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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, 2005

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 (g) of the Act:

Title

Common Stock, Par Value $.01 Per Share

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ____ No 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, or a non-accelerated filer. (See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act). (Check one):

Large accelerated filer Accelerated filer X Non-accelerated filer

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

As of June 30, 2005, the aggregate market value of the shares of common stock held by non-affiliates was approximately $100,936,011.

As of March 8, 2006, 64,079,823 shares of the Company's common stock were outstanding.

Documents incorporated by reference

None.

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ENTREMED, INC.
FORM 10-K - FISCAL YEAR ENDED DECEMBER 31, 2005

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

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

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

could affect our business, financial condition and results of operations, are contained in our filings with the U.S. Securities and Exchange Commission (SEC), which are available at www.sec.gov.

PART I

ITEM 1. BUSINESS.

**OVERVIEW**

EntreMed, Inc. ("EntreMed" or "the Company") (Nasdaq: EMND) is a clinical-stage pharmaceutical company focused on developing next generation multi-mechanism oncology and antiinflammatory drugs that target disease cells directly and the blood vessels that nourish them. EntreMed is focused on developing drugs that are safe and convenient, and provide the potential for improved patient outcomes. Panzem® (2-methoxyestradiol or 2ME2), one of the Company's lead drug candidates, is currently in Phase 2 clinical trials for cancer, as well as in preclinical development for rheumatoid arthritis. MKC-1, a novel cell cycle inhibitor acquired through the recent acquisition of Miikana Therapeutics, is also in Phase 2 clinical trials for cancer. ENMD-1198, a novel tubulin binding agent discovered by EntreMed, has an active Investigational New Drug (IND) application on file with the Food and Drug Administration (FDA). We anticipate that a Phase 1 clinical trial for ENMD-1198 will commence in the first half of 2006.

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

Our goal is to develop and commercialize therapeutics based on our scientific expertise in angiogenesis, cell cycle regulation and inflammation -- processes vital to the progression of cancer and other diseases. Our three clinical product candidates are based on these mechanisms. Our expertise has also led to the identification of new molecules, including new chemical entities derived from 2ME2, modulators of fibroblast growth factor-2 (FGF-2) activity, proteinase activated receptor-2 (PAR-2) antagonists, and tissue factor pathway inhibitor (TFPI) peptides.

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

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

**SCIENTIFIC FOUNDATION**

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

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

Angiogenesis occurs in more than 80 diseases, particularly in various cancers where the growth of new blood vessels is necessary to sustain tumor growth, as well as arthritis, where inflammation triggers new blood

vessel growth and joint erosion. EntreMed scientists, who have studied the process of angiogenesis in-depth for over a decade, are developing drug candidates to inhibit blood vessel formation and, in turn, control or stop diseases resulting from inappropriate blood vessel growth.

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

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

**PIPELINE STRENGTH**

We believe that our pipeline offers promising candidates for successful commercialization for the following reasons:

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

**Versatility.** Our compounds are versatile in terms of possible therapeutic applications. While our preclinical and clinical efforts continue to focus on oncology and inflammatory diseases, we believe that other diseases characterized by angiogenesis represent future opportunities. However, our efforts are currently focused entirely on our core therapeutic programs in oncology and inflammation. We will evaluate non-core programs on a case-by-case basis, and then only in the context of external license or development alliances.

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

**Intellectual Property Position.** All of our pipeline programs, with the exception of 2ME2 (licensed from Children's Medical Center Corporation), the tubulin inhibitor program licensed from Celgene Corporation, and MKC-1 (developed originally by Roche), were discovered and developed internally and, as a result, are our sole property. Our in-house discoveries have the potential to significantly reduce its obligation to make future milestone, royalty and/or licensing payments. We plan to continue supporting our internally-generated pipeline and development efforts.

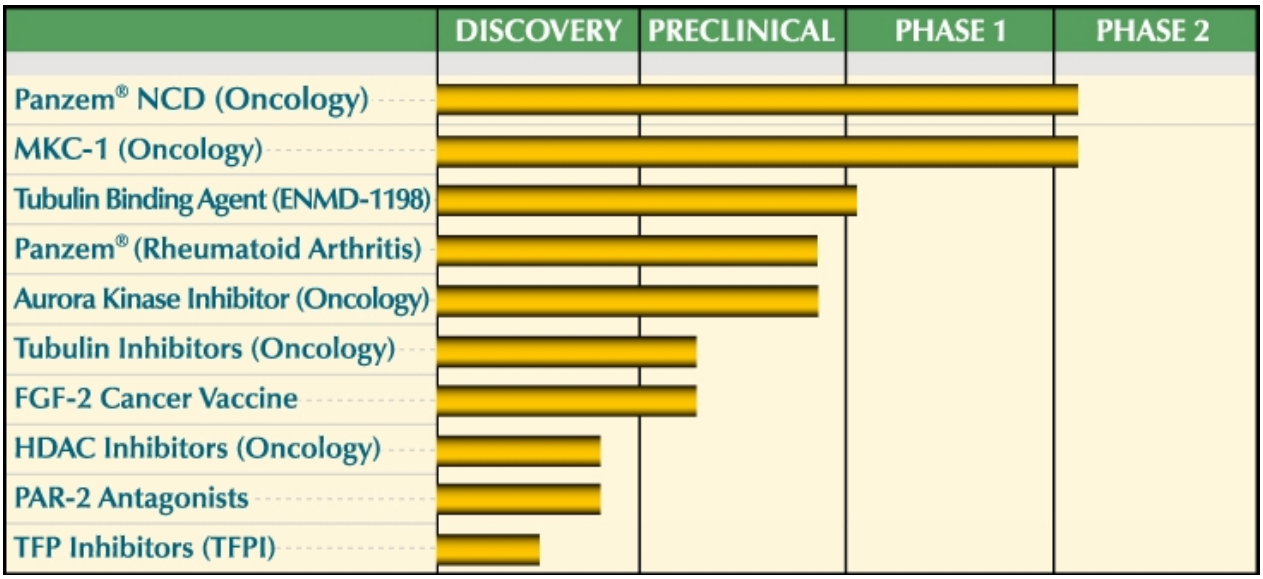
**Economic Viability.** We believe that our current focus on the development of small molecule drug candidates may translate into lower product development, process development, and other associated costs when

compared to biological products. Additionally, greater economic potential may be possible because each of our compounds may offer several therapeutic applications.

**DEVELOPMENT PIPELINE**

Our pipeline contains a balanced portfolio of clinical product candidates and promising preclinical compounds. The portfolio contains compounds that work primarily through multiple mechanisms-of-action and have demonstrated the potential in both oncology and inflammation.

In 2006, our pipeline will consist of two product candidates (Panzem® NCD and MKC-1) in multiple Phase 2 oncology studies, a Phase 1 clinical trial for ENMD-1198, plus a preclinical rheumatoid arthritis program that is headed toward IND-directed studies.




**CLINICAL PROGRAMS**

**Panzem®**. Panzem, 2-methoxyestradiol or 2ME2, is our lead clinical candidate. 2ME2 has multiple mechanisms of action (MOA), including inhibiting angiogenesis, disrupting microtubule (cell structure) formation, down regulating hypoxia inducible factor-one alpha (HIF-1α, a survival protein), and inducing apoptosis (cell death). The 2ME2 mechanisms that are particularly relevant to the treatment of cancer involve inhibiting endothelial cell growth (anti-angiogenic activity) and killing tumor cells directly (pro-apoptotic activity). Additionally, preclinical models show that 2ME2 has potential therapeutic applications in inflammatory diseases such as rheumatoid arthritis. 2ME2 has activity in cell lines that are resistant to various chemotherapy agents including taxanes (microtubule stabilizing agents), etoposide, adriamycin and methotrexate (DNA synthesis interfering agents), and tamoxifen (anti-estrogen agent).

**Panzem® NCD.** We have reformulated 2ME2 as an orally-administered liquid suspension (Panzem® NCD) to increase plasma drug levels in patients. Panzem® NCD uses Elan Drug Delivery's (Elan) NanoCrystal® Colloidal Dispersion (NCD) technology, a proprietary technology that is being used successfully in marketed pharmaceuticals. The NCD technology produces nanometer-sized particles, which are up to 500 times smaller than particles manufactured by conventional milling techniques. In preclinical studies, the liquid suspension formulation demonstrated antitumor activity with no additional toxicity. Phase 1 and 2 clinical trials in 171 patients with a prior capsule formulation showed evidence of biological activity, even though there was insufficient bioavailability to achieve the level of antitumor activity seen in preclinical studies.

**Panzem®**
**Clinical Development Overview in Cancer Patients**

| TRIAL TYPE | PANZEM FORMULATION | INDICATION | # OF PTS | STATUS | COMMENTS |
|---|---|---|---|---|---|
| Phase 2 (single agent) | NCD | Glioblastoma | 32 | Enrolling | Assess safety, pharmacokinetics and efficacy. |
| Phase 1b (single agent) | NCD | Advanced Cancers | 16 | Closed | Well tolerated. Steady state 2ME2 levels achieved. Phase 2 dose determined. |
| Phase 1* (single agent) | Capsule | Breast | 31 | Complete | No MTD identified – no grade III/IV toxicities Clinical benefit and bone pain relief. |
| Phase 1 (with Taxotere®) | Capsule | Breast | 15 | Complete | One complete response; 20% overall response rate. No additive toxicity. |
| Phase 1* (single agent) | Capsule | Advanced solid tumors | 20 | Complete | Partial response in ovarian cancer patient. No MTD identified; well tolerated. |
| Phase 1* (single agent) | Capsule | Advanced solid tumors | 12 | Complete | Well tolerated. Data under evaluation. |
| Phase 2 (single agent) | Capsule | Prostate | 33 | Complete | Well tolerated; evidence of disease stabilization. |
| Phase 2 (single agent) | Capsule | Multiple Myeloma | 60 | Closed | Well tolerated; some patients with stable disease. |

* NCI-sponsored trial. EntreMed provided study drug for this trial.

In November 2005, we announced interim results for two Phase 1b studies for Panzem® NCD in patients with advanced cancer. The studies were conducted at the University of Wisconsin Comprehensive Cancer Center and the Indiana University Cancer Center. The data were presented at the combined American Association for Cancer Research, National Cancer Institute, European Organization for Research and Treatment of Cancer (AACR-NCI-EORTC) International Conference on Molecular Targets and Cancer Therapeutics.

Results from both dose-escalation studies concluded that the pharmacokinetic profile of Panzem® NCD met the study objective. Specifically, a dose and schedule of administration were determined that provided constant exposure of 2-methoxyestradiol allowing the selection of a Phase 2 dose. Results from the University of Wisconsin have determined a maximum tolerated dose with fatigue as the dose limiting toxicity, which was above the recommended Phase 2 dose.

In January 2006, a Phase 2 clinical trial with Panzem® NCD commenced in glioblastoma multiforme (GBM) patients at the Duke University Medical Center Brain Tumor Center. We expect to commence additional Phase 2 studies with Panzem® NCD during the first half of 2006. Additional Phase 2 studies under consideration include carcinoid, breast, prostate, ovarian, renal cell, multiple myeloma and non-small cell lung (NSCLC) cancer.

**MKC-1.** Through our acquisition of Miikana Therapeutics, we enhanced our oncology pipeline with the addition of MKC-1, a Phase 2 drug candidate. MKC-1 is an orally-active, small molecule, cell cycle inhibitor with a unique mechanism of action. Specifically, MKC-1 arrests cellular mitosis by inhibiting a novel intracellular target important in cellular trafficking that has been shown to be involved in cell division. A Phase 2 clinical trial of MKC-1 in metastatic breast cancer patients commenced in January 2006. We anticipate that a second Phase 2 trial with MKC-1 in non-small cell lung cancer will commence in the second half of 2006.

**ENMD-1198.** EntreMed discovered a New Chemical Entity (NCE) that inhibits tumor growth based on modifying the chemical structure of 2-methoxyestradiol (2ME2) to increase its anti-tumor and anti-angiogenic properties, as well as decrease its rate of metabolism. The lead compound from this program, ENMD-1198, demonstrated improved pharmacokinetic parameters and a reduced rate of metabolism when compared to 2ME2. Additionally, ENMD-1198 showed excellent anti-tumor activity in several preclinical animal models. We own the intellectual property for ENMD-1198.

Preclinical data demonstrated that oral administration of ENMD-1198 leads to pronounced *in vivo* antitumor activity in cancer models, resulting in a reduction of tumor burden and/or an increase in survival when compared to controls. Oral daily treatment with ENMD-1198 in an orthotopic animal model of human breast cancer led to the disruption of microtubules within tumor cells and a substantial decrease in tumor cell proliferation and angiogenesis. Results from the toxicology studies demonstrate that ENMD-1198 affects cell populations with a high proliferative rate, including bone marrow, gastrointestinal tract and lymphoid organs. These effects are common with approved cancer agents and can be monitored in the clinic. In November 2005, the Company received FDA acceptance of an IND for ENMD-1198. EntreMed plans to enter into a Phase 1 oncology study in the first half of 2006.

**PRECLINICAL PIPELINE**

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

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

**MKC-1693.** Through our acquisition of Miikana Therapeutics, we strengthened our preclinical pipeline with the addition of a program in aurora kinase inhibition. Specifically, one of these compounds, MKC-1693, is an aurora kinase inhibitor with a unique kinase profile and mechanism of action that is currently in preclinical oncology studies. Aurora kinases are known to be involved in the process of mitosis, or cell division, which is critical in the development of human cancers. We anticipate that IND-directed studies leading to the filing of an IND will commence in 2006.

**Tubulin Inhibitors.** Tubulin inhibitors comprise a broad family of compounds that bind to tubulin and disrupt microtubules, resulting in programmed cell death (apoptosis). In March 2005, we in-licensed Celgene's tubulin inhibitor program. We have assumed responsibility for the preclinical and clinical development of the tubulin inhibitors for oncology applications.

Results from *in vitro* and *in vivo* studies have shown that Celgene's tubulin inhibitors inhibit tumor cell proliferation in a dose-dependent manner and, based on *in vitro* studies, to inhibit angiogenesis. Our goal for 2006 is to select a lead compound and commence IND-enabling preclinical studies.

**Proteinase Activated Receptor-2 (PAR-2) Inhibitor.** PAR-2 is a cell surface receptor that is known to play a critical role in acute and chronic inflammation. We discovered a peptide that blocks PAR-2, the first such compound identified as an antagonist of PAR-2. The anti-PAR-2 peptide inhibits tumor growth and formation of new blood vessels in preclinical models. Our PAR-2 antagonist has also been shown to be an inhibitor of inflammation in preclinical models.

Multiple small molecule PAR-2 antagonists have been synthesized to identify compounds with increased activity, and we are currently studying PAR-2's potential therapeutic applications in oncology and inflammatory diseases. We own all intellectual property associated with the PAR-2 antagonist program and its resulting compounds.

**Tissue Factor Pathway Inhibitor (TFPI).** TFPI is a naturally occurring anticoagulant protein that has been shown to inhibit tumor progression in preclinical models. We discovered a peptide fragment of TFPI that blocks tumor growth and angiogenesis in animal models. In preclinical studies, the peptide does not affect normal blood clotting, a risk long associated with the development of coagulation inhibitors for oncology applications. The TFPI peptide's antiangiogenic mechanism of action has now been verified and shown to be independent of TFPI's anticoagulant activity. The TFPI peptide binds to a very low density lipoprotein receptor and induces apoptosis (cell death) in endothelial cells, the cells that form blood vessels.

We have entered into a joint research collaboration with Affymax, a leader in the discovery and development of novel peptide drugs, to identify lead drug candidates for the treatment of cancer. The resulting drug candidates will subsequently be screened for their therapeutic potential in oncology, as well as inflammatory diseases, with the goal of bringing one or more lead compounds forward into clinical development. Our goal for 2006 is to identify one or more such lead compounds.

**FGF-2 Cancer Vaccine (ENMD-0996).** EntreMed scientists are currently developing a cancer vaccine that targets fibroblast growth factor-2 (FGF-2), a potent stimulator of angiogenesis. ENMD-0996 consists of a specific peptide fragment of FGF-2 in an adjuvant formulation. In preclinical studies, ENMD-0996 inhibited tumor development in multiple preclinical models with no evidence of toxicity or any negative effects on wound healing or reproduction. Preclinical oncology studies are continuing, with the goal to advance ENMD-0996 into IND-directed studies. We own all intellectual property associated with this program.

**HDAC Inhibitors.** Developed by Miikana, a histone deacetylase (HDAC) inhibitor program is currently in preclinical evaluation. HDAC inhibitors have been shown to arrest cancer cell growth and/or induce apoptosis both *in vivo* and *in vitro*. Our goal for 2006 is to identify a lead molecule and commence IND-enabling studies.

**BUSINESS DEVELOPMENT STRATEGY**

Oncology is EntreMed's principal clinical and commercial focus. Our scientific research, however, has provided data that support the preclinical development of its compounds in certain non-oncology applications. Our strategy is to continue developing compounds for oncology and inflammatory diseases, while exploring strategic alliances selectively for its compounds in other therapeutic areas.

