

EMISPHERE TECHNOLOGIES INC  
Form 10-K  
March 06, 2007

---

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

---

**FORM 10-K**

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the year ended December 31, 2006**

**OR**

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
**Commission file number 1-10615**

---

**EMISPHERE TECHNOLOGIES, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or jurisdiction of incorporation or organization)

**13-3306985**  
(I.R.S. Employer Identification Number)

**765 Old Saw Mill River Road**  
**Tarrytown, New York**  
(Address of principal executive offices)

**10591**  
(Zip Code)

**(914) 347-2220**

(Registrant's telephone number, including area code)

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

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

**Common Stock \$.01 par value**

**Preferred Stock Purchase Rights**

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

Yes No

☐ ☒

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act.

Yes No

☐ ☒

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that Registrant was required to file such reports) and (2) has been subject to such filing requirements for at least the past 90 days.

Yes No

☒ ☐

## Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐

Accelerated filer ☒

Non-accelerated filer ☐

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b02 of the Act).

Yes No

☐ ☒

As of June 30, 2006 (the last business day of the registrant's most recently completed second quarter), the aggregate market value of the common stock held by non-affiliates of the Registrant (i.e. excluding shares held by executive officers, directors, and control persons) was \$200,428,250 computed at the closing price on that date.

The number of shares of the Registrant's common stock, \$.01 par value, outstanding as of February 13, 2007 was 28,311 948.

### DOCUMENTS INCORPORATED BY REFERENCE

Part III of this 10-K incorporates information by reference from the registrant's definitive proxy statement which will be filed no later than 120 days after December 31, 2006.

---

TABLE OF CONTENTS

	<u>Page No.</u>
<b><u>PART I</u></b>	
Item 1. <u>Business</u>	1
Item 1A. <u>Risk Factors</u>	18
Item 1B. <u>Unresolved Staff Comments</u>	26
Item 2. <u>Properties</u>	26
Item 3. <u>Legal Proceedings</u>	26
Item 4. <u>Submission of Matters to a Vote of Security Holders</u>	27
<b><u>PART II</u></b>	
Item 5. <u>Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	28
Item 6. <u>Selected Financial Data</u>	29
Item 7. <u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	30
Item 7A. <u>Quantitative and Qualitative Disclosures About Market Risk</u>	38
Item 8. <u>Financial Statements and Supplementary Data</u>	39
Item 9. <u>Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	63
Item 9A. <u>Controls and Procedures</u>	63
Item 9B. <u>Other Information</u>	63
<b><u>PART III</u></b>	
Item 10. <u>Directors, Executive Officers and Corporate Governance</u>	64
Item 11. <u>Executive Compensation</u>	64
Item 12. <u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	64
Item 13. <u>Certain Relationships, Related Transactions and Director Independence</u>	64
Item 14. <u>Principal Accounting Fees and Services</u>	64
<b><u>PART IV</u></b>	
Item 15. <u>Exhibits and Financial Statement Schedules</u>	65
<u>Exhibits Index</u>	66
<u>Signatures</u>	69

## PART I

### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements made under the captions Business (Item 1) and Management's Discussion and Analysis of Financial Condition and Results of Operations (Item 7), the notes to our audited financial statements (Item 8) and elsewhere in this Annual Report on Form 10-K, as well as statements made from time to time by our representatives may constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements include, without limitation, statements regarding planned or expected studies and trials of oral formulations that utilize our *eligen*® technology; the timing of the development and commercialization of our product candidates or potential products that may be developed using our *eligen*® technology; the potential market size, advantages or therapeutic uses of our potential products; variation in actual savings and operating improvements resulting from restructurings; and the sufficiency of our available capital resources to meet our funding needs. We do not undertake any obligation to publicly update any forward-looking statement, whether as a result of new information, future events, or otherwise, except as required by law. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause our actual results or achievements to be materially different from any future results or achievements expressed or implied by such forward-looking statements. Such factors include the factors described under Item 1A. Risk Factors and the other factors discussed in connection with any forward-looking statements.

#### ITEM 1. BUSINESS

##### Overview of Emisphere

###### *Introduction and History*

Emisphere Technologies, Inc. (Emisphere, our, us or we) is a biopharmaceutical company specializing in the oral delivery of therapeutic macromolecules and other compounds that are poorly deliverable by oral means. Since our inception in 1986, we have devoted substantially all of our efforts and resources to research and development conducted on our own behalf and in collaboration with corporate partners and academic research institutions. Our product pipeline includes product candidates for the treatment of cardiovascular diseases, osteoarthritis, osteoporosis, growth disorders, diabetes, asthma/allergies, obesity, infectious diseases and oncology. Development and commercialization of these product candidates entails risk and significant expense. Since inception, we have had no product sales from these product candidates. We have not yet obtained regulatory approval for sales of any of our product candidates. Further information can be found on our website: [www.emisphere.com](http://www.emisphere.com). The contents of that website are not incorporated herein by reference thereto. Investor related questions should be directed to [info@emisphere.com](mailto:info@emisphere.com).

Emisphere was originally founded as Clinical Technologies Associates, Inc. in 1986. We conducted an initial public offering in 1989, and were listed on NASDAQ under the ticker symbol CTAI. In 1990 we decided to focus on our oral drug delivery technology, now known as the *eligen*® technology. In 1991, we changed our name to Emisphere Technologies, Inc., and we continued to be listed on NASDAQ, under the new ticker symbol, EMIS.

###### *The eligen® Technology*

The *eligen*® technology is a broadly applicable proprietary oral drug delivery technology based on the use of proprietary, synthetic chemical compounds known as EMISPHERE® delivery agents, or carriers. These delivery agents facilitate and/or enable the transport of therapeutic macromolecules (such as proteins, peptides, and polysaccharides) and poorly absorbed small molecules across biological membranes such as the small intestine. We believe that our *eligen*® technology makes it possible to orally deliver a therapeutic macromolecule or increase the absorption of a poorly absorbed small molecule without altering its chemical composition or compromising the integrity of biological membranes.

###### *Business Strategy*

Our core business strategy is to develop oral forms of drugs that are not currently available or have poor bioavailability in oral form, either alone or with corporate partners, by applying the *eligen*® technology to those drugs. Typically, the drugs that we target have received regulatory approval, have demonstrated safety and efficacy, and are currently available on the market. We believe that focusing on the oral delivery of these types of product candidates increases our probability of successfully executing our business strategy.

## Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

As part of our business strategy, we collaborate with pharmaceutical companies in pre-clinical and Phase I studies to determine whether one or more of our carriers will facilitate the oral delivery of a particular drug candidate. Our direct costs of such studies are frequently reimbursed to us by our collaborative partners. Occasionally we conduct such studies on our own with the expectation that we will secure a partner upon successful completion of such studies. Since our inception, we have progressed ten different drug candidates through such Phase I clinical studies. Later stage clinical trials may not support the findings of these early stage studies. The amount of additional time and money required to obtain regulatory approval for sale of these drug candidates is difficult to determine but is often at least several years, and costs millions of dollars.

### *Product Candidates in Development*

The following table sets forth the therapeutic areas for which we are developing product candidates, either alone or with corporate partners; the candidates currently in development; the present stage of clinical development; and the identity of our corporate partner for partnered programs, as previously reported by Emisphere or the partner.

THERAPEUTIC AREA	DRUG CANDIDATES	STAGE OF DEVELOPMENT	PARTNER
Bone Related Disease (osteoporosis and osteoarthritis)	Oral Salmon Calcitonin ( sCT )	Phase II	Novartis Pharma AG <sup>(2)</sup>
	Oral Recombinant Parathyroid Hormone (teriparatide; PTH 1-34 )	Phase I	Novartis Pharma AG <sup>(3)</sup>
Cardiovascular	Oral Heparin	Phase III <sup>(1)</sup>	Self-developed
	Oral Low Molecular Weight Heparin ( LMWH )	Phase I	Undisclosed
Diabetes	Oral Insulin	Phase II	Self-developed
	Oral Glucagon-Like Peptides ( GLPs )	Phase I	Self-developed
Growth Disorders	Oral Recombinant Human Growth Hormone (somatropin; rhGH )	Phase I	Novartis Pharma AG
Anti-Viral	Oral Acyclovir	Phase I	Undisclosed
Oncology	Oral Gallium	Preclinical <sup>(4)</sup>	Genta, Incorporated
Obesity	Oral PYY 3-36	Phase I	Self-developed
Asthma/ Allergies	Oral Cromolyn Sodium	Phase I	Self-developed
Other	Multiproduct research collaboration	Preclinical <sup>(4)</sup>	Hoffman- La Roche, Inc. and F. Hoffman- La Roche Ltd.
	Feasibility Projects	Preclinical <sup>(4)</sup>	Undisclosed

- (1) We previously developed a liquid form of oral heparin and in 2000 initiated a Phase III clinical trial that was completed in early 2002. The trial did not meet its endpoint of superiority to LOVENOX®, a leading low molecular weight heparin. Current development involves solid dosage forms of oral heparin.
- (2) Novartis Pharma AG ( Novartis ) has obtained U.S. Food and Drug Administration ( FDA ) and European Agency for the Evaluation of Medicinal Products (EMA) agreement to conduct Phase III trials.
- (3) As noted elsewhere in this annual report, we had previously partnered this program with Eli Lilly and Company ( Lilly ).

## Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

On December 1, 2004, we entered into a new arrangement with Novartis Pharma AG to develop this product candidate.

- (4) Pre-clinical is defined as investigating safety of a product candidate in a controlled laboratory environment and establishing evidence of oral delivery in animal studies.

### *Business Financing*

Since our inception in 1986, we have generated significant losses from operations and we anticipate that we will continue to generate significant losses from operations for the foreseeable future. As of December 31, 2006, our accumulated deficit was approximately \$392 million. Our loss from operations was \$27.1 million, \$32.5 million and \$32.2 million for the years ended December 31, 2006, 2005 and 2004, respectively. We believe operating loss is a more representative measure to discuss, as net loss of \$41.8 million for the year ended December 31, 2006 includes \$13.6 million of non-cash other expense

items related to a beneficial conversion feature and derivatives. Our cash outlays from operations and capital expenditures were \$22.8 million, \$30.4 million and \$23.5 million for the years ended December 31, 2006, 2005 and 2004, respectively. Our stockholders' deficit was \$6.1 million, \$14.9 million and \$11.3 million as of December 31, 2006, 2005 and 2004, respectively.

We have limited capital resources and operations to date have been funded with the proceeds from collaborative research agreements, public and private equity and debt financings and income earned on investments. We anticipate that our existing capital resources will enable us to continue operations through approximately September of 2007, or earlier if unforeseen events or circumstances arise that negatively affect our liquidity. While our plan is to raise capital when needed and/or to pursue partnering opportunities, we cannot be sure that our plans will be successful. These conditions raise substantial doubt about our ability to continue as a going concern. The audit report prepared by our independent registered public accounting firm relating to our consolidated financial statements for the year ended December 31, 2006 includes an explanatory paragraph expressing the substantial doubt about our ability to continue as a going concern.

If we are successful in raising additional capital to continue operations, our business will still require substantial additional investment that we have not yet secured. Further, we will not have sufficient resources to develop fully new products or technologies unless we are able to raise substantial additional financing on acceptable terms or secure funds from new or existing partners. We cannot assure you that financing will be available on favorable terms or at all. See Item 1A- Risk Factors.

### **Overview of Drug Delivery Industry**

The drug delivery industry develops technologies for the improved administration of therapeutic molecules with the goal of expanding markets for existing products and extending drug franchises. Drug delivery companies also seek to develop products on their own that would be patent-protected by applying proprietary technologies to off-patent pharmaceutical products. Primarily, drug delivery technologies are focused on improving safety, efficacy, ease of patient use and/or patient compliance. Pharmaceutical and biotechnology companies consider improved drug delivery as a means of gaining competitive advantage over their peers.

Therapeutic macromolecules, of which proteins are the largest sub-class, are prime targets for the drug delivery industry for a number of reasons. First, all therapeutic macromolecules must currently be administered by injection (most common) or other device such as an inhaler or nasal spray system. These compounds address large markets for which there is an established medical need. These drugs are widely used, as physicians are familiar with them and accustomed to prescribing them. Therapeutic macromolecules could be significantly enhanced through alternative delivery. These medicines are comprised of proteins and other large or highly charged molecules (carbohydrates, peptides, ribonucleic acids) that, if orally administered using traditional oral delivery methods, would degrade in the stomach or intestine before they are absorbed into the bloodstream. Also, these molecules are typically not absorbed following oral administration due to their poor permeability. Therefore, the vast majority are administered parenterally. Parenteral administration is undesirable, however, for many reasons, including patient discomfort, inconvenience and risk of infection. Poor patient acceptance of parenteral therapies can lead to medical complications. In addition, parenteral therapies can often require incremental costs associated with administration in hospitals or doctors' offices.

