding from a former collaborator and limited revenues from certain research grants, we have not derived significant revenues from operations.

Through December 31, 2008, we had an accumulated deficit of approximately $357,910,000. Losses have continued since December 31, 2008. 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 may seek and rely on cooperative agreements from governmental and other organizations as a source of support. If a cooperative agreement was 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 Current Capital and Credit Market Conditions May Adversely Affect the Company's Access to Capital, Cost of Capital, and Ability to Execute its Business Plan as Scheduled

Access to capital markets is critical to our ability to operate. Traditionally, biopharmaceutical companies have funded their research and development expenditures through raising capital in the equity markets. Declines and uncertainties in these markets over the past year have severely restricted raising new capital and have affected companies' ability to continue to expand or fund existing research and development efforts. We require significant capital for research and development for our product candidates and clinical trials. The general economic and capital market conditions in the United States have deteriorated significantly and have adversely affected our access to capital and increased the cost of capital, and there is no certainty that a recovery in the capital and credit markets, enabling us to raise capital, will occur in the 2009 fiscal year. If these economic conditions continue or become worse, the Company's future cost of equity or debt capital and access to the capital markets could be adversely affected. In addition, an inability by the Company to access the capital markets on favorable terms due to our low stock price, or upon our delisting from the Nasdaq Stock Market if we fail to satisfy a listing requirement, could affect our ability to execute our business plan as scheduled. Moreover, we rely and intend to rely on third-parties, including our clinical research organizations, third-party manufacturers, and certain other important vendors and consultants. As a result of the current volatile and unpredictable global economic situation, there may be a disruption or delay in the performance of our third-party contractors and suppliers. If such third-parties are unable to adequately satisfy their contractual commitments to us in a timely manner, our business could be adversely affected.

We Rely Exclusively on the Royalty Payments Based upon Thalomid Sales by a Third-Party to Produce our Revenues

We entered into a licensing agreement in 2001 regarding royalty payments for Thalomid®, and in 2004, certain provisions of such agreement were satisfied, which then entitled the Company to share in royalty payments received by Royalty Pharma Finance Trust 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. During the year ended December 31, 2008, royalty payments from Thalomid® sales by Celgene accounted for all of our total revenues. As Thalomid® is distributed and sold by Celgene and/or its affiliates, we are reliant on a third party for our revenues. A wide variety of events could cause Thalomid® sales to decline. For example, if regulatory approvals for certain uses of Thalomid® are withdrawn, our royalty revenue could be adversely effected. In the event that Celgene determines to cease selling Thalomid®, or unexpected adverse effects are reported by patients or doctors in connection with the use of Thalomid®, patient and physician confidence in Thalomid® as a treatment could be materially affected. The inability of one of these third parties to perform these functions, or the failure of any of these parties to perform successfully, could cause our revenues to suffer. Additionally, if a competitor to Celgene successfully introduces a generic pharmaceutical product equivalent to Thalomid® at a relatively lower price and bypasses Celgene's S.T.E.P.S.® proprietary distribution program, or if a competing drug gains significant market share, such action could have the effect of reducing the market share and profitability of Thalomid®, thus potentially causing a material adverse effect on our revenues and cash flow. Because we are very dependent on sales of Thalomid®, any reduction in Thalomid® sales for any reason, including, but not limited to, the reasons described, would cause our results of operations to suffer.

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

On April 4, 2008, we received a letter from The NASDAQ Stock Market LLC ("NASDAQ") advising that for the previous 30 consecutive business days, the bid price of the Company's common stock had closed below the minimum $1.00 per share requirement for continued inclusion on The NASDAQ Global Market. Failure to comply with this minimum bid price requirement, or any other listing standard applicable to issuers listed on The NASDAQ Global Market, by October 1, 2008, would result in our common stock being ineligible for quotation on The NASDAQ Global Market. Our stock price has not closed above $1.00 since the date of the receipt of the letter from NASDAQ.

On September 22, 2008, we submitted an application to transfer the trading of our common stock to the NASDAQ Capital Market. On October 1, 2008, we received a letter from The NASDAQ Listing Qualifications Department stating that our application had been approved and that our common stock would commence trading on The NASDAQ Capital Market on October 3, 2008. The NASDAQ Capital Market operates in substantially the same manner as The NASDAQ Global Market. Our trading symbol remains as "ENMD" and the trading of our stock was unaffected by the transfer. The transfer to The NASDAQ Capital Market extended the requirement to achieve a minimum $1.00 bid price until March 30, 2009.

On October 22, 2008, we received notification from The NASDAQ Listing Qualifications Department of NASDAQ's determination to temporarily suspend the minimum $1.00 closing bid price requirement until January 19, 2009, based on the current extraordinary market conditions. Upon reinstatement of the rules, we will then have until July 6, 2009 to regain compliance with the minimum $1.00 closing bid price requirement.

We can regain compliance with a minimum $1.00 closing bid price for a minimum of 10 consecutive business days. We will continue to pursue partnering opportunities to raise non-dilutive capital and could defer all or a portion of our product candidate development costs. In the event that our common stock continues to trade under $1.00, we will consider all alternatives in order to maintain the public trading status of our stock. The delisting of our common stock from a national exchange could significantly affect the ability of investors to trade our securities and could negatively affect the value and liquidity of our common stock. Delisting could also have other negative results, including the potential loss of confidence by employees, the loss of institutional investor interest and fewer business development opportunities. 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.

On December 23, 2008, we received a second notification from the NASDAQ Listings Qualifications Department that NASDAQ extended its suspension of the bid price requirement until April 20, 2009. Prior to the reinstatement of the rule, we will be notified by NASDAQ to inform us of the number of calendar days remaining in our compliance period and a specific date by which we need to regain compliance.

Additionally, we must maintain stockholders' equity of at least $2.5 million to be in compliance with the continued listing standards for the NASDAQ Capital Market. At December 31, 2008, our consolidated stockholders' equity was approximately $6.0 million. We cannot guarantee that we will be able to meet this listing standard in the future. If we fail to meet this Nasdaq listing requirement and are unable to successfully appeal to the Nasdaq Listing Qualification Staff and Hearings Panel for an extension of time to regain compliance, our common stock could be delisted from the Nasdaq Capital Market, and we may apply to have our stock traded on the Over-The-Counter Bulletin Board, an electronic quotation system that displays stock quotes by market makers. There can be no assurance that our common stock would be timely admitted for trading on that market. This alternative may result in a less liquid market available for existing and potential shareholders to buy and sell shares of our stock and could further depress the price of our stock.

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. Our stock has traded below $1.00 for almost twelve months. 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 Affirmative and Negative 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.

Our Secured Lender and Preferred Stockholder Would Have Priority in Distributions Over our Common Stockholders Following a Liquidation Event Affecting the Company. As a Result, in the Event of a Liquidation Event, our Common Stockholders Would Receive Distributions Only After Priority Distributions Are Paid

In the event of a Liquidation Event, our senior lender would be repaid first out of the proceeds received. Celgene, our holder of Series A Convertible Preferred Stock ("Series A Preferred"), then would be paid an amount equal to the Series A Preferred liquidation preference of $10.00 per share of Series A Preferred stock, plus all accrued and unpaid dividends on such shares of Series A Preferred totaling approximately $6 million as of December 31, 2008. Additionally, unless waived, the holder of the Series A Preferred would be entitled to receive the Series A liquidation preference plus all accrued and unpaid dividends prior to any distributions to our common stockholders upon the occurrence of certain other liquidation events. As a result, in the event of a Liquidation Event, our common stockholders' ability to realize value for their shares is subject to the payment of such priority distributions.

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 stage 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.

Technological Developments By Competitors May Render Our Products Obsolete

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

We are Uncertain Whether Additional Funding Will Be Available For Our Future Capital Needs and Commitments, and If We Cannot Raise Additional Funding, 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, 2008, we had cash and cash equivalents and marketable securities of $24,291,173. 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. 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. 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, and due to the continued adverse trends in the credit market, it may not be possible to refinance our existing credit facility to take advantage of lower interest rates. 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 reconstituted senior 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 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 Acquired Miikana in 2006 in a Strategic Transaction and May Engage in Other Strategic Transactions, Which Could Negatively Affect Our Business and Earnings

In January 2006, we acquired Miikana Therapeutics, Inc., a clinical-stage biopharmaceutical company. In 2009, we may consider strategic and other corporate transactions as opportunities present themselves. There are risks associated with such activities. These risks include, among others, incorrectly assessing the quality of a prospective strategic partner, encountering greater than anticipated costs in integration, 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, strategic transactions may place additional constraints on our resources by diverting the attention of our management from our business operations. Our newly constituted senior management team does not have substantial experience with acquisitions. 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.

As of December 31, 2008, EntreMed leased approximately 46,000 square feet of space (approximately 32,000 square feet of which is laboratory space) in Rockville, Maryland where its headquarters are located. As a result of the Company's prioritization of ENMD-2076 as the leading program and subsequent realignment of personnel consistent with the strategy, in January 2009, the Company amended its lease in order to reduce the space to 8,554 square feet providing significant cost savings to the Company. In addition, as of December 31, 2008, the Company leased office space in Durham, North Carolina where our clinical and regulatory operations are based and laboratory space in Toronto, Ontario where our research facility is currently based.

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. On April 4, 2008, we received a letter from The NASDAQ Stock Market LLC ("NASDAQ") advising that for the previous 30 consecutive business days, the bid price of our common stock had closed below the minimum $1.00 per share requirement for continued inclusion on The NASDAQ Global Market. Failure to comply with this minimum bid price requirement, or any other listing standard applicable to issuers listed on The NASDAQ Global Market, by October 1, 2008, would result in our common stock being ineligible for quotation on The NASDAQ Global Market. Our stock price has not closed above $1.00 since the date of the receipt of the letter from NASDAQ.

On September 22, 2008, we submitted an application to transfer the trading of our common stock to the NASDAQ Capital Market. On October 1, 2008, we received a letter from The NASDAQ Listing Qualifications Department stating that our application had been approved and that our common stock would commence trading on The NASDAQ Capital Market on October 3, 2008. The NASDAQ Capital Market operates in substantially the same manner as The NASDAQ Global Market. Our trading symbol remains as “ENMD” and the trading of our stock was unaffected by the transfer. The transfer to The NASDAQ Capital Market extended the requirement to achieve a minimum $1.00 bid price until March 30, 2009.