At the appropriate time during clinical development, we may pursue co-development partners for its core pipeline product candidates to help accelerate their development and strengthen the development program with complementary expertise. Likewise, we can provide our co-development partners with substantial know-how relating to small molecules, and peptides that inhibit angiogenesis and inflammation, and regulate cell cycle pathways.

**SUMMARY**

**Angiogenesis Expertise and Multiple Mechanism Pathways.** We are developing product candidates that act on multiple cellular pathways and biological processes associated with angiogenesis, cell cycle regulation and inflammation. This approach has resulted in a focused pipeline with numerous disease applications.

**Oncology Focus with a Broad Therapeutic Potential.** We are focused on oncology. Panzem® NCD and MKC-1, our two lead oncology product candidates, are currently in Phase 2 clinical studies in glioblastoma and metastatic breast cancer patients, respectively. We anticipate that ENMD-1198 will enter a Phase 1 oncology clinical trial in the first half of 2006.

Recognizing the potential benefits of its drug candidates in other therapeutic areas, we are developing products to treat inflammatory diseases, particularly rheumatoid arthritis. The clinical development of other non-oncology applications will depend, directly or indirectly, on establishing alliances with selected pharmaceutical and biotechnology companies.

**Development Focus.** We are continuing development of its pipeline product candidates, specifically preclinical studies for 2ME2 in rheumatoid arthritis. Additionally, we will be moving forward with the Panzem® NCD clinical program by continuing the Phase 1b studies to assess food effects and a modified dosing schedule. Other key preclinical programs, such as aurora kinase inhibitors, HDAC inhibitors, and tubulin inhibitors will focus on defining lead molecules and therapeutic indications.

**Commercialization Goal.** Our goal is to commercialize our pipeline, led by Panzem® NCD and MKC-1. We are committed to maintaining a balanced portfolio of oncology and antiinflammatory compounds that can be co-developed with pharmaceutical/biotechnology partners, or commercialized for our own account. We are committed to pursuing value-creating technologies and products, making sound financial decisions, and building the financial capacity to develop our clinical portfolio.

EMPLOYEES

As of December 31, 2005, we had 39 full-time employees and 2 part-time employees. 29 employees work in our research and development department. We may hire additional personnel, in addition to utilizing part-time or temporary consultants, on an as-needed basis. None of our employees are represented by a labor union, and we believe our relations with our employees are satisfactory.

RELATIONSHIPS – CORPORATE AND NON-PROFIT

*Corporate Transactions*.

- Celgene. In March 2005, we in-licensed Celgene's tubulin inhibitor program. We have assumed the responsibility for the preclinical and clinical development of tubulin inhibitors for oncology applications under this program.

- Oxford BioMedica. In September 2005, we amended the agreement by which we licensed from Oxford the localized delivery of the endostatin and angiostatin genes for ophthalmological applications. The amendment extended the timelines for our achievement of certain milestones. Oxford granted this extension due to unforeseen technical difficulties that resulted in an increase in the amount of time required to complete several scientific objectives.

- Children's Medical Center Corporation (CMCC). As part of our three-way agreement with Alchemgen Therapeutics, Inc. executed in February 2004, CMCC holds the licenses for Endostatin and Angiostatin for all markets outside of Asia.

- Affymax, Inc. In August 2005, we extended our research collaboration agreement with Affymax, Inc. to identify peptides and peptidic compounds for the treatment of cancer. A new research plan was executed outlining the next steps for development and both parties are actively engaged in negotiating a Joint Commercialization Agreement.

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

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

of these facilities to produce Panzem® NCD.

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

Dalhousie University (Dr. Andrew Issekutz)
1-year agreement effective June 1, 2005
"Investigation of Anti-arthritic Action of 2ME2"

Purdue University (Dr. Mark Cushman)
2-year agreement effective December 1, 2005
"Design and Synthesis of Tubulin Polymerization Inhibitors"

University of California at Los Angeles (Dr. Benjamin Bonavida)
1-year agreement effective June 1, 2005
"Molecular Mechanism of 2ME2 and 2ME2 Analog Induced Chemo/Immunosensitization of Drug Resistant Multiple Myeloma Cell"
"Molecular Characterization of 2ME2 and 2ME2 Analog Mediated Up-Regulation of DR5 Expression and Sensitization to TRIAL-Induced Apoptosis in Prostate Cancer"

University of Colorado Health Sciences Center (Dr. Daniel Chan)
1-year agreement effective January 1, 2005
"In vitro and *in vivo* Efficacy Studies of 2ME2 and its Analogs in Human Cancer Cells"

University of Paisley (United Kingdom)
3-year agreement ($30,000/year) to support post-doctoral fellow
"Evaluation of PAR-2 Antagonist"

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

- "Preclinical and Clinical Development of 2ME2 (Panzem®)" (Expires April 2007).

EntreMed also executed a new CRADA #02067 with Dr. Robert Shoemaker of the National Cancer Institute (NCI-Frederick) entitled:

- "2-Methoxyestradiol (2ME2) and 2ME2 Analogs as Inhibitors of Hypoxia Inducible Factor-1 alpha (HIF-1α).

*Clinical Trial Centers*. As of March 10, 2006, we are conducting clinical trials at the following institutions:

- Dana-Farber Cancer Institute
- Duke University Medical Center
- Indiana University Cancer Center
- Mayo Clinic
- Wisconsin Comprehensive Cancer Center

PATENTS, LICENSES AND PROPRIETARY RIGHTS

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

Following the February 2004 transfer of the licenses for endostatin and angiostatin back to Children's Hospital, Boston, we own or have licensed on an exclusive basis a total of 46 patent applications and issued patents in the United States for our product candidates. We have a total of 109 pending patent applications and issued patents in the United States and other countries.

We have exclusively licensed technology from Children's Hospital, Boston, which covers the use of steroid-derived small molecular weight compounds such as Panzem® that are antimitotic and antiangiogenic agents. A U.S. patent application has been allowed covering purified Panzem® as a composition of matter. There are six pending United States patent applications and 13 allowed or issued United States patents covering Panzem® technology. Patent applications also cover estrogen-related compounds with anti-fungal activity and the treatment of localized atherosclerosis. The terms of the licenses for Panzem® extend until the last underlying patent expires.

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

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

We have registered the trademarks ENTREMED, PANZEM® and THE ANGIOGENESIS COMPANY in the U.S. Patent and Trademark Office and have applied for registration of the marks in selected foreign countries.

## GOVERNMENT REGULATION

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

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

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

In order to commercialize any drug or biological products, we or our collaborators must sponsor and file an IND and conduct clinical studies to demonstrate the safety and effectiveness necessary to obtain FDA approval of such products. For studies conducted under INDs sponsored by us or our collaborators, we or our collaborators will be required to select qualified investigators (usually physicians within medical institutions) to supervise the

administration of the products, test or otherwise assess patient results, and collect and maintain patient data; monitor the investigations to ensure that they are conducted in accordance with applicable requirements, including the requirements set forth in the general investigational plan and protocols contained in the IND; and comply with applicable reporting and recordkeeping requirements.

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

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

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

COMPETITION

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

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

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

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

**Available Information**

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

ITEM 1A. RISK FACTORS.

**We Have a History of Losses and Anticipate Future Losses**

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

At December 31, 2005, we had an accumulated deficit of approximately $261,747,800. Losses have continued since December 31, 2005. We will also be required to conduct substantial research and development and clinical testing activities for our proposed products. We expect that these activities will result in operating losses for the foreseeable future before we commercialize any products, if ever. In addition, to the extent we rely on others to develop and commercialize our products, our ability to achieve profitability will depend upon the success of these other parties. To support our research and development of certain product candidates, we also may rely on cooperative agreements from governmental and other organizations as a source of support. If our cooperative agreements were to be reduced to any substantial extent, it may impair our ability to continue our research and development efforts. Even if we do achieve profitability, we may be unable to sustain or increase it.

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

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

viable products.

Our product candidates are at the clinical and preclinical stages of development. Although several of our product candidates have demonstrated some promising results in early clinical (human) trials and preclinical (animal) studies, they may not prove to be effective in humans. For example, testing on animals may occur under different conditions than testing in people 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.

**We Are Uncertain Whether Additional Funding Will Be Available For Our Future Capital Needs and Commitments**

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.

**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.

**Panzem® NCD May Not be Successful**

We have reformulated our lead product candidate, Panzem®, in order to increase its concentration in the blood stream. Through the use of NanoCrystal® Colloidal Dispersion (NCD), a proprietary technology of Elan Drug Delivery, Inc. ("Elan"), we have reformulated Panzem® as an orally-administered liquid suspension. In February 2006, we commenced a Phase 2 study using Panzem® NCD in patients with glioblastoma multiforme (GBM). Although Panzem® NCD showed increased levels in the blood in Phase 1b clinical trials, it may not work as well in upcoming trials as it has in earlier testing.

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

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

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

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

We are currently manufacturing products for clinical trials on a contract basis. Panzem® NCD, our lead

small molecule clinical drug candidate, is currently manufactured by Elan. We do not have arrangements in place with alternative suppliers if our current supplier Elan was unable to deliver the product in necessary quantities.

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

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

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

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

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

**Manufacturing Our Product Candidates May Not Be Commercially Feasible**

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

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

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

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

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

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

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

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

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

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

Our research, development, preclinical and clinical trials, manufacturing, and marketing of most of our product candidates are subject to an extensive regulatory approval process by the FDA and other regulatory agencies in the United States and abroad. The process of obtaining FDA and other required regulatory approvals for drug and

biologic products, including required preclinical and clinical testing, is time consuming and expensive. Even after spending time and money, we may not receive regulatory approvals for clinical testing or for the manufacturing or marketing of any products. Our collaborators or we may encounter significant delays or costs in the effort to secure necessary approvals or licenses. Even if we obtain regulatory clearance for a product, that product will be subject to continuing review. Later discovery of previously unknown defects or failure to comply with the applicable regulatory requirements may result in restrictions on a product's marketing or withdrawal of the product from the market, as well as possible civil or criminal penalties.

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

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

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES.

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

ITEM 3. LEGAL PROCEEDINGS.

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

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

None.

PART II

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

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

| | HIGH | LOW |
|---|---|---|
| 2004: | | |
| First Quarter | $ 4.37 | $ 3.09 |
| Second Quarter | 4.01 | 2.01 |
| Third Quarter | 2.08 | 1.28 |
| Fourth Quarter | 3.43 | 1.75 |
| 2005: | | |
| First Quarter | $ 4.64 | $ 2.10 |
| Second Quarter | 3.11 | 2.19 |
| Third Quarter | 3.31 | 2.30 |
| Fourth Quarter | 2.52 | 1.88 |
| 2006: | | |
| First Quarter (through March 7, 2006) | $ 2.52 | $ 1.99 |

On March 7, 2006, the closing price of our common stock, as reported by the Nasdaq National Market, was $2.35 per share. As of March 7, 2006 there were approximately 935 holders of record of our common stock.

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

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: | 2005 | 2004 | 2003 | 2002 | 2001 |
| Revenues | | | | | |
| Collaborative research and development | $ - | $- | $ 667,796 | $ 835,493 | $ - |
| License fees | 590,992 | 495,496 | 310,496 | 115,496 | - |
| Grant revenues | - | - | 508,243 | 131,681 | 358,427 |
| Royalty revenues | 5,310,439 | 5,918 | 2,705 | 38,790 | 1,440,070 |
| Other | 16,624 | 12,581 | 86,306 | 55,030 | 63,444 |
| Total revenues | 5,918,055 | 513,995 | 1,575,546 | 1,176,490 | 1,861,941 |
| Expenses: | | | | | |
| Research and development | 17,325,048 | 10,523,252 | 14,252,196 | 31,308,427 | 54,201,179 |
| General and administrative | 5,920,455 | 6,570,664 | 7,022,986 | 13,932,133 | 14,473,012 |
| Interest expense | - | - | - | 390,941 | 344,969 |
| Investment income | (1,010,771) | (313,940) | (205,580) | (317,910) | (1,437,966) |
| Gain on discharge of liabilities | - | - | - | (2,174,765) | - |
| Gain on sale of asset | (3,420) | (124,083) | - | (2,940,184) | - |
| Gain on sale of securities | - | (520,000) | - | - | - |
| Gain on sale of royalty interest | - | (3,000,000) | - | - | (22,410,182) |
| Net loss | $ (16,313,257) | $ (12,621,898) | $ (19,494,056) | $ (39,022,152) | $ (43,309,071) |
| Dividends on Series A convertible preferred stock | ( 1,005,000) | ( 1,005,000) | ( 1,005,000) | - | - |
| Net loss attributable to common shareholders | $ ( 17,318,257) | $ ( 13,626,898) | $ ( 20,499,056) | $ (39,022,152) | $ (43,309,071) |
| Net loss per share | $ (0.36) | $ (0.37) | $ (0.68) | $ (1.78) | $ (2.39) |
| Weighted average number of shares outstanding | 48,176,914 | 37,170,544 | 29,943,161 | 21,892,520 | 18,093,174 |

| | As of December 31, | | | | |
|---|---|---|---|---|---|
| | 2005 | 2004 | 2003 | 2002 | 2001 |
| BALANCE SHEET DATA: | | | | | |
| Cash and cash equivalents and short-term investments | $ 30,082,388 | $ 34,539,516 | $ 36,941,430 | $ 24,067,045 | $ 41,386,300 |
| Working capital | 28,510,176 | 34,979,936 | 33,405,818 | 7,716,002 | 21,257,950 |
| Total assets | 36,431,885 | 39,404,002 | 40,153,764 | 27,810,212 | 46,218,450 |
| Deferred revenue, less current portion | - | 95,496 | 192,993 | 286,488 | - |
| Accumulated deficit | (261,747,829) | (245,434,572) | (232,812,674) | (213,318,618) | (174,296,466) |
| Total stockholders' equity | 29,369,190 | 35,704,754 | 34,858,883 | 10,493,646 | 23,194,898 |

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

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

OVERVIEW

Since our inception in September 1991, we have devoted substantially all of our efforts and resources to sponsoring and conducting research and development on our own behalf and through collaborations. Through December 31, 2005, all of our revenues have been generated from license fees, research and development funding, royalty payments, the sale of royalty rights and certain research grants; we have not generated any revenue from direct product sales. We anticipate our primary revenue sources for the next few years will include research grants, royalties and collaboration payments under current or future arrangements. The timing and amounts of such revenues, if any, will likely fluctuate and depend upon the achievement of specified research and development milestones. Results of operations for any period may be unrelated to the results of operations for any other period.

Historically our research and development efforts have been focused on the identification and development of new compounds for the treatment of certain diseases utilizing our understanding of the interrelationships of angiogenesis, cell cycle regulation, and inflammation – processes vital to the treatment of multiple diseases, including cancer. In 2005, our main focus was on advancing the reformulated 2ME2, our lead drug candidate Panzem® NCD, through Phase 1b clinical trials and also moving ENMD-1198, an internally discovered novel tubulin binding agent, to an IND filing. The goal of our reformulation effort was to increase the level of Panzem® in the patient's bloodstream. Based on the results of two Phase 1b clinical studies conducted in 2005, we have achieved the initial goal and have selected a dose and schedule for Phase 2 trials with Panzem® NCD which began in January 2006. We are also evaluating Panzem® in preclinical development for rheumatoid arthritis.

In addition to our work with Panzem®, we evaluated various analogs of 2ME2 in preclinical studies. One of these compounds, ENMD-1198, progressed into IND-directed development and an IND was filed with and accepted by the Food and Drug Administration. Clinical trials in oncology patients with ENMD-1198 are expected to be initiated during the first quarter of 2006.

In January 2006, we announced the acquisition of Miikana Therapeutics Inc., a clinical-stage biopharmaceutical company. Through the transaction, we enhanced our clinical and preclinical pipeline with the acquisition of MKC-1, a Phase 2 cell cycle inhibitor and two preclinical programs, one in aurora kinase inhibition and one in HDAC inhibition.

We have three additional programs with compounds in various stages of discovery and preclinical research. Our expenses will exceed our revenues as we continue the development of Panzem® and bring our other drug candidates through preclinical research to clinical trials.

With Panzem® NCD and MKC-1 in Phase 2 clinical trials and ENMD-1198 heading into the clinic, we are continuing our progression from a fundamentally research organization to that of a product development and commercialization organization. We have de-emphasized early discovery activities and we continue to devote resources to key preclinical development programs to advance these programs towards IND. We may also continue to seek product acquisitions, co-development alliances and in-licensing opportunities to attempt to build a broader portfolio of late preclinical and clinical product candidates.

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 - 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 our 2005 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 are entitled to share in the royalty payments received by Royalty Pharma Finance Trust, successor to Bioventure, on annual Thalomid® sales above a certain threshold. Based on the licensing agreement royalty formula, annual royalty sharing commences with Thalomid® annual sales of approximately $225 million. The Company is also eligible to receive royalty payments under a February 2004 agreement with Children's Medical Center Corporation ("CMCC") and Alchemgen Therapeutics. Under the agreement, Alchemgen received rights to market endostatin and angiostatin in Asia. Future royalty payments, if any, will be recorded as revenue when received and/or when collectibility is reasonably assured. No royalties under this agreement have been earned to date.