Previously published research indicates that patient acceptance of and adherence to a dosing regimen is higher for orally delivered medications than it is for non-orally delivered medications. Our business strategy is based upon our belief that the development of an efficient and safe oral delivery system for therapeutic macromolecules represents a significant commercial opportunity. We believe that more patients will take orally delivered drugs more often, spurring market expansion.

### **Leading Current Approaches to Drug Delivery**

#### *Transdermal (via the skin) and Needleless Injection*

The size of most macromolecules makes penetration into or through the skin inefficient or ineffective. Some peptides and proteins can be transported across the skin barrier into the bloodstream using high-pressure needleless injection devices. Needleless devices, which inject proteins through the skin into the body, have been in development for many years. We believe these devices have not been well accepted due to patient discomfort, relatively high cost, and the inconvenience of placing the drugs into the device.

*Nasal (via the nose)*

The nasal route (through the membranes of the nasal passage) of drug administration has been limited by low and variable bioavailability for proteins and peptides. As a result, penetration enhancers often are used with nasal delivery to increase bioavailability. These enhancers may cause local irritation to the nasal tissue and may result in safety concerns with long-term use. A limited number of peptides delivered nasally have been approved for marketing in the United States including MIACALCIN®, developed by Novartis as an osteoporosis therapy, a therapeutic area we have targeted.

*Pulmonary (via the lung)*

Pulmonary delivery (through the membranes of the lungs) of drugs is emerging as a delivery route for large molecules. Although local delivery of respiratory drugs to the lungs is common, the systemic delivery (i.e., delivery of the drugs to the peripheral vasculature) of macromolecular drugs is less common because it requires new formulations and delivery technologies to achieve efficient, safe and reproducible dosing. Only one protein using pulmonary delivery has been approved for marketing in the United States, which is EXUBERA®, an insulin product developed by Pfizer and Nektar, as a diabetes therapy, a therapeutic area we have targeted. However market acceptance of EXUBERA® has been limited.

*Intraoral (via the membranes in the mouth)*

Intraoral delivery is also emerging as a delivery route for large molecules. Buccal delivery (through the membrane of the cheek) and sublingual delivery (through the membrane under the tongue) are forms of intraoral delivery.

*Oral (via the mouth)*

We believe that the oral method of administration is the most patient-friendly option, in that it offers convenience, is a familiar method of administration that enables increased compliance and, for some therapies, may be considered the most physiologically appropriate. We, and other drug delivery and pharmaceutical companies, have developed or are developing technologies for oral delivery of drugs. We believe that our *eligen*® technology provides an important competitive advantage in the oral route of administration because it does not alter the chemical composition of the therapeutic macromolecules. We have conducted over 140,000 human dosings and have witnessed no serious adverse events that can be attributed to the EMISPHERE® delivery agents dosed or the mechanism of action of the *eligen*® technology.

In general, we believe that oral administration will be preferred to other methods of administration. However, such preference may be offset by possible negative attributes of orally administered drugs such as the quantity or frequency of the dosage, the physical size of the capsule or tablet being swallowed or the taste. For example, in our previous Phase III Trial with heparin as an oral liquid formulation, patient compliance was hindered by patients' distaste for the liquid being administered.

**The *eligen*® Technology**

Our oral drug delivery technology, the *eligen*® technology, is based upon proprietary, synthetic chemical compounds known as EMISPHERE® delivery agents (or carriers) that facilitate or enable the transport of therapeutic macromolecules and poorly absorbed small molecules across biological membranes, such as the membranes of the small intestine. We have demonstrated improved oral delivery in humans of the following therapeutic macromolecules: unfractionated heparin, low molecular weight heparins, insulins, PTH 1-34, rhGH and salmon calcitonin. In addition, we have demonstrated improved oral delivery in humans of other compounds that are not macromolecules but are poorly absorbed, such as acyclovir, cromolyn sodium and a small molecule for the treatment of bone disease. We have not successfully completed a Phase III trial with respect to any of our product candidates nor have we received any regulatory approvals for sales of any of our product candidates. We have also demonstrated the delivery of over 60 other compounds in laboratory animals.

We believe based on our testing to date, including animal studies and early-stage clinical trials, that the EMISPHERE® delivery agents use a natural transport process in the body (passive transcellular transport) that enables therapeutic macromolecules to cross membranes. Non-clinical studies have shown that Emisphere's *eligen*® technology makes it possible to orally deliver a therapeutic molecule without altering its chemical composition or pharmacological activity. These studies have provided data to support our view that Emisphere's *eligen*® oral drug delivery technology does not damage the intestinal membrane or chemically modify the drug molecule thus allowing the drug to remain therapeutically active.



We also believe that the *eligen*® technology transiently shifts the natural equilibrium of only the molecular configuration of the therapeutic macromolecule and not its chemical composition. Under physiological conditions, protein molecules naturally exist in many different shapes, or conformations. Some of these conformations can be transported across the cell membranes. Our hypothesis is that once the therapeutic macromolecule crosses the targeted membrane, the delivery agent separates from the macromolecule and the equilibrium among the drug's conformations reestablishes thereby allowing the drug to remain therapeutically active.

We have designed and synthesized a library of approximately 4,000 delivery agents and continue to evaluate our delivery agents for their ability to facilitate the delivery of therapeutic macromolecules across biological membranes.

### Key Characteristics of the *eligen*® Technology

Based on our testing to date, including animal studies and early-stage clinical trials, we believe that our oral drug delivery technology has competitive advantages, including:

EMISPHERE® delivery agents are applicable across a diverse group of molecules such as proteins, peptides, carbohydrates, polar organics, and other compounds;

Oral drug delivery using the *eligen*® technology does not rely upon the addition of other agents that can have adverse effects on the intestinal membranes or digestion;

We have created various types of oral formulations, including solutions, suspensions, tablets and capsules;

We believe our *eligen*® technology has other clinical benefits beyond the obvious compliance and convenience;

We believe our *eligen*® technology is applicable to controlled release dosage forms; and

We believe that the technology and manufacturing equipment required to produce EMISPHERE® delivery agent material in commercial quantities is readily available based both on discussions with multiple manufacturers and on such manufacturers' current capacities to produce similar material.

### Therapeutic Indications

#### *Cardiovascular (Anti-thrombosis)*

Unfractionated heparin ( UFH ) and low molecular weight heparin ( LMWH ) are widely used anti-thrombotics/anti-coagulants. These agents are primarily indicated for treating and preventing post-surgical deep vein thrombosis (blood clots following major surgery) ( DVT ) and more severe sequelae, e.g., pulmonary embolism. Also, these drugs are frequently prescribed for acute myocardial infarction, graft surgery, stroke and unstable angina. The most common indications for heparin therapy are the prevention of venous thrombosis (blood clots) following surgical procedures lasting longer than 30 minutes (especially orthopedic, pelvic, abdominal, trauma, angioplastic or heart surgery). According to the website [www.dvt.org](http://www.dvt.org) (maintained by the University of Massachusetts Medical School), the risk of developing DVT following major surgery can range as high as seventy percent. DVT treatment generally includes about five to ten days of heparin treatment, continued by months of orally administered warfarin. Currently, all forms of heparin are administered as either a continuous intravenous infusion or a subcutaneous injection.

According to published reports in *The Lancet* and the *Journal of Bone and Joint Surgery*, recent studies indicate that a longer prophylaxis regimen (extending the duration of heparin preventative therapy from the current standard of practice) would benefit patients following major surgery. We believe that compliance would be improved if a commercially viable oral form of UFH or LMWH was available because patients could be more inclined to comply with this type of dosage form compared to a parenteral form. Preventative therapy is typically recommended for at least 10 to 14 days post-surgery. However, several studies indicate that longer heparin prophylaxis (preferably for 30 days) is optimal, because the risk of DVT remains high throughout this period. We believe our oral heparin product candidate would be a desirable therapy in this 30-day period. Heparin is often considered the anti-coagulant of choice for the prevention and treatment of cardiovascular complications, such as DVT or blood clots and pulmonary embolism in high-risk, hospitalized patients. Typically, clinicians favor heparin over warfarin because heparin is more effective, produces a rapid onset of anti-coagulation activity, has a shorter physiological half-life, and has fewer drug-drug interactions than warfarin. In addition, warfarin requires frequent patient monitoring. A major disadvantage of heparin therapy is the requirement for subcutaneous administration.

We believe that our solid oral heparin candidate could penetrate and expand existing heparin markets. We anticipate that new markets for the heparins will be created based on recently reported studies published by the American Heart Association and the *New England Journal of Medicine* indicating that UFH may have utility for additional indications including: unstable angina, arterial fibrillation, acute myocardial infarction, angioplasty, stent placement, coronary artery bypass graft, pulmonary embolism and stroke. In addition, a growing body of pre-clinical and clinical data indicates that heparin has potent anti-inflammatory and anti-cancer properties. Further, the studies mentioned above indicate that heparin has been beneficial as a treatment for inflammatory bowel disease, rheumatoid arthritis, asthma, psoriasis, transplant rejection and proteinurias.

We believe that oral heparin could be considered a more convenient and patient-friendly therapy than injectable heparin by both patients and physicians, and could open the at-home market to heparin by replacing warfarin and injectable LMWH use. Also, we believe that our oral heparin product candidates ultimately could be applicable for a wide range of anti-coagulant/anti-thrombotic uses.

#### *Our Oral Heparin Program*

We are currently evaluating solid oral heparin prototypes, including capsule and tablet forms of UFH, using our delivery agent, SNAC. In 2000 to 2002, two doses of Heparin/SNAC liquid formulation were administered in a Phase III study of over 2,000 patients that we refer to as the PROTECT (PROphylaxis with Oral SNAC/heparin against ThromboEmbolic Complications following Total hip replacement surgery) trial. On May 14, 2002, we announced initial results from the PROTECT trial which did not demonstrate the superiority of oral liquid heparin, when dosed in a 30-day treatment regimen, compared to enoxaparin administered by injection in a 10-day dosing regimen in preventing DVTs. However, the data from the study suggested that the lower than expected efficacy net result may have been due to the poor taste of the liquid dosage form, and that a more tolerable dosage form (e.g., capsule or tablet) would result in higher patient acceptability.

Heparin, a polysaccharide, represents a significant formulation challenge for our *eligen*® technology because the potency of heparin is significantly lower than most existing macromolecule drugs, therefore requiring a large dose of heparin, which combined with the carrier SNAC, results in both a large solid dosage form and a large number of tablets or capsules per dose. Since 2002, we have significantly reduced the necessary dose by using both traditional formulation techniques and *eligen*® technology-specific techniques. We believe that reducing the size of the dosage form and the number of tablets or capsules per dose would provide the most patient-preferred and commercially viable solid dosage form. We are continuing our efforts to optimize a solid oral UFH dosage form and have produced improved solid formulations with additional performance enhancements.

In the first quarter of 2004, we selected prototype formulations in the forms of a tablet and capsule for production and Phase I clinical testing in the United States. That testing was completed in June 2004, and in August 2004, we announced that we selected a soft gelatin capsule formulation of UFH. This formulation was chosen after the evaluation of results from a Phase I clinical trial comparing various oral dosage formulations of EMISPHERE® Heparin/SNAC to our liquid UFH formulation that was previously tested in the PROTECT trial.

The randomized, open label, cross-over study, conducted in 15 healthy volunteers, evaluated anti-coagulant activity before and after the administration of four new oral dosage forms of UFH. The new formulations consisted of tablets and soft-gel capsules. Each subject was also administered our liquid UFH formulation and SNAC (Emisphere's proprietary delivery agent) alone, as a control arm.

Following each dose, subjects were evaluated for anticoagulation activity, by measurement of anti-Factors Xa and IIa and activated partial thromboplastin time that represent the pharmacodynamic activity of heparin in blood. Three of the four new formulations delivered heparin as well or better than the liquid formulation. Subjects treated with SNAC alone showed no change from baseline in anti-coagulant activity. No serious adverse events were reported in the study.

Both soft gelatin capsule formulations contained less UFH and SNAC per dose than the previously tested liquid formulation, yet consistently demonstrated improvements over the liquid dose in delivering UFH.

During the third quarter of 2005, we completed a multi-arm, cross-over clinical trial with sixteen normal subjects designed to compare heparin delivered by different injection routes to heparin delivered orally. We conducted this trial to support our contention that heparin's molecular configuration, when given orally using our *eligen*® technology, is unaltered as compared to heparin delivered by injection.

## Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

In March 2006, we announced that preliminary results confirm that heparin delivered orally utilizing our *eligen*® drug delivery technology is chemically identical to heparin delivered by injection. The detailed results of this study will be made available through publication.