On October 22, 2008, we received notification from The NASDAQ Listing Qualifications Department of NASDAQ’s determination to temporarily suspend the minimum $1.00 closing bid price requirement until January 19, 2009, based on the current extraordinary market conditions. Upon reinstatement of the rules, we will then have until July 6, 2009 to regain compliance with the minimum $1.00 closing bid price requirement.

On December 23, 2008, we received a second notification from the NASDAQ Listings Qualifications Department that NASDAQ extended its suspension of the bid price requirement until April 20, 2009. Prior to the reinstatement of the rule, we will be notified by NASDAQ to inform us of the number of calendar days remaining in our compliance period and a specific date by which we need to regain compliance.

We can regain compliance with a minimum $1.00 closing bid price for a minimum of 10 consecutive business days. We will continue to pursue partnering opportunities to raise less-dilutive capital and could defer all or a portion of our product candidate development costs. In the event that our common stock continues to trade under $1.00, we will consider all alternatives in order to maintain the public trading status of our stock.

The delisting of our common stock from a national exchange could significantly affect the ability of investors to trade our securities and could 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.

Additionally, we must maintain stockholders’ equity of at least $2.5 million to be in compliance with the continued listing standards for the NASDAQ Capital Market. At December 31, 2008, our consolidated stockholders’ equity was approximately $6.0 million. We cannot guarantee that we will be able to meet this listing standard in the future. If we fail to meet this Nasdaq listing requirement and are unable to successfully appeal to the Nasdaq Listing Qualification Staff and Hearings Panel for an extension of time to regain compliance, our common stock could be delisted from the Nasdaq Capital Market, and we may apply to have our stock traded on the Over-The-Counter Bulletin Board, an electronic quotation system that displays stock quotes by market makers. There can be no assurance that our common stock would be timely admitted for trading on that market. This alternative may result in a less liquid market available for existing and potential shareholders to buy and sell shares of our stock and could further depress the price of our stock.

The following table sets forth the high and low closing price for our common stock by quarter, as reported by the Nasdaq Stock Market, for the periods indicated:

	HIGH	LOW
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	$ 1.25	$ 0.57
Second Quarter	0.90	0.55
Third Quarter	0.62	0.33
Fourth Quarter	0.45	0.16
2009:		
First Quarter (through February 27, 2009)	$ 0.24	$ 0.16

On February 27, 2009, the closing price of our common stock, as reported by the Nasdaq Capital Market, was $0.19 per share. As of February 27, 2009 there were approximately 898 holders of record of our common stock.

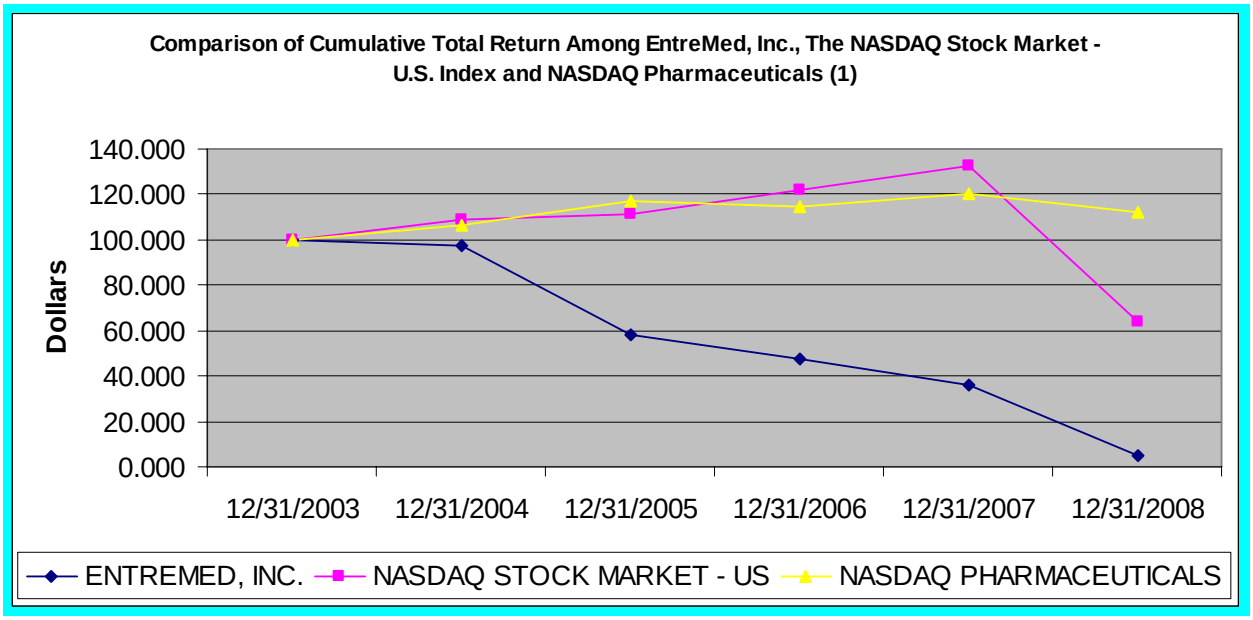
Dividend Policy

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.

Our Series A Convertible Preferred Stock ("Series A Preferred") is held exclusively by Celgene Corporation. The Series A Preferred accrues dividends on each share of Series A Preferred at 6% per year of the original issue price of the Series A Preferred Stock, which is $5.00 per share. In the event of any liquidation, dissolution or winding up the Company, or the bankruptcy of the Company, all accrued and unpaid dividends will be added to the liquidation preference of such shares of Series A Preferred. As of December 31, 2008, accrued Series A Preferred dividends totaled $6,030,000.

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.



	12/31/2003	12/31/2004	12/31/2005	12/31/2006	12/31/2007	12/31/2008
ENTREMED, INC.	100.000	97.590	58.434	47.590	36.145	4.819
NASDAQ STOCK MARKET - US	100.000	108.835	111.155	122.109	132.420	63.803
NASDAQ PHARMACEUTICALS	100.000	106.509	117.290	114.809	120.742	112.344

(1) Assumes $100 invested on December 31, 2003 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, 2008. 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:	2008	2007	2006	2005	2004
Revenues					
Collaborative research and development	$ -	$ -	$ -	$ -	$ -
License fees	-	-	-	590,992	495,496
Grant revenues	-	-	-	-	-
Royalty revenues	7,472,061	7,393,463	6,881,799	5,310,439	5,918
Other	5,158	2,188	12,559	16,624	12,581
Total revenues	7,477,219	7,395,651	6,894,358	5,918,055	513,995
Expenses:					
Research and development	20,069,229	23,739,392	21,671,117	17,325,048	10,523,252
General and administrative	7,764,532	7,386,570	7,393,722	5,920,455	6,570,664
Acquired In-Process R&D	2,000,000	-	29,481,894	-	-
Interest expense	2,216,163	793,393	156,787	-	-
Fixed asset impairment loss	171,576	-	-	-	-
Investment income	(882,253)	(2,112,583)	(1,867,204)	(1,010,771)	(313,940)
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	$ (23,862,028)	$ (22,411,121)	$ (49,889,057)	$ (16,313,257)	$ (12,621,898)
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	$ (24,867,028)	$ (23,416,121)	$ (50,894,057)	$ (17,318,257)	$ (13,626,898)
Net loss per share	$ (0.29)	$ (0.28)	$ (0.71)	$ (0.36)	$ (0.37)
Weighted average number of shares outstanding	86,479,768	84,166,552	71,873,734	48,176,914	37,170,544

	As of December 31,				
	2008	2007	2006	2005	2004
BALANCE SHEET DATA:					
Cash and cash equivalents and short-term investments	$ 24,291,173	$ 47,748,191	$ 50,570,097	$ 30,082,388	$ 34,539,516
Working capital	14,782,482	42,929,602	46,268,554	28,510,176	34,979,936
Total assets	28,923,395	53,014,908	55,719,534	36,431,885	39,404,002
Deferred revenue, less Current portion	-	-	-	-	95,496
Accumulated deficit	(357,910,035)	(334,048,007)	(311,636,886)	(261,747,829)	(245,434,572)
Total stockholders' equity	5,922,166	26,896,978	46,963,219	29,369,190	35,704,754

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

Our primary focus is on the clinical development of ENMD-2076, a novel, orally-active, kinase inhibitor with potent activity towards Aurora A and multiple other kinases linked to angiogenesis and cellular proliferation. ENMD-2076 is currently in Phase 1 clinical trials for advanced solid tumors and multiple myeloma. We anticipate the initiation of additional trials this year, including studies in both solid and hematological malignancies, and the presentation of additional clinical data for ENMD-2076 in mid-2009.

In addition to ENMD-2076, multiple Phase 1 and 2 clinical trials are currently underway with MKC-1, a novel cell cycle inhibitor and ENMD-1198, a novel antimitotic agent, EntreMed also holds an active IND for the development of 2ME2 in rheumatoid arthritis. At the current time, no additional clinical activities are planned for these programs unless additional significant financing becomes available to us and we have completed the clinical data set from the current active studies. We are seeking a partnership for the 2ME2 program in rheumatoid arthritis, as this represents a novel therapeutic approach to the treatment of patients with RA.

Our prioritization of ENMD-2076 as our leading program was announced in December 2008 as part of the Company's overall plan to lower operating costs and preserve capital. After a review of all of the Company's pipeline candidates, it was determined that ENMD-2076 represented the most promising near-term product candidate to which the Company will devote the majority of its resources to. The focus on ENMD-2076 allowed the Company to restructure and reduce its workforce by approximately 60% across all areas of the business and to accelerate the Company's 2009 clinical objectives for ENMD-2076.

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 is 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 this agreement in 2008. 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 – We adopted the provisions of SFAS, No. 123R, "*Share-Based Payment*," ("SFAS 123R"), effective January 1, 2006, which requires that all share-based payment transactions be recognized in the financial statements at their fair values. We adopted SFAS 123R using the modified prospective application method under which the provisions of SFAS 123R apply to new awards and to awards modified, repurchased or cancelled after the adoption date. Using the straight-line expense attribution method, share-based compensation expense recognized in the years ended December 31, 2008, 2007 and 2006 totaled $1,090,000, $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 forfeiture rate and 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, 2008, 2007 and 2006.

Revenues. Revenues increased slightly in 2008 to $7,477,000 from $7,396,000 in 2007 after increasing 7% in 2007 from $6,894,000 in 2006. The three years presented reflect royalty revenues. The increases in 2008 and 2007 revenues result from increased royalty revenue earned on sales of Thalomid®. Beginning in 2005, we became entitled to share in the royalty payments received by Royalty Pharma Finance Trust on annual Thalomid® sales above approximately $225 million. Thalomid® sales in 2008, 2007 and 2006 surpassed the sharing point in the third quarter and we recorded royalty revenues of $7,472,000, $7,393,000 and $6,882,000, respectively.