    - Licensing Revenue – The Company has recognized licensing revenues resulting from the January 2002 five-year strategic alliance with Allergan to develop and commercialize small molecule angiogenic inhibitors for treatment and prevention of diseases and conditions of the eye. The initial net fee was being amortized to revenue over the five-year license term. In April 2005, Allergan terminated the license in accordance with its terms, which resulted in the acceleration of deferred revenue in the three-month period ended June 30, 2005. In February 2004, the Company transferred rights to the proteins, endostatin and angiostatin pursuant to an agreement with CMCC and Alchemgen Therapeutics. Under the agreement, the Company received an upfront and a second cash payment. The upfront licensing cash payment was fully amortized in 2004, as the Company had completed its obligations to transfer data and material. Due to rights negotiations between the licensee and CMCC, the second and final licensing cash payment in the amount of $400,000 was received in May 2005. Management concluded collectibility was not reasonably assured until the funds were received. In September 2003, the Company entered into a licensing agreement with Oxford Biomedica, PLC and Oxford Biomedica (UK) Limited for the use of endostatin and angiostatin genes in the development of locally delivered gene therapy for ophthalmologic applications. Under the agreement, the Company had no continuing obligations. As such, we recorded as revenue the value of the initial net cash and shares of common stock received under the agreement.

    - Collaborative Research and Development Revenue – In 2003 we received revenues for performance under commercial research and development contracts. These contracts required us to provide services directed toward specific objectives and include developmental milestones and deliverables. These revenues were recognized at the time that research and development activities were performed.

    - Grant Revenue – In 2003 we received a government grant to support financially our Phase 2 endostatin clinical trial in patients with neuroendocrine tumors. Grants are funded in specific amounts based on funding requests submitted to the grantor. Grant revenues are recognized and realized at the time that research and development activities are performed.

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

- Stock-Based Compensation - We have stock option plans under which options to purchase shares of our common stock may be granted to employees, consultants and directors at a price no less than the fair market value on the date of grant. We account for our stock-based compensation in accordance with the provisions of APB No. 25, *Accounting for Stock Issued to Employees* ("APB No. 25"). Under APB No. 25, compensation expense is based on the difference, if any, on the date of the grant between the fair value of the Company's stock and the exercise price of the option and is recognized ratably over the vesting period of the option. Because our options must be granted at no less than fair market value, we recognize no compensation expense in accordance with APB No. 25. If we were to adopt SFAS No. 123, *Accounting for Stock-Based Compensation* ("SFAS No. 123"), we would recognize compensation expense based upon the fair value at the grant date for awards under the plans using the fair value method. The Company currently expects to adopt SFAS No. 123R in the quarter ended March 31, 2006, using the modified prospective method, although the Company continues to review its options for adoption under this new pronouncement. Please refer to footnote 1 of the footnotes to our audited financial statements included elsewhere herein for additional information. We expense equity instruments issued to nonemployees in accordance with EITF 96-18, *Accounting for Equity Instruments that are issued to other than employees for acquiring, or in conjunction with selling goods or services*.

RESULTS OF OPERATIONS

Years Ended December 31, 2005, 2004 and 2003.

*Revenues*. Revenues increased 1,051% in 2005 to $5,918,000 from $514,000 in 2004 after decreasing 67% in 2004 from $1,576,000 in 2003. The fluctuation between periods results from changes in the revenue components and also from the manner and timing of when certain revenues are recorded. The three years presented reflect the following revenue types: royalty revenues, licensing revenues, collaborative research and development revenues and grant revenues. The significant increase in revenues in 2005 results from the recognition of royalty revenue earned on sales of Thalomid®. As discussed above, beginning in 2005, we are entitled to share in the royalty payments received by Royalty Pharma Finance Trust on annual Thalomid® sales above approximately $225 million. Thalomid® sales in 2005 surpassed the sharing point in the third quarter and we recorded estimated royalty revenues of $5,310,000. No royalty revenues were recorded on Thalomid® sales in 2004 or 2003.

Licensing revenues increased to $591,000 in 2005 from $495,000 in 2004. The 2004 amount was an increase from $310,000 in 2003. The 2005 amount reflects the accelerated recognition of deferred licensing revenues from the January 2002 agreement with Allergan, which was terminated in April 2005 by Allergan in accordance with the terms of the agreement, and the recognition of a $400,000 licensing payment from Alchemgen in May 2005. This amount was recorded as revenue when collectibility was deemed to be reasonably assured. The increase in 2004 from 2003 was attributable to the recognition of amortized licensing revenues from the February 2004 agreement with Alchemgen in addition to the revenues from the January 2002 five-year strategic alliance with Allergan. The 2003 licensing revenue was comprised of the amortization of the upfront licensing fee from Allergan coupled with recognition of the value of cash and stock received from Oxford Biomedica as revenue.

Collaborative research and development revenues of $668,000 received in 2003 represent work under an NIH sponsored contract, which was completed in 2003. We did not receive collaborative research and development revenues in 2005 or 2004. We also did not recognize grant revenue in 2005 or 2004. We recognized grant revenues of $508,000 in 2003, which represented a grant sponsored by the FDA that provided financial support for our Phase 2 endostatin clinical trial in patients with neuroendocrine tumors.

*Research and Development Expenses.* At December 31, 2005, accumulated direct project expenses for Panzem®, our lead drug candidate, totaled $35,295,000. Reflected in our 2005 R&D expenses totaling $17,325,000 are direct project expenses for Panzem® of $7,594,000 and $3,237,000 related to our 2ME2 analog program. The balance of our R&D expenditures includes facilities costs and other departmental overhead, and expenditures related to the advancement of our pre-clinical pipeline. The 2005 R&D expenditures reflect an increase in clinical and regulatory activity along with associated contract manufacturing activities. Panzem® NCD completed two Phase 1B oncology trials and moved into Phase 2 oncology trials in January 2006. IND-directed toxicity studies for ENMD-1198 were conducted and an IND was submitted and accepted in late 2005. ENMD-1198, a tubulin binding agent, will commence clinical development with the initiation of clinical trials in oncology in 2006. In 2005, we also recorded increased contract manufacturing expenses. These expenses included material to support 2005 activities and also the acquisition of API to support Panzem® and ENMD-1198 clinical programs in 2006. In 2005, we also incurred formulation costs for finished drug product for both candidates including certain Panzem® NCD Contract Manufacturing milestones triggered by clinical events.

Research and Development expenses for 2004 totaled $10,523,000, including direct project costs for Panzem® of $3,558,000 and for our 2ME2 analog program of $2,135,000. The higher costs recorded for Panzem® reflect reformulation activities including material acquisition, animal testing and sample analysis. The significant decrease in overall research and development spending in 2004 and 2003 reflect the Company's shift in focus to small molecules and the resulting dramatic decrease in costs associated with endostatin and angiostatin. Research and Development expenses were $14,252,000 in 2003. The 2003 amount includes project costs for Panzem®, endostatin and angiostatin of $6,328,000, $1,107,000 and $808,000, respectively.

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, 2005, our proprietary product candidate, Panzem®, is in Phase 1 and Phase 2 clinical trials in a capsule formulation and additionally in Phase 1b clinical trials in a liquid formulation. Early in 2006, we announced that the liquid formulation, Panzem® NCD, had advanced into Phase 2 trials. We expect our R&D expenses to trend higher reflecting the costs of supporting multiple Phase 2 trials including the costs of securing clinical drug supply. Completion of clinical trials may take several years or more, but the length of time generally varies substantially according to the type, complexity, novelty and intended use of a product candidate.

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

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

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

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

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

candidates or for certain indications in order to focus our resources on more promising product candidates or indications.

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

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

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

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

Research and development expenses consist primarily of compensation and other expenses related to research and development personnel, research collaborations, costs associated with internal and contract pre-clinical testing and clinical trials of our product candidates, including the costs of manufacturing the product candidates, and facilities expenses. Overall research and development expenses increased to approximately $17,325,000 in 2005 from $10,523,000 and decreased to $10,523,000 in 2004 from $14,252,000 in 2003. The increase in overall research and development spending in 2005 is due to increased clinical and regulatory activity along with associated contract manufacturing activities. Panzem® NCD completed enrollment in two Phase 1B oncology trials and moved into Phase 2 oncology trials in January 2006. IND-directed toxicity studies for ENMD-1198 were conducted and an IND was submitted and accepted in late 2005. ENMD-1198, a tubulin binding agent, will commence clinical development with the initiation of clinical trials in oncology in 2006. In 2005 we also recorded increased contract manufacturing expenses. These expenses include material to support 2005 activities and also the acquisition of API to support Panzem® and ENMD-1198 clinical programs in 2006. In 2005 we also incurred formulation costs for finished drug product for both candidates including certain Panzem® NCD contract manufacturing milestones triggered by clinical events. The 2005 amount also reflects increased costs associated with further development of various drug candidates, including a $1 million upfront fee associated with the license of Celgene's small molecule tubulin inhibitor compounds for the treatment of cancer and a $200,000 success fee to Ferghana Partners, Inc., a related party, in connection with the license agreement. The increase in R&D expenses reflected in 2005 and the decrease in 2004 was specifically impacted by the following:

- Outside Services – We utilize outsourcing to conduct our product development activities. Larger-scale small molecule synthesis, *in vivo* testing and data analysis are examples of the services that we outsource. We expended $2,399,000 in 2005, $1,741,000 in 2004 and $2,357,000 in 2003 on these activities. The 2005 increase resulted from continued development work on our preclinical pipeline programs, including IND-directed toxicity studies for ENMD-1198. The higher 2003 expenses, as compared to 2004, reflect our focus on reformulating Panzem® while our 2004 efforts had been directed towards optimizing Panzem® NCD and the selection of our lead 2ME2 analog candidate ENMD-1198.

- Collaborative Research Agreements -- We made payments to our collaborators of $673,000, $622,000 and $170,000 in years 2005, 2004 and 2003, respectively. Sponsored research payments to academic collaborators include payments to Children's Hospital of $225,000 in 2005, $300,000 in 2004, and $75,000 in 2003. Our collaborative efforts are primarily directed towards further exploration of 2ME2 mechanism-of-action (MOA) in-vivo testing of therapeutic combination studies, and Panzem® non-oncology applications.

- Clinical Trial Costs -- Clinical costs increased from $1,008,000 in 2004 to $1,090,000 in 2005 versus the decrease in clinical costs from $1,432,000 in 2003 to $1,008,000 in 2004. The 2005 amount reflects two Phase 1b clinical trials for the reformulated Panzem® NCD. The prior year amount reflects a Phase Ia clinical trial to test various dosing approaches for reformulated Panzem® along with continuing clinical trials of the capsule Panzem® formulation. Costs of such trials include the clinical site fees, monitoring costs and data management costs. In addition, we contribute Panzem® clinical material in capsule form under our Collaborative Research and Development Agreement (CRADA) to the NCI, which is conducting trials with EntreMed. The 2004 decrease reflects that we were no longer responsible for supporting the endostatin and angiostatin trials as a result of the February 2004 licensing agreement with Alchemgen.

- Contract Manufacturing Costs -- The costs of manufacturing the material used in clinical trials for our product candidates is reflected in contract manufacturing. These costs include bulk manufacturing, formulation, encapsulation and fill finish services, product release costs and also payments to contract manufacturers for technology access or licensing fees. Contract manufacturing costs increased significantly in 2005 to $5,606,000. The 2005 costs include material to support 2005 activities and also the acquisition of API to support Panzem® and ENMD-1198 clinical programs in 2006. In 2005, we also incurred formulation costs for finished drug product for both candidates including certain Panzem® NCD contract manufacturing milestones triggered by clinical events. Product manufacturing costs were $1,392,000 and $3,012,000 in 2004 and 2003, respectively. The 2004 costs reflect expenditures for the preparation of Panzem® NCD for preclinical and clinical use and encapsulation runs for the capsule form to support our Phase 2 and NCI clinical trials. The 2003 costs include the acquisition of bulk material and multiple encapsulation runs for the capsule form of Panzem®.

- Personnel Costs -- The 2005 and 2004 personnel costs were approximately $3,000,000, down slightly from $3,212,000 in 2003.

Also reflected in our 2005 research and development expenses are patent costs of $654,000, facility and related expenses of $1,351,000, laboratory supplies and animal costs of $772,000, consulting fees of $296,000 and travel expenses of $200,000. In 2004, these expenses totaled $493,000, $1,551,000, $531,000, $174,000 and $69,000, respectively, and in 2003, these expenses totaled $906,000, $1,916,000, $374,000, $211,000 and $96,000, respectively. The 2005 increase in patent costs relates primarily to our preclinical pipeline. The 2004 decrease in patent expense reflects the transfer of responsibility for endostatin and angiostatin .

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

General and administrative expenses decreased to approximately $5,920,000 in 2005 from $6,571,000 in 2004 and $7,023,000 in 2003. The overall 2005 decrease primarily reflects the reduction in legal and professional services related to compliance with provisions of the Sarbanes-Oxley Act of 2002 relating to documentation, review and audit of internal control over financial reporting, as compared to the amount incurred in 2004, the first year we were required to comply with these provisions. General and administrative costs were lower in 2004 than in the preceding year due to reduced personnel costs resulting from executive management changes, lower severance obligations and the recording in 2003 of costs associated with settling certain disputes. These lower expenditures in 2004 were partially offset by increased expenditures for professional services related to compliance with the internal control over financial reporting provisions of the Sarbanes-Oxley Act of 2002.

*Interest expense*. The Company had no interest-bearing debt during 2005, 2004 or 2003.

*Investment income*. Investment income increased by 222% in 2005 to $1,011,000 as a result of higher yields on interest bearing cash accounts and investments. Investment income was $314,000 in 2004, an increase of 52% from $206,000 in 2003.

*Dividends on Series A convertible preferred stock*. The Consolidated Statements of Operations for the years ended December 31, 2005, 2004 and 2003 reflect dividends of $1,005,000 relating to Series A Convertible Preferred Stock held by Celgene pursuant to a Securities Purchase Agreement dated December 31, 2002. The holders of Series A Preferred Stock will accumulate dividends at a rate of 6% and will participate in dividends declared and paid on the common stock, if any. All accumulated dividends must be paid before any dividends may be declared or paid on the Common Stock. The Company has no plans to pay any dividends in the foreseeable future.

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

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

LIQUIDITY AND CAPITAL RESOURCES

To date, we have been engaged primarily in research and development activities. As a result, we have incurred and expect to continue to incur operating losses for 2006 and the foreseeable future before we commercialize any products. Under the terms of the license agreement for 2ME2, we must be diligent in bringing potential products to market and may be required to make future milestone payments of up to $850,000. In addition, in March 2005, we in-licensed 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 up to approximately $25.25 million based upon the attainment of certain milestones. If we fail to comply with the milestones or fail to make any required sponsored research or milestone payment, we could face the termination of the relevant license agreement. As of December 31, 2005, none of these milestones have been reached and, as such, there are no payments due.

At December 31, 2005, we had cash and short-term investments of approximately $30,082,388 with working capital of approximately $28,510,176. In addition, we announced in January 2006 the acquisition of Miikana Therapeutics in an all-stock transaction, and in February 2006, the completion of the private placement of 12.9 million shares and 6.5 million warrants to purchase common stock to institutional healthcare investors. In conjunction with the private placement we received net proceeds of approximately $28 million.

We invest our capital resources with the primary objective of capital preservation. As a result of trends in interest rates in 2005, 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, 2005.

To accomplish our business plans, we will be required to continue to conduct substantial development activities for some or all of our proposed products. The acquisition of Miikana Therapeutics in January 2006 provides an additional product pipeline, including MKC-1, a cell cycle regulator, which entered Phase 2 oncology trials in January 2006. Under our current operating plans, which include supporting two Phase 2 and one Phase 1 clinical trials for oncology compounds, we expect our 2006 results of operations to reflect a net loss of approximately $30,000,000 before non-cash charges associated with the Miikana acquisition and the adoption of SFAS 123R. We expect that the majority of our 2006 revenues will continue to be from royalties on the sale of Thalomid®. Based on historical trend and analyst consensus for Thalomid® sales in 2006, we expect to record royalty sharing revenues in excess of $3.0 million in 2006; however, there can be no assurance in this regard. In addition, under our licensing agreement with Oxford Biomedica, PLC and Oxford Biomedica (UK) Limited Oxford, we are entitled to receive payments upon the achievement of certain milestones. However, we do not control the drug development efforts of Oxford and have no control over when or whether such milestones will be reached. We do not believe that we will receive any developmental milestone payments under these agreements in 2006.