In November 2005, we announced that we received written guidance from the FDA regarding a number of aspects of a Phase III trial design for oral heparin. The planned trial is designed to determine the safety and efficacy of oral heparin versus Coumadin® (sodium warfarin) for the prevention of venous thromboembolism ( VTE ) following elective total hip replacement. Subsequently, we submitted the protocol for a Special Protocol Assessment ( SPA ) to the FDA and received comments in January 2007. We are able to proceed to a Phase III study, however, we are clarifying with the FDA a few remaining details with regard to the Phase III study protocol prior to its finalization.

The trial design is a randomized double blind, non-inferiority, multi-center study with the primary endpoint to prevent VTE, which consists of DVT, objectively confirmed by ultrasound, pulmonary embolism and death. The two arm study will compare 30 days of dosing, three times per day, of two Emisphere oral heparin capsules (brand name Elaprin®), to 30 days of dosing, once per day, of oral Coumadin®. The estimated enrollment for the trial currently is approximately 2,100 patients (including an allowance for non-evaluable patients), with 1,050 patients per arm. An independent Data and Safety Monitoring Committee will be charged with periodically reviewing the trial for safety. Emisphere shall be permitted to take an interim look at approximately 50% enrollment to test for superiority as well as resize the study upward if necessary.

### ***Diabetes***

According to statistics provided by the World Health Organization and the American Diabetes Association, approximately 180 million people worldwide are afflicted by diabetes, with approximately 21 million of those afflicted residing in the United States. Nearly one-third of all individuals in the United States suffering from diabetes are unaware that they have this chronic disease. There are two principal types of diabetes:

Type 1 - An autoimmune disease in which the body does not produce any insulin. Type 1 diabetes typically appears initially in children and young adults. Type 1 diabetics must receive multiple daily insulin injections to stay alive. Type 1 diabetes accounts for approximately 5-10% of total diabetes cases.

Type 2 - A metabolic disorder resulting from the body's inability to properly utilize or produce adequate amounts of insulin. Type 2 diabetics account for approximately 90-95% of diabetes cases. Reportedly, the incidence of Type 2 diabetes is rising rapidly as a result of an aging population, greater prevalence of obesity, and a more sedentary lifestyle. Type 2 diabetes is also being diagnosed in younger patients as compared to historical observations.

According to the publicly filed annual reports of leading insulin manufacturers, worldwide sales of injectable insulin were approximately \$6 billion in 2005. Although diet, exercise and non-insulin medications are often used to control the disease, approximately 40% of all Type 2 diabetics use insulin to control the disease, accounting for approximately 50% of total insulin use. Although many more Type 2 diabetics could benefit from insulin therapy, use of the drug has been limited because it is administered by injection. We believe that a successful oral insulin therapy could, depending on factors such as the quantity and frequency of the dosage, the physical size of the tablet or capsule being swallowed or the taste, facilitate compliance for diabetic patients who are not diligent with their prescribed injection regimens, and enable those patients adverse to injections to adopt insulin therapy at an earlier stage of the disease.

Based on previously published research, we believe that oral insulin delivery is consistent with the physiology of natural secretion of insulin from the pancreas, which travels to the liver prior to being distributed to the peripheral circulation. We believe that our orally delivered insulin likewise travels to the liver prior to being distributed to the peripheral circulation. In comparison, also based on previously published research, we believe that injected insulin, like other non-oral insulin therapies, is administered into the general (systemic) circulatory system first and then to the liver. We believe that as a result, injectable insulin results in higher circulating insulin levels than oral insulin. Chronic excess insulin in the general circulation (known as hyperinsulinemia) is thought to contribute to certain diabetic patient complications.

Furthermore, we believe that the pharmacological profile of our oral insulin to date, namely, the onset and duration of action, has been consistent with the physiological profile of naturally secreted insulin from the pancreas, especially under fed conditions. For the foregoing reasons, we believe that, aside from the convenience benefits, orally delivered insulin, with the appropriate clinical attributes, may provide an alternative therapy with fewer complications when compared to existing medical diabetes treatments.

### *Our Oral Insulin Program*

In March 2003, we announced completion of a Phase I study in early-stage Type 2 diabetic patients designed to demonstrate the pharmacokinetics and absorption of oral insulin, and subsequent effects on blood glucose of this product candidate following a standardized meal. The placebo controlled, crossover study evaluated two oral doses of insulin. Patients received one capsule containing 5.6 mg (150 units) of insulin and 200 mg of EMISPHERE® delivery agent or two capsules containing a total of 11 mg (300 units) of insulin and 400 mg of EMISPHERE® delivery agent. The study compared the two oral dosages to a fast-acting injectable insulin in fourteen patients with Type 2 diabetes who had received a standardized solid meal (722 kcal). The study also included a placebo group. For the 11 mg dose, the data demonstrated that oral insulin dosages, when administered 30 minutes prior to the standardized meal, reduced post-prandial glucose excursion (the rise in blood sugar following a meal) and produced a marked increase in systemic insulin levels and a concomitant reduction in C-peptide (a marker of endogenous insulin production) as compared to the placebo. In addition, plasma insulin concentrations peaked faster using our oral dosage as compared to fast acting injectable insulin (30 minutes with oral versus approximately 45 minutes typically seen with injectable formulations). Similar results were observed in certain patients given the 5.6 mg dose, who received the same standardized meal. The study produced evidence that one or two capsules could impact post-prandial blood glucose in certain early-stage Type 2 diabetic patients and demonstrated favorable pharmacokinetics. No serious adverse events were reported. All study treatments were safe and well tolerated, with few hypoglycemic episodes occurring mainly after subcutaneous injection of 12 unit fast-acting insulin.

In June 2004, at the 64th Scientific Sessions of the American Diabetes Association, we presented results from our first multiple dosing with the EMISPHERE® oral insulin tablet prototype when dosed in Type 2 diabetics. The 13-patient Phase I clinical study, consisting of seven treated patients and six control patients, evaluated the safety, effect and tolerability of the oral insulin tablets when administered four times daily over a two-week period. The results were presented in a late-breaker session (abstract #8-LB) by lead investigator Tim Heise, M.D. of PROFIL Institute. The study's results indicated that treatment with Emisphere® oral insulin over 14 days was well-tolerated, led to improvements in post-prandial blood glucose concentrations both under oral glucose tolerance test ( OGTT ) and standardized meal conditions, and tended to improve fasting blood glucose concentrations and insulin resistance. Safety and tolerability findings among patients receiving treatment with the EMISPHERE® oral insulin indicated that the study drug was well tolerated with no serious adverse events. Only two adverse events occurred in the oral insulin group (one patient reported moderate joint pain, another patient suffered from mild headaches that were of short duration). Six adverse events occurred in the control group. Despite the tight diabetes control and the frequent blood glucose self-monitoring of the subjects, no hypoglycemic episodes were observed in this study.

In November 2005, we commenced a Phase II trial in India for our oral insulin product. On October 30, 2006 and November 8, 2006, we announced the results of our 90 day Phase II trial which evaluated the safety and efficacy of low and high doses of oral insulin tablets utilizing our *eligen*® drug delivery technology. The four-arm study evaluated the safety and efficacy of low and high fixed doses of oral insulin tablets verses placebo in patients with Type 2 Diabetes Mellitus on existing oral metformin monotherapy. The trial focused on the safety of the oral insulin, specifically noting incidents of hypoglycemia, as well as the occurrence of insulin antibodies. The efficacy component of the trial was designed to measure changes in Hemoglobin A1c (HbA1c) over 90 days, the standard for evaluating glucose control in Type II diabetics. An additional objective was to confirm that insulin delivered orally could be administered as a fixed dose product without the need to conduct glucose monitoring or titrate the insulin dose.

We are continuing to study and learn from the data from the Phase II trial and intend to partner this program at some point. We are planning additional clinical studies related to dosage form development designed to optimize efficiency of delivery. In order to design the appropriate clinical studies for the development of the product, we are establishing a scientific advisory board comprised of leading academic experts in the field of diabetes to guide our efforts.

### ***Bone-related Disease***

Osteoporosis is a disease characterized by low bone mass and structural deterioration of bone tissue, leading to bone fragility and an increased susceptibility to fractures. It is a common condition among the elderly both men and women. The most common consequence of osteoporosis is greatly increased risk of broken bones, especially in the hip region. According to the National Osteoporosis Foundation, osteoporosis is a major health threat for an estimated 44 million Americans or 55 percent of the people over 50 years of age and older. In the U.S. 10 million individuals are estimated to already suffer from the disease and almost 34 million more are estimated to have low bone mass, placing them at risk for osteoporosis. Data monitor estimates that the global market sales for products to treat osteoporosis will reach \$10.4 billion by 2011, from approximately \$5 billion in 2003. Several medicines are available to either delay the onset of, or reverse, bone loss.

Osteoarthritis ( OA ) is a joint disease that mostly affects cartilage. Cartilage is the slippery tissue that covers the ends of bones in a joint. Healthy cartilage allows bones to glide over each other. It also helps absorb shock of movement. In OA, the top layer of cartilage breaks down and wears away. This allows bones under the cartilage to rub together, leading to pain, swelling, and loss of motion of the joint. Over time, the joint may lose its normal shape. Also, bone spurs may grow on the edges of the joint. Bits of bone or cartilage can break off and float inside the joint space, which causes more pain and damage. People with OA often have joint pain and reduced motion in the joint. Unlike some other forms of arthritis, OA affects only joints and not internal organs. Rheumatoid arthritis -- the second most common form of arthritis -- affects other parts of the body besides the joints. OA is the most common type of arthritis.

#### *Our Oral Salmon Calcitonin Program*

Novartis is seeking to commercialize oral forms of their existing nasal and injectable therapies for osteoporosis. We believe that oral forms of therapy or improved oral forms of therapy would be considered more patient-friendly and ensure better compliance, especially among the elderly, for the treatment and prevention of osteoporosis. Novartis is seeking to commercialize an oral form of therapy for osteoarthritis. For information on our product candidates addressing the osteoporosis and OA patient population, see *Ongoing Collaborative Agreements* below.

#### ***Growth Disorders***

Growth hormone is necessary to stimulate growth in children by promoting the growth of muscle and bone. In adults, growth hormone maintains muscle and bone quality. Children that suffer from growth hormone deficiency fail to grow normally without supplemental growth hormone.

Recombinant human growth hormone ( rhGH ) has been available for many years. rhGH must be administered by injection, and therefore compliance is particularly difficult in pediatric patients. rhGH therapy requires a long-term commitment by the patient and his or her family to achieve the best results. The prescribed dosing ranges between three and seven injections per week. Treatment continues for several years until the child has completed puberty or has stopped responding. rhGH is approved for pediatric growth hormone deficiency, adult growth hormone deficiency, pre-kidney transplantation, and short stature due to chronic kidney disease and Turner s syndrome.

#### *Our Oral Recombinant Human Growth Hormone Program*

From 1998 through August 2003, we developed oral rhGH in collaboration with Lilly. As of August 2003, Lilly returned to us all rights to the oral rhGH program pursuant to the terms of our license agreement. On September 23, 2004 we announced a new partnership with Novartis to develop our oral rhGH program. Under this collaboration, we are working with Novartis to initiate clinical trials of a convenient oral human growth hormone product using the *eligen*® technology. Novartis will fully fund the program including all clinical studies. On May 1, 2006, we announced that Novartis will initiate the development of an oral rhGH product using Emisphere s *eligen*® delivery technology. For further information on our oral rhGH program, see *Ongoing Collaborative Agreements* below.

#### ***Viral Diseases***

Genital herpes is an infection caused by the herpes simplex virus ( HSV ). There are two types of HSV, and both can cause genital herpes. HSV type 1 most commonly infects the lips, causing sores known as fever blisters or cold sores, but it also can infect the genital area and produce sores. HSV type 2 is the usual cause of genital herpes, but it also can infect the mouth. A person who has genital herpes infection can easily pass or transmit the virus to an uninfected person during sex. Both HSV 1 and 2 can produce sores (also called lesions) in and around the vaginal area, on the penis, around the anal opening, and on the buttocks or thighs. Occasionally, sores also appear on other parts of the body where the virus has entered through broken skin.

Unfortunately, HSV is a lifelong infection that is incurable. Many patients suffer from recurrent outbreaks provoked by various environmental and patient specific factors. Acyclovir, one of the most common treatments, is an orally available synthetic nucleoside analogue used to treat herpes viruses. Acyclovir alone is poorly and unreproducibly absorbed when dosed orally. The published bioavailability is between 10% and 20%. Prodrug forms of acyclovir such as Valacyclovir (GlaxoSmithKline s ( GSK ) Valtrex®) have bioavailabilities that are improved by a factor of three to five-fold. High doses of acyclovir can lead to significant side effects including nausea, vomiting, diarrhea or headache. The degree of side effects can be dose proportional in certain patients.