Research and Development Expenses. Our 2008 research and development expenses, which totaled $20,069,000, a 16% decrease from costs incurred in 2007. The 2008 amount reflects direct project costs for Panzem® oncology of $3,343,000, $3,298,000 for ENMD-1198, $3,716,000 for MKC-1 and $3,707,000 for ENMD-2076. In 2007, our research and development expenses totaled $23,739,000, reflecting direct project costs for Panzem® oncology of $7,673,000, $2,200,000 for ENMD-1198, $3,241,000 for MKC-1 and $3,958,000 for ENMD-2076. Research and development expenses totaled $21,671,000 in 2006, which included direct project costs of

$7,814,000 for Panzem® oncology, $2,095,000 for ENMD-1198, $3,000,000 for MKC-1 and $1,457,000 for ENMD-2076. The decrease in 2008 research and development spending as compared to costs incurred in 2007, results primarily from lower Panzem® NCD project costs resulting from our decision in March 2008 to discontinue its development in oncology. This cost decrease was largely offset by increased expenditures during 2008 on MKC-1 clinical programs and ENMD-1198 manufacturing. The 2007 increase was attributable to the costs related to two IND filings, ENMD-2076 in oncology and Panzem® NCD in rheumatoid arthritis.

ENMD-2076, an oral, Aurora A and angiogenic kinase inhibitor is in a Phase 1b dose-escalation clinical trial in patients with refractory solid tumors and a Phase 1 study in patients with multiple myeloma. We are currently seeking a partner for ENMD-2076 to help accelerate its development. MKC-1 has been evaluated in four Phase 2 and two Phase 1 oncology trials. We have an exclusive worldwide license from Roche to develop and commercialize MKC-1. ENMD-1198, an antimitotic agent, is nearing completion of a Phase 1 dose-escalation clinical trial in patients with refractory solid tumors.

At December 31, 2008, accumulated direct project expenses for Panzem® oncology were $54,118,000; direct ENMD-1198 project expenses totaled $12,966,000; and, since acquired, accumulated direct project expenses for MKC-1 totaled $9,957,000 and for ENMD-2076, accumulated project expenses totaled $9,122,000. Our research and development expenses also include non-cash stock-based compensation, pursuant to the adoption of SFAS 123R, totaling $233,000, 353,000 and $352,000, respectively, for 2008, 2007 and 2006. The decrease in stock-based compensation expense is related to lower fair values on fewer stock options granted in 2008. The balance of our research and development expenditures includes facility costs and other departmental overhead, and expenditures related to the non-clinical support of our 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, 2008, we have four proprietary product candidates in clinical development, which include three candidates in oncology and our candidate for the treatment of rheumatoid arthritis. We expect our research and development expenses in 2009 to decline, as research conducted within EntreMed through 2009 will be focused specifically on the support of the ENMD-2076 clinical development. We will continue to conduct research on ENMD-2076 in order to comply with stipulations made by the FDA, as well as to increase understanding of the mechanism of action and toxicity parameters of ENMD-2076 and its metabolites. Completion of clinical development 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	1-2 Years
Phase II	2-3 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 drug candidates have also 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.

Our business strategy now includes entering into collaborative arrangements with third parties to complete the development and commercialization of our products. Specifically, we are seeking a partner for the development of ENMD-2076. 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 will be able to successfully access external sources of financing in the future. 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 preclinical testing and clinical trials of our product candidates, including the costs of manufacturing the product candidates, and facilities expenses. Overall research and development expenses decreased to $20,069,000 in 2008 from $23,739,000 in 2007, which increased from $21,671,000 in 2006. Research and development expenses were generally lower in 2008 due to decreased Panzem® expenses.

The fluctuations in research and development expenses 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 $1,170,000 in 2008, $2,871,000 in 2007 and $3,621,000 in 2006 on these activities. The decrease in 2008 as compared to 2007 reflects the absence in 2008 of certain IND-directed expenses associated with the IND submissions for Panzem® NCD for the treatment of rheumatoid arthritis and for ENMD-2076 in oncology during 2007.

- Clinical Trial Costs – Clinical trial costs increased to $5,194,000 in 2008, from $4,282,000 in 2007, which increased from $3,406,000 in 2006. The 2008 increase results primarily from the initiation of clinical trials for ENMD-2076 and also the expanded MKC-1 clinical program.. Our increase in 2007 clinical expense reflects the initiation of Phase 2 trials for Panzem® NCD and for MKC-1. 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, encapsulation and fill and finish services, and product release costs. Contract manufacturing costs decreased in 2008 to $3,418,000 from $5,681,000 in 2007, which was a slight increase from $5,595,000 in 2006. The most significant component of the 2008 decrease was our acquisition of bulk API (Active

Pharmaceutical Ingredient) to support the Panzem® NCD trials in 2007. The absence of Panzem® NCD API costs in 2008 was partially offset by an increase in contract manufacturing activities for ENMD-1198. The 2007 contract manufacturing expenses reflect the costs of supplying finished drug product to support new and ongoing trials for three clinical drug candidates and also the cost of securing clinical material to support Phase 1 trials for ENMD-2076, which started in 2008. The 2006 expenses related primarily to the manufacture of MKC-1 and to supporting Phase 2 Panzem® NCD trials.

- Personnel Costs -- Personnel costs increased to $5,751,000 in 2008 from $5,301,000 in 2007. The increase in 2008 is attributed primarily to severance costs related to the December reduction in force, offset by the decision not to pay bonuses in 2008. Personnel costs were $4,368,000 in 2006.

Also reflected in our 2008 research and development expenses are, patent costs of $767,000, facility and related expenses of $1,483,000, laboratory supplies and animal costs of $985,000, consulting fees of $451,000 and travel expenses of $193,000. In 2007, these expenses totaled $1,251,000, $1,500,000, $1,111,000, $627,000 and $243,000, respectively, and in 2006, these expenses totaled $766,000, $1,503,000, $1,062,000, $624,000 and $235,000, respectively.

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

General and administrative expenses increased to approximately $7,765,000 in 2008 from $7,387,000 in 2007, which decreased slightly from $7,394,000 in 2006. The net increase in 2008 is primarily related to accrued severance costs of approximately $1,000,000 associated with the termination of three corporate officers in December, offset by a decrease of approximately $346,000 due to no accrual of 2008 employee bonuses and also by a decrease in stock compensation expense of $246,000.

In-process R&D. In January 2006, we acquired Miikana Therapeutics, a private biotechnology company. Pursuant to the merger agreement, based on the success of the acquired pre-clinical programs, we may be required to 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. The lead molecule in the Aurora Kinase Program, ENMD-2076, advanced into clinical development in 2008. ENMD-2076 is a selective kinase inhibitor with activity against Aurora A and angiogenic kinases linked to promoting cancer and inflammatory diseases. During the three-month period ending June 30, 2008, dosing of the first patient in ENMD-2076 trials triggered a milestone payment of $2 million. In June 2008, 2,564,104 shares of common stock were issued to the former Miikana stockholders as consideration for the satisfaction of the milestone payment. The additional payment of $2 million was recorded to expense as in-process research and development since the research and development project related to the Aurora Kinase Program had not reached technical feasibility and has no future alternative use. Under the terms of the merger agreement, the former Miikana stockholders may earn up to an additional $16 million of potential payments upon the satisfaction of additional clinical and regulatory milestones. We do not expect to incur any additional milestone payments in 2009, but may satisfy the terms triggering a $3 million milestone in 2010 with the commencement of Phase 2 clinical trials in ENMD-2076.

Interest expense. Interest expense for the year ended December 31, 2008 increased to approximately $2,216,000 (including $199,000 of non-cash interest) from approximately $793,000 in 2007. The increase results from a financing transaction with General Electric Capital Corporation (GECC) in September 2007 and the related interest expense. The 2007 and 2006 interest expense primarily related to debt with Venture Lending & Leasing IV, LLC, which was paid in full in September, 2007.

Investment income. Investment income decreased by 58% in 2008 to $882,000 as a result of lower yields on lower invested balances in interest-bearing cash accounts and investments. Investment income was $2,113,000 in 2007, an increase of 13% from $1,867,000 in 2006.

Dividends on Series A convertible preferred stock. The Consolidated Statements of Operations for the years ended December 31, 2008, 2007 and 2006 reflect accrued, but unpaid, 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 2008 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. The lead molecule in the Aurora Kinase Program, ENMD-2076, advanced into clinical development in 2008. ENMD-2076 is a kinase inhibitor with activity towards Aurora A and multiple other kinases linked to promoting cancer. The dosing of the first patient in ENMD-2076 trials triggered a milestone payment of $2 million. In June 2008, 2,564,105 shares of common stock were issued to the former Miikana stockholders as consideration for the satisfaction of the milestone payment. Under the terms of the merger agreement, the former Miikana stockholders may earn up to an additional $16 million of potential payments upon the satisfaction of additional clinical and regulatory milestones. If ENMD-2076 successfully completes Phase 1 clinical trials and advances to Phase 2, the dosing of the first patient will trigger an additional purchase price adjustment milestone of $3 million, which could occur and be paid (in cash or stock at our sole discretion) in 2010. 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; however, we do not expect to ever trigger any of these milestone payments.

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, which commenced on August 1, 2008. The unpaid balance of the loan at December 31, 2008 is approximately $17,018,000.

The Loan Agreement contains customary affirmative and negative covenants. We were in compliance with such covenants as of December 31, 2008.

At December 31, 2008, we had cash and short-term investments of $24,291,173 with working capital of $14,782,482. We invest our capital resources with the primary objective of capital preservation. As a result of historical trends in interest rates, 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, 2008.

To accomplish our business plans, we will be required to continue to conduct substantial development activities for ENMD-2076 and remaining development activities for our other clinical product candidates. Under our operating plans for 2009 we expect to have ENMD-2076, our leading program, and two other compounds under clinical investigation and we expect our 2009 results of operations to reflect a net loss of approximately $7,000,000,

including non-cash charges of approximately $1,500,000. These projections are subject to judgment and estimation and could significantly change. In early 2008, we reached the decision to curtail our development of Panzem® NCD in oncology, although we continue to evaluate the use of this compound for the treatment of rheumatoid arthritis. We plan to complete the open Panzem® NCD oncology trials without the enrollment of additional patients, and will not initiate new trials in oncology. In addition, we plan to continue to pursue the clinical development of ENMD-2076 in oncology and complete clinical activities currently underway for MKC-1 and ENMD-1198, although we may delay development beyond the current stage of one or more of these programs if financial market conditions remain uncertain.