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

To address our long-term capital needs, we intend to continue to pursue strategic relationships that would 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, 2005.

| **CONTRACTUAL OBLIGATIONS** | **PAYMENTS DUE BY PERIOD** | | | | |
|---|---|---|---|---|---|
| | **Total** | **Less than 1 year** | **1-3 years** | **3 - 5 years** | **More than 5 years** |
| **Operating Leases Obligations** | $3,159,000 | $ 975,000 | $2,013,000 | $171,000 | $ --- |
| **Purchase Obligations** | | | | | |
| Clinical Trial Contracts | 888,000 | 533,000 | 355,000 | --- | --- |
| Collaborative Research Contracts | 123,000 | 123,000 | --- | --- | --- |
| Contract Manufacturing | 302,000 | 302,000 | --- | --- | --- |
| Outside Service Contracts | 90,000 | 90,000 | --- | --- | --- |
| **Total Contractual Obligations** | $4,562,000 | $2,023,000 | $2,368,000 | $171,000 | $ --- |

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, 2005.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

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

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

None.

ITEM 9A. CONTROLS AND PROCEDURES.

**Evaluation of Disclosure Controls and Procedures**

Under the supervision and with the participation of the Company's President and Chief Executive Officer and its Chief Financial Officer (its principal executive officer and principal financial officer), management has reviewed and evaluated the effectiveness of the design and operation of the Company's disclosure controls and procedures. Based on that evaluation, the President and Chief Executive Officer and the Chief Financial Officer have concluded that these disclosure controls and procedures are effective as of December 31, 2005.

**Management's Report on Internal Control Over Financial Reporting**

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

EntreMed's management assessed the effectiveness of EntreMed's internal control over financial reporting as of December 31, 2005 based on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control – Integrated Framework*. Management's assessment included an evaluation of the design of EntreMed's internal control over financial reporting and testing of the operational effectiveness of EntreMed's internal control over financial reporting. Based on this assessment, EntreMed's management concluded that, as of December 31, 2005, EntreMed's internal control over financial reporting was effective.

Ernst & Young LLP, an independent registered public accounting firm, has issued an attestation report on management's assessment of EntreMed's internal control over financial reporting, as stated in their report included herein.

Report of Ernst & Young LLP, Independent Registered Public Accounting Firm
Regarding Internal Control over Financial Reporting

Board of Directors
EntreMed, Inc.

We have audited management's assessment, included in the accompanying Management's Report on Internal Control Over Financial Reporting, that EntreMed, Inc. (EntreMed) maintained effective internal control over financial reporting as of December 31, 2005, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). EntreMed's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on management's assessment and an opinion on the effectiveness of the Company's internal control over financial reporting based on our audit.

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

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

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

In our opinion, management's assessment that EntreMed maintained effective internal control over financial reporting as of December 31, 2005, is fairly stated, in all material respects, based on the COSO criteria. Also, in our opinion, EntreMed maintained, in all material respects, effective internal control over financial reporting as of December 31, 2005, 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 as of December 31, 2005 and 2004, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2005 and our report dated March 8, 2006 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP
McLean, Virginia
March 8, 2006

**Changes in Internal Control Over Financial Reporting**

There were no changes in the Company's internal control over financial reporting during the quarter ended December 31, 2005 that have materially affected, or are reasonably likely to materially affect, the internal control over financial reporting.

## PART III

## ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT.

The following table sets forth the names, ages and positions of our executive officers and directors as of March 2, 2006:

| Name | Age | Position |
|---|---|---|
| Michael M. Tarnow | 61 | Chairman of the Board of Directors |
| Ronald Cape (2) (3) | 73 | Director |
| Donald S. Brooks | 70 | Director |
| Dwight L. Bush (1) (6) | 49 | Director |
| Jennie C. Hunter-Cevera | 58 | Director |
| Peter S. Knight (2) (4) | 55 | Director |
| Mark C. M. Randall (1) (5) | 43 | Director |
| James S. Burns | 59 | Director/President and CEO |
| Dane R. Saglio | 48 | Chief Financial Officer |
| Carolyn F. Sidor, M.D. | 58 | Corporate Vice President and Chief Medical Officer |
| Marc G. Corrado | 41 | Vice President, Corporate Development |
| James D. Johnson, Ph.D., J.D. | 58 | Senior Vice President and General Counsel |

(1) Member of Audit Committee
(2) Member of Compensation Committee
(3) Member of the Nominating and Corporate Governance Committee
(4) Chairman of Audit Committee
(5) Chairman of the Compensation Committee
(6) Chairman of the Nominating and Corporate Governance Committee

**Michael M. Tarnow** was appointed chairman of our Board in February 2003. Since 1995, Mr. Tarnow has been an advisor to and member of the boards of directors of several healthcare-related organizations in the U.S., Canada and Europe, including publicly traded companies Axcan Pharma, Inc. and MediGene AG. He also serves on the Boards of the University of Illinois College of Law, Massachusetts College of Art Foundation and the Food Drug Law Institute. From 1995-2000, he was President and CEO of Boston-based Creative BioMolecules, Inc. Prior to 1995, he spent 22 years at Merck & Co., Inc., where he served in a wide variety of positions including heading corporate development, President and CEO of Merck Frosst Canada and Executive Vice President of Merck-Medco. Mr. Tarnow received his J.D. from the University of Illinois and his bachelor's degree from Wayne State University.

**Ronald Cape, Ph.D.** has been a director of the Company since 2003. He is the founder of Ronald Cape Investment Management, LLC, a consulting firm and was the co-founder of Cetus Corporation, a genetic engineering company, where he was Chairman of the Board of Directors for 20 years until the company merged with Chiron Corporation in 1991. He was also a founding member of the Industrial Biotechnology Association (now the Biotechnology Industry Organization – BIO) and served as its President for three years. Since 199l Dr. Cape has been an investor in the field of biotechnology and a board member of many companies. He was the founding Chairman of Darwin Molecular Corporation, which was later sold to Chiroscience plc., and is Chairman and a Director of Caprion, Inc. and Neugenesis Corporation. He is also a Director of Neurobiological Technologies, Inc., Cellicon Biotechnologies, Inc., Ionian Technologies, Inc., Planet Biotechnology, Inc. and PureTech Ventures, LLC.

**Donald S. Brooks** has been one of EntreMed's directors since April 1996 and was Vice President, Legal Affairs from 1998 until August 2001. Between 1993 and 1998, Mr. Brooks was a practicing attorney with the law firm of Carella Byrne Bain Gilfillan Cecchi Stewart and Olstein, Roseland, New Jersey. Prior thereto, Mr. Brooks was employed by Merck and Co., Inc. for 27 years, most recently, from 1986 to 1993, as Senior Counsel. From 1980 to 1985, Mr. Brooks served as a U.S. employer delegate to the Chemical Industries Committee, International Labor Organization in Geneva, Switzerland. He currently serves as a member of the Board of Directors of BioDiem, Ltd., an Australian biotechnology company. In addition, he recently served as a Board member of Xenon Pharmaceuticals, Inc., a Canadian biotechnology firm, and currently acts as a consultant to that company.

**Dwight L. Bush** has been a director of the Company since June 2004. Mr. Bush has been a principal of Stuart Mill Capital, LLC, an Arlington, Virginia-based investment firm, since 1997. Since 2004, Mr. Bush has served as Vice Chairman of Enhanced Capital partners, LLC. From 1999 until 2002, Mr. Bush also served as Vice President and Chief Financial Officer of Sato Travel Holdings, Inc. Prior to that, from 1994 through 1997, Mr. Bush was Vice President-Corporate Development of Sallie Mae Corporation, a $60 billion financial service corporation and the nation's leading provider of education credit. Mr. Bush joined Sallie Mae after a successful 15-year career at the Chase Manhattan Bank, where he began his professional career in 1979. His tenure at Chase included international corporate banking assignments in Latin America, Asia and the Middle East, and corporate finance and project finance in New York and Washington, D.C. Mr. Bush serves on the governing boards of several organizations involved in industry, education and the arts, including Cornell University, The Vaccine Fund, ICBC Broadcast Holdings, Inc, and The National Symphony Orchestra. Mr. Bush earned his bachelor's degree from Cornell University, College of Arts and Sciences.

**Jennie C. Hunter-Cevera** has been a director of the Company since June 2001. Dr. Hunter-Cevera is the President of the University of Maryland Biotechnology Institute. Prior to joining the University of Maryland in October 1999, Dr. Hunter-Cevera had been the head of the Center for Environmental Biotechnology at Lawrence Berkeley National Laboratory between November 1994 and October 1999, Director of Fermentation, Research and Development at Cetus Corporation and a scientist at E.R. Squibb and Company. She was co-founder of The Biotic Network and Blue Sky Laboratories in Sonora, CA. Dr. Hunter-Cevera was elected to the American Academy of Microbiology in 1995, the recipient of the 1996 SIM Charles Porter Award, elected as a SIM Fellow in 1997 and the 1999 Nath Lecturer at West Virginia University. She is the 2004 recipient of the ASM Porter Award for achievement in biodiversity research.

**Peter S. Knight** has been a Director of the Company since June 2000. Mr. Knight has been President of Generation Investment Management US, a London-based asset management company, since August 2004. From 2001 – 2003 he was a Managing Director of MetWest Financial. From 1977 to 1989, Mr. Knight served as Chief of Staff to Al Gore when Mr. Gore was a member of the U.S. House of Representatives and later the U.S. Senate. Mr. Knight also served as the General Counsel of Medicis Pharmaceutical from 1989 to 1991. In 1991 Mr. Knight helped established the law firm of Wunder, Knight, which represented numerous Fortune 500 companies. He practiced with this firm as a partner until 1999. Mr. Knight has held senior positions on the last four presidential campaigns, including serving as the campaign manager for the successful 1996 re-election of President Clinton. Mr. Knight currently serves as a director of Medicis Pharmaceutical Corp. and Pharmaceutical Resources, Inc. He is also a director of Schroders' mutual fund and hedge fund family, a member of the Cornell University Council and

the Cornell University College of Arts and Sciences Advisory Council. He holds a B.A. degree from Cornell University and a J.D. degree from Georgetown University Law Center.

**Mark C. M. Randall** has been a director of the Company since April 1996. He has been CEO of Commander Asset Management Ltd. since May 2002. Prior to this appointment he was associated with Sarasin International Securities Limited, London, England, a wholly owned subsidiary of Bank Sarasin and Cie, a private bank based in Switzerland, where he was a Director since 1994 and Managing Director since 1999. Mr. Randall also serves as Chairman of Acorn Alternative Strategies (Overseas) Ltd., an investment fund company.

**James S. Burns** has been President and Chief Executive Officer of EntreMed, Inc. since June 2004 and a director since September 2004. From 2001-2003, Mr. Burns was a co-founder and served as President and as Executive Vice President of MedPointe, Inc., a specialty pharmaceutical company that develops, markets and sells branded prescription pharmaceuticals. From 2000-2001, he served as a founder and Managing Director of MedPointe Capital Partners, a private equity firm that led a leveraged buyout to form MedPointe Pharmaceuticals. Previously, Mr. Burns was a founder, Chairman, President and CEO of Osiris Therapeutics, Inc., a biotech company developing therapeutic stem cell products for the regeneration of damaged or diseased tissue. He has also been Vice Chairman of HealthCare Investment Corporation and a founding General Partner of Healthcare Ventures L.P., a venture capital partnership specializing in forming companies built around new pharmaceutical and biotechnology products; Group President at Becton Dickinson and Company, a multidivisional biomedical products company; and was Vice President and Partner at Booz Allen & Hamilton, Inc., a multinational consulting firm. Mr. Burns is Chairman of the Executive Committee the American Type Culture Collection (ATCC), and a Director of Ciphergen Biosystems, Inc. He earned his BS and MS degrees in biological sciences from the University of Illinois and an MBA degree from DePaul University.

**Dane R. Saglio** joined EntreMed in April of 2000 as our Controller. He was appointed our Chief Financial Officer in February 2003. Prior to joining EntreMed, Mr. Saglio had been Director of Finance at Public Communications Associates (Cominex), a private telecommunications company, since 1996. Mr. Saglio has 20 years of experience, holding positions in accounting and general management in the telecommunications, real estate, and government contracting industries prior to joining EntreMed. Mr. Saglio received his bachelor's degree in Business Administration from the University of Maryland and is a certified public accountant licensed in Maryland.

**Carolyn F. Sidor** joined EntreMed in 2001 as Vice President, Clinical & Regulatory Affairs. She was appointed Chief Medical Officer in September 2004. Dr. Sidor is a board-certified hematologist/medical oncologist. From 1993 until 2001, Dr. Sidor held various leadership positions at Cato Research Ltd., a prominent Clinical Research Organization (CRO), including Vice President, Scientific and Medical Development; Medical Director; Senior Clinical Research Physician; and Project Director. In those roles, Dr. Sidor served as medical monitor for clinical studies in several therapeutic areas. Her experience includes participating in FDA meetings, leading investigator meetings, recruiting and evaluating potential sites for clinical studies, and evaluating new technologies. Since 1995, Dr. Sidor has held a staff appointment in the Department of Medicine at the University of North Carolina at Chapel Hill and she retains that appointment. From 1985 to 1993, Dr. Sidor was Associate Professor and Physician at Philadelphia's Lankenau Hospital, Department of Medicine. Prior to earning her MD degree from Thomas Jefferson University School of Medicine in 1982 and completing her residency and medical training in 1988, Dr. Sidor earned her MBA degree from the University of Delaware while working for E.I. DuPont in Central Research and Development.

**Marc G. Corrado** joined EntreMed in March 2005 as Vice President, Corporate Development. From 2003 to 2004, Mr. Corrado served as Senior Director, Mergers and Acquisitions for Aventis in Bridgewater, New Jersey. Prior to 2003, Mr. Corrado held various positions at Aventis including Director, Oncology New Product Commercialization from 2002 to 2003 and Director, Global Business Development from 2000 to 2002. From 1995 to 2000, Mr. Corrado held positions at Rhône-Poulenc Rorer in Paris, France, including Senior Manager, Worldwide Business Development from 1998 to 2000 and Manager, Worldwide Business Development & Licensing from 1995 to 1997. Mr. Corrado holds a J.D. from the American University in Washington, D.C., and a M.B.A. from INSEAD in Fontainebleau, France.

**James D. Johnson, Ph.D., J.D.**, has been our Senior Vice President and General Counsel since May 2001. Dr. Johnson has been a partner with the law firm of Kilpatrick, Stockton since 2000. Before that he had been a partner with the law firm of Jones and Askew, which merged with Kilpatrick, Stockton in 2000, since 1993. He graduated from the University of the South with a B.A. in Chemistry and received his Ph.D. in Biochemistry from the Emory University School of Medicine. He graduated from the Emory University School of Law.

**Section 16(a) Beneficial Ownership Reporting Compliance**

Section 16(a) of the 1934 Securities and Exchange Act requires the Company's executive officers, directors and persons who beneficially own more than 10% of a registered class of the Company's equity securities to file with the SEC initial reports of ownership and reports of changes in ownership of Common Stock and other equity securities of the Company. Such executive officers, directors, and greater than 10% beneficial owners are required by SEC regulation to furnish the Company with copies of all Section 16(a) reports filed by such reporting persons.

Based solely on our review of such forms furnished to the Company and written representations from certain reporting persons, we believe that all filing requirements applicable to our executive officers, directors and greater than 10% beneficial owners were complied with during fiscal 2005.

**Audit Committee**

As indicated above, the Company's Board of Directors has a designated audit committee. The current members of the audit committee are Mr. Knight, Mr. Bush and Mr. Randall. The Board of Directors has determined that Mr. Bush is an "audit committee financial expert" as defined in rules and regulations of the SEC. Mr. Bush is an "independent director" as that term is defined in Nasdaq listing standards.

**Code of Ethics**

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

ITEM 11. EXECUTIVE COMPENSATION.

**Executive Compensation and Other Matters**

The following summary compensation table sets forth the aggregate compensation paid or accrued by us to the Chief Executive Officer and to executive officers whose annual compensation exceeded $100,000 for fiscal 2005 (collectively, the "named executive officers") for services during the fiscal years ended December 31, 2005, 2004 and 2003.

SUMMARY COMPENSATION TABLE

| NAME AND PRINCIPAL POSITION | YEAR | ANNUAL SALARY ($) | BONUS ($) | LONG TERM COMPENSATION AWARDS SECURITIES UNDERLYING OPTIONS/SARS (#) | ALL OTHER COMPENSATION |
|---|---|---|---|---|---|
| James S. Burns | 2005 | 372,000 | 160,000 | 0 | 10,579 (1) |
| President and Chief Executive Officer | 2004 | 195,000 (4) | 80,000 | 600,000 | 4,125 |
| Dane R. Saglio | 2005 | 220,000 | 55,000 | 40,000 | 13,525 (1) |
| Chief Financial Officer | 2004 | 200,000 | 50,000 | 75,000 | 12,748 |
| | 2003 | 190,212 | 50,000 | 75,000 | 9,681 |
| Carolyn F. Sidor, M.D. | 2005 | 240,000 | 65,000 | 40,000 | 10,279 (1) |
| Corporate Vice President and | 2004 | 234,500 | 50,000 | 100,000 | 1,365 |
| Chief Medical Officer | 2003 | 226,600 | 22,600 | 50,000 | 288 |
| James D. Johnson, Ph.D., J.D. | 2005 | 10,800 (5) | 0 | 0 | 40 (2) |
| Senior Vice President and General Counsel | 2004 | 10,800 | 0 | 0 | 40 |
| | 2003 | 10,800 | 0 | 40,000 | 0 |
| Marc Corrado | 2005 | 153,000 (6) | 40,375 | 25,000 | 47,513 (3) |
| Vice President, Corporate Development | | | | | |

(1) Consists of group health and life insurance premiums paid on behalf of such officer.