### *Our Oral Acyclovir Program*

We have generated preclinical and clinical data which show that our *eligen*® technology can increase the bioavailability of acyclovir. We have entered into a research collaboration with a pharmaceutical company based outside the United States. This company is funding a clinical study to support product development of an improved oral acyclovir using our *eligen*® technology. We are responsible for preclinical studies necessary to support the human trials. These studies have been completed and the partner performed clinical studies during 2006. An additional clinical study is planned for early 2007. As part of a pre-IND discussion held with the FDA, we inquired as to the possibility of using a 505(b)(2) pathway for registration of an acyclovir product using our technology. In 2004, the FDA agreed that the 505(b)(2) registration strategy for acyclovir using our *eligen*® technology may be acceptable. For further information on our oral acyclovir program, see *Ongoing Collaborative Agreements* below.

### ***Obesity***

The most recent figures from the Centers for Disease Control and Prevention show that 65 percent of U.S. adults – or about 129.6 million people – are either overweight or obese, a condition that substantially raises the risk of morbidity from hypertension, dyslipidemia, Type 2 diabetes, coronary heart disease, stroke, gallbladder disease, osteoarthritis, sleep apnea and respiratory problems, and endometrial breast, prostate, and colon cancers. Higher body weights are also associated with increases in all-cause mortality. As the second leading cause of preventable death in the United States today, obesity poses a major public health challenge. In addition to decreasing quality of life and increasing the risk of premature death, obesity costs the nation an estimated \$117 billion in direct medical costs such as lost wages due to illness.

Due to the rising obese population and associated risks, the FDA has granted a fast track drug development process for drugs treating obesity.

### *Our Oral PYY 3-36 and GLP-1 Program*

Emisphere has demonstrated oral delivery of PYY 3-36, an anti obesity drug, in rodents and non-human primates using our *eligen*® drug delivery technology starting in 2003. We have demonstrated the oral delivery of various analogues of GLP-1 including natural GLP-1. Results from Emisphere's studies in rodents demonstrated that oral administration of PYY can achieve therapeutically relevant blood PYY levels. In addition, we are conducting a human proof of concept clinical study with a GLP-1 molecule and PYY 3-36. The results from the preclinical studies and potentially the human studies could demonstrate the feasibility of Oral PYY 3-36 and GLP-1 administration and present an opportunity to develop an oral dosage form of either molecule or both for the treatment of obesity.

### ***Oncology***

Hypercalcemia, which is the most common life-threatening metabolic complication in patients with advanced cancer, represents the most aggressive medical example of bone loss. Multiple clinical studies have reported antitumor activity of gallium nitrate in patients with certain types of cancer, particularly those with malignant lymphoma and bladder cancer.

### *Our Oral Gallium Program*

On March 23, 2006, we announced that we have entered into an exclusive worldwide licensing agreement to develop an oral formulation of a gallium-containing compound. Gallium compounds are bone-targeting agents that are potent inhibitors of bone breakdown, and may be broadly used for diseases associated with accelerated bone loss. Ganite® (gallium nitrate injection), Genta's first commercialized product, is derived from this class of compounds and is approved in the U.S. for patients with cancer-related hypercalcemia. We have demonstrated in animal models the ability to orally deliver gallium using our technology in *in vivo* animal models.

### ***Feasibility Projects***

Emisphere has entered into a number of proof-of-concept studies with additional pharmaceutical and biotechnical companies for various injectable compounds. These feasibility studies are on-going and the company seeks to increase its commitment to the development of additional oral products with these partners in the future.

## Ongoing Collaborative Agreements

We are a party to collaborative agreements with corporate partners to provide development and commercialization services relating to the products under collaboration. These agreements are in the form of research and development collaborations and licensing agreements. Under these agreements, we have granted licenses or the rights to obtain licenses to our oral drug delivery technology. In return, we are entitled to receive certain payments upon the achievement of milestones and royalties on the sales of the products should a product ultimately be commercialized. We also are entitled to be reimbursed for certain research and development costs that we incur.

All of our collaborative agreements are subject to termination by our corporate partners, without significant financial penalty to them. Under the terms of these agreements, upon a termination we are entitled to reacquire all rights in our technology at no cost and are free to re-license the technology to other collaborative partners.

### *Novartis Pharma AG Oral Salmon Calcitonin ( sCT ) Program*

In December 1997, we entered into a collaboration agreement with Novartis to develop an oral form of sCT, currently used to treat osteoporosis. sCT is a hormone that inhibits the bone-tissue resorbing activity of specialized bone cells called osteoclasts, enabling the bone to retain more of its mass and functionality. sCT has demonstrated efficacy in increasing lumbar spine bone mineral density and in reducing vertebral fractures. sCT is estimated to be about 30 times more potent than the human version. Synthetic sCT, which is identical to the naturally occurring one, currently is available only as a nasal spray or injectable therapy. Novartis markets synthetic sCT in the United States as MIACALCIN® nasal spray, which is indicated for the treatment of post-menopausal osteoporosis in women greater than five years post menopause with low bone mass.

Treatment with sCT has been shown to increase bone mineral density in the spine and reduce the risk of new vertebral fractures in post-menopausal women with osteoporosis. It is also used to treat Paget's disease, a disease that results in, among other things, bone pain and breakdown. In its nasal spray forms, it is believed that sCT's major advantages are its efficacy resulting from a lack of serious side effects, excellent long-term safety profile and ease of administration. Some studies even suggest that sCT produces an analgesic effect. Market sales for products to treat osteoporosis are forecasted to reach \$10.4 billion by 2011, from approximately \$5.0 billion in 2003.

In February 2003, we announced favorable results of a Phase IIa study conducted by Novartis evaluating the performance in post-menopausal women of an oral tablet form of sCT. The purpose of the study was to assess the efficacy and safety of various doses of an oral tablet of sCT in post-menopausal women and to confirm the activity of sCT when given orally, as reflected by changes in markers of bone formation or resorption. Oral sCT was dosed for 90 days in the study, the longest time period that the *eligen*® technology has been dosed in human testing. The study demonstrated activity on bone markers over a three month dosing period when the peptide was delivered in combination with the EMISPHERE® delivery agent. Only two serious adverse events were reported, neither of which were related to the EMISPHERE® delivery agent or to sCT. The side effects (mainly gastrointestinal in nature) seen with the highest doses of sCT were consistent with those normally seen with high plasma levels of sCT when administered by injection. These results were presented by Novartis at the American Society of Bone and Mineral Research in September of 2003.

In December 2005, we announced that positive clinical data generated by Drs. Daniel Manicourt and Jean-Pierre Devogelaer from the Department of Rheumatology at the University Hospital St-Luc, Universite Catholique de Louvain, Brussels, Belgium. The results of this study, which evaluated oral salmon calcitonin supplied by Novartis using our *eligen*® technology in treating osteoarthritis ( OA ) were presented at the 10th World Congress of the Osteoarthritis Research Society International in Boston, MA. Results of this study suggest that oral sCT (enabled by our proprietary *eligen*® technology licensed to Novartis for use with sCT) exhibits not only clinical efficacy but also reduces the levels of several biochemical markers of joint metabolism, which all have been shown to have a pejorative prognostic value of the OA disease process in longitudinal studies including large cohorts of patients.

The randomized, double-blind, placebo-controlled, parallel study was conducted for 3 months in OA patients to assess the efficacy of this novel form of sCT in patients suffering from knee OA. Patients received daily either a placebo (n=16), 0.5 mg of oral sCT (n=17) or 1 mg of oral sCT (n=18).

In February 2007, Novartis Pharma AG and its development partner Nordic Bioscience notified us of the initiation of a Phase III clinical trial for the treatment of osteoporosis with an oral form of salmon calcitonin (referred to as SMC021), a new drug candidate, using the Company's *eligen*® delivery technology. As a result of the initiation of the trial, we will be entitled to receive a milestone payment from Novartis as well as reimbursement for approximately \$0.7 million in accrued costs.

Under the sCT agreements, Novartis has an option to an exclusive worldwide license to develop in conjunction with us, make, have made, use and sell products developed under this program. Novartis also had the right to exercise an option to commence a research collaboration with us on a second compound under this agreement. Novartis' rights to certain specified financial terms concerning a license of a second compound have since expired. We have no payment obligations with respect to this program; we are, however, obligated to collaborate with Novartis by providing access to our technology that is relevant to this program. We are also obligated to help to manage this program through a joint steering committee with Novartis.

To date, we have received \$9.7 million in payments from Novartis under this program. We are entitled to a \$2 million milestone payment based on the initiation of Phase III. Under the terms of the agreement, we may receive up to \$5 million in additional milestone payments, as well as royalties based on sales.

*Novartis Pharma AG – Oral Recombinant Human Growth Hormone Program*

From 1998 through August 2003, we developed oral rhGH in collaboration with Lilly. As of August 2003, Lilly returned to us all rights to the oral rhGH program pursuant to the terms of our license agreement. On September 23, 2004 we announced a new partnership with Novartis to develop our oral rhGH program. Under this collaboration, we are working with Novartis to initiate clinical trials of a convenient oral human growth hormone product using the *eligen*® technology. On May 1, 2006, we announced that Novartis will initiate the development of an oral rhGH product using Emisphere's *eligen*® delivery technology.

Under this agreement, Novartis has an exclusive worldwide license to develop, make, have made, use and sell products developed under this program. We have no payment obligations with respect to this program; we are, however, obligated to collaborate with Novartis by providing access to our technology that is relevant to this program. We are also obligated to help to manage this program through a joint steering committee with Novartis.

To date, we have received \$6 million in non-refundable payments from Novartis under this program, including the \$5 million milestone payment received in 2006. We may receive up to \$28 million in additional milestone payments during the course of product development, and royalties based on sales.

*Eli Lilly and Company; Novartis Pharma AG – Oral PTH 1-34 Program*

In February 1997, we formed a collaboration with Lilly for the development of an oral form of PTH 1-34 for the treatment of osteoporosis. PTH 1-34 is a bone anabolic/formation compound currently marketed by Lilly as a once daily injectable for the treatment of osteoporosis. In contrast to sCT that reduces bone loss, PTH 1-34 stimulates new bone formation.

In March 1998, Lilly and Emisphere entered into license agreements for PTH 1-34 and rhGH and Lilly paid us a \$4 million milestone payment. In June 2000, the parties executed a follow-on agreement for both proteins and Lilly paid Emisphere a \$2 million milestone payment in connection with the selection of the EMISPHERE® delivery agent to be used with PTH 1-34. In August 2001, Emisphere and Lilly issued a joint publication on the oral delivery of PTH 1-34 in the American Association of Pharmaceutical Scientists' July issue of *Pharmaceutical Research* (Vol. 18, No. 7, 2001), setting forth the first reproducible, oral delivery of biologically active PTH 1-34 in a preclinical model of osteoporosis. In late 2001, Emisphere and Lilly entered an oral unformulated solid dosage of PTH 1-34 into the clinic. The oral PTH 1-34 program has undergone Phase I testing.

The license agreements did not continue with Lilly, as we declared that Lilly was in material breach of certain research and collaboration agreements entered into with respect to the development of oral formulations of PTH 1-34. On January 6, 2006 the United States District Court for the Southern District of Indiana, Indianapolis Division ( District Court ), ruled in our favor in our lawsuit with Lilly. The District Court found that Lilly had breached its agreements with us on all counts tried and that our termination of such agreements was proper. At issue was a notice we had given to Lilly that it was in material breach of certain research and collaboration agreements with us with respect to the development of oral formulations of PTH 1-34. Following receipt of that notice, Lilly had filed a complaint seeking (a) declaratory judgment that Lilly was not in breach of such agreements with us and (b) an order preliminarily and permanently enjoining us from terminating those agreements. On February 12, 2004, we served Lilly with an amended counterclaim, alleging that Lilly filed certain patent applications relating to the use of our proprietary technology in combination with another drug, in violation of our



## Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

agreements with Lilly, and that the activities disclosed in such applications infringe upon our patents. We also alleged that Lilly breached the agreements by failing to make a milestone payment of \$3 million, as required upon the completion of oral PTH 1-34 product Phase I studies. On August 23, 2004, we had notified Lilly that in light of Lilly's ongoing, repeated and uncured violations of its PTH 1-34 license agreement, both of its agreements with us were terminated.

On April 6, 2006, the District Court granted in part a motion by Lilly to amend the January 6, 2006 decision to clarify the claims that were resolved by the decision. On April 25, 2006, the United States District Court in the Southern District of Indiana ordered Lilly to assign to Emisphere the patent application Lilly filed with the World Intellectual Property Organization, including any final patents that may be issued as a result of the application. On May 3, 2006, Lilly notified Emisphere that it has assigned the patent to Emisphere.

To date we have received \$13.1 million in payments from Lilly under these programs. We do not expect to receive any additional milestone payments under these programs.