We expect that the majority of our 2009 revenues will continue to be from royalties on the sales of Thalomid®. Thalomid® is sold by a third-party, and we have no control over such party's sales efforts or the resources devoted to Thalomid® sales. Based on historical trends and analyst consensus for Thalomid® sales, we expect to record royalty-sharing revenues of approximately $8.0 million in 2009; 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 with respect to the development of gene therapies for ophthalmic (eye) diseases. 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 this agreement in 2009.

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, 2008. Our estimate may change, however, based on our decisions with respect to future clinical trials related to our product candidates, the timing of milestone payments, developments in our business including the acquisition of additional intellectual property, other investments in new or complimentary technology, and our success in executing our current business plan.

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

INFLATION AND INTEREST RATE CHANGES

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

CONTRACTUAL OBLIGATIONS

The table below sets forth our contractual obligations at December 31, 2008**.**

CONTRACTUAL OBLIGATIONS	PAYMENTS DUE BY PERIOD				
	Total	**Less than 1 year**	**1-3 years**	**3 - 5 years**	**More than 5 years**
Operating Leases Obligations	$ 420,000	$ 388,000	$ 32,000	$ ---	$ ---
Loan Payable, including interest	17,019,000	7,708,000	9,311,000		
Obligations under Licensing and Miikana Merger Agreements (1)	---	---	---	---	---
Purchase Obligations					
Clinical Trial Contracts	4,946,000	3,413,000	1,533,000	---	---
Contract Manufacturing	1,865,000	1,287,000	578,000	---	---
Outside Service Contracts	130,000	130,000	---	---	---
Total Contractual Cash Obligations	$ 24,380,000	$ 12,926,000	$ 11,454,000	$ ---	$ ---

(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 $16 million upon the attainment of certain clinical milestones for two acquired preclinical programs. 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. 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.

OFF-BALANCE-SHEET ARRANGEMENTS

We had no significant off-balance sheet arrangements during fiscal year 2008.

NEW ACCOUNTING PRONOUNCEMENTS

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.

In December 2007, the FASB issued SFAS No. 160, *"Noncontrolling Interests in Consolidated Financial Statements—An Amendment of ARB No. 51"* ("SFAS 160"), which establishes new accounting and reporting standards for the non-controlling interest in a subsidiary and for the deconsolidation of a subsidiary. SFAS 160 is effective for fiscal years beginning on or after December 15, 2008. The adoption of SFAS 160 is not expected to have a material impact on the Company's results of operations or financial position.

In May 2008, the FASB issued SFAS No. 162, "*The Hierarchy of Generally Accepted Accounting Principles"* ("SFAS 162"), which identifies the sources of accounting principles and the framework for selecting the principles to be used in the preparation of financial statements. SFAS 162 is effective sixty days following the Security and Exchange Commission's approval of Public Company Accounting Oversight Board Auditing amendments to AU Section 411, "*The Meaning of Present Fairly in Conformity With Generally Accepted Accounting Principles.*" The adoption of SFAS 162 is not expected to have a material impact on the Company's results of operations or financial position.

In June 2008, the FASB issued EITF 07-5, "*Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity's Own Stock*" ("EITF 07-5"). EITF 07-5 provides guidance in assessing whether an equity-linked financial instrument (or embedded feature) is indexed to an entity's own stock for purposes of determining whether the appropriate accounting treatment falls under the scope of SFAS 133, "Accounting For Derivative Instruments and Hedging Activities" and/or EITF 00-19, "Accounting For Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock". EITF 07-5 is effective for financial statements issued for fiscal years beginning after December 15, 2008 and early application is not permitted. We have not yet determined what, if any, affect EITF 07-5 will have on our results of operations or 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, 2008.

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.

Conclusion Regarding the Effectiveness 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 Executive Chairman and Principal Accounting 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 Executive Chairman and Principal Accounting 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 Executive Chairman and Principal Accounting Officer) to allow timely decisions regarding required disclosures. Based on such evaluation, our Executive Chairman and Principal Accounting Officer have concluded these disclosure controls are effective as of December 31, 2008.

Changes in Internal Control Over Financial Reporting

There have not been any changes in our internal control over financial reporting during the fiscal quarter ended December 31, 2008 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control Over Financial Reporting

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 Operating Officer and Principal Accounting 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, 2008.

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, 2008, 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 Shareholders of EntreMed, Inc.

We have audited EntreMed, Inc.'s internal control over financial reporting as of December 31, 2008, 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, 2008, 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, 2008 and 2007, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2008 of EntreMed, Inc. and our report dated March 12, 2009 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

McLean, Virginia
March 12, 2009

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 2009 Annual Meeting of Stockholders, to be filed pursuant to Regulation 14A with the Securities and Exchange Commission within 120 days of December 31, 2008. 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 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 2009 Annual Meeting of Stockholders, to be filed pursuant to Regulation 14A with the Securities and Exchange Commission within 120 days of December 31, 2008. 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 2009 Annual Meeting of Stockholders, to be filed pursuant to Regulation 14A with the Securities and Exchange Commission within 120 days of December 31, 2008. Such information is incorporated herein by reference.

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, 2008.

	(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	8,345,928	$6.60	1,480,839
Equity compensation plans not approved by security holders	7,613	$3.55	0
Total	8,346,691	$6.63	1,480,839

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

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 2009 Annual Meeting of Stockholders, to be filed pursuant to Regulation 14A with the Securities and Exchange Commission within 120 days of December 31, 2008. 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 2009 Annual Meeting of Stockholders, to be filed pursuant to Regulation 14A with the Securities and Exchange Commission within 120 days of December 31, 2008. 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(1)	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(2)	Amended and Restated Certificate of Incorporation of EntreMed, Inc.
3.2(3)	By-laws of EntreMed, Inc.
4.1(4)	Certificate of Designations of the Series A Convertible Preferred Stock
4.2(5)	Warrant to Purchase Common Stock, dated January 13, 2003, issued by EntreMed, Inc. in favor of Celgene Corporation
4.3(6)	Warrant to Purchase Common Stock, dated September 12, 2007, issued by EntreMed, Inc. in favor of General Electric Capital Corporation
4.4(6)	Warrant to Purchase Common Stock, dated September 12, 2007, issued by EntreMed, Inc. in favor of Merrill Lynch Capital
4.5(6)	Warrant to Purchase Common Stock, dated September 12, 2007, issued by EntreMed, Inc. in favor of Oxford Finance Corporation
10.1(7)	1992 Stock Incentive Plan*
10.2(7)	Amended and Restated 1996 Stock Option Plan*
10.3(7)	Form of Stock Option Agreement, under Amended and Restated 1996 Stock Option Plan*
10.4(8)	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(9)	Amendment to the 1996 Stock Option Plan*
10.6(10)	License Agreement between Celgene Corporation and EntreMed, Inc. signed December 9, 1998 regarding thalidomide intellectual property
10.7(10)	Lease Agreement between EntreMed, Inc. and Red Gate III Limited Partnership, dated June 10, 1998
10.8(11)	1999 Long-Term Incentive Plan*
10.9(12)	EntreMed, Inc. 2001 Long-Term Incentive Plan*
10.10.1(13)	Purchase Agreement between Bioventure Investments kft and EntreMed, Inc., dated June 15, 2001+

10.10.2(13) Amendment 1 to Purchase Agreement between Bioventure Investments kft and EntreMed, Inc., date July 13, 2001

10.10.3(13) Amendment 2 to Purchase Agreement between Bioventure Investments kft and EntreMed, Inc., dated July 30, 2001

10.10.4(13) Amendment 3 to Purchase Agreement between Bioventure Investments kft and EntreMed, Inc., dated August 3, 2001

10.11(14) Board Service Agreement, dated February 5, 2003, between Michael M. Tarnow and EntreMed, Inc. *

10.12(15) Securities Purchase Agreement by and among EntreMed, Inc., and Celgene Corporation, dated as of December 31, 2002

10.13(15) Investor and Registration Rights Agreement by and between EntreMed, Inc. and Celgene Corporation, dated as of December 31, 2002

10.14(16) Employment Agreement between EntreMed and James S. Burns effective June 15, 2004, as amended*

10.15(17) Employment Agreement between EntreMed and Dane Saglio effective July 1, 2004, as amended*

10.19(18) Employment Agreement between EntreMed and Carolyn F. Sidor, M.D. effective December 1, 2004, as amended*

10.20(19) Securities Purchase Agreement by and among EntreMed and Certain Institutional Investors, dated as of December 23, 2004

10.21(20) EntreMed, Inc. 2001 Long Term Incentive Plan Non-Qualified Stock Option Grant Agreement (Director)*

10.22(20) EntreMed, Inc. 2001 Long Term Incentive Plan Non-Qualified Stock Option Grant Agreement (Non-Director Employee)*

10.23(20) Form of Change in Control Agreement*

10.24(20) Amendment to Employment Agreement by and between the Company and James S. Burns, effective April 16, 2007*

10.25(20) Amendment to Employment Agreement by and between the Company and Dane R. Saglio, effective April 16, 2007*

10.26 (20) Amendment to Employment Agreement by and between the Company and Carolyn F. Sidor, effective April 16, 2007*

10.27 (20) Amendment to Employment Agreement by and between the Company and Cynthia Wong Hu, effective April 16, 2007*

10.28 (20) Amendment to Employment Agreement by and between the Company and Marc G. Corrado, effective April 16, 2007*

10.29(21) Form of Letter Agreement between EntreMed and James S. Burns*

10.30(21) Form of Restricted Stock Award under EntreMed, Inc. 2001 Long Term Incentive Plan*

10.31(22)	Letter Agreement between EntreMed and Dane Saglio dated May 20, 2005*
10.32(22)	Employment Agreement by and between EntreMed and Marc Corrado, dated as of May 20, 2005*
10.33(23)	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+
10.34(24)	Description of Compensation of Directors*
10.35(25)	Employment Agreement by and between EntreMed and Cynthia Wong, dated as of June 1, 2006, as amended*
10.36(26)	Letter Agreement between EntreMed and Dane Saglio dated June 21, 2006*
10.37(27)	License Agreement, dated January 9, 2006, by and between Elan Pharma International Limited and EntreMed, Inc. +
10.38(27)	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.+
10.39 (28)	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
10.40 (28)	Promissory Note dated September 12, 2007 to General Electric Capital Corporation
10.41 (28)	Promissory Note dated September 12, 2007 to Merrill Lynch Capital
10.42 (28)	Promissory Note dated September 12, 2007 to Oxford Finance Corporation
10.43 (29)	Employment Agreement by and between the Company and Kenneth W. Bair, dated as October 16, 2007*
10.44 (30)	Employment Agreement by and between the Company and Thomas H. Bliss, dated as June 18, 2008*
10.45	Amendment to Lease between EntreMed, Inc. and Red Gate III Limited Partnership, dated January 27, 2009
10.46	Employment Agreement by and between the Company and Kathy Wehmeir-Davis, dated as January 1, 2009*
10.47	Employment Agreement by and between the Company and Mark R. Bray, dated as January 1, 2009*
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 Form 8-K previously filed with the Securities and Exchange Commission on December 29, 2005.