(2) Consists of life insurance premiums paid on behalf of such officer.

(3) Consists of group health and life insurance premiums in the amount of $7,889 and relocation costs of $39,624 paid on behalf of such officer.

(4) Represents salary from June 15, 2004 date of hire.

(5) In addition, the Company pays legal fees to a law firm of which Dr. Johnson is a partner for his services as Senior Vice President and General Counsel. Such firm also provides additional legal services to the Company.

(6) Represents salary from March 1, 2005, date of hire.

The following table sets forth certain information with respect to individual grants of stock options made during the fiscal year ended December 31, 2005 to each of the named executive officers.

Option/SAR Grants in Last Fiscal Year

| | Individual Grants | | | | Potential Realizable Value at Assumed Annual Rates of Stock Price Appreciation for Option Term (1) | |
|---|---|---|---|---|---|---|
| Name | Number of Securities Underlying Options/SAR Granted (#) (2) | % of Total Options/SARS Granted to Employees in Fiscal Year | Exercise or Base Price ($/sh) | Expiration Date | 5% ($) | 10% ($) |
| Dane R. Saglio | 40,000 | 10.53% | 1.94 | 12/23/2015 | 48,802 | 123,674 |
| Carolyn F. Sidor, M.D. | 40,000 | 10.53% | 1.94 | 12/23/2015 | 48,802 | 123,674 |
| Marc Corrado | 100,000 | 26.34% | 3.70 | 2/16/2015 | 232,691 | 589,685 |
| | 30,000 | 7.90% | 1.94 | 12/23/2015 | 36,602 | 92,756 |

(1) Calculated by multiplying the exercise price by the annual appreciation rate shown (as prescribed by SEC rules and compounded for the term of the options), subtracting the exercise price per share and multiplying the gain per share by the number of shares covered by the options. These amounts are not intended to forecast possible future appreciation, if any, of the price of our shares. The actual value realized upon exercise of the options to purchase our shares will depend on the fair market value of our shares on the date of exercise.

(2) The options listed were granted under our 2001 Plan. 25% of such options were exercisable on the date of grant. 25% of the balance becomes exercisable on each anniversary date of the grant over the next three years. In the event of certain transactions, including those that may result in a change in control, as defined under the Company's stock plans, unvested installments of options to purchase our shares may become immediately exercisable.

The following table sets forth information concerning all option holdings for the fiscal year ended December 31, 2005 for each of the named executive officers.

Aggregated Option/SAR Exercises in Last Fiscal Year and Fiscal Year End Option/SAR Values

| | Number of Securities Underlying Options/SARs at Fiscal Year-End (#) | | Value of Unexercised In-the-Money Options/SARs at Fiscal Year-End ($) (1) | |
|---|---|---|---|---|
| Name | Exercisable | Unexercisable | Exercisable | Unexercisable |
| James S. Burns | 300,000 | 300,000 | 0 | 0 |
| Dane R. Saglio | 164,450 | 86,250 | 21,250 | 0 |
| Carolyn F. Sidor, M.D. | 184,733 | 86,250 | 43,949 | 6,250 |
| James D. Johnson, Ph.D., J.D. | 385,250 | 10,000 | 85,000 | 0 |
| Marc Corrado | 57,500 | 72,500 | 0 | 0 |

(1) Calculated by multiplying the number of unexercised options outstanding at December 31, 2005 by the difference between the fair market value of our shares at December 31, 2005 ($1.94) and the option exercise price.

**Compensation of Directors**

Upon joining the Board of Directors, each new non-employee director is granted an option, vesting over three years, to purchase 50,000 shares of Common Stock. Continuing directors receive an option to purchase 30,000 shares of Common Stock as of the date of the annual meeting of stockholders, 25% of which is exercisable immediately and 25% of which become exercisable each year over the next three years. Chairpersons of Board committees receive an option to purchase an additional 5,000 shares of Common Stock as of the date of the annual meeting, 25% of which is exercisable immediately and 25% of which become exercisable each year over the next three years. Non-employee directors also receive an annual retainer fee of $25,000 that is payable solely in restricted stock.

Pursuant to a Board Service Agreement between the Company's Chairman, Michael M. Tarnow, and the Company dated February 5, 2003, Mr. Tarnow is paid $5,000 per month for his services as Chairman. He also received an option to purchase 250,000 shares of Common Stock, 25% of which were exercisable immediately and 25% of which become exercisable each year over the next three years. Mr. Tarnow is also reimbursed for expenses in connection with his service as Chairman, including travel to and from Board meetings, and participates in all other Board compensation programs, including the receipt of the annual option grants granted to all directors of the Company.

**Employment Contracts and Termination of Employment and Change-In-Control Arrangements**

On June 15, 2004, the Company entered into an employment agreement with James S. Burns, its President and Chief Executive Officer. The term of the employment agreement is for three years, subject to automatic one-year extensions unless either party gives at least sixty days prior written notice not to extend.

The Agreement provides for an annualized minimum base salary of $360,000, with incentive compensation at a minimum of 40% of base salary. The base salary will be reviewed at least annually in accordance with the Company's customary practices for executives. In addition, the Company granted Mr. Burns stock options covering 500,000 shares, vested as to 25% on the date of grant and vesting in 25% annual cumulative installments thereafter.

During the first eighteen months of the term of the agreement, if the Company terminates Mr. Burns "without cause", Mr. Burns will receive a severance benefit equal to 18 months of salary, payable in accordance with the Company's customary pay practices, a pro-rata portion of any incentive compensation he would have been entitled to for that year, and continued insurance coverage for up to 12 months. After the first 18 months of the Agreement, if the Company terminates Mr. Burns "without cause" or fails to extend the employment agreement, Mr. Burns will be entitled to the same severance benefits except that he will be entitled to a base salary equal to 12 months instead of 18 months. In addition, if Mr. Burns is terminated without cause anytime after the first year of the term of the agreement, all of his unexpired and unvested stock options will become vested on the effective date of such termination. Mr. Burns also may resign at any time for "good reason," as defined in the employment agreement, by providing at least sixty days prior written notice. Resignation for "good reason" will be deemed a termination without cause. In addition, if Mr. Burns' employment is terminated upon disability or death, Mr. Burns or his estate will be entitled to receive a payment equal to 12 months salary plus a pro-rated amount of any incentive compensation he would have been entitled to for that year.

The employment agreement imposes non-compete and confidentiality obligations on Mr. Burns following termination of employment.

On July 1, 2004, the Company entered into an employment agreement with Dane Saglio, its Chief Financial Officer. The term of the employment agreement is for one year, and the agreement may be renewed for successive one-year periods upon mutual agreement by both parties.

On May 20, 2005, the Company entered into a one-year extension of its employment agreement with Dane Saglio, our Chief Financial Officer. The one-year extension is for the period beginning July 1, 2005 through June 30, 2006. There were no other changes to the terms of Mr. Saglio's employment agreement pursuant to the extension.

The Agreement provides for an annualized minimum base salary of $200,000. The base salary will be reviewed at least annually in accordance with the Company's customary practices for executives. Mr. Saglio is also entitled to incentive compensation as determined by the Company's Board of Directors or a committee thereof.

If the Company terminates Mr. Saglio "without cause", Mr. Saglio will receive a severance benefit equal to 12 months of salary, payable in accordance with the Company's customary pay practices, a pro-rata portion of any incentive compensation he would have been entitled to for that year, and continued insurance coverage for up to 12 months. In addition, if Mr. Saglio is terminated without cause, all of his unexpired and unvested stock options will become vested on the effective date of such termination. Mr. Saglio also may resign at any time for "good reason," as defined in the employment agreement, by providing at least sixty days prior written notice. Resignation for "good reason" will be deemed a termination without cause. In addition, if Mr. Saglio's employment is terminated upon disability or death, Mr. Saglio or his estate will be entitled to receive a payment equal to 12 months salary plus a pro-rated amount of any incentive compensation he would have been entitled to for that year.

The employment agreement imposes non-compete and confidentiality obligations on Mr. Saglio following termination of employment.

On December 1, 2004, the Company entered into an employment agreement with Dr. Carolyn F. Sidor, its Vice President and Chief Medical Officer. The term of the employment agreement is for one year, subject to automatic one-year extensions unless either party gives at least sixty days prior written notice not to extend.

The Agreement provides for an annualized minimum base salary of $240,000, with incentive compensation targeted at 25% of base salary. The base salary will be reviewed at least annually in accordance with the Company's customary practices for executives. In addition, the Company granted Dr. Sidor stock options covering 50,000 shares, vested as to 25% on the date of grant and vesting in 25% annual cumulative installments thereafter.

If the Company terminates Dr. Sidor "without cause" or fails to extend the employment agreement, Dr. Sidor will be entitled to the same severance benefits except that she will be entitled to a base salary equal to six months instead of 12 months. Dr. Sidor also may resign at any time for "good reason," as defined in the employment agreement, by providing at least sixty days prior written notice. Resignation for "good reason" will be deemed a termination without cause. In addition, if Dr. Sidor's employment is terminated upon disability or death, Dr. Sidor or her estate will be entitled to receive a payment equal to six months salary plus a pro-rated amount of any incentive compensation she would have been entitled to for that year.

The employment agreement imposes non-compete and confidentiality obligations on Dr. Sidor following termination of employment.

In the event of certain transactions, including those that may result in a change in control, as defined under our Incentive Stock Option Plans, unvested installments of options to purchase our shares may become immediately exercisable.

On May 20, 2005, the Company entered into an employment agreement with Marc G. Corrado, its Vice President, Corporate Development. The term of the employment agreement commenced on March 1, 2005 and continues for one year, subject to automatic one-year extensions unless either party gives at least thirty days prior written notice not to extend.

The Agreement provides for an annualized minimum base salary of $204,000, with incentive compensation targeted at 25% of base salary. The base salary will be reviewed at least annually in accordance with the Company's customary practices for executives. In addition, the Company granted Mr. Corrado stock options covering 100,000 shares, vested as to 25% on the date of grant and vesting in 25% annual cumulative installments thereafter.

The Agreement provides for reimbursement of certain relocation costs, including two house-hunting trips, lease termination penalties (estimated at $5,000), short-term living expenses for up to three months in the

Washington, D.C. area, and up to $25,000 for other relocation expenses such as moving and storage of household goods and belongings.

If the Company terminates Mr. Corrado "without cause", Mr. Corrado will receive a severance benefit equal to six months of salary, payable in accordance with the Company's customary pay practices, a pro-rata portion of any incentive compensation he would have been entitled to for that year, and continued insurance coverage for up to six months. Mr. Corrado also may resign at any time for "good reason," as defined in the employment agreement, by providing at least thirty days prior written notice. Resignation for "good reason" will be deemed a termination without cause. In addition, if Mr. Corrado's employment is terminated upon disability or death, Mr. Corrado or his estate will be entitled to receive a payment equal to six months salary plus a pro-rated amount of any incentive compensation he would have been entitled to for that year.

The employment agreement imposes non-compete and confidentiality obligations on Mr. Corrado following termination of employment.

In the event of certain transactions, including those that may result in a change in control, as defined under our Incentive Stock Option Plans, unvested installments of options to purchase our shares may become immediately exercisable.

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

The following table sets forth, as of March 2, 2006, certain information concerning stock ownership of all persons known by us to own beneficially more that 5% of our Common Stock, $.01 par value per share, as well as each director or director nominee, each executive officer named under "Executive Compensation and Other Matters" and all of our directors and executive officers as a group.

| Name of Beneficial Owner (1) | Amount and Nature of Beneficial Ownership (1) | Percentage of Class |
|---|---|---|
| Michael M. Tarnow | 349,191 (2) | * |
| Donald S. Brooks | 204,334 (2) | * |
| James S. Burns | 365,000 (2) | * |
| Dwight L. Bush | 83,388 (2) | * |
| Ronald Cape | 84,191 (2) | * |
| Marc Corrado | 57,500 (2) | * |
| Jennie C. Hunter-Cevera, Ph.D. | 144,191(2) | * |
| James D. Johnson Ph.D., J.D. | 385,250 (2) | * |
| Peter S. Knight | 186,691 (2) | * |
| Mark C. M. Randall | 253,025 (2) | * |
| Dane R. Saglio | 166,750 (2) | * |
| Carolyn F. Sidor | 184,733 (2) | * |
| All executive officers and directors as a group (13 persons) | 2,464,244(2) | 3.23% |
| More Than 5% Beneficial Owners | | |
| Celgene Corporation<br>7 Powder Horn Drive<br>Warren, N.J. 07059 | 24,614,864 (3) | 24.95% |

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*Less than 1%

(1) Beneficial ownership is defined in accordance with the rules of the Securities and Exchange Commission ("SEC") and generally means the power to vote and/or to dispose of the securities regardless of any economic interest therein.

(2) Includes shares issuable upon exercise of options and warrants which are exercisable within 60 days in the following amounts: Mr. Tarnow, 325,000; Mr. Brooks, 204,334; Mr. Burns, 300,000; Mr. Bush, 63,750; Dr. Cape, 60,000; Mr. Corrado, 57,500; Dr. Hunter-Cevera, 120,000; Dr. Johnson, 385,250; Mr. Knight, 162,500; Mr. Randall, 228,834; Mr. Saglio, 164,450; Dr. Sidor, 184,733; and all officers and directors as a group, 2,256,351.

(3) Includes 3,350,000 shares of the Company's Series A convertible preferred stock convertible into 16,750,000 shares of common stock.

**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, 2005.

| | (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 reflecting in column (a)) |
| Equity compensation plans approved by security holders | 7,962,017 | $9.04 | 631,176 |
| Equity compensation plans not approved by security holders | 147,295 | $4.20 | 0 |
| Total | 8,109,312 | $8.95 | 631,176 |

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

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS.

James D. Johnson, our Senior Vice President, is a partner at Kilpatrick, Stockton, which provides certain patent prosecution and certain other legal services to us. We paid approximately $1,180,000 to Kilpatrick, Stockton for these services in 2005. This amount represents less than 5% of Kilpatrick, Stockton's total revenues for 2005.

In addition, during 2005 the Company received financial advisory services from Ferghana Partners, Inc., a provider of corporate financial advice to firms in the Life Sciences field. The Company's chairman also serves as non-executive chairman of Ferghana Partners, Inc. The Company's chairman and CEO both hold a de minimis ownership interest in Ferghana Partners, Inc. The Company paid approximately $785,000 in fees to Ferghana Partners, Inc. in 2005. This amount represents less than 5% of Ferghana Partners' total revenues for 2005.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES.

The following information discloses the fees we paid to our auditors during fiscal years 2005 and 2004.

**Audit Fees**

The Company incurred from Ernst & Young audit fees of $175,000 in fiscal 2005 and $172,000 in fiscal 2004 for audit fees, covering professional services rendered for (1) the audit of the Company's annual financial statements included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2004 and 2003 and (2) the reviews of the financial statements included in the Company's quarterly reports on Form 10-Q for the first three quarters of 2005 and 2004.

The Company incurred from Ernst & Young audit fees of $130,000 in fiscal 2005 and $128,500 in fiscal 2004 for fees related to the auditor's review of the internal control over financial reporting, including their attestation report.

The Company incurred from Ernst & Young audit fees of $25,000 in fiscal 2005 and 2004 for fees related to SEC filings and issuances of consents.

**Audit-Related Fees**

The Company did not incur any audit-related fees in fiscal 2005 or in fiscal 2004.

**Tax Fees**

The Company incurred from Ernst & Young tax fees of $17,500 in fiscal 2005 and $14,500 in fiscal 2004, for tax compliance services, including preparation of tax returns.

**All Other Fees**

The Company did not incur any other fees from Ernst & Young in fiscal 2005 or in fiscal 2004.