On December 1, 2004, we entered into a Research Collaboration Option and License Agreement with Novartis whereby Novartis obtained an option to license our existing technology to develop oral forms of PTH 1-34 should we be successful in fully reacquiring our rights from Lilly pertaining to PTH 1-34. Contemporaneously with the entering of this new agreement, Novartis purchased from us a \$10 million convertible note maturing December 1, 2009 that we may repay, at our option, in either stock or cash. On March 7, 2006, Novartis exercised its option to the license. Based on the terms of the agreement, we may receive milestone payments totaling up to a maximum of \$30 million, plus royalties on sales of product developed using our *eligen*® technology. Novartis will fund all necessary preclinical, clinical and manufacturing costs for all products.

### *Genta, Incorporated Oral Gallium Program*

In March 2006, we announced that we have entered into an exclusive worldwide licensing agreement with Genta, Incorporated ( *Genta* ) to develop an oral formulation of a gallium-containing compound. Under the agreement, we will utilize our *eligen*® technology to supply a finished oral dosage form to Genta. Genta will be responsible for toxicology, clinical development, regulatory submissions, and worldwide commercialization. In addition to royalties on net sales of the product, Genta has agreed to fund Emisphere's development activities and to pay performance milestones related to the filing and approval of regulatory applications.

### *Roche Multi Product Research Collaboration*

In July 2006, we announced that we have entered into a multi-product research collaboration agreement with Roche to explore the use of Emisphere's *eligen*® technology in feasibility studies for new oral formulations of a number of Roche molecules. Roche will fund the research, which will be conducted at both Roche and Emisphere.

### *Oral Acyclovir Program*

We have entered into a research collaboration with a pharmaceutical company based outside the United States. This company is funding a clinical study to support product development of an improved oral acyclovir using our *eligen*® technology. We are responsible for preclinical studies necessary to support the human trials. These studies have been completed and the partner has performed a clinical study during 2006. We are currently in discussions with this company regarding a contractual license agreement. An additional study is expected to be conducted in the first quarter of 2007.

## **Other Previous Collaborations**

### *U.S. Army Medical Research Institute of Infectious Diseases ( USAMRIID ) Oral Vaccines against Anthrax and Other Biological Pathogens*

In June 2003, we announced that we entered into a cooperative research and development agreement ( *CRADA* ) with the USAMRIID, the U.S. Department of Defense's lead medical research laboratory for the U.S. Biological Defense Research Program. USAMRIID was evaluating the use of our *eligen*® technology to create oral vaccines against anthrax and other biological pathogens using a new recombinant protein antigen. The agreement expired in February 2006. USAMRIID has indicated that it will not extend the CRADA because of program prioritization and funding considerations.

# Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

## *Hoffman-La Roche Inc. and F. Hoffman-La Roche LTD Small Molecules for Bone-Related Disease*

On November 17, 2004, we entered into a development and licensing agreement with Hoffman-La Roche Inc. and F. Hoffman-La Roche LTD (collectively, Roche) to develop oral formulations of undisclosed small molecule compounds approved for use in the field of bone-related diseases. The agreement followed successful pre-clinical studies and a human feasibility study incorporating our *eligen*® technology. In November 2006, we received notice from Roche that they were exercising their right to terminate this development and license agreement. Roche's decision was not related to the performance of the *eligen*® technology.

### Revenue Recognized From Significant Collaborators Since 2004 (in thousands)

Collaborator	2006	2005	2004
Novartis Pharma AG	\$ 5,254	\$ 574	\$ 208
Roche	1,600	2,846	1,619
Genta	207		

### Research and Development Costs

We have devoted substantially all of our efforts and resources to research and development conducted on our own behalf (self-funded) and in collaborations with corporate partners (partnered). Generally, research and development expenditures are allocated to specific research projects. Due to various uncertainties and risks, including those described in **Risk Factors** below, relating to the progress of our product candidates through development stages, clinical trials, regulatory approval, commercialization and market acceptance, it is not possible to accurately predict future spending or time to completion by project or project category.

The following table summarizes research and development spending to date by project category:

	Year Ended December 31,			Cumulative Spending 2006 <sup>(1)</sup>
	2006	2005	2004	
	(in thousands)			
Research <sup>(2)</sup>	\$ 2,247	\$ 2,387	\$ 2,853	\$ 48,752
Feasibility projects				
Self-funded	275	318	448	7,611
Partnered	343	339	453	3,584
Development projects				
Oral heparin (self-funded)	2,175	2,470	1,231	95,063
Oral insulin (self-funded)	1,982	2,897	2,289	20,047
Partnered	302	226	104	11,486
Other <sup>(3)</sup>	11,568	10,278	10,084	79,572
Total all projects	\$ 18,892	\$ 18,915	\$ 17,462	\$ 266,115

(1) Cumulative spending from August 1, 1995 through December 31, 2006.

(2) Research is classified as resources expended to expand the ability to create new carriers, to ascertain the mechanisms of action of carriers, and to establish computer based modeling capabilities, prototype formulations, animal models, and *in vitro* testing capabilities.

(3) Other includes indirect costs such as rent, utilities, training, standard supplies and management salaries and benefits.

### Patents and Other Forms of Intellectual Property

Our patent strategy is designed to maximize our patent portfolio, proprietary rights and any future licensing opportunities we continue to pursue. We seek patent protection on various aspects of our proprietary chemical and pharmaceutical delivery technologies, including, but not limited to, the delivery agent compounds and their generic structures which encompass Emisphere's Delivery Agents, their method of preparation, the combination of our compounds with a pharmaceutical and treatment of various disease states. We have patents and patent applications in the key pharmaceutical markets of North America, Europe, Japan and Australia, and file in additional countries on a case-by-case

basis.

## Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

We have patents and patent applications for delivery agents currently used in conjunction with insulin, heparin, LMWH, sCT, PTH 1-34, rhGH and numerous other pharmaceutical and biotechnology products. As of December 31, 2006, we had 90 granted patents in the United States and had other patents issued or applications pending in various countries around the world. Of our patents granted in the United States, including those which cover our core product candidates, two will begin to expire in 2012. The disclosed patent expiration dates do not include any potential patent term restoration under 35 USC §156. As of December 31, 2006, we had 84 patent applications relating to our drug delivery technology pending in the United States. We have pursued strategic international protection with approximately 140 patents and 353 patent applications pending internationally in a total of 45 different countries. The majority of the filings are made in Australia, Canada, the European Patent Office, Japan, and Mexico.

We have U.S. issued patents and/or pending patent applications with claims directed to the potential products listed in the table under *Product Candidates in Development* above. These include Elaprin (oral heparin) and salmon calcitonin,. Currently pending applications, should they mature into patents, will expire 20 years from the filing date of the earliest U.S. utility or national patent application, subject to potential shortening of patent term due to terminal disclaimers, and subject to possible patent term extension under 35 USC §154 and/or patent term restoration under 35 USC §156. These extensions will be sought for FDA approved products.

There are nine trademarks currently granted by the U.S. Patent and Trademark office and 19 trademarks granted by foreign country patent offices. One US trademark and 11 international trademarks are pending. They include EMISPHERE®, Elaprin (oral heparin), The Emisphere Logo, and eligen®.

### Manufacturing

The primary raw materials used in making the delivery agents for our product candidates are readily available in large quantities from multiple sources. We internally manufacture delivery agents on a small scale for research purposes and for early stage clinical supplies. We believe that our manufacturing capabilities comply with the FDA's current Good Manufacturing Practice (GMP). Beginning in 2004, we manufactured early stage clinical supplies under GMP conditions for our oral insulin program and heparin multiple arm studies. The FDA inspected our in-house facilities in 2003 and again in 2005.

Currently, EMISPHERE® delivery agents are manufactured by third parties in accordance with GMP regulations for batch sizes greater than 10 kilograms. We have identified other commercial manufacturers meeting the FDA's GMP regulations that have the capability of producing EMISPHERE® delivery agents and we do not rely on any particular manufacturer to supply us with needed quantities.

### Competition

Our success depends in part upon maintaining a competitive position in the development of product candidates and technologies in an evolving field in which developments are expected to continue at a rapid pace. We compete with other drug delivery, biotechnology and pharmaceutical companies, research organizations, individual scientists and non-profit organizations engaged in the development of alternative drug delivery technologies or new drug research and testing, and with entities developing new drugs that may be orally active. Our product candidates compete against alternative therapies or alternative delivery systems for each of the medical conditions our product candidates address, independent of the means of delivery. Many of our competitors have substantially greater research and development capabilities, experience, and marketing, financial and managerial resources than we have.

#### *Oral Heparin Competition*

LOVENOX®, (enoxaparin sodium injection), which is manufactured by Sanofi-Aventis U.S LLC, is a chemical entity in a class of antithrombotic agents known as low-molecular-weight heparins (LMWH). LOVENOX® was approved in the United States and Canada in 1993, and it has been available in Europe since 1987. LOVENOX® is the only low-molecular-weight heparin in the United States approved by the Food and Drug Administration in 7 approved indications for the prophylaxis and treatment of thromboembolic disease.

COUMADIN® (warfarin sodium tablets, USP) is manufactured by Bristol-Myers Squibb and is the only oral anticoagulant on the market today.

## Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

ARIXTRA®, an injectable form of a synthetic anti-clotting agent, is currently marketed by GlaxoSmithKline. A number of other companies reportedly are currently testing direct thrombin or Xa inhibitors, some of which may eventually be indicated for the prevention of DVT in patients undergoing surgery for hip fracture, hip replacement or knee replacement.

Other technologies use micro-encapsulation to orally deliver heparin. We believe our oral heparin delivery technology is distinguished from other announced technologies because we believe that it preserves the chemical integrity of the drug and the integrity of the intestinal membrane.

### *Oral Insulin Competition*

Other private and public companies, as well as academic institutions, are developing oral insulin analogues. One such company is BIOCON Ltd, which in March 2006 acquired the intellectual property rights to Nobex Corporation's oral insulin product. We believe these analogues differ from our product, in that insulin is chemically modified, creating a new chemical entity. Other alternative insulin delivery systems include pulmonary insulins. Pfizer/Nektar's EXUBERA®, a pulmonary treatment that has been approved for marketing in the United States and the European Union. We believe our oral insulin delivery technology is distinguished from other announced technologies as it demonstrates the preservation of both the biological effects of the drug and the integrity of the intestinal membrane.

### *Oral Osteoporosis Competition*

An injectable form of PTH 1-34 is manufactured and sold by Lilly, as FORTEO®. Unigene Laboratories, Inc. ( Unigene ) has reported that, in collaboration with GSK, it is developing an oral form of PTH 1-34. Unigene also reported that it is developing an oral form of sCT. Both candidates are in early stage clinical testing.

Novartis currently offers a nasal dosage form of sCT, MIACALCIN®. Other companies are currently developing pulmonary forms of PTH 1-34. Other osteoporosis therapies include estrogen replacement therapy, selective estrogen receptor modulators, bisphosphonates and several new biologics that are under development.

### *Oral Acyclovir Competition*

Acyclovir is a generic compound and is available orally, but is poorly and unreproducibly absorbed. The published bioavailability is between 10 and 20%. Acyclovir is available in branded form marketed under the name Zovirax® by GSK. The molecule is also used as a topical ointment. Prodrug forms of acyclovir such as Valacyclovir (GSK's Valtrex®) have bioavailabilities that are improved by a factor of three to five-fold.

### *Competition Summary*

Although we believe that our oral formulations, if successful, will likely compete with well established injectable versions of the same drugs, we believe that we will enjoy a competitive advantage because physicians and patients prefer orally delivered forms of products over injectable forms, oral forms of products enable improved compliance, and for many programs, the oral form of products enable improved therapeutic regimens.

## **Government Regulation**

Our operations and product candidates under development are subject to extensive regulation by the FDA, other governmental authorities in the United States and governmental authorities in other countries.

The duration of the governmental approval process for marketing new pharmaceutical substances, from the commencement of preclinical testing to receipt of governmental approval for marketing a new product, varies with the nature of the product and with the country in which such approval is sought. For new chemical entities, the approval process could take eight to ten years or more. For reformulations of existing drugs, typically the process is shorter. In either case, the procedures required to obtain governmental approval to market new drug products will be costly and time-consuming to us, requiring rigorous testing of the new drug product. Even after such time and effort, regulatory approval may not be obtained for our products.

The steps required before we can market or ship a new human pharmaceutical product commercially in the United States include, in part, preclinical testing, the filing of an Investigational New Drug Application ( IND ), the conduct of clinical trials and the filing with the FDA of either a New Drug Application ( NDA ) for drugs or a Biologic License Application ( BLA ) for biologics.



## Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

In order to conduct the clinical investigations necessary to obtain regulatory approval in the U.S., we must file an IND with the FDA to permit the shipment and use of the drug for investigational purposes. The IND sets forth, in part, the results of preclinical (laboratory and animal) toxicology testing and the applicant's initial Phase I plans for clinical (human) testing. Unless notified that testing may not begin, the clinical testing may commence 30 days after filing an IND. As indicated on the table above in the section entitled *Product Candidates in Development*, many of our product candidates have passed this initial stage.