(2) Incorporated by reference from our Form 10-Q for the quarter ended June 30, 2006 previously filed with the Securities and Exchange Commission.

(3) Incorporated by reference from our Form 8-K previously filed with the Securities and Exchange Commission on December 6, 2007

(4) Incorporated by reference to Exhibit 99.4 of our Form 8-K dated December 31, 2002 previously filed with the Securities and Exchange Commission on January 15, 2003.

(5) Incorporated by reference to Exhibit 99.5 of our Form 8-K dated December 31, 2002 previously filed with the Securities and Exchange Commission on January 15, 2003.

(6) Incorporated by reference from our Form 10-Q for the quarter ended September 30, 2007 previously filed with the Securities nd Exchange Commission.

(7) Incorporated by reference from our Registration Statement on Form S-1 declared effective by the Securities and Exchange Commission on June 11, 1996.

(8) Incorporated by reference from our Form 10-K for the year ended December 31, 1996 previously filed with the Securities and Exchange Commission.

(9) Incorporated by reference from our Form 10-K for the year ended December 31, 1997 previously filed with the Securities and Exchange Commission.

(10) Incorporated by reference from our Form 10-K for the year ended December 31, 1998 previously filed with the Securities and Exchange Commission.

(11) Incorporated by reference from our Form 10-Q for the quarter ended June 30, 1999 previously filed with the Securities and Exchange Commission.

(12) Incorporated by reference from Exhibit A to our Definitive Proxy Statement filed with the Securities and Exchange Commission on May 12, 2006.

(13) Incorporated by reference from our Form 10-Q for the quarter ended June 30, 2001 previously filed with the Securities and Exchange Commission.

(14) Incorporated by reference from our Form 10-K/A for the year ended December 31, 2002 previously filed with the Securities and Exchange Commission.

(15) Incorporated by reference from our Form 8-K dated December 31, 2002 previously filed with the Securities and Exchange Commission on January 15, 2003.

(16) 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 with the Securities and Exchange Commission.

(17) 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 with the Securities and Exchange Commission.

(18) 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 with the Securities and Exchange Commission.

(19) Incorporated by reference from our Form 8-K previously filed with the Securities and Exchange Commission on December 29, 2004.

(20 Incorporated by reference from our Form 8-K previously filed with the Securities and Exchange Commission on April 17, 2007.

(21) Incorporated by reference from our Form 8-K previously filed with the Securities and Exchange Commission on March 11, 2005.

(22) Incorporated by reference from our Form 8-K previously filed with the Securities and Exchange Commission on May 24, 2005.

(23) Incorporated by reference from our Form 10-Q for the quarter ended March 31, 2005 previously filed with the Securities and Exchange Commission.

(24) Incorporated by reference from our Form 8-K previously filed with the Securities and Exchange Commission on August 2, 2005.

(25) Incorporated by reference from our Form 8-K previously filed with the Securities and Exchange Commission on June 6, 2006.

(26) Incorporated by reference from our Form 8-K previously filed with the Securities and Exchange Commission on June 22, 2006, as amended on Form 8-K filed on April 7, 2008 with the Securities and Exchange Commission.

(27) Incorporated by reference from our Form 10-Q for the quarter ended March 31, 2006 previously filed with the Securities and Exchange Commission.

(28) Incorporated by reference from our Form 10-Q for the quarter ended September 30, 2007 previously filed with the Securities and Exchange Commission.

(29) Incorporated by reference from our Form 10-Q for the quarter ended March 31, 2008, previously filed with the Securities and Exchange Commission.

(30) Incorporated by reference from our Form 10-Q for the quarter ended June 30, 2008, 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 12, 2009

ENTREMED, INC.

By: /s/Michael M. Tarnow
Michael M. Tarnow
Executive Chairman

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	Executive Chairman	March 12, 2009
/s/ Kathy Wehmeir-Davis Kathy Wehmeir-Davis	Principal Accounting Officer	March 12, 2009
/s/Donald S. Brooks Donald S. Brooks	Director	March 10, 2009
/s/Dwight L. Bush Dwight L. Bush	Director	March 11, 2009
/s/Jennie C. Hunter-Cevera Jennie C. Hunter-Cevera	Director	March 10, 2009
/s/Mark C. M. Randall Mark C. M. Randall	Director	March 10, 2009
/s/Peter S. Knight Peter S. Knight	Director	March 10, 2009

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement of EntreMed, Inc. and in the related Prospectuses of our reports dated March 12, 2009, 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, 2008.

(1) Registration Statement Number 333-26057 on Form S-8
(2) Registration Statement Number 333-67063 on Form S-8
(3) Registration Statement Number 333-41218 on Form S-8
(4) Registration Statement Number 333-68048 on Form S-8
(5) Registration Statement Number 333-101617 on Form S-8
(6) Registration Statement Number 333-80193 on Form S-3
(7) Registration Statement Number 333-84907 on Form S-3
(8) Registration Statement Number 333-94665 on Form S-3
(9) Registration Statement Number 333-76824 on Form S-3
(10) Registration Statement Number 333-104380 on Form S-3
(11) Registration Statement Number 333-110604 on Form S-3
(12) Registration Statement Number 333-122309 on Form S-3
(13) Registration Statement Number 333-87940 on Form S-3
(14) Registration Statement Number 333-129276 on Form S-3
(15) Registration Statement Number 333-133190 on Form S-3
(16) Registration Statement Number 333-132715 on Form S-3
(17) Registration Statement Number 333-151542 on Form S-3

/s/Ernst & Young LLP

McLean, VA
March 12, 2009

Exhibit 31.1

CERTIFICATION OF EXECUTIVE CHAIRMAN

I, Michael M. Tarnow, 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 12, 2009

/s/ Michael M. Tarnow
Michael M. Tarnow
Executive Chairman

Exhibit 31.2

CERTIFICATION OF PRINCIPAL ACCOUNTING OFFICER

I, Kathy Wehmeir-Davis, 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 12, 2009

/s/ Kathy Wehmeir-Davis
Kathy Wehmeir-Davis
Principal Accounting Officer

Exhibit 32.1

CERTIFICATION BY EXECUTIVE CHAIRMAN
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 for the period ended December 31, 2008 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Michael M. Tarnow, as Executive Chairman 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) or 15(d) 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

This certificate is being made for the exclusive purpose of compliance by the Executive Chairman 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/ Michael M. Tarnow
March 12, 2009 Michael M. Tarnow
Executive Chairman

Exhibit 32.2

CERTIFICATION BY PRINCIPAL ACCOUNTING 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 for the period ended December 31, 2008 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Kathy Wehmeir-Davis, as Principal Accounting 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) or 15(d) 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

This certificate is being made for the exclusive purpose of compliance by the Principal Accounting 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/ Kathy Wehmeir-Davis
March 12, 2009 Kathy Wehmeir-Davis
Principal Accounting 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, 2008 and 2007, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2008. 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, 2008 and 2007, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2008, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), EntreMed, Inc.'s internal control over financial reporting as of December 31, 2008, 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 12, 2009 expressed an unqualified opinion thereon.

/s/Ernst & Young LLP

McLean, Virginia
March 12, 2009

EntreMed, Inc.
Consolidated Balance Sheets

	DECEMBER 31, 2008	DECEMBER 31, 2007
ASSETS		
Current assets:		
Cash and cash equivalents	$ 16,743,129	$ 29,675,899
Short-term investments	7,548,044	18,072,292
Accounts receivable, net of allowance for doubtful accounts of $54,145 at December 31, 2008 and $0 at December 31, 2007	3,880,108	3,901,554
Interest receivable	37,402	144,191
Prepaid expenses and other	383,538	464,083
Total current assets	28,592,221	52,258,019
Property and equipment, net	263,715	620,456
Other assets	67,459	136,433
Total assets	$ 28,923,395	$ 53,014,908
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 3,496,198	$ 4,550,892
Accrued liabilities	2,584,327	1,675,814
Current portion of loan payable	7,708,451	2,982,117
Current portion of deferred rent	20,763	119,594
Total current liabilities	13,809,739	9,328,417
Loan payable, less current portion	9,191,490	16,768,749
Deferred rent, less current portion	-	20,764
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, 2008 and 2007 (liquidation value - $33,500,000 at December 31, 2008 and 2007)	3,350,000	3,350,000
Common stock, $.01 par value: 170,000,000 shares authorized at December 31, 2008 and 2007; 88,489,278 and 85,712,992 shares issued and outstanding at December 31, 2008 and 2007, respectively	884,893	857,125
Additional paid-in capital	367,689,943	364,705,150
Treasury stock, at cost: 874,999 shares held at December 31, 2008 and 2007	(8,034,244)	(8,034,244)
Accumulated other comprehensive income	(58,391)	66,954
Accumulated deficit	(357,910,035)	(334,048,007)
Total stockholders' equity	5,922,166	26,896,978
Total liabilities and stockholders' equity	$ 28,923,395	$ 53,014,908

See accompanying notes.

EntreMed, Inc.
Consolidated Statements of Operations

	YEAR ENDED DECEMBER 31,		
	2008	2007	2006
Revenues:			
Royalties	7,472,061	7,393,463	6,881,799
Other	5,158	2,188	12,559
	7,477,219	7,395,651	6,894,358
Costs and expenses:			
Research and development	20,069,229	23,739,392	21,671,117
General and administrative	7,764,532	7,386,570	7,393,722
Acquired In-Process R&D	2,000,000	-	29,481,894
	29,833,761	31,125,962	58,546,733
Investment income	882,253	2,112,583	1,867,204
Interest expense	(2,216,163)	(793,393)	(156,787)
Fixed asset impairment loss	(171,576)	-	-
Gain on sale of assets	-	-	52,901
Net loss	(23,862,028)	(22,411,121)	(49,889,057)
Dividends on Series A convertible preferred stock	(1,005,000)	(1,005,000)	(1,005,000)
Net loss attributable to common shareholders	$ (24,867,028)	$ (23,416,121)	$ (50,894,057)
Net loss per share (basic and diluted)	$ (0.29)	$ (0.28)	$ (0.71)
Weighted average number of shares outstanding (basic and diluted)	86,479,768	84,166,552	71,873,734

See accompanying notes.