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(20) | Agreement and Plan of Merger, dated as of December 22, 2005 among EntreMed, Inc., E.M.K. Sub, Inc., Miikana Therapeutics, Inc., and Andrew Schwab |
| 3.1 | Amended and Restated Certificate of Incorporation of EntreMed, Inc. (incorporated by reference from our Form 10-K for the year ended December 31, 2002 previously filed with the Securities and Exchange Commission) |
| 3.2(1) | By-laws of EntreMed, Inc. |
| 4.1 | Certificate of Designations of the Series A Convertible Preferred Stock (incorporated by reference to Exhibit 99.4 of our Form 8-K dated December 31, 2002, and filed with the Commission on January 15, 2003) |
| 4.2 | Warrant to Purchase Common Stock, dated January 13, 2003, issued by EntreMed, Inc. in favor of Celgene Corporation (incorporated by reference to Exhibit 99.5 of our Form 8-K dated December 31, 2002, and filed with the Commission on January 15, 2003) |
| 10.1(1) | 1992 Stock Incentive Plan* |
| 10.2(1) | Amended and Restated 1996 Stock Option Plan* |
| 10.3(1) | Form of Stock Option Agreement* |

10.4(2) License Agreement between Children's Hospital Medical Center Corporation and EntreMed, Inc. signed December 20, 1996 regarding Estrogenic Compounds as Anti-Mitotic Agents

10.5(3) Amendment to the 1996 Stock Option Plan*

10.6(4) License Agreement between Celgene Corporation and EntreMed, Inc. signed December 9, 1998 regarding thalidomide intellectual property

10.7(4) Lease Agreement between EntreMed, Inc. and Red Gate III Limited Partnership, dated June 10, 1998

10.8(5) 1999 Long-Term Incentive Plan*

10.9(6) EntreMed, Inc. 2001 Long-Term Incentive Plan*

10. 10.1(7) Purchase Agreement between Bioventure Investments kft and EntreMed, Inc., dated June 15, 2001+

10.10.2(7) Amendment 1 to Purchase Agreement between Bioventure Investments kft and EntreMed, Inc., dated July 13, 2001

10.10.3(7) Amendment 2 to Purchase Agreement between Bioventure Investments kft and EntreMed, Inc., dated July 30, 2001

10.10.4(7) Amendment 3 to Purchase Agreement between Bioventure Investments kft and EntreMed, Inc., dated August 3, 2001

10.11(8) Board Service Agreement, dated February 5, 2003, between Michael M. Tarnow and EntreMed, Inc. *

10.12(9) Asset Purchase Agreement by and Between Celgene Corporation and EntreMed, Inc., dated as of December 31, 2002

10.13(9) Securities Purchase Agreement by and among EntreMed, Inc., and Celgene Corporation, dated as of December 31, 2002

10.14(9) Investor and Registration Rights Agreement by and between EntreMed, Inc. and Celgene Corporation, dated as of December 31, 2002

10.15(10) Private Placement of Common Stock and Warrants to Certain Institutional Investors, dated as of November 3, 2003

10.16(11) Employment Agreement between EntreMed and James S. Burns effective June 15, 2004*

10.17(12) Employment Agreement between EntreMed and Dane Saglio effective July 1, 2004*

10.18(17) Letter Agreement between EntreMed and Dane Saglio dated May 20, 2005*

10.19(13) Employment Agreement between EntreMed and Carolyn F. Sidor, M.D. effective December 1, 2004*

10.20(14) Securities Purchase Agreement by and among EntreMed and Certain Institutional Investors, dated as of December 23, 2004

10.21(15) EntreMed, Inc. 2001 Long Term Incentive Plan Non-Qualified Stock Option Grant Agreement (Director)*

10.22(15) EntreMed, Inc. 2001 Long Term Incentive Plan Non-Qualified Stock Option Grant Agreement (Non-

| | |
|---|---|
| | Director Employee)* |
| 10.23(16) | Form of Letter Agreement between EntreMed and James S. Burns* |
| 10.24(16) | Form of Restricted Stock Award under EntreMed, Inc. 2001 Long Term Incentive Plan* |
| 10.25(17) | Employment Agreement by and between EntreMed and Marc Corrado, dated as of May 20, 2005* |
| 10.26(18) | License Agreement between EntreMed and Celgene Corporation signed March 24, 2005 regarding the development and commercialization of Celgene's small molecule tubulin inhibitor compounds for the treatment of cancer+ |
| 10.27(19) | Description of Compensation of Directors* |
| 23.1 | Consent of Independent Registered Public Accounting Firm |
| 31.1 | Rule 13a-14(a) Certification of President and CEO |
| 31.2 | Rule 13a-14(a) Certification of Chief Financial Officer |
| 32.1 | Rule 13a-14(b) Certification by President and CEO |
| 32.2 | Rule 13a-14(b) Certification by Chief Financial Officer |
| * | Compensatory Plan, Contract or Arrangement. |
| + | Certain portions of this exhibit have been omitted based upon a request for confidential treatment. The omitted portions have been filed with the Commission pursuant to our application for confidential treatment. |
| (1) | Incorporated by reference from our Registration Statement on Form S-1 (File No. 333-3536) declared effective by the Securities and Exchange Commission on June 11, 1996. |
| (2) | Incorporated by reference from our Form 10-K for the year ended December 31, 1996 previously filed with the Securities and Exchange Commission. |
| (3) | Incorporated by reference from our Form 10-K for the year ended December 31, 1997 previously filed with the Securities and Exchange Commission. |
| (4) | Incorporated by reference from our Form 10-K for the year ended December 31, 1998 previously filed with the Securities and Exchange Commission. |
| (5) | Incorporated by reference from our Form 10-Q for the quarter ended June 30, 1999 previously filed with the Securities and Exchange Commission. |
| (6) | Incorporated by reference from Exhibit A to our definitive proxy statement filed with the Securities and Exchange Commission on June 27, 2005. |
| (7) | Incorporated by reference from our Form 10-Q for the quarter ended June 30, 2001 previously filed with the Securities and Exchange Commission. |
| (8) | Incorporated by reference from our Form 10-K/A for the year ended December 31, 2002 previously filed with the Securities and Exchange Commission. |

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

(10) Incorporated by reference from our Form 8-K filed with the Securities and Exchange Commission on November 4, 2003.

(11) Incorporated by reference from our Form 10-Q for the quarter ended June 30, 2004 previously filed with the Securities and Exchange Commission.

(12) Incorporated by reference from our Form 10-Q for the quarter ended September 30, 2004 previously filed with the Securities and Exchange Commission.

(13) Incorporated by reference from our Form 8-K filed with the Securities and Exchange Commission on December 6, 2004.

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

(15) Incorporated by reference from our Form 8-K filed with the Securities and Exchange Commission on February 23, 2005.

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

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

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

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

(20) Incorporated by reference from our Form 8-K filed with the Securities and Exchange Commission on December 29, 2005.

SIGNATURES

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

ENTREMED, INC.

By: /s/James S. Burns.
James S. Burns
President and Chief
Executive Officer
March 13, 2006

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<br>Michael M. Tarnow | Chairman of the Board | March 9, 2006 |
| /s/James S. Burns<br>James S. Burns | President and Chief Executive Officer | March 13, 2006 |
| /s/ Dane R. Saglio<br>Dane R. Saglio | Chief Financial Officer (Principal Financial and Accounting Officer) | March 9, 2006 |
| /s/Donald S. Brooks<br>Donald S. Brooks | Director | March 9, 2006 |
| /s/Dwight L. Bush<br>Dwight L. Bush | Director | March 10, 2006 |
| /s/Jennie C. Hunter-Cevera<br>Jennie C. Hunter-Cevera | Director | March 11, 2006 |
| /s/Mark C. M. Randall<br>Mark C. M. Randall | Director | March 9, 2006 |
| /s/Ronald Cape<br>Ronald Cape | Director | March 13, 2006 |
| /s/Peter S. Knight<br>Peter S. Knight | Director | March 9, 2006 |

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


| | |
|---|---|
| Report of Independent Registered Public Accounting Firm | F-2 |
| Consolidated Balance Sheets as of December 31, 2005 and 2004 | F-3 |
| Consolidated Statements of Operations for the years ended December 31, 2005, 2004 and 2003 | F-4 |
| Consolidated Statements of Stockholders' Equity for the years ended December 31, 2005, 2004 and 2003 | F-5 |
| Consolidated Statements of Cash Flows for the years ended December 31, 2005, 2004 and 2003 | F-6 |
| Notes to Consolidated Financial Statements | F-7 |

Report of Ernst & Young LLP, Independent Registered Public Accounting Firm,
on the Audited Consolidated Financial Statements

Board of Directors
EntreMed, Inc.

We have audited the accompanying consolidated balance sheets of EntreMed, Inc. as of December 31, 2005 and 2004, and the related consolidated statements of operations, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2005. 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 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, 2005 and 2004, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2005, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of EntreMed, Inc.'s internal control over financial reporting as of December 31, 2005, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 8, 2006 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP
McLean, Virginia
March 8, 2006

EntreMed, Inc.
Consolidated Balance Sheets

| | DECEMBER 31, 2005 | DECEMBER 31, 2004 |
|---|---|---|
| ASSETS | | |
| Current assets: | | |
| Cash and cash equivalents | $ 11,407,652 | $ 20,425,495 |
| Short-term investments | 18,674,736 | 14,114,021 |
| Accounts receivable | 3,723,433 | 3,250,783 |
| Note receivable | 1,000,000 | - |
| Interest receivable | 181,231 | 85,089 |
| Prepaid expenses and other | 338,462 | 367,222 |
| Total current assets | 35,325,514 | 38,242,610 |
| Property and equipment, net | 915,337 | 1,150,087 |
| Other assets | 191,034 | 11,305 |
| Total assets | $ 36,431,885 | $ 39,404,002 |
| LIABILITIES AND STOCKHOLDERS' EQUITY | | |
| Current liabilities: | | |
| Accounts payable | $ 5,487,014 | $ 1,550,413 |
| Payable to related parties | 228,380 | 200,321 |
| Accrued liabilities | 1,038,975 | 1,416,444 |
| Current portion of deferred rent | 60,969 | 32,931 |
| Current portion of deferred revenue | - | 95,496 |
| Total current liabilities | 6,815,338 | 3,295,605 |
| Deferred rent, less current portion | 230,206 | 291,175 |
| Deferred revenue, less current portion | - | 95,496 |
| Minority interest | 17,151 | 16,972 |
| 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, 2005 and 2004 (liquidation value - $33,500,000 and $54,270,000 , respectively) | 3,350,000 | 3,350,000 |
| Common stock, $.01 par value: 120,000,000 and 90,000,000 shares authorized; 51,106,857 and 43,628,173 shares issued and outstanding at December 31, 2005 and 2004, respectively | 511,069 | 436,282 |
| Additional paid-in capital | 295,392,194 | 285,387,288 |
| Deferred stock-based compensation | (102,000) | - |
| Treasury stock, at cost: 874,999 shares held at December 31, 2005 and 2004 | (8,034,244) | (8,034,244) |
| Accumulated deficit | (261,747,829) | (245,434,572) |
| Total stockholders' equity | 29,369,190 | 35,704,754 |
| Total liabilities and stockholders' equity | $ 36,431,885 | $ 39,404,002 |

See accompanying notes.

EntreMed, Inc.
Consolidated Statements of Operations

| | YEAR ENDED DECEMBER 31, | | |
|---|---|---|---|
| | 2005 | 2004 | 2003 |
| Revenues: | | | |
| Collaborative research and development | $ --- | $ --- | $ 667,796 |
| Licensing | 590,992 | 495,496 | 310,496 |
| Grants | --- | --- | 508,243 |
| Royalties | 5,310,439 | 5,918 | 2,705 |
| Other | 16,624 | 12,581 | 86,306 |
| | 5,918,055 | 513,995 | 1,575,546 |
| Costs and expenses: | | | |
| Research and development | 17,325,048 | 10,523,252 | 14,252,196 |
| General and administrative | 5,920,455 | 6,570,664 | 7,022,986 |
| | 23,245,503 | 17,093,916 | 21,275,182 |
| Investment income | 1,010,771 | 313,940 | 205,580 |
| Gain on sale of assets | 3,420 | 124,083 | --- |
| Gain on sale of securities ( Note 2) | --- | 520,000 | --- |
| Gain on sale of royalty interest (Note 4) | --- | 3,000,000 | --- |
| Net loss | (16,313,257) | (12,621,898) | (19,494,056) |
| Dividends on Series A convertible preferred stock | (1,005,000) | (1,005,000) | (1,005,000) |
| Net loss attributable to common shareholders | $ (17,318,257) | $ (13,626,898) | $ (20,499,056) |
| Net loss per share (basic and diluted) | $ (0.36) | $ (0.37) | $ (0.68) |
| Weighted average number of shares outstanding (basic and diluted) | 48,176,914 | 37,170,544 | 29,943,161 |

See accompanying notes.

ENTREMED, INC.

CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY
YEARS ENDED DECEMBER 31, 2005, 2004, and 2003

**SEE EXCEL SHEET**
See accompanying notes.

**ENTREMED, INC.**

**CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY**
**Periods Ended December 31, 2005, 2004 and 2003**

| | Preferred Stock | | Common Stock | | Treasury | Additional Paid-in | Deferred Stock-Based | Accumulated | |
|---|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | Shares | Amount | Stock | Capital | Compensation | Deficit | Total |
| Balance at December 31, 2002 | 3,350,000 | $ 3,350,000 | 23,270,694 | $ 241,457 | $ (8,034,244) | $ 228,316,897 | $ (61,846) | $ (213,318,618) | $ 10,493,646 |
| Issuance of common stock for options and warrants exercised | - | - | 172,575 | 1,725 | - | 189,092 | - | - | 190,817 |
| Sale of common stock at $2.50 per share | - | - | 4,100,000 | 41,000 | - | 7,125,344 | - | - | 7,166,344 |
| Sale of common stock at $3.00 per share | - | - | 3,000,000 | 30,000 | - | 8,016,609 | - | - | 8,046,609 |
| Sale of common stock at $4.25 per share | - | - | 5,250,000 | 52,500 | - | 18,020,631 | - | - | 18,073,131 |
| Issuance of common stock and warrants pursuant to debt settlement agreements | - | - | 1,147,872 | 11,479 | - | 1,102,521 | - | - | 1,114,000 |
| Recognition of non cash stock compensation | - | - | 31,871 | 319 | - | 174,681 | - | - | 175,000 |
| Fair value of warrants issued | - | - | - | - | - | 4,452,117 | - | - | 4,452,117 |
| Change in basis in MaxCyte | - | - | - | - | - | 4,579,429 | 61,846 | | 4,641,275 |
| Net loss | - | - | - | - | - | - | - | (19,494,056) | (19,494,056) |
| Balance at December 31, 2003 | 3,350,000 | $ 3,350,000 | 36,973,012 | $ 378,480 | $ (8,034,244) | $ 271,977,321 | $ - | $ (232,812,674) | $ 34,858,883 |
| Issuance of common stock for options and warrants exercised | - | - | 208,946 | 2,090 | - | 5,677 | - | - | 7,767 |
| Sale of common stock at $2.55 per share | - | - | 5,490,198 | 54,902 | - | 10,781,472 | - | - | 10,836,374 |
| Recognition of non cash stock compensation | - | - | 81,018 | 810 | - | 174,189 | - | - | 174,999 |
| Fair value of warrants issued | - | - | - | - | - | 2,448,629 | - | - | 2,448,629 |
| Net loss | - | - | - | - | - | - | - | (12,621,898) | (12,621,898) |
| Balance at December 31, 2004 | 3,350,000 | $ 3,350,000 | 42,753,174 | $ 436,282 | $ (8,034,244) | $ 285,387,288 | $ - | $ (245,434,572) | $ 35,704,754 |
| Issuance of common stock for options exercised | - | - | 67,070 | 671 | - | 80,685 | - | - | 81,356 |
| Issuance of common stock for warrants exercised | - | - | 7,355,166 | 73,552 | - | 9,826,448 | - | - | 9,900,000 |
| Stock issuance costs | - | - | - | - | - | (76,651) | - | - | (76,651) |
| Deferred stock-based compensation | - | - | 56,448 | 564 | - | 174,424 | (174,988) | - | - |
| Amortization of deferred stock-based compensation | - | - | - | - | - | - | 72,988 | - | 72,988 |
| Net loss | - | - | - | - | - | - | - | (16,313,257) | (16,313,257) |
| Balance at December 31, 2005 | 3,350,000 | $ 3,350,000 | 50,231,858 | $ 511,069 | $ (8,034,244) | $ 295,392,194 | $ (102,000) | $ (261,747,829) | $ 29,369,190 |

EntreMed, Inc.
Consolidated Statements of Cash Flows

| | YEAR ENDED DECEMBER 31, | | |
|---|---|---|---|
| | 2005 | 2004 | 2003 |
| CASH FLOWS FROM OPERATING ACTIVITIES | | | |
| Net loss | $ (16,313,257) | $ (12,621,898) | $ (19,494,056) |
| Adjustments to reconcile net loss to net cash used by operating activities: | | | |
| Depreciation and amortization | 475,848 | 773,775 | 930,772 |
| Loss on disposal of equipment | - | - | 9,679 |
| Gain on sale of assets | (3,420) | (124,083) | - |
| Gain on sale of securities | - | (520,000) | - |
| Gain on sale of royalty interest | - | (3,000,000) | - |
| Amortization of deferred stock-based compensation | 72,988 | 174,999 | 175,000 |
| Amortization of (discount) premium on short term investments | (393,815) | (15,447) | 205,982 |
| Minority interest | 178 | (127) | (124) |
| Changes in operating assets and liabilities: | | | |
| Accounts receivable | (472,650) | 178,196 | (209,693) |
| Note receivable | (1,000,000) | - | - |
| Interest receivable | (96,142) | 177,103 | (262,097) |
| Prepaid expenses and other | (150,969) | 151,120 | (247,939) |
| Accounts payable | 3,936,601 | (2,248,891) | (4,683,579) |
| Payable to related parties | 28,059 | 47,108 | 153,213 |
| Accrued liabilities | (377,469) | 709,483 | (1,119,462) |
| Deferred rent | (32,931) | (5,709) | 329,815 |
| Deferred revenue | (190,992) | (97,496) | (93,496) |
| Net cash used in operating activities | (14,517,971) | (16,421,867) | (24,305,985) |
| CASH FLOWS FROM INVESTING ACTIVITIES | | | |
| Proceeds from sale of property and equipment, net | 11,000 | 355,275 | - |
| Proceeds from sale of securities | - | 520,000 | - |
| Reduction in ownership of subsidiary's cash | - | - | (418,108) |
| Purchases of short term investments | (51,491,900) | (37,718,991) | (8,585,565) |
| Maturities of short term investments | 47,325,000 | 25,750,000 | 6,250,000 |
| Purchases of furniture and equipment | (248,677) | (163,539) | (32,715) |
| Net cash used in investing activities | (4,404,577) | (11,257,255) | (2,786,388) |
| CASH FLOWS FROM FINANCING ACTIVITIES | | | |
| Net proceeds from sale of common stock | 9,904,705 | 13,292,770 | 33,476,901 |
| Net proceeds from sale of warrants | - | - | 4,452,117 |
| Payment of principal on note payable | - | - | (91,843) |
| Net cash provided by financing activities | 9,904,705 | 13,292,770 | 37,837,175 |
| Net increase (decrease) in cash and cash equivalents | (9,017,843) | (14,386,352) | 10,744,802 |
| Cash and cash equivalents at beginning of year | 20,425,495 | 34,811,847 | 24,067,045 |
| Cash and cash equivalents at end of year | $ 11,407,652 | $ 20,425,495 | $ 34,811,847 |
| SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION | | | |
| Interest paid | $ - | $ - | $ 2,451 |

EntreMed, Inc.