Under FDA regulations, the clinical testing program required for marketing approval of a new drug typically involves three clinical phases. In Phase I, safety studies are generally conducted on normal, healthy human volunteers to determine the maximum dosages and side effects associated with increasing doses of the substance being tested. In Phase II, studies are conducted on small groups of patients afflicted with a specific disease to gain preliminary evidence of efficacy including the range of effective doses and to determine the common short-term side effects and risks associated with the substance being tested. Phase III involves large-scale trials conducted on disease-afflicted patients to provide statistical evidence of efficacy and safety and to provide an adequate basis for product labeling. Frequent reports are required in each phase, and if unwarranted hazards to patients are found, the FDA may request modification or discontinuance of clinical testing until further studies have been conducted. Phase IV testing is sometimes conducted, either to meet FDA requirements for additional information as a condition of approval, or to gain post-approval market acceptance of the pharmaceutical product. Our product candidates are and will be subjected to each step of this lengthy process from conception to market and many of those candidates are still in the early phases of testing.

Once clinical testing has been completed pursuant to an IND, the applicant files an NDA or BLA with the FDA seeking approval for marketing the drug product. The FDA reviews the NDA or BLA to determine whether the drug is safe and effective, and adequately labeled, and whether the applicant can demonstrate proper and consistent manufacture of the drug. The time required for initial FDA action on an NDA or BLA is set on the basis of user fee goals; for most NDA or BLAs the action date is 10 months from receipt of the NDA or BLA at the FDA. The initial FDA action at the end of the review period may be approval or a request for additional information that will be needed for approval depending on the characteristics of the drug and whether the FDA has concerns with the evidence submitted. Once our product candidates reach this stage, we will be subjected to these additional costs of time and money.

The facilities of each company involved in the commercial manufacturing, processing, testing, control and labeling of pharmaceutical products must be registered with and approved by the FDA. Continued registration requires compliance with GMP regulations and the FDA conducts periodic establishment inspections to confirm continued compliance with its regulations. We are subject to various federal, state and local laws, regulations and recommendations relating to such matters as laboratory and manufacturing practices and the use, handling and disposal of hazardous or potentially hazardous substances used in connection with our research and development work. We believe that we are in compliance with these laws and regulations in all material respects.

While we do not currently manufacture any commercial products ourselves, if we did, we would bear additional cost of FDA compliance.

### Employees

As of December 31, 2006, we had 111 employees, 81 of whom are engaged in scientific research and technical functions and 30 of whom are performing accounting, information technology, engineering, facilities maintenance and administrative functions. Of the 81 scientific employees, 29 hold Ph.D. or M.D. degrees. We believe our relations with our employees are good.

### Available Information

Emisphere files annual, quarterly, and current reports, proxy statements, and other documents with the Securities and Exchange Commission, (the "SEC") under the Securities Exchange Act of 1934 (the "Exchange Act"). The public may read and copy any materials that we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Also, the SEC maintains an Internet website that contains reports, proxy and information statements, and other information regarding issuers, including Emisphere, that file electronically with the SEC. The public can obtain any documents that Emisphere files with the SEC at [www.sec.gov](http://www.sec.gov).

We also make available free of charge on or through our Internet website (www.emisphere.com) our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, Section 16 filings, and, if applicable, amendments to those reports filed or furnished pursuant to Section 13(a) or Section 16 of the Exchange Act as soon as reasonably practicable after we or the reporting person electronically files such material with, or furnishes it to, the SEC. Our Internet website and the information contained therein or connected thereto are not intended to be incorporated into the Annual Report or this Form 10-K.

Our Board of Directors has adopted a Code of Business Conduct and Ethics which is posted on our website at [www.emisphere.com/ovr\\_cgcoe.asp](http://www.emisphere.com/ovr_cgcoe.asp).

#### ITEM 1A. RISK FACTORS

*The following risk factors should be read carefully in connection with evaluating our business and the forward-looking statements that we make in this Report and elsewhere (including oral statements) from time to time. Any of the following risks could materially adversely affect our business, our operating results, our financial condition and the actual outcome of matters as to which forward-looking statements are made in this Report.*

**If we fail to raise additional capital or receive substantial cash inflows from our partners by September of 2007, we will be forced to cease operations.**

As of December 31, 2006, we had approximately \$21.5 million in cash and investments, approximately \$13.4 million in working capital, a stockholders' deficit of approximately \$6.1 million and an accumulated deficit of approximately \$392 million. Our operating loss for the year ended December 31, 2006 (after receipt of \$7.3 million of collaboration and feasibility payments which does not recur with regularity or at all) was approximately \$27 million. We believe operating loss is a more representative measure to discuss, as net loss of \$41.8 million for the year ended December 31, 2006 includes \$13.6 million of non-cash other expense items related to a beneficial conversion feature and derivatives. We anticipate that we will continue to generate significant losses from operations for the foreseeable future, and that our business will require substantial additional investment that we have not yet secured. These conditions raise substantial doubt about our ability to continue as a going concern. The audit report prepared by our independent registered public accounting firm relating to our consolidated financial statements for the year ended December 31, 2006 included an explanatory paragraph expressing the substantial doubt about our ability to continue as a going concern.

We anticipate that our existing capital resources will enable us to continue operations through approximately September of 2007, or earlier if unforeseen events or circumstances arise that negatively affect our liquidity. If we fail to raise additional capital or obtain substantial cash inflows from existing partners prior to September 2007, we will be forced to cease operations. We are in discussions with investment bankers and others concerning our financing options.

While our plan is to raise capital when needed and/or to pursue product partnering opportunities, we cannot be sure how much we will need to spend in order to develop, market and manufacture new products and technologies in the future. We expect to continue to spend substantial amounts on research and development, including amounts spent on conducting clinical trials for our product candidates. Further, we will not have sufficient resources to develop fully any new products or technologies unless we are able to raise substantial additional financing on acceptable terms or to secure funds from our new or existing partners. We cannot assure you that financing will be available when needed, or on favorable terms or at all. If additional capital is raised through the sale of equity or convertible debt securities, the issuance of such securities would result in dilution to our existing stockholders. Our failure to raise capital when needed would adversely affect our business, financial condition and results of operations, and could force us to reduce or discontinue operations.

**We may not be able to meet the covenants detailed in the Convertible Notes with MHR Institutional Partners IIA LP, which could result in an increase in the interest rate on the Convertible Notes and/or accelerated maturity of the Convertible Notes, which we would not be able to satisfy.**

On September 26, 2005, we executed a Senior Secured Loan Agreement (the "Loan Agreement") with MHR Institutional Partners IIA LP (together with its affiliates, "MHR"). The Loan Agreement, as amended, provides for a seven year, \$15 million secured loan from MHR to us at an interest rate of 11% (the "Loan"). Under the Loan Agreement, MHR requested, and on May 16, 2006 we effected, the exchange of the Loan for 11% senior secured convertible notes (the "Convertible Notes") with substantially the same terms as the Loan agreement, except that the Convertible Notes are convertible, at the sole discretion of MHR or any assignee thereof, into shares of our common stock at a price per share of \$3.78. Interest will be payable in the form of additional Convertible Notes rather than in cash and we have the right to call the Convertible Notes after September 26, 2010 if certain conditions are satisfied. The Convertible Notes are secured by a first priority lien in favor of MHR on substantially all of our assets.



The Convertible Notes provide for certain events of default including failure to perfect liens in favor of MHR created by the transaction, failure to observe any covenant or agreement, failure to maintain the listing and trading of our common stock, sale of a substantial portion of our assets, or merger with another entity without the prior consent of MHR, or any governmental action renders us unable to honor or perform our obligations under the Convertible Notes or results in a material adverse effect on our operations among other things. If an event of default occurs, the Convertible Notes provide for the immediate repayment of the Notes and certain additional amounts described above and as set forth in the Convertible Notes. At such time, we may not be able to make the required payment, and if we are unable to pay the amount due under the Notes, the resulting default would enable MHR to foreclose on all of our assets. Any of the foregoing events would have a material adverse effect on our business and on the value of our stockholders' investments in our common stock. We currently have a waiver from MHR for failure to perfect liens on certain intellectual property rights, through March 17, 2008.

**We may not be able to make the payments we owe to Novartis.**

On December 1, 2004 we issued a \$10 million convertible note (the "Novartis Note") to Novartis in connection with a research collaboration option relating to the development of PTH 1-34. The Novartis Note, as amended, bears interest at a rate of 3% prior to December 1, 2006, 5% from December 1, 2006 through December 1, 2008, and 7% from that point until maturity on December 1, 2009. We have the option to pay interest in cash on a current basis or accrue the periodic interest as an addition to the principal amount of the Novartis Note. In the event that interest accrues on the Novartis Note, the accretion to principal will cause future interest payments to rise. We may convert the Novartis Note at any time prior to maturity into a number of shares of our common stock equal to the principal and accrued and unpaid interest to be converted divided by the then market price of our common stock, provided certain conditions are met, including that the number of shares issued to Novartis, when issued, does not exceed 19.9% of the total shares of Company common stock outstanding, that at the time of such conversion no event of default under the Note has occurred and is continuing, and that there is either an effective shelf registration statement in effect covering the resale of the shares issued in connection with such conversion or the shares may be resold by Novartis pursuant to SEC Rule 144(k). These conditions may not be met and we may be unable to convert the Novartis Note, in which case we would be required to continue to make interest payments (and the rates of such interest payments will increase over time) and repay the notes when due in 2009.

Under the Novartis Note, an event of default would include failure to timely cure a default in the payment of any other indebtedness in excess of a certain material threshold, or there occurs an acceleration of indebtedness in excess of that threshold, becoming entitled to terminate the registration of our securities or the filing of reports under the Securities Exchange Act of 1934, delisting of our common stock from NASDAQ, a change of control (including by, among other things, a change in the composition of a majority of our board other than as approved by the board) in any one-year period, a merger which results in our stockholders holding shares that represent less than a majority of the voting power of the merged entity, and any other acquisition by a third party of shares that represent a majority of the voting power of the company), sale of substantially all of our assets, or our inability to honor or perform our obligations under the new research collaboration option relating to the development of PTH 1-34, among other things. Upon the occurrence of any such event of default prior to conversion, any unpaid principal and accrued interest on the Novartis Note would become immediately due and payable. At such time, we may not be able to make the required payment, and if we are unable to pay the amount due under the Novartis Note, the resulting default would have a material adverse effect on our business and on the value of our stockholders' investments in our common stock. Further, if the Novartis Note has been converted into our common stock, Novartis would have the right to require us to repurchase the shares of common stock within six months after an event of default under the Novartis Note, for an aggregate purchase price equal to the principal and interest that was converted, plus interest from the date of conversion, as if no conversion had occurred. If we are unable to make the repurchase, the resulting default would have a material adverse effect on our business and on the value of our stockholders' investments in our common stock.

**We are highly dependent on the clinical success of our oral heparin and insulin product candidates.**

Oral heparin and oral insulin are our two lead programs and are among our most advanced programs. To date, we have invested \$95 million and \$20 million, in oral heparin and oral insulin, respectively. We believe that, based on market size, these two products, if approved, could represent our largest sources of revenue. If we fail to obtain regulatory approval for either of these products, either solely through our own efforts or through collaborations with one or more major pharmaceutical companies, our ability to fund future operations from operating revenue or issuance of additional equity is likely to be adversely affected. We are not dependent on successful culmination of clinical trials or regulatory approval of any particular one of our other product candidate programs because our investment in each such program and reward upon successful completion of each such program is substantially less significant to our long-term viability.

### *Oral Heparin*

Heparin delivery is a highly competitive area. Other companies currently are developing spray (buccal) or alternate forms of heparin and other anti-thrombotics. We are developing solid dosage forms of oral heparin and have commenced Phase III testing for the SNAC/heparin molecule combination.

We previously developed a liquid form of oral heparin and in 2000 conducted a Phase III clinical trial that was completed in early 2002. The trial did not meet its endpoint of superiority to LOVENOX®, a leading low molecular weight heparin. We believe that the trial failed to meet its endpoint of superiority possibly due in part to the poor taste of the liquid formulation. We subsequently restructured our operations, which included the discontinuation of our liquid oral heparin program and related initiatives, and a reduction of associated infrastructure. The resulting restructuring charge to earnings in 2002 was approximately \$1.5 million. In accordance with Statement of Financial Accounting Standards No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets, in connection with the restructuring, we performed an evaluation of certain intangible and fixed assets to determine if their carrying amount exceeded their fair value. In 2002, we recorded an impairment charge of \$4.5 million. In 2003, we recorded an additional impairment charge of \$5.4 million.

We cannot assure you that competitive heparin products will not have an adverse effect on our heparin product development efforts or that future clinical trials related to our solid form of oral heparin will meet targeted endpoints.