ENTREMED, INC.

CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY
Periods Ended December 31, 2008, 2007 and 2006

	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, 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
Issuance of common stock for options exercised	-	-	-	-	-	-	-	-	-	-
Issuance of common stock for warrants exercised	-	-	-	-	-	-	-	-	-	-
Issuance of common stock for milestone payment, net of stock issuance costs	-	-	2,564,104	25,641	-	1,897,403				1,923,044
Fair value of warrants issued pursuant to debt settlement agreements	-	-	-	-	-		-	-	-	-
Restricted stock grants	-	-	212,182	2,127	-	190,929	-	-	-	193,056
Stock-based compensation expense, net of forfeitures	-	-	-	-	-	896,461	-	-	-	896,461
Comprehensive loss:										
Net loss	-	-	-	-	-	-	-	-	(23,862,028)	(23,862,028)
Unrealized loss on investments	-	-	-	-	-	-	-	(125,345)	-	(125,345)
Comprehensive loss	-	-	-	-	-	-	-	-	-	(23,987,373)
Balance at December 31, 2008	3,350,000	$ 3,350,000	87,614,279	$ 884,893	$ (8,034,244)	$ 367,689,943	$ -	$ (58,391)	$ (357,910,035)	$ 5,922,166

EntreMed, Inc.
Consolidated Statements of Cash Flows

	YEAR ENDED DECEMBER 31,		
	2008	2007	2006
CASH FLOWS FROM OPERATING ACTIVITIES			
Net loss	$ (23,862,028)	$ (22,411,121)	$ (49,889,057)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	319,230	333,827	444,680
Write-off of in-process R&D	2,000,000	-	29,481,894
Fixed asset impairment loss	171,576	-	-
Loss on sale of assets	-	-	(52,901)
Stock-based compensation expense	1,089,517	1,454,864	1,553,672
Amortization of deferred stock-based compensation	-	-	102,000
Amortization of discount on short-term investments	(573,647)	(1,112,976)	(1,015,815)
Non-cash interest	198,543	62,428	-
Changes in operating assets and liabilities:			
Accounts receivable	21,446	(56,554)	(72,285)
Interest receivable	106,789	(70,296)	107,336
Prepaid expenses and other	80,944	(86,085)	7,705
Accounts payable	(1,054,694)	(1,395,960)	155,827
Accrued liabilities	908,512	(152,352)	(1,537,025)
Deferred rent	(119,595)	(89,848)	(60,969)
Net cash used in operating activities	(20,713,407)	(23,524,073)	(20,774,938)
CASH FLOWS FROM INVESTING ACTIVITIES			
Proceeds from sale of property and equipment, net	-	-	52,901
Acquisition, net of cash received	-	-	(2,906,218)
Purchases of short term investments	(51,556,886)	(43,999,618)	(72,786,954)
Maturities of short term investments	62,525,000	56,664,000	62,920,760
Unrealized gain on short term investments	4,436	-	-
Purchases of furniture and equipment	(134,065)	(106,721)	(227,435)
Net cash provided by (used in) investing activities	10,838,485	(12,557,661)	(12,946,946)
CASH FLOWS FROM FINANCING ACTIVITIES			
Repayment of loan	(2,980,893)	(751,093)	(697,030)
Proceeds from issuance of loan and warrants, net of discount	-	19,900,000	-
Debt issuance costs	-	(153,012)	-
Stock issuance costs	(76,955)	-	-
Net proceeds from sale of common stock	-	750,275	43,907,403
Net cash (used in) provided by financing activities	(3,057,848)	19,746,170	43,210,373
Net (decrease) increase in cash and cash equivalents	(12,932,770)	8,779,758	9,488,489
Cash and cash equivalents at beginning of year	29,675,899	20,896,141	11,407,652
Cash and cash equivalents at end of year	$ 16,743,129	$ 29,675,899	$ 20,896,141
Supplemental disclosure of cash flow information:			
Cash paid during the year for interest	$ 2,017,619	$ 554,660	$ 156,787
Non-cash investing activity:			
Stock issued in connection with the acquisition of Miikana	$ -	$ -	$ 21,920,800
Stock issued in connection with milestone payment related to the acquisition of Miikana	$ 2,000,000	$ -	$ -

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 committed to developing primarily ENMD-2076, an Aurora A and angiogenic kinase inhibitor for the treatment of cancer. ENMD-2076 is currently in Phase 1 studies in advanced cancers and multiple myeloma and we anticipate the initiation of additional studies in 2009, including hematological malignancies. EntreMed's other therapeutic candidates include MKC-1, an oral cell-cycle inhibitor with activity against tubulin and the mTOR pathway currently in multiple Phase 2 clinical trials for cancer, and ENMD-1198, a novel antimitotic agent currently in Phase 1 studies in advanced cancers. The Company also has an approved IND application for Panzem® in rheumatoid arthritis.

The Company continues to focus on three principal objectives: 1) to concentrate its resources on ENMD-2076 in order to accelerate clinical objectives so that we can provide a more direct path forward to product registration and ultimately to the market; 2) to conserve its cash by deferring new program initiatives; and 3) to be opportunistic in seeking partnerships for its principle assets. More specifically, in order to further advance the Company's commercial objectives, EntreMed may seek strategic alliances, licensing relationships and co-development partnerships with other companies to develop its compounds for both oncology and non-oncology therapeutic areas.

EntreMed has discontinued clinical development of 2ME2 (Panzem® NCD) for oncology. While the Company has observed antitumor activity in most of its clinical studies, substantial clinical trial and manufacturing/ process development costs would be required to narrow the oncology indications for larger registration-track randomized studies. These expenditures would require the commitment of a disproportionate amount of resources and limit clinical development efforts on the remainder of the Company's pipeline. Patients still on clinical oncology trials are continuing to receive Panzem® NCD.

The FDA has accepted EntreMed's IND for 2ME2 in RA (Rheumatoid Arthritis), which included an extensive human safety dossier in 300 patients from the oncology studies. The Company believes that Panzem® for RA represents a safe, orally-administered, small molecule alternative to current biologicals and a potential "first-in-class" cross-over opportunity from oncology. In 2008, the Company completed a healthy volunteer clinical trial for Panzem and is seeking a development partner to manage larger multi-arm Phase 2 and Phase 3 studies.

To date, EntreMed has been engaged in research and development activities. As a result, the Company has incurred operating losses through December 31, 2008 and expects to continue to incur operating losses for the foreseeable future before commercialization of any products. To accomplish the Company's business goals, it, or prospective development partners, will be required to conduct substantial development activities for all proposed products that it intends to pursue to commercialization. EntreMed intends to continue to pursue strategic relationships to provide resources for the further development of its 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.

EntreMed's goal is to focus the Company's resources on ENMD-2076, its most promising near-term product candidate, as part of the Company's overall plan to lower operating costs and preserve capital. The plan calls for acceleration of the Company's 2009 clinical objectives for ENMD-2076. While the Company's other product candidates, including MKC-1, ENMD-1198 and Panzem® in rheumatoid arthritis, continue to be promising, the Company will consider further clinical development only if additional financial resources are available. As a

result, the Company expects to reduce all research activities to the minimal level necessary to continue its efforts to realize their potential value through arrangements with third parties. The Company's plan for these programs is not expected to affect ongoing trials and current patients.

The accompanying consolidated financial statements include the accounts of the Company's controlled subsidiary, Miikana Therapeutics, Inc. (Miikana). All inter-company balances and transactions have been eliminated in consolidation. The Company refers to EntreMed and its consolidated subsidiary. At December 31, 2007, the consolidated financial statements also included the accounts of Cytokine Sciences, Inc., whose operations were immaterial, and dissolved as of December 2007.

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. EntreMed's senior management team reports to the Executive Committee of the Board of Directors and is responsible for aligning the Company's business strategy with its core scientific strengths, while maintaining prudent resource management, fiscal responsibility and accountability. The team has redirected EntreMed's financial resources and R&D strategy to focus on the development of its Aurora/angiogenic kinase inhibitor, ENMD-2076.

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 $319,230, $333,827 and $444,680 in 2008, 2007 and 2006, respectively. Property and equipment consists of the following:

	DECEMBER 31	
	2008	2007
Furniture and equipment	$ 4,987,689	$ 4,889,864
Leasehold improvements	1,325,031	1,288,791
	6,312,720	6,178,655
Less: accumulated depreciation	(6,049,005)	(5,558,199)
	$ 263,715	$ 620,456

IMPAIRMENT OF LONG-LIVED ASSETS

In accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, the Company periodically evaluates the value reflected in its balance sheet of long-lived assets, such as equipment, when events and circumstances indicate that the carrying amount of an asset may not be recovered. Such events and circumstances include the use of the asset in current research and development projects, any potential alternative uses of the asset in other research and development projects in the short to medium term and restructuring plans entered into by the Company. Determination of recoverability is based on an estimate of undiscounted future cash flows resulting from the use of the asset and its eventual disposition. In the event that such cash flows are not expected to be sufficient to recover the carrying amount of the assets, the assets are written down to their estimated

fair values. At December 31, 2008, the Company recorded a fixed asset impairment charge of approximately $172,000 in connection with its restructuring plan discussed in Note 2.

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 $125,345 and $50,258 were recorded in 2008 and 2007, respectively. 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. 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 an allowance for doubtful accounts of $54,145 at December 31, 2008. There is no allowance for doubtful accounts at December 31, 2007.

As of December 31, 2008 and 2007, one individual customer represented 99% and 100%, 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, 2008 and 2007, clinical trial accruals were $1,600,975 and $1,377,635, 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, EntreMed had an unrecognized tax benefit of $2,751,000 related to net R&D tax credit carryforwards. The Company had 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.

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 2008, 2007 and 2006 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 April 2008, the Company was advised that Alchemgen Therapeutics ceased operations, therefore eliminating our ability to receive any royalties from Alchemgen under the agreement.