Notes to Consolidated Financial Statements

## 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### DESCRIPTION OF BUSINESS AND BASIS OF PRESENTATION

EntreMed, Inc. (EntreMed) is a clinical-stage pharmaceutical company focused on developing next generation multi-mechanism oncology and antiinflammatory drugs that target disease cells directly and the blood vessels that nourish them. EntreMed is focused on developing drugs that are safe and convenient, and provide the potential for improved patient outcomes. Panzem® (2-methoxyestradiol or 2ME2), one of the Company's lead drug candidates, is currently in clinical trials for cancer, as well as in preclinical development for rheumatoid arthritis. MKC-1, a novel cell cycle inhibitor acquired through the recent acquisition of Miikana Therapeutics, is also in Phase 2 clinical trials for cancer. ENMD-1198, a novel tubulin binding agent discovered by EntreMed, has an active Investigational New Drug (IND) application on file with the Food and Drug Administration (FDA), and will commence a Phase 1 clinical trial in 1H 2006.

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

EntreMed's goal is to develop and commercialize therapeutics based on the Company's scientific expertise in angiogenesis, cell cycle regulation and inflammation -- processes vital to the progression of cancer and other diseases. The Company's three clinical product candidates are based on these mechanisms. The Company's expertise has also led to the identification of new molecules, including new chemical entities derived from 2ME2, modulators of fibroblast growth factor-2 (FGF-2) activity, proteinase activated receptor-2 (PAR-2) antagonists, and tissue factor pathway inhibitor (TFPI) peptides.

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

The accompanying consolidated financial statements include the accounts of the Company's controlled subsidiary, Cytokine Sciences, Inc. All intercompany balances and transactions have been eliminated in consolidation.

To date, the Company has been engaged primarily in research and development activities. As a result the Company has incurred operating losses through 2005 and expects to continue to incur operating losses for 2006 and the foreseeable future before commercialization of any products. To accomplish the Company's business plans, EntreMed will be required to continue to conduct substantial development activities for all proposed products. The Company intends to continue to pursue strategic relationships to provide resources for the further development of our product candidates. There can be no assurance, however, that these discussions will result in relationships or additional funding. In addition, the Company will continue to seek capital through the public or private sale of securities. There can be no assurance that EntreMed will be successful in seeking such additional capital.

### SEGMENT INFORMATION

The Company currently operates in one business segment, which is the development of therapeutics primarily for the treatment of cancer. The Company is managed and operated as one business. A single management team that reports to the Company's President and Chief Executive Officer comprehensively manages the entire business. The Company does not operate separate lines of business with respect to its products or product

candidates. Accordingly, the Company does not have separately reportable segments as defined by FASB Statement No. 131, *Disclosures about Segments of an Enterprise and Related Information.*

RESEARCH AND DEVELOPMENT

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

PROPERTY AND EQUIPMENT

Furniture and equipment and leasehold improvements are stated at cost and are depreciated over their estimated useful lives of 5 to 10 years. Depreciation is determined on a straight-line basis. Depreciation expense was $475,848, $773,775 and $930,772 in 2005, 2004 and 2003, respectively. Property and equipment consists of the following:

| | DECEMBER 31 | |
|---|---|---|
| | 2005 | 2004 |
| Furniture and equipment | $ 4,321,634 | $ 5,575,772 |
| Leasehold improvements | 1,288,791 | 1,284,991 |
| | 5,610,425 | 6,860,763 |
| Less: accumulated depreciation | (4,695,088) | (5,710,676) |
| | $ 915,337 | $ 1,150,087 |

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

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 cost which approximates market. 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. There were no unrealized gains or losses as of December 31, 2005 and 2004. 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. (See Note 2 for Gain on Sale of Securities)

ACCOUNTS RECEIVABLE

Accounts receivable are stated net of allowances for doubtful accounts. Allowances for doubtful accounts are determined on a specific item basis. Management reviews the credit worthiness of individual customers and past payment history to determine the allowance for doubtful accounts. There is no allowance for doubtful accounts at December 31, 2005 and 2004.

As of December 31, 2005 and 2004, one individual customer represented 98% and 92%, respectively, of the total accounts receivable.

NOTE RECEIVABLE

In December 2005, the Company loaned Miikana Therapeutics $1 million to repay certain obligations. This is reflected as a note receivable in the accompanying December 31, 2005 consolidated balance sheet. Upon consummation of the acquisition of Miikana Therapeutics (See Note 11), the note receivable was used to pay a portion of the purchase price obligation.

INCOME TAXES

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

REVENUE RECOGNITION

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

Royalty Revenue - Royalties from licenses are based on third-party sales and recorded as earned in accordance with contract terms, when third-party results are reliably measured and collectibility is reasonably assured. The majority of the Company's 2005 revenues were from royalties on the sale of Thalomid®, which the Company 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, in 2005 the Company 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. Based on the licensing agreement royalty formula, annual royalty sharing commences with Thalomid® annual sales of approximately $225 million. The Company is eligible to receive royalty payments under a February 2004 agreement with Children's Medical Center Corporation ("CMCC") and Alchemgen Therapeutics. Under the agreement, Alchemgen received rights to market endostatin and angiostatin in Asia. Future royalty payments, if any, will be recorded as revenue when received and/or when collectibility is reasonably assured.

Licensing Revenue – The Company has recognized licensing revenues resulting from the January 2002 five-year strategic alliance with Allergan to develop and commercialize small molecule angiogenic inhibitors for treatment and prevention of diseases and conditions of the eye. The initial net fee was being amortized to revenue over the five-year license term. In April 2005, Allergan terminated the license in accordance with its terms, which resulted in the accelerated recognition of deferred revenue. In February 2004 the Company transferred rights to the proteins, endostatin and angiostatin, in an agreement with Children's Medical Center Corporation ("CMCC") and Alchemgen Therapeutics. Under the agreement, the Company received an upfront and a second cash payment. The upfront licensing cash payment was fully amortized in 2004, as the Company had completed its obligations to transfer data and material. Due to rights negotiations between the licensee and CMCC, the second and final licensing cash payment in the amount of $400,000 was received in May 2005. Management concluded collectibility was not reasonably assured until the funds were received. In September 2003 the Company entered into a licensing agreement with Oxford Biomedica, PLC and Oxford Biomedica (UK) Limited for the use of endostatin and angiostatin genes in the development of locally delivered gene therapy for ophthalmologic applications. Under the agreement, the Company had no continuing obligations. As such, the Company recorded as revenue the value of the initial net cash and shares of common stock received under the agreement.

Collaborative Research and Development Revenue – In 2003 the Company received revenues for performance under commercial research and development contracts. These contracts required that the Company provide services directed toward specific objectives and include developmental milestones and deliverables. These revenues were recognized at the time that research and development activities were performed.

Grant Revenue – In 2003 the Company received a government grant to financially support our Phase II Endostatin clinical trial in patients with neuroendocrine tumors. Grants are funded in specific amounts based on funding requests submitted to the grantor. Grant revenues are recognized and realized at the time that research and development activities are performed.

NET LOSS PER SHARE

Net loss per share (basic and diluted) was computed by dividing net loss available to common stock by the weighted average number of shares of common stock outstanding. Common stock equivalents, including Preferred Series A common stock equivalents, totaling 27,781,813 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 the net loss and other comprehensive income (loss), which includes certain changes in equity that are excluded from net loss. Comprehensive loss for the Company was the same as net loss for all years presented.

STOCK-BASED COMPENSATION

The Company recognizes expense for stock-based compensation arrangements in accordance with the provisions of Accounting Principles Board Opinion No. 25, Accounting for Stock Issued to Employees, and related Interpretations. Accordingly, compensation cost is recognized for the excess of the estimated fair value of the stock at the grant date over the exercise price, if any. The Company accounts for equity instruments issued to non-employees in accordance with EITF 96-18, *Accounting for Equity Instruments that are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods, or Services.*

Disclosures regarding alternative fair values of measurement and recognition methods prescribed by Statement of Accounting Standards No. 148, *Accounting for Stock-Based Compensation-Transition and Disclosure* and Statement of Financial Accounting Standards No. 123, *Accounting for Stock-Based Compensation* (SFAS No. 123) are presented in the table below. The following table illustrates the effect on net loss if the Company had applied the fair value recognition provisions of SFAS No. 123, to stock-based compensation:

| | Year ended December 31 | | |
|---|---|---|---|
| | 2005 | 2004 | 2003 |
| Actual net loss | $(16,313,257) | $(12,621,898) | $(19,494,056) |
| Add: Stock-based employee compensation included in reported net loss | 72,988 | 174,999 | 175,000 |
| Deduct: Stock-based employee compensation expense if SFAS No. 123 had been applied to all awards | (1,923,575) | (6,664,579) | (10,691,564) |
| Proforma net loss | $(18,163,844) | $(19,111,478) | $(30,010,620) |
| Dividend on Series A convertible preferred stock | $ (1,005,000) | $(1,005,000) | $(1,005,000) |
| Proforma net loss per share available to common shareholders | $(19,168,844) | $(20,116,478) | $ (31,015,620) |
| Net loss per share: | | | |
| Basic and diluted – as reported | $(0.36) | $(0.37) | $(0.68) |
| Basic and diluted – pro forma | $(0.40) | $(0.54) | $(1.03) |

The effect of applying SFAS No. 123 on a pro forma net loss as stated above is not necessarily representative of the effect on reported net loss for future years due to, among other things, the vesting period of the stock options and the fair value of additional options to be granted in future years.

Significant assumptions used in the Black-Scholes option pricing model are as follows:

| | Year ended December 31, | | |
|---|---|---|---|
| | 2005 | 2004 | 2003 |
| Risk free rate | 4.25% | 3.73% | 4.0% |
| Expected life | 5 yrs | 5 yrs | 6 yrs |
| Volatility | 1.08 | 1.20 | 1.20 |
| Expected dividend yield | - | - | - |

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.

RECENT ACCOUNTING STANDARDS

In October 2004, the FASB concluded that SFAS No. 123 (revised 2004), "Share-Based Payment" ("SFAS 123R"), which requires all companies to measure compensation cost for all share-based payments (including employee stock options) at fair value, originally effective for interim or annual periods beginning after June 15, 2005. SFAS 123R provides two tentative adoption methods. The first method is a modified prospective transition method whereby a company would recognize share-based employee costs from the beginning of the fiscal period in which the recognition provisions are first applied as if the fair-value-based accounting method had been used to account for all employee awards granted, modified, or settled after the effective date and to any awards that were not fully vested as of the effective date. Measurement and attribution of compensation cost for awards that are unvested as of the effective date of SFAS 123R would be based on the same estimate of the grant-date fair value and the same attribution method used previously under SFAS 123. The second adoption method is a modified retrospective transition method whereby a company would recognize employee compensation cost for periods presented prior to the adoption of SFAS 123R in accordance with the original provisions of SFAS 123; that is, an entity would recognize employee compensation costs in the amounts reported in the pro forma disclosures provided in accordance with SFAS 123. A company would not be permitted to make any changes to those amounts upon adoption of SFAS 123R unless those changes represent a correction of an error. For periods after the date of adoption of SFAS 123R, the modified prospective transition method described above would be applied.

In April 2005, the SEC announced that it would provide for a phased-in implementation process for SFAS 123R; therefore, the Company currently expects to adopt SFAS 123R in the quarter ended March 31, 2006, using the modified prospective method, although the Company continues to review its options for adoption under this new pronouncement. The Company currently anticipates that the impact of adopting SFAS 123R will result in recording approximately $2 million of employee compensation expense in 2006, but could fluctuate depending on levels of share-based payments granted.

In November 2005, the Financial Accounting Standards Board issued FASB Staff Position ("FSP") FAS 115-1, *The Meaning of Other-Than-Temporary Impairment and Its Application to Certain Investments* ("FSP FAS 115-1"). FSP FAS 115-1, which is effective for reporting periods beginning after December 15, 2005, provides guidance on other-than-temporary impairment models for marketable debt and equity securities accounted for under

SFAS No. 115 and non-marketable equity securities accounted for under the cost method. FSP FAS 115-1 provides a basic three-step model to evaluate whether an investment is other-than-temporarily impaired. Under FSP FAS 115-1, other than temporary losses on short-term investments would be expensed rather than included in stockholders' equity. The Company currently does not have any investments scheduled to mature greater than one year. The Company does not believe that the adoption of FSP FAS 115-1 will have a material effect on the Company's results of operations, financial condition or liquidity.

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 financial statements.

RECLASSIFICATIONS

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

2. SALE OF SECURITIES

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

3. SPONSORED RESEARCH PROGRAM AGREEMENTS

Prior to 2003, the Company entered into several agreements to sponsor external research programs. The Company's primary external research program agreement was entered into with the Children's Hospital, in Boston, Massachusetts, an entity affiliated with Harvard Medical School ("Children's Hospital, Boston").

Under this sponsored research agreement, the Company agreed to pay Children's Hospital, Boston to continue the research on the role of angiogenesis in pathological conditions. In accordance with the terms of this sponsored research agreement, the Company agreed to pay $1,500,000 each year to Children's Hospital, Boston. As of December 31, 2003, all amounts were paid and there was no remaining commitment.

In November 2003, the Company reached an agreement to extend one of the sponsored research agreements with Children's Hospital, Boston. Under the extended agreement the Company paid $300,000 each year for the period of November 1, 2003 through November 1, 2005. Payments under the agreement were made quarterly in advance and were expensed as paid. The Company has made all sponsored research payments due Children's Hospital, Boston as of December 31, 2005.

4. LICENSE AGREEMENTS

On January 18, 2002 the Company entered into a five-year strategic alliance with Allergan, an ophthalmic research and development and pharmaceutical company, to develop and commercialize small molecule angiogenic inhibitors for treatment and prevention of diseases and conditions of the eye (the "Agreement"). In April 2005, Allergan terminated the license in accordance with its terms, which resulted in the accelerated recognition of deferred revenue.

On September 8, 2003 the Company entered into a licensing agreement with Oxford Biomedica, PLC and Oxford Biomedica (UK) Limited. Under the terms of the agreement, Oxford BioMedica receives exclusive worldwide rights to use EntreMed's endostatin and angiostatin genes in the development of locally delivered gene

therapy for ophthalmologic applications. Oxford BioMedica plans to utilize EntreMed's genes in its proprietary therapeutic RetinoStat™ program for the treatment of age-related macular degeneration and diabetic retinopathy. In return, EntreMed received an initial cash payment of $125,000 and 301,748 shares of Oxford BioMedica common stock valued at $129,000. Additionally, EntreMed may collect up to $10 million on the achievement of regulatory and clinical milestones. The Company may receive royalties on future worldwide sales of products resulting from the agreement. There can be no assurance that the Company will receive any additional amounts under this agreement.

In February 2004, the Company transferred rights for its protein-based drug candidate programs, endostatin and angiostatin, in an agreement with Children's Medical Center Corporation in Boston (CMCC) and Alchemgen Therapeutics, Inc. ("Alchemgen"). Under the agreement, CMCC and Alchemgen are continuing the development of endostatin and angiostatin and bear all expenses associated with the programs, including costs that the Company may incur in transferring these compounds. In exchange, the Company receives upfront and future cash and royalty payments. Under the terms of the three-party agreement, the Houston-based, privately-held company Alchemgen received exclusive rights to market endostatin and angiostatin in Asia. CMCC holds the endostatin and angiostatin license for the rest of the world therefore the Company has no future milestone payment obligations related to endostatin and angiostatin. The Company would receive 20% of all future proceeds (e.g. upfront, milestone and royalty payments) resulting from any subsequent CMCC license outside of Asia; however, there can be no assurance that the Company will receive future additional payments under this arrangement.