In 1996, we formed a joint venture with Elan Corporation, plc ( Elan ) to develop oral forms of heparin. In July 1999, we reacquired all product, marketing and technology rights for our heparin products from Elan. In accordance with the termination agreement with Elan, we will be required to pay Elan royalties on our sales of oral heparin, subject to an annual cap of \$10 million.

### *Oral Insulin*

Insulin delivery is a highly competitive area. Other companies currently are developing and/or have received regulatory approval for buccal or aerosol (pulmonary) forms of insulin (e.g., Pfizer/Nektar's EXUBERA®). Our oral insulin product candidate has demonstrated favorable data in early patient studies in both Type 1 and Type 2 diabetics. However, we cannot assure you that future clinical trials related to our oral insulin will meet targeted endpoints, with the result that we may fail to obtain the necessary regulatory approval for sale of oral insulin, either alone or in collaboration with a major pharmaceutical company.

### **We are highly dependent upon collaborative partners to develop and commercialize compounds using our delivery agents.**

A key part of our strategy is to form collaborations with pharmaceutical companies that will assist us in developing, testing, obtaining government approval for and commercializing oral forms of therapeutic macromolecules using the *eligen*® technology. We have a collaborative agreement for candidates in clinical development with Novartis.

We negotiate specific ownership rights with respect to the intellectual property developed as a result of the collaboration with each partner. While ownership rights vary from program to program, in general we retain ownership rights to developments relating to our carrier and the collaborator retains rights related to the drug product developed.

Despite our existing agreements, we cannot assure you that:

we will be able to enter into additional collaborative arrangements to develop products utilizing our drug delivery technology;

any existing or future collaborative arrangements will be sustainable or successful;

the product candidates in collaborative arrangements will be further developed by partners in a timely fashion;

any collaborative partner will not infringe upon our intellectual property position in violation of the terms of the collaboration contract; or

milestones in collaborative agreements will be met and milestone payments will be received.

If we are unable to obtain development assistance and funds from other pharmaceutical companies to fund a portion of our product development costs and to commercialize our product candidates, we may be unable to issue equity upon favorable terms to allow us to raise sufficient capital to fund clinical development of our product candidates. Lack of funding would cause us to delay, scale back or curtail clinical development of one or more of our projects. The determination of the specific project to curtail would depend upon the relative future economic value to us of each program.



**Our collaborative partners control the clinical development of the drug candidates and may terminate their efforts at will.**

Novartis controls the clinical development of oral salmon calcitonin and oral rhGH. Novartis also has an option to control the clinical development of oral PTH. Genta controls the clinical development of Oral Gallium. Although we influence the clinical program through participation on a Steering Committee for each product, Novartis and Genta control the decision-making for the design and timing of their clinical studies.

Moreover, the agreements with Novartis and Genta provide that they may terminate their programs at will for any reason and without any financial penalty or requirement to fund any further clinical studies. We cannot assure you that Novartis or Genta will continue to advance the clinical development of the drug candidates subject to collaboration.

**Our collaborative partners are free to develop competing products.**

Aside from provisions preventing the unauthorized use of our intellectual property by our collaborative partners, there is nothing in our collaborative agreements that prevents our partners from developing competing products. If one of our partners were to develop a competing product, our collaboration could be substantially jeopardized.

**Our product candidates are in various stages of development, and we cannot be certain that any will be suitable for commercial purposes.**

To be profitable, we must successfully research, develop, obtain regulatory approval for, manufacture, introduce, market and distribute our products under development, or secure a partner to provide financial and other assistance with these steps. The time necessary to achieve these goals for any individual product is long and uncertain. Before we or a potential partner can sell any of the products currently under development, we must demonstrate through preclinical (animal) studies and clinical (human) trials that each product is safe and effective for human use for each targeted indication. We have never successfully commercialized a drug candidate and we cannot be certain that we or our current or future partners will be able to begin, or continue, planned clinical trials for our product candidates, or if we are able, that the product candidates will prove to be safe and will produce their intended effects.

Even if safe and effective, the size of the solid dosage form, taste and frequency of dosage may impede their acceptance by patients.

A number of companies in the drug delivery, biotechnology and pharmaceutical industries have suffered significant setbacks in clinical trials, even after showing promising results in earlier studies or trials. We cannot assure you that favorable results in any preclinical study or early clinical trial will mean that favorable results will ultimately be obtained in future clinical trials. Nor can we assure you that results of limited animal and human studies are indicative of results that would be achieved in future animal studies or human clinical studies, all or some of which will be required in order to have our product candidates obtain regulatory approval. Similarly, we cannot assure you that any of our product candidates will be approved by the FDA.

**Our future business success depends heavily upon regulatory approvals, which can be difficult to obtain for a variety of reasons, including cost.**

Our preclinical studies and clinical trials, as well as the manufacturing and marketing of our product candidates, are subject to extensive, costly and rigorous regulation by various governmental authorities in the United States and other countries. The process of obtaining required approvals from the FDA and other regulatory authorities often takes many years, is expensive and can vary significantly based on the type, complexity and novelty of the product candidates. We cannot assure you that we, either independently or in collaboration with others, will meet the applicable regulatory criteria in order to receive the required approvals for manufacturing and marketing. Delays in obtaining United States or foreign approvals for our self-developed projects could result in substantial additional costs to us, and, therefore, could adversely affect our ability to compete with other companies. Additionally, delays in obtaining regulatory approvals encountered by others with whom we collaborate also could adversely affect our business and prospects. Even if regulatory approval of a product is obtained, the approval may place limitations on the intended uses of the product, and may restrict the way in which we or our partner may market the product.

The regulatory approval process presents several risks to us:

In general, preclinical tests and clinical trials can take many years, and require the expenditure of substantial resources. The data obtained from these tests and trials can be susceptible to varying interpretation that could delay, limit or prevent regulatory approval.

Delays or rejections may be encountered during any stage of the regulatory process based upon the failure of the clinical or other data to demonstrate compliance with, or upon the failure of the product to meet, a regulatory agency's requirements for safety, efficacy and quality or, in the case of a product seeking an orphan drug indication, because another designee received approval first.

Requirements for approval may become more stringent due to changes in regulatory agency policy, or the adoption of new regulations or guidelines.

New guidelines can have an effect on the regulatory decisions made in previous years.

The scope of any regulatory approval, when obtained, may significantly limit the indicated uses for which a product may be marketed and may impose significant limitations in the nature of warnings, precautions and contraindications that could materially affect the profitability of the drug.

Approved drugs, as well as their manufacturers, are subject to continuing and on-going review, and discovery of problems with these products or the failure to adhere to manufacturing or quality control requirements may result in restrictions on their manufacture, sale or use or in their withdrawal from the market.

Regulatory authorities and agencies may promulgate additional regulations restricting the sale of our existing and proposed products.

Once a product receives marketing approval, the FDA may not permit us to market that product for broader or different applications, or may not grant us clearance with respect to separate product applications that represent extensions of our basic technology. In addition, the FDA may withdraw or modify existing clearances in a significant manner or promulgate additional regulations restricting the sale of our present or proposed products.

Additionally, we face the risk that our competitors may gain FDA approval for a product before us. Having a competitor reach the market before us would impede the future commercial success for our competing product because we believe that the FDA uses heightened standards of approval for products once approval has been granted to a competing product in a particular product area. We believe that this standard generally limits new approvals to only those products that meet or exceed the standards set by the previously approved product.

**Our business will suffer if we cannot adequately protect our patent and proprietary rights.**

Although we have patents for some of our product candidates and have applied for additional patents, there can be no assurance that patents applied for will be granted, that patents granted to or acquired by us now or in the future will be valid and enforceable and provide us with meaningful protection from competition or that we will possess the financial resources necessary to enforce any of our patents. Also, we cannot be certain that any products that we (or a licensee) develop will not infringe upon any patent or other intellectual property right of a third party.

We also rely upon trade secrets, know-how and continuing technological advances to develop and maintain our competitive position. We maintain a policy of requiring employees, scientific advisors, consultants and collaborators to execute confidentiality and invention assignment agreements upon commencement of a relationship with us. We cannot assure you that these agreements will provide meaningful protection for our trade secrets in the event of unauthorized use or disclosure of such information.

Part of our strategy involves collaborative arrangements with other pharmaceutical companies for the development of new formulations of drugs developed by others and, ultimately, the receipt of royalties on sales of the new formulations of those drugs. These drugs are generally the property of the pharmaceutical companies and may be the subject of patents or patent applications and other rights of protection owned by the pharmaceutical companies. To the extent those patents or other forms of rights expire, become invalid or otherwise ineffective, or to the extent those drugs are covered by patents or other forms of protection owned by third parties, sales of those drugs by the collaborating pharmaceutical company may be restricted, limited, enjoined, or may cease. Accordingly, the potential for royalty revenues to us may be adversely affected.

**We may be at risk of having to obtain a license from third parties making proprietary improvements to our technology.**

There is a possibility that third parties may make improvements or innovations to our technology in a more expeditious manner than we do. Although we are not aware of any such circumstance related to our product portfolio, should such circumstances arise, we may need to obtain a license from such third party to obtain the benefit of the improvement or innovation. Royalties payable under such a license would reduce our share of total revenue. Such a license may not be available to us at all or on commercially reasonable terms. Although we currently do not know of any circumstances related to our product portfolio which would lead us to believe that a third party has developed any improvements or innovation with respect to our technology, we cannot assure you that such circumstances will not arise in the future. We cannot reasonably determine the cost to us of the effect of being unable to obtain any such license.

**We are dependent on third parties to manufacture and, in some cases, test our products.**

We have a facility to manufacture a limited quantity of clinical supplies containing EMISPHERE® delivery agents. Currently, we have no manufacturing facilities for production of any therapeutic compounds under consideration as products. We have no facilities for clinical testing. The success of our self-developed programs is dependent upon securing manufacturing capabilities and contracting with clinical service and other service providers.

The availability of manufacturers is limited by both the capacity of such manufacturers and their regulatory compliance. Among the conditions for NDA approval is the requirement that the prospective manufacturer's quality control and manufacturing procedures continually conform with the FDA's current GMP (GMP are regulations established by the FDA that govern the manufacture, processing, packing, storage and testing of drugs intended for human use). In complying with GMP, manufacturers must devote extensive time, money and effort in the area of production and quality control and quality assurance to maintain full technical compliance. Manufacturing facilities and company records are subject to periodic inspections by the FDA to ensure compliance. If a manufacturing facility is not in substantial compliance with these requirements, regulatory enforcement action may be taken by the FDA, which may include seeking an injunction against shipment of products from the facility and recall of products previously shipped from the facility. Such actions could severely delay our ability to obtain product from that particular source.

The success of our clinical trials and our partnerships is dependent on the proposed or current partner's capacity and ability to adequately manufacture drug products to meet the proposed demand of each respective market. Any significant delay in obtaining a supply source (which could result from, for example, an FDA determination that such manufacturer does not comply with current GMP) could harm our potential for success. Additionally, if a current manufacturer were to lose its ability to meet our supply demands during a clinical trial, the trial may be delayed or may even need to be abandoned.

**We may face product liability claims related to participation in clinical trials or future products.**

We have product liability insurance with a policy limit of \$3 million per occurrence and in the aggregate. The testing, manufacture and marketing of products for humans utilizing our drug delivery technology may expose us to potential product liability and other claims. These may be claims directly by consumers or by pharmaceutical companies or others selling our future products. We seek to structure development programs with pharmaceutical companies that would complete the development, manufacturing and marketing of the finished product in a manner that would protect us from such liability, but the indemnity undertakings for product liability claims that we secure from the pharmaceutical companies may prove to be insufficient.

**We are subject to environmental, health and safety laws and regulations for which we incur costs to comply.**

We use some hazardous materials in our research and development activities and are subject to environmental, health and safety laws and regulations governing the use of such materials. For example, our operations involve the controlled use of chemicals, biologicals and radioactive materials and we bear the costs of complying with the various regulations governing the use of such materials. Costs of compliance have not been material to date. While we believe we are currently in compliance with the federal, state and local laws governing the use of such materials, we cannot be certain that accidental injury or contamination will not occur. Should we be held liable or face regulatory actions regarding an accident involving personal injury or an environmental release, we potentially could incur costs in excess of our resources or insurance coverage, although, to date, we have not had to deal with any such actions. During each of 2004, 2005 and 2006, we incurred costs of approximately \$200 thousand in our compliance with environmental, health and safety laws and regulations.

**We face rapid technological change and intense competition.**

Our success depends, in part, upon maintaining a competitive position in the development of products and technologies in an evolving field in which developments are expected to continue at a rapid pace. We compete with other drug delivery, biotechnology and pharmaceutical companies, research organizations, individual scientists and non-profit organizations engaged in the development of alternative drug delivery technologies or new drug research and testing, as well as with entities developing new drugs that may be orally active. Many of these competitors have greater research and development capabilities, experience, and marketing, financial and managerial resources than we have, and, therefore, represent significant competition.