NET LOSS PER SHARE

Net loss per share (basic and diluted) was computed by dividing net loss attributable to common shareholders by the weighted average number of shares of common stock outstanding. Preferred Series A common stock equivalents totaling 16,750,000 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,		
	2008	2007	2006
Net loss	$(23,862,028)	$(22,411,121)	$(49,889,057)
Other comprehensive (loss) income	(125,345)	(50,258)	117,212
Comprehensive loss	$(23,987,373)	$(22,461,379)	$(49,771,845)

FAIR VALUE MEASUREMENT

The Company adopted FAS Statement No. 157, "*Fair Value Measurements*" ("SFAS 157") effective January 1, 2008. SFAS 157 defines fair value as the price that would be received to sell an asset or paid to transfer a liability ("the exit price") in an orderly transaction between market participants at the measurement date. The standard outlines a valuation framework and creates a fair value hierarchy in order to increase the consistency and comparability of fair value measurements and the related disclosures. In determining fair value, EntreMed primarily uses prices and other relevant information generated by market transactions involving identical or comparable assets ("market approach"). The Company has determined that the fair value measurements are in accordance with the requirements of SFAS 157, therefore, the implementation of SFAS 157 did not have any impact on its consolidated financial condition or results of operations. The implementation of SFAS 157 resulted in expanded disclosures about securities measured at fair value, as discussed below.

SFAS 157 established a three-level hierarchy for fair value measurements that distinguishes between market participant assumptions developed based on market data obtained from sources independent of the reporting entity ("observable inputs") and the reporting entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances ("unobservable inputs"). EntreMed currently does not have non-financial assets and non-financial liabilities that are required to be measured at fair value on a recurring basis. The Company's financial assets and liabilities are measured using inputs from the three levels of the fair value hierarchy, defined as follows:

Level 1 – Inputs are unadjusted quoted prices in active markets for identical assets or liabilities that we have the ability to access at the measurement date.

Level 2 – Inputs are quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted pries that are observable for the asset or liability (i.e., interest rates, yield curves, etc.), and inputs that are derived principally from or corroborated by observable market data by correlation or other means (market corroborated inputs).

Level 3 – Unobservable inputs that reflect our own assumptions, based on the best information available, including our own data.

In accordance with the fair value hierarchy described above, the following table shows the fair value of the Company's financial assets and liabilities that are required to be measured at fair value as of December 31, 2008:

	Fair Value Measurements at December 31, 2008			
	Total Carrying Value at December 31, 2008	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Cash equivalents	$ 13,524,935	$ 13,524,935	$ —	$ —
Available for sale securities*	7,548,044	28,967	7,519,077	—
				—

* Unrealized gains and losses related to available for sale securities are reported as accumulated other comprehensive income (loss).

The Company's Level 1 assets include money market instruments and equity securities with quoted prices in active markets. Level 2 assets include government-sponsored enterprise securities, commercial paper and mortgage-backed securities. The Level 2 securities are valued using matrix pricing, which is an acceptable, practical expedient under SFAS 157 for inputs.

Effective January 1, 2008, the Company adopted SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities.* The standard allows entities to voluntarily choose, at specified election dates, to measure many financial assets and financial liabilities (as well as certain non-financial instruments that are similar to financial instruments) at fair value (the "fair value option"). The guidance in SFAS No. 159 is effective as of the beginning of an entity's first fiscal year that begins after November 15, 2007. The Company did not elect the fair value option for any financial assets or liabilities and, therefore, adoption of the provisions of SFAS No. 159 did not have a material effect on its consolidated financial statements.

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). Under APB 25, the Company measured compensation expense for its share-based compensation using the intrinsic value method, that is, as the excess, if any, of the fair market value of the Company's stock at the grant date over the amount required to be paid to acquire the stock, and provided the disclosures required by SFAS 123, *"Accounting for Stock-Based Compensation,"* ("SFAS 123").

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.

NEW ACCOUNTING PRONOUNCEMENTS

In June 2007, the FASB issued EITF Issue No. 07-3, *"Accounting for Non-Refundable Advance Payments for Goods or Services to be Used in Future Research and Development Activities,"* or EITF 07-3, which provides that non-refundable advance payments for future research and development activities should be deferred and capitalized until the related goods are delivered or the related services are performed. EITF 07-3 was effective for

the Company on a prospective basis beginning January 1, 2008 and did not have a material impact on its consolidated financial statements.

In December 2007, the FASB issued SFAS No. 141R, 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. SFAS 141R is effective beginning January 1, 2009 and the Company is currently evaluating the impact of the provisions of the revision on its consolidated results of operations and financial condition.

In December 2007, the FASB issued SFAS No. 160, *"Noncontrolling Interests in Consolidated Financial Statements—An Amendment of ARB No. 51"* ("SFAS 160"), which establishes new accounting and reporting standards for the non-controlling interest in a subsidiary and for the deconsolidation of a subsidiary. SFAS 160 is effective for fiscal years beginning on or after December 15, 2008. The adoption of SFAS 160 is not expected to have a material impact on the Company's results of operations or financial position.

In May 2008, the FASB issued SFAS No. 162, *"The Hierarchy of Generally Accepted Accounting Principles"* ("SFAS 162"), which identifies the sources of accounting principles and the framework for selecting the principles to be used in the preparation of financial statements. SFAS 162 is effective sixty days following the Security and Exchange Commission's approval of Public Company Accounting Oversight Board Auditing amendments to AU Section 411, *"The Meaning of Present Fairly in Conformity With Generally Accepted Accounting Principles."* The adoption of SFAS 162 is not expected to have a material impact on the Company's results of operations or financial position.

In June 2008, the FASB issued EITF 07-5, "*Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity's Own Stock*" ("EITF 07-5"). EITF 07-5 provides guidance in assessing whether an equity-linked financial instrument (or embedded feature) is indexed to an entity's own stock for purposes of determining whether the appropriate accounting treatment falls under the scope of SFAS 133, "Accounting For Derivative Instruments and Hedging Activities" and/or EITF 00-19, "Accounting For Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock". EITF 07-5 is effective for financial statements issued for fiscal years beginning after December 15, 2008 and early application is not permitted. We have not yet determined what, if any, affect EITF 07-5 will have on our results of operations or 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 fair value of debt, before discount, were $17,018,000 and approximately $17,576,000, respectively, at December 31, 2008. 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.

2. RESTRUCTURING

On December 15, 2008, the Company announced its plan to focus and accelerate the Company's clinical objectives for ENMD-2076 as its leading program and effectively become a clinically-focused operation, thereby lowering operating costs and preserving capital. In connection with that plan, the Company announced its intent to reduce its workforce to align with the new business structure. The workforce reductions resulted in the elimination of approximately sixty percent of the Company's total positions across all areas of business and were substantially completed by December 31, 2008. The Company has accounted for this restructuring as proscribed by SFAS No. 112, "*Employers' Accounting for Postemployment Benefits*" ("SFAS 112") and SFAS No. 146, "*Accounting for Costs Associated with Exit or Disposal Activities"* ("SFAS 146"). Accordingly, the Company incurred charges for severance and related benefits totaling $1,749,000 in the fourth quarter of 2008, which is included in accrued liabilities at December 31, 2008. Approximately $1,028,000 of these restructuring costs have been included in general and administrative expenses and $721,000 have been included in research and development expenses within the consolidated financial statement.

3. 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, under the terms of the merger agreement, 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. We advanced the lead molecule in the Aurora Kinase Program, ENMD-2076, into clinical development in 2008. The dosing of the first patient during the quarter ended June 30, 2008 triggered a purchase price milestone payment of $2 million which the Company elected to pay in stock. The additional payment of $2 million was recorded to expense as in-process research and development since the research and development project related to the Aurora Kinase Program had not reached technical feasibility and has no future alternative use. If ENMD-2076 successfully completes Phase 1 clinical trials and advances to Phase 2, the dosing of the first patient will trigger an additional purchase price adjustment milestone of $3 million, payable in cash or stock at the Company's option, which could occur and be paid in 2010.

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 attainment of certain clinical, regulatory and commercialization milestones; however, we do not expect to trigger any of these milestone payments in 2009 or 2010. 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 the research and development projects we acquired which had 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. The Company believes that the 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 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.

4. LOAN PAYABLE

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, 2008.

As of December 31, 2008, principal payments due are as follows:

Less than one year	$ 7,708,451
One to two years	8,555,404
Two to three years	755,252
Total	$ 17,019,107

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, 2008. 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 $198,543 and $62,428 for the years ended December 31, 2008 and 2007, respectively.

5. 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 2008, 2007 and 2006 Thalomid® sales surpassed the royalty-sharing point and the Company recognized estimated royalty revenues of $7,472,000, $7,393,000 and $6,882,000, 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, 2008. Our preliminary work on the program was completed in 2008 and we do not expect to devote any significant resources to this program in 2009.

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 in connection with the development of 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 and to receive royalty payments based on sales of Panzem® NCD. Additionally, under the agreement and the corresponding Services Agreement, Elan has the right to manufacture EntreMed's Panzem® NCD. Milestones related to the initiation of Phase 2 clinical trials for Panzem® NCD have been paid and there are no additional milestones achieved as of December 31, 2008. We have discontinued clinical development of Panzem® NCD for oncology.

6. RELATED PARTY TRANSACTIONS

There were no expenses from related parties in 2008 and 2007 and no payables as of December 31, 2008. Included in the 2006 expenses were legal services totaling $686,000, from a law firm with which one of the Company's former officers was associated. Included in this amount are research and development expenses of $551,000, which primarily represents patent work, and general and administrative expenses of $119,000, which represents legal services. Also included in the 2006 total are costs related to the Miikana acquisition of $16,000.

7. INCOME TAXES

The Company has net operating loss carryforwards for income tax purposes of approximately $332,862,000 at December 31, 2008 ($309,997,000 at December 31, 2007) that expire in years 2009 through 2028. The Company also has research and development tax credit carryforwards of approximately $9,179,000 as of December 31, 2008 that expire in years 2009 through 2027. 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, 2008 and 2007 are as follows:

	DECEMBER 31,	
	2008	2007
Deferred income tax assets (liabilities):		
Net operating loss carryforwards	$131,232,000	$ 123,091,000
Research and development credit carryforward	9,179,000	8,837,000
Equity investment	72,000	72,000
Other	3,869,000	3,427,000
Depreciation	293,000	286,000
Valuation allowance for deferred income tax assets	(144,645,000)	(135,713,000)
Net deferred income tax assets	$ -	$ -

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

	2008	2007	2006
Tax benefit at statutory rate	$ (8,113,000)	$ (7,620,000)	$ (16,963,000)
State taxes	(1,293,000)	(1,282,000)	(942,000)
Net R&D credit adjustment	114,000	2,125,000	-
Attribute expiration and other	(520,000)	703,000	66,000
Permanent M-1s	10,000	(13,000)	10,027,000
Change in valuation allowance	8,884,000	9,351,000	7,944,000
Change in estimated effective rate	918,000	(3,264,000)	-
	$ -	$ -	$ -

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 $2,959,000 of unrecognized tax benefits as of January 1, 2008 related to net R&D tax credit carryforwards. EntreMed had 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 retained earnings as of such date, or on net operating losses available to offset future taxable income.