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

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

In March 2005, we 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, 2005. EntreMed will assume responsibility for preclinical and clinical development of the tubulin inhibitors for oncology applications. The upfront license fee of $1,000,000 was recorded as a component of research and development expense in the Consolidated Statement of Operations for the year ended December 31, 2005.

5. RELATED PARTY TRANSACTIONS

The Company receives legal services from a law firm with which one of the Company's officers is associated. Total expenses for service from this law firm were $1,180,000, $1,015,000 and $1,192,000 in 2005, 2004 and 2003, respectively. The amounts reflected as research and development, of $779,000, $628,000 and $916,000 in 2005, 2004 and 2003, respectively, in the table below primarily represent patent work. The amounts reflected as general and administrative, of $351,000, $387,000 and $276,000 in 2005, 2004 and 2003, respectively, represent legal services.

In addition to legal services, the Company also received financial advisory services from Ferghana Partners, Inc., a provider of corporate financial advice to firms in the Life Sciences field. The Company's chairman also serves as non-executive chairman of Ferghana Partners, Inc. The Company's chairman and CEO both hold a de minimis ownership interest in Ferghana Partners, Inc. Pursuant to a series of business transactions the Company paid $785,000, $100,000 and $3,205,000 in fees to Ferghana Partners, Inc. in 2005, 2004 and 2003, respectively. The 2005 amount includes financial advisory fees of $60,000, a $200,000 fee associated with the March 2005 Celgene license agreement and a $525,000 fee resulting from Celgene's March 2005 exercise of a warrant, issued as part of the 2002 transaction, for 7,000,000 shares of common stock. The $60,000 paid in advisory fees were recorded as general and administrative costs, the $200,000 fee was recorded as research and development expense. The balance of the 2005 fees paid to Ferghana and all of the fees previously paid to Ferghana in 2004 and 2003 were recorded as offsets against gross equity transaction proceeds and, as such, are not reflected as expenses in the current period.

The 2005 research and development amount also includes a $1 million upfront licensing fee paid to Celgene pursuant to our license of Celgene's tubulin inhibitor program. Expenses from related parties are included in the following accounts within the consolidated financial statements, $228,380 and $200,321 of which are included in accounts payable at December 31, 2005 and 2004, respectively:

| | 2005 | 2004 | 2003 |
|---|---|---|---|
| Research and development | $1,979,000 | $628,000 | $916,000 |
| General and administrative | 411,000 | 387,000 | 276,000 |
| Additional paid in capital | 525,000 | 100,000 | 3,205,000 |
| Capitalized acquisition costs | 50,000 | - | - |
| | $2,965,000 | $1,115,000 | $4,397,000 |

6. INCOME TAXES

The Company has net operating loss carryforwards for income tax purposes of approximately $261,541,000 at December 31, 2005 ($249,988,000 at December 31, 2004) that expires in years 2006 through 2025. The Company also has research and development tax credit carryforwards of approximately $10,616,000 as of December 31, 2005 that expire in years 2007 through 2025. These net operating loss carryforwards include approximately $19,800,000, 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, 2005 and 2004 are as follows:

| | DECEMBER 31, 2005 | 2004 |
|---|---|---|
| Deferred income tax assets (liabilities): | | |
| Net operating loss carryforwards | $101,005,000 | $ 94,995,000 |
| Research and development credit carryforward | 10,616,000 | 10,889,000 |
| Deferred revenues | - | 88,000 |
| Equity investment | 70,000 | 69,000 |
| Other | 735,000 | 721,000 |
| Depreciation | 161,000 | 263,000 |
| Valuation allowance for deferred income tax assets | (112,587,000) | (107,025,000) |
| Net deferred income tax assets | $ - | $ - |

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

| | 2005 | 2004 | 2003 |
|---|---|---|---|
| Tax benefit at statutory rate | $ (5,547,000) | $ (4,291,000) | $ (7,034,000) |
| State taxes | (754,000) | (505,000) | (826,000) |
| R & D credits | 273,000 | 383,000 | (853,000) |
| Permanent M-1s | 29,000 | 6,000 | 9,000 |
| Change in valuation allowance | 7,565,000 | 4,407,000 | 8,704,000 |
| Change in estimated effective rate | (1,566,000) | - | - |
| | $ - | $ - | $ - |

7. STOCKHOLDERS' EQUITY

In 2002, the Company issued 3,350,000 shares of Series A Preferred Stock to Celgene. The Series A Preferred Stock is convertible, at the option of Celgene, at any time, into common stock at an initial per share conversion price of $5.00 (1 share of preferred converts into 5 shares of common). The conversion price is subject to change for certain dilutive events, as defined. At any time after December 31, 2005, 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, 2005, cumulative unpaid preferred stock dividends totaled $3,015,000 or $.90 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, 2005 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 April 2003, the Company completed a private placement of 4,100,000 shares of its common stock and warrants to purchase a total of 1,025,000 shares of common stock at an exercise price of $3.375, resulting in gross proceeds, prior to the deduction of fees and commissions of approximately $10.25 million (net proceeds of $9 million).

In May 2003, the Company completed a private placement of 3,000,000 shares of its common stock

resulting in gross proceeds, prior to the deduction of fees and commissions of $9 million (net proceeds of $8.1 million).

In November 2003, the Company completed a private placement of 5,250,000 shares of its common stock and warrants to purchase a total of 787,500 shares of common stock at an exercise price of $5.00, resulting in gross proceeds, prior to the deduction of fees and commissions of approximately $22.3 million (net proceeds of $20.7 million).

In conjunction with the three 2003 transactions described above, we issued to Ferghana Securities, Inc., warrants to purchase 123,500 shares of our common stock at exercise prices ranging from $2.75 to $4.67 for services as financial advisors. The fair value of the warrants issued to Ferghana Securities, Inc. in 2003 ranged from $1.72 to $3.08.

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).

8. STOCK OPTIONS AND WARRANTS

The Company has adopted incentive and nonqualified stock option plans whereby 10,983,333 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 631,176 shares remain available for grant under the Company’s 2001 Long-term Incentive Plan as of December 31, 2005. These options vest over periods varying from immediately to four years and generally expire 10 years from the date of grant.

The Company recorded non-cash compensation charges of $73,000, $175,000 and $175,000 in 2005, 2004 and 2003 related to the issuance of restricted stock to members of our Board of Directors, as each Non-employee director receives as an annual retainer fee of $25,000 that is payable in restricted stock. As of December 31, 2005 and 2004, $102,000 and $0, is reflected as deferred compensation related to the vesting of this stock.

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options which have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions including the expected stock price volatility. Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its employee stock options.

For purposes of pro forma disclosures, the estimated fair values of the options and warrants are amortized to expense over the vesting period. The estimated weighted average fair value per option granted in 2005, 2004 and 2003 was $2.13, $2.00 and $2.43, respectively.

A summary of the Company's stock options and warrants granted to employees and directors and related information for the years ended December 31 follows:

| | Number of Options | Weighted Average Exercise Price |
|---|---|---|
| Outstanding at January 1, 2003 | 6,609,265 | $ 12.04 |
| Exercised | (172,575) | $ 1.42 |
| Granted | 1,487,505 | $ 2.75 |
| Canceled | (416,918) | $ 11.32 |
| Outstanding at December 31, 2003 | 7,507,277 | $ 10.48 |
| Exercised | (7,125) | $ 1.09 |
| Granted | 1,176,728 | $ 2.39 |
| Canceled | (308,902) | $ 6.29 |
| Outstanding at December 31, 2004 | 8,367,978 | $ 9.33 |
| Exercised | (67,070) | $ 1.21 |
| Granted | 604,692 | $ 2.68 |
| Canceled | (943,582) | $ 12.66 |
| Outstanding at December 31, 2005 | 7,962,017 | $ 9.04 |
| Exercisable at December 31, 2005 | 6,736,260 | $ 10.23 |

The following summarizes information about stock options granted to employees and directors outstanding at December 31, 2005:

| | Options Outstanding | | | Options Exercisable | |
|---|---|---|---|---|---|
| Range of Exercise Prices | Number Outstanding at 12/31/05 | Weighted Average Remaining Contractual Life in Years | Weighted Average Exercise Price | Number Exercisable at 12/31/05 | Weighted Average Exercise Price |
| $0.00 - $1.50 | 1,200,119 | 6.9 | $ 1.10 | 1,110,203 | $ 1.10 |
| $1.51 - $3.00 | 1,453,566 | 8.5 | $ 2.17 | 770,035 | $ 2.21 |
| $3.01 - $4.50 | 994,205 | 8.2 | $ 3.54 | 565,643 | $ 3.76 |
| $4.51 - $6.00 | 256,272 | 6.9 | $ 5.04 | 232,524 | $ 5.01 |
| $6.01 - $10.00 | 1,392,650 | 4.6 | $ 9.12 | 1,392,650 | $ 9.12 |
| $10.01 - $15.00 | 945,684 | 3.1 | $ 12.77 | 945,684 | $ 12.77 |
| $15.01 - $25.00 | 1,139,450 | 4.0 | $ 18.78 | 1,139,450 | $ 18.78 |
| $25.01 - $35.00 | 557,948 | 4.1 | $ 27.60 | 557,948 | $ 27.60 |
| $35.01 - $50.00 | 3,611 | 4.6 | $ 44.82 | 3,611 | $ 44.82 |
| $50.01 - $65.00 | 18,512 | 4.3 | $ 53.20 | 18,512 | $ 53.20 |
| | 7,962,017 | 5.9 | $ 9.04 | 6,736,260 | $ 10.23 |

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 January 1, 2003 | 10,111,580 | $ 4.13 |
| Granted | 1,936,001 | $ 4.06 |
| Outstanding at December 31, 2003 | 12,047,581 | $ 4.12 |
| Granted | 1,098,040 | $ 3.67 |
| Exercised | (337,500) | $ .94 |
| Expired | (566,071) | $ 32.55 |
| Outstanding at December 31, 2004 | 12,242,050 | $ 2.85 |
| Granted | - | - |
| Exercised | (7,562,500) | $ 1.46 |
| Expired | (74,672) | $ 6.60 |
| Outstanding at December 31, 2005 | 4,604,878 | $ 5.06 |
| Exercisable at December 31, 2005 | 4,604,878 | $ 5.06 |

9. COMMITMENTS AND CONTINGENCIES

Commitments

The Company entered into two license agreements with Children's Hospital, Boston for the exclusive, worldwide, royalty-bearing licenses to make, use and sell Endostatin and 2-methoxyestradiol ("2ME2"), both inhibitors of angiogenesis. In February 2004, the Company transferred rights to Endostatin in an agreement with Children's Medical Center Corporation and Alchemgen Therapeutics. Therefore, the Company has no future milestone payment obligations related to endostatin. In consideration for retaining the 2ME2 rights, the Company must pay a royalty on any sublicensing fees, as defined in the agreement, to Children's Hospital, Boston. The agreement obligates the Company to pay up to $1,000,000 "upon the attainment of certain milestones." As of December 31, 2005, the Company has paid $150,000 under this agreement for the milestones that have been achieved to date.

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

The Company leases its primary facilities through February 2009. The lease agreement provides for escalation of the lease payments over the term of the lease; however, rent expense is recognized under the straight-line method. Additionally, the Company leases office equipment under operating leases. The future minimum payments under its facilities and equipment leases as of December 31, 2005 are as follows:

| | |
|---|---|
| 2006 | 974,954 |
| 2007 | 991,534 |
| 2008 | 1,021280 |
| 2009 | 171,644 |
| Thereafter | - |
| Total minimum payments | $ 3,159,412 |

Rental expense for the years ended December 31, 2005, 2004 and 2003 was $929,000, $926,000, and $1,296,000, 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 $77,000, $87,000 and $89,000 in 2005, 2004 and 2003, respectively.

11. SUBSEQUENT EVENTS

In January 2006 the Company acquired Miikana Therapeutics, a private biotechnology company. Pursuant to the Merger Agreement EntreMed acquired all of the outstanding capital stock of Miikana Therapeutics, Inc. in exchange for 9.96 million shares of EntreMed common stock valued at approximately $21.2 million, based on the closing price of EntreMed's common stock the day before the merger was announced. In addition, based on the

success of the acquired pre-clinical programs, EntreMed may pay up to an additional $18 million upon the achievement of certain clinical and regulatory milestones. Such additional payments will be made in cash or shares of stock at EntreMed's option.

In February 2006 the Company completed the private placement of units consisting of shares of common stock and warrants at a purchase price of $2.3125 per unit with institutional healthcare investors. In connection with the placement, the Company issued approximately 13 million shares of common stock and warrants to purchase up to 6.5 million additional shares of common stock at an exercise price of $2.50 per share. The warrants will not become exercisable until six months after the closing. In conjunction with the sale we received gross proceeds of approximately $30 million, net proceeds of approximately $28 million.

12. QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

Summarized unaudited quarterly financial information for the years ended December 31, 2005 and 2004 is as follows:

| | QUARTER ENDED | | | |
|---|---|---|---|---|
| | MARCH 31, | JUNE 30, | SEPTEMBER 30, | DECEMBER 31, |
| 2005 | | | | |
| Revenues | $ 25,249 | $ 579,461 | $ 1,249,600 | $ 4,063,745 |
| Research and development costs | 4,379,356 | 3,812,353 | 4,128,756 | 5,004,583 |
| General and administrative expenses | 1,260,822 | 1,339,150 | 1,786,868 | 1,533,615 |
| Investment income | 158,461 | 271,832 | 284,195 | 296,283 |
| Gain on sale of assets | | | 2,000 | 1,420 |
| Net loss | (5,456,468) | (4,300,210) | (4,379,829) | (2,176,750) |
| Dividends on Series A convertible preferred stock | (251,250) | (251,250) | (251,250) | (251,250) |
| Net loss attributable to common Shareholders | (5,707,718) | (4,551,460) | (4,631,079) | (2,428,000) |
| Net loss per share (basic and diluted) | $ (0.13) | $ (0.09) | $ (0.09) | $ (0.05) |
| 2004 | | | | |
| Revenues | $ 97,967 | $ 139,380 | $ 142,738 | $ 133,910 |
| Research and development costs | 3,056,970 | 2,484,426 | 2,553,494 | 2,428,362 |
| General and administrative expenses | 2,092,939 | 1,963,410 | 1,337,922 | 1,176,393 |
| Investment income | 84,594 | 60,733 | 75,495 | 93,118 |
| Gain on sale-royalty interest | | | | 3,000,000 |
| Gain on sale of securities | | | 520,000 | |
| Gain on sale of assets | | | 6,335 | 117,748 |
| Net loss | (4,967,348) | (4,247,723) | (3,146,848) | (259,979) |
| Dividends on Series A convertible preferred stock | (251,250) | (251,250) | (251,250) | (251,250) |
| Net loss attributable to common Shareholders | (5,218,598) | (4,498,973) | (3,398,098) | (511,229) |
| Net loss per share (basic and diluted) | $ (0.14) | $ (0.12) | $ (0.09) | $ (0.02) |

EXHIBIT 23.1

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following registration statements

1. Registration Statement Number 333-67063 on Form S-8
2. Registration Statement Number 333-41218 on Form S-8
3. Registration Statement Number 333-68048 on Form S-8
4. Registration Statement Number 333-101617 on Form S-8
5. Registration Statement Number 333-80193 on Form S-3
6. Registration Statement Number 333-84907 on Form S-3
7. Registration Statement Number 333-94665 on Form S-3
8. Registration Statement Number 333-76824 on Form S-3
9. Registration Statement Number 333-104380 on Form S-3
10. Registration Statement Number 333-110604 on Form S-3
11. Registration Statement Number 333-122309 on Form S-3
12. Registration Statement Number 333-87940 on Form S-3
13. Registration Statement Number 333-129276 on Form S-3

of EntreMed, Inc. (EntreMed), and in the related Prospectuses of our report dated March 8, 2006, with respect to the consolidated financial statements of EntreMed, EntreMed's assessment of the effectiveness of internal control over financial reporting, and the effectiveness of internal control over financial reporting of EntreMed, included in this Annual Report (Form 10-K) for the year ended December 31, 2005.

/s/ Ernst & Young LLP

McLean, Virginia
March 14, 2006

Exhibit 31.1

**CERTIFICATION OF PRESIDENT AND CHIEF EXECUTIVE OFFICER**

I, James S. Burns, certify that:

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

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

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

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

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

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

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

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

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

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

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

Date: March 9, 2006

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

Exhibit 31.2

## CERTIFICATION OF CHIEF FINANCIAL OFFICER

I, Dane R. Saglio, certify that:

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

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

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

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

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

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

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

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

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

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

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

Date: March 9, 2006

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

Exhibit 32.1

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

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

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

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

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

/s/ James S. Burns
March 9, 2006 James S. Burns
President and CEO

Exhibit 32.2

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

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

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

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

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

/s/ Dane R. Saglio
March 9, 2006 Dane R. Saglio
Chief Financial Officer