Our products, when developed and marketed, may compete with existing parenteral or other versions of the same drug, some of which are well established in the marketplace and manufactured by formidable competitors, as well as other existing drugs. For example, our oral heparin product candidate, if successful, would compete with intravenous heparin, injectable low molecular weight heparin and oral warfarin, as well as the recently approved injectable pentasaccharide product. These products are marketed throughout the world by leading pharmaceutical companies such as Aventis Pharma SA, Pfizer, Inc. and Bristol Myers Squibb Company. Similarly, our salmon calcitonin product candidate, if developed and marketed, would compete with a wide array of existing osteoporosis therapies, including a nasal dosage form of salmon calcitonin, estrogen replacement therapy, selective estrogen receptor modulators, bisphosphonates and other compounds in development.

Our competitors may succeed in developing competing technologies or obtaining government approval for products before we do. Developments by others may render our product candidates, or the therapeutic macromolecules used in combination with our product candidates, noncompetitive or obsolete. At least one competitor has notified the FDA that it is developing a competing formulation of salmon calcitonin. We cannot assure you that, if our products are marketed, they will be preferred to existing drugs or that they will be preferred to or available before other products in development.

If a competitor announces a successful clinical study involving a product that may be competitive with one of our product candidates or an approval by a regulatory agency of the marketing of a competitive product, such announcement may have a material adverse effect on our operations or future prospects resulting from reduced sales of future products that we may wish to bring to market or from an adverse impact on the price of our common stock or our ability to obtain regulatory approval for our product candidates.

**We are dependent on our key personnel and if we cannot recruit and retain leaders in our research, development, manufacturing, and commercial organizations, our business will be harmed.**

We are highly dependent on our executive officers. On January 12, 2007, the Board of Directors appointed Lewis H. Bender as President and Chief Executive Officer on an interim basis. Mr. Bender has been with Emisphere since 1993. Prior to his appointment, Mr. Bender was the Senior Vice President of Business Development. The Board of Directors placed our former Chairman and CEO, Michael Goldberg, M.D., on leave effective January 12, 2007 and terminated Dr. Goldberg effective on January 16, 2007. A search for a permanent CEO is ongoing. The loss of other officers could have an adverse effect as well, given their specific knowledge related to our proprietary technology and personal relationships with our pharmaceutical company partners. If we are not able to retain our executive officers, our business may suffer. None of our key officers are nearing retirement age or have announced any intention to leave Emisphere. We do not maintain key-man life insurance policies for any of our executive officers.

There is intense competition in the biotechnology industry for qualified scientists and managerial personnel in the development, manufacture, and commercialization of drugs. We may not be able to continue to attract and retain the qualified personnel necessary for developing our business. Additionally, because of the knowledge and experience of our scientific personnel and their specific knowledge with respect to our drug carriers the continued development of our product candidates could be adversely affected by the loss of any significant number of such personnel.

**Provisions of our corporate charter documents, Delaware law and our stockholder rights plan may dissuade potential acquirors, prevent the replacement or removal of our current management and may thereby affect the price of our common stock.**

Our Board of Directors has the authority to issue up to 1,000,000 shares of preferred stock and to determine the rights, preferences and privileges of those shares without any further vote or action by our stockholders. Of these 1,000,000 shares, 200,000 are currently designated Series A Junior Participating Cumulative Preferred Stock ( A Preferred Stock ) in connection with our stockholder rights plan, and the remaining 800,000 shares remain available for future issuance. Rights of holders of common stock may be adversely affected by the rights of the holders of any preferred stock that may be issued in the future.

We also have a stockholder rights plan, commonly referred to as a poison pill, in which Preferred Stock Purchase Rights (the Rights) have been granted at the rate of one one-hundredth of a share of A Preferred Stock at an exercise price of \$80 for each share of our common stock. The Rights are not exercisable or transferable apart from the common stock, until the earlier of (i) ten days following a public announcement that a person or group of affiliated or associated persons have acquired beneficial ownership of 20% or more of our outstanding common stock or (ii) ten business days (or such later date, as defined) following the commencement of, or announcement of an intention to make a tender offer or exchange offer, the consummation of which would result in the beneficial ownership by a person, or group, of 20% or more of our outstanding common stock. If we enter into consolidation, merger, or other business combinations, as defined, each Right would entitle the holder upon exercise to receive, in lieu of shares of A Preferred Stock, a number of shares of common stock of the acquiring company having a value of two times the exercise price of the Right, as defined. By potentially diluting the ownership of the acquiring company, our rights plan may dissuade prospective acquirors of our company. MHR is specifically excluded from the provisions of the plan.

The A Preferred Stockholders will be entitled to a preferential cumulative quarterly dividend of the greater of \$1.00 per share or 100 times the per-share dividend declared on our stock and are also entitled to a liquidation preference, thereby hindering an acquiror's ability to freely pay dividends or to liquidate the company following an acquisition. Each A Preferred Stock share will have 100 votes and will vote together with the common shares, effectively preventing an acquiror from removing existing management. The Rights contain anti-dilutive provisions and are redeemable at our option, subject to certain defined restrictions for \$.01 per Right. The Rights expire on April 7, 2016.

**Provisions of our corporate charter documents, Delaware law and financing agreements may prevent the replacement or removal of our current management and members of our Board of Directors and may thereby affect the price of our common stock.**

In connection with the MHR financing transaction, and after approval by our Board of Directors, Dr. Mark H. Rachesky was appointed to the Board of Directors by MHR (the MHR Nominee) and Dr. Michael Weiser was appointed to the Board of Directors by both the majority of our Board of Directors and MHR (the Mutual Director), as contemplated by our recently amended by-laws that also require the unanimous consent of the Board. Our certificate of incorporation provides that the MHR Nominee and the Mutual Director may be removed only by the affirmative vote of at least 85% of the shares of common stock outstanding and entitled to vote at an election of directors. Our certificate of incorporation also provides that the MHR Nominee may be replaced only by an individual designated by MHR, unless the MHR Nominee has been removed for cause, in which case the MHR Nominee may be replaced only by an individual approved by both a majority of our Board of Directors and MHR. Furthermore, the amendments to the by-laws and the certificate of incorporation provide that the rights granted to MHR by these amendments may not be amended or repealed without the unanimous vote or unanimous written consent of the Board of Directors or the affirmative vote of the holders of at least 85% of the shares of Common Stock outstanding and entitled to vote at the election of directors. The amendments to the by-laws and the certificate of incorporation will remain in effect as long as MHR holds at least 2% of the shares of fully diluted Common Stock. The amendments to the by-laws and the certificate of incorporation will have the effect of making it more difficult for a third party to gain control of our Board of Directors.

Additional provisions of our certificate of incorporation and by-laws could have the effect of making it more difficult for a third party to acquire a majority of our outstanding voting common stock. These include provisions that classify our Board of Directors, limit the ability of stockholders to take action by written consent, call special meetings, remove a director for cause, amend the by-laws or approve a merger with another company.

We are subject to the provisions of Section 203 of the Delaware General Corporation Law which prohibits a publicly-held Delaware corporation from engaging in a business combination with an interested stockholder for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. For purposes of Section 203, a business combination includes a merger, asset sale or other transaction resulting in a financial benefit to the interested stockholder, and an interested stockholder is a person who, either alone or together with affiliates and associates, owns (or within the past three years, did own) 15% or more of the corporation's voting stock.



**Our stock price has been and may continue to be volatile.**

The trading price for our common stock has been and is likely to continue to be highly volatile. The market prices for securities of drug delivery, biotechnology and pharmaceutical companies have historically been highly volatile. Factors that could adversely affect our stock price include:

fluctuations in our operating results; announcements of partnerships or technological collaborations, innovations or new products by us or our competitors;

governmental regulation;

developments in patent or other proprietary rights;

public concern as to the safety of drugs developed by us or others;

the results of preclinical testing and clinical studies or trials by us, our partners or our competitors;

litigation;

general stock market and economic conditions;

number of shares available for trading (float);

inclusion in or dropping from stock indexes.

As of December 31, 2006, our 52-week high and low closing market price for our common stock was \$11.24 and \$4.49, respectively.

**Future sales of common stock or warrants, or the prospect of future sales, may depress our stock price.**

Sales of a substantial number of shares of common stock or warrants, or the perception that sales could occur, could adversely affect the market price of our common stock. As of December 31, 2006, there were outstanding options to purchase up to 3,297,833 shares of our common stock that are currently exercisable, and additional outstanding options to purchase up to 781,322 shares of common stock that are exercisable over the next several years. As of December 31, 2006, the Novartis Note is convertible into 2,050,785 shares of common stock and the MHR Convertible Notes are convertible into 4,307,899 shares of our common stock. As of December 31, 2006, there were outstanding warrants to purchase 2,567,211 shares of our stock. The holders of these options have an opportunity to profit from a rise in the market price of our common stock with a resulting dilution in the interests of the other. The existence of these options may adversely affect the terms on which we may be able to obtain additional financing.

**ITEM 1B. UNRESOLVED STAFF COMMENTS**

None.

**ITEM 2. PROPERTIES**

We currently lease approximately 86,000 square feet of office space at 765 Old Saw Mill River Road, Tarrytown, New York for use as executive and administrative offices and laboratories. The lease for our principal executive, administrative and laboratory facilities was set to expire on August 31, 2007. On March 1, 2007, we exercised the first extension option under the existing lease for our premises for a term of five years. Fixed rent payable under the extension shall be at an annual rate equal to 95% of the fair market rental for the premises. The fair market rental for the premises will be determined by the landlord. Under the existing lease terms, we have the right to dispute the landlords determination, in which instance an arbitration process will commence.

**ITEM 3. LEGAL PROCEEDINGS**

On January 6, 2006 the United States District Court for the Southern District of Indiana, Indianapolis Division ( District Court ), ruled in our favor in our lawsuit with Eli Lilly and Company ( Lilly ). The District Court found that Lilly had breached its agreements with us on all counts tried and that our termination of such agreements was proper. At issue was a notice we had given to Lilly that it was in material breach of certain research and collaboration agreements with us with respect to the development of oral formulations of PTH 1-34. Following receipt of the notice, Lilly filed a complaint seeking (a) declaratory judgment that Lilly was not in breach of such agreements with us and (b) an order preliminarily and permanently enjoining us from terminating those agreements. On February 12, 2004, we served Lilly with an amended counterclaim, alleging that Lilly filed certain patent applications relating to the use of our proprietary technology in combination with another drug, in violation of our agreements with Lilly, and that the activities disclosed in such applications



infringe upon our patents. We also alleged that Lilly breached the agreements by failing to make a milestone payment of \$3 million, as required upon the completion of oral PTH 1-34 product Phase I studies. On August 23, 2004, we had notified Lilly that in light of Lilly's ongoing, repeated and uncured violations of its PTH 1-34 license agreement, both of its agreements with us were terminated.

On April 6, 2006, the District Court granted in part a motion by Lilly to amend the January 6, 2006 decision to clarify the claims that were resolved by the decision. On April 25, 2006, the United States District Court in the Southern District of Indiana ordered Lilly to assign to Emisphere the patent application Lilly filed with the World Intellectual Property Organization, including any final patents that may be issued as a result of the application. On May 3, 2006, Lilly notified Emisphere that it has assigned the patent to Emisphere.

Although the costs of litigating this matter to its ultimate resolution may be material, we anticipate that near-term costs will be minimal and we do not anticipate any significant impact on our ability to develop our product candidates. Through December 31, 2006, we have incurred approximately \$2.7 million in expenses relating to this litigation.

**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**

Emisphere common stock is traded on The NASDAQ Stock Market under the symbol EMIS .

The following table sets forth the range of high and low intra-day sale prices as reported by The NASDAQ Stock Market for each period indicated:

	High	Low
<b>2005</b>		
First quarter	\$ 6.02	\$ 3.14
Second quarter	4.58	2.50
Third quarter	4.94	3.04
Fourth quarter	4.86	3.90
<b>2006</b>		
First quarter	8.95	4.33
Second quarter	11.40	7.29
Third quarter	9.74	6.36
Fourth quarter	11.00	4.59
<b>2007</b>		
First quarter (through February 13, 2007)	5.82	5.01

As of February 13, 2007 there were approximately 235 stockholders of record, including record owners holding shares on behalf of an indeterminate number of beneficial owners, and 28,311,948 shares of common stock outstanding. The closing price of our common stock on February 13, 2007 was \$5.40.

We have never paid cash dividends and do not intend to pay cash dividends in the foreseeable future. We intend to retain earnings, if any, to finance the growth of our business.

**Equity Compensation Plan Information**

The following table provides information as of December 31, 2006 about the common stock that may be issued upon the exercise of options granted to employees, consultants or members of our board of directors under all of our existing equity compensation plans, including the 1991 Stock Option