For the period ended December 31, 2008, there was an additional unrecognized tax benefit of $114,000 related to R&D tax credits in 2008, and a reduction in unrecognized tax benefits of $10,000 related to R&D credit carryforwards expiring in 2008. The Company has a full valuation allowance at January 1, 2008 and at December 31, 2008 against the full amount of its net deferred tax assets and therefore, there was no impact on the Company's financial position.

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

Unrecognized tax benefits balance at January 1, 2008	$2,959,000
Additions for Tax Positions of Prior Periods	114,000
Reductions for Tax Positions of Prior Periods	(10,000)
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, 2008	$3,063,000

The Company recognizes interest and penalties related to uncertain tax positions as a component of income tax expense. As of January 1, 2008 and December 31, 2008, 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, 2008. 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.

8. 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, 2008, cumulative unpaid preferred stock dividends totaled $6,030,000 or $1.80 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, 2008 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. Volatility was assumed to be 103.84%, and the risk free interest rate was 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.

In June 2008, the Company issued 2,564,104 shares of common stock as consideration for the satisfaction of a purchase price adjustment milestone payment of $2,000,000 triggered by the dosing of the first patient in the ENMD-2076 clinical trials. ENMD-2076 is the lead molecule in the Aurora Kinase Program, which advanced into clinical development in 2008.

9. SHARE-BASED COMPENSATION

The Company has adopted incentive and nonqualified stock option plans whereby 13,983,333 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 1,480,839 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 $193,000, $194,000 and $197,000 in 2008, 2007 and 2006, respectively, related to the issuance of restricted stock to members of our Board of Directors, as each non-employee director received an annual retainer fee of $25,000 that is payable in restricted stock.

Additionally, one Board member elected to receive restricted stock in lieu of a cash retainer totaling $20,000. As of December 31, 2008, $73,000 represents the non-vested restricted stock compensation awards expected to vest and be recognized in 2009.

As a result of the adoption of SFAS 123R, the Company's net loss for the years ended December 31, 2008, 2007 and 2006 includes $1,089,517, $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:

	2008	2007	2006
Research and development	$ 233,201	$ 352,999	$ 352,280
General and administrative	856,316	1,101,865	1,303,392
Share-based compensation expense	$ 1,089,517	$ 1,454,864	$ 1,655,672
Net share-based compensation expense, per common share:			
Basic and diluted	$ 0.013	$ 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, 2008, 2007 and 2006:

	Years ended December 31,		
	2008	2007	2006
Expected Volatility	72.84%	94.46%	101.70%
Risk free interest rate	4.69%	4.50%	4.82%
Expected term of option	5 years	5 years	5 years
Forfeiture rate	*5.00%	5.00%	5.00%
Expected dividend yield	-	-	-

*-Throughout 2008, forfeitures were estimated at 5%; the actual forfeiture rate for 2008 was 88.26% due to a 59% reduction in force effective December 31, 2008.

The weighted average fair value of stock options granted was $0.46, $1.03 and $1.25 in 2008, 2007 and 2006, respectively.

Share-based compensation expense recognized in the Consolidated Statement of Operations 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. As a result of the significant increase in actual forfeitures resulting from the reduction in force in December 2008, the Company revised its forfeiture estimate for purposes of determining its stock compensation expense.

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, 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		
Exercised	-	$ -		
Granted	626,664	$ 0.74		
Expired	(405,474)	$ 9.65		
Forfeited	(546,570)	$ 0.98		
Outstanding at December 31, 2008	8,345,928	$ 6.60	3.47	$ -
Vested and expected to vest at December 31, 2008	8,330,361	$ 6.81	3.38	$ -
Exercisable at December 31, 2008	8,034,583	$ 6.80	3.28	$ -

The aggregate intrinsic value is calculated as the difference between (i) the closing price of the common stock at December 31, 2008 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 2008. There is no aggregate intrinsic value at December 31, 2008. The aggregate intrinsic value of options exercised that had an exercise price less than the closing price on the last trading day of the year, was $8,250 and $3,675 for the years ended December 31, 2007 and 2006, respectively. There were no options exercised in the year ended December 31, 2008.

Cash received from option exercises under all share-based payment arrangements for the years ended December 31, 2007 and 2006 was $81,750 and $8,175, respectively. Due to the availability of net operating loss carryforwards and research tax credits, tax deductions for option exercises were not recognized in the years ended December 31, 2007 and 2006.

The following summarizes information about stock options granted to employees and directors outstanding at December 31, 2008:

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number Outstanding at 12/31/08	Weighted Average Remaining Contractual Life in Years	Weighted Average Exercise Price	Number Exercisable at 12/31/08	Weighted Average Exercise Price
$0.00 - $1.50	1,996,061	4.6	$ 1.10	1,823,543	$ 1.09
$1.51 - $3.00	2,712,735	3.9	$ 1.91	2,573,908	$ 1.92
$3.01 - $4.50	787,785	4.2	$ 3.48	787,785	$ 3.48
$4.51 - $6.00	216,272	3.7	$ 4.99	216,272	$ 4.99
$6.01 - $10.00	841,817	2.8	$ 8.71	841,817	$ 8.71
$10.01 - $15.00	370,402	2.6	$ 12.30	370,402	$ 12.30
$15.01 - $25.00	895,000	1.2	$ 19.12	895,000	$ 19.12
$25.01 - $35.00	503,733	1.2	$ 27.21	503,733	$ 27.21
$35.01 - $50.00	3,611	1.6	$ 44.82	3,611	$ 44.82
$50.01 - $65.00	18,512	1.3	$ 53.20	18,512	$ 53.20
	8,345,928	3.5	$ 6.60	8,034,583	$ 6.80

As of December 31, 2008, there was approximately $592,000 of total unrecognized compensation cost related to nonvested employee stock options. That cost is expected to be recognized over a weighted-average period of 1.7 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, 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
Granted	-	$ -
Exercised	-	$ -
Expired	(1,938,626)	$ 4.07
Outstanding at December 31, 2008	7,860,637	$ 2.69
Exercisable at December 31, 2008	7,860,637	$ 2.69

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 2008, EntreMed initiated a Phase 1 clinical trial with its Aurora A and angiogenic kinase inhibitor, ENMD-2076, in patients with solid tumors. A dosing of the first patient with ENMD-2076 triggered a purchase price adjustment milestone of $2 million, which the Company opted to pay in stock. Under the terms of the merger agreement, the former Miikana stockholders may earn up to an additional $16 million of potential payments upon the satisfaction of additional clinical and regulatory milestones. If ENMD-2076 successfully completes Phase 1 clinical trials and advances to

Phase 2, the dosing of the first patient will trigger an additional purchase price adjustment milestone of $3 million, which could occur and be paid (in cash or stock at our sole discretion) in 2010. 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 2009. 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 in connection with the development of 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 and to receive royalty payments based on sales of Panzem® NCD. Additionally, under the agreement and the corresponding Services Agreement, Elan has the right to manufacture EntreMed's Panzem® NCD. Milestones related to the initiation of Phase 2 clinical trials for Panzem® NCD have been paid and there are no additional milestones achieved as of December 31, 2008. We have discontinued clinical development of Panzem® NCD for oncology.

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, 2008. Our preliminary work on the program was completed in 2008 and we do not expect to devote any significant resources to this program in 2009.

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, 2008, 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. The Company has discontinued clinical development of 2ME2 (Panzem® NCD) for oncology.

As of December 31, 2008, the Company also has purchase obligation commitments, in the normal course of business, for clinical trial contracts and contract manufacturing totaling $4,946,000 and $1,865,000, respectively.

The Company leases its primary corporate facilities under a lease agreement that continues through February 2010. As a result of the Company's prioritization of ENMD-2076 as the leading program and subsequent realignment of personnel consistent with the strategy, in January 2009, the Company amended its lease in order to reduce our occupied space to 8,554 square feet which is expected to provide significant savings in rent expense to the Company in 2009. 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, 2008 have been significantly reduced, reflecting the impact of the Company's restructuring. The future minimum payments are as follows:

2009	387,662
2010	32,576
Thereafter	-
Total minimum payments	$ 420,238

Rental expense for the years ended December 31, 2008, 2007 and 2006 was $980,000, $955,000, and $1,044,000, 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 $117,000, $103,000 and $89,000 in 2008, 2007 and 2006, respectively.

11. QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

Summarized unaudited quarterly financial information for the years ended December 31, 2008 and 2007 is as follows:

	QUARTER ENDED			
	MARCH 31,	JUNE 30,	SEPTEMBER 30,	DECEMBER 31,
2008				
Revenues	$ -	$ -	$ 3,501,307	$ 3,975,912
Research and development costs	6,187,203	5,484,857	4,957,067	3,440,102
General and administrative expenses	1,982,994	1,739,691	1,551,900	2,489,947
In-process R&D	-	2,000,000	-	-
	8,170,197	9,224,548	6,508,967	5,930,049
Fixed asset impairment loss	-	-	-	(171,576)
Investment income	398,787	229,451	168,444	85,571
Interest expense	(575,046)	(575,046)	(558,661)	(507,410)
Net loss	(8,346,456)	(9,570,143)	(3,397,877)	(2,547,552)
Dividends on Series A convertible preferred stock	(251,250)	(251,250)	(251,250)	(251,250)
Net loss attributable to common Shareholders	(8,597,706)	(9,821,393)	(3,649,127)	(2,798,802)
Net loss per share (basic and diluted)	$ (0.10)	$ (0.11)	$ (0.04)	$ (0.04)
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)

Corporate Information

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Former Vice President, Legal Affairs, EntreMed, Inc.

Dwight L. Bush
Managing Director, D. L. Bush & Associates

Peter S. Knight
President, Generation Investment Management

Mark C.M. Randall
CEO, Commander Asset Management, Ltd.

Jennie Hunter-Cevera
President, University of Maryland Biotechnology Institute

Executive Officers

Cynthia W. Hu
Chief Operating Officer, General Counsel & Secretary

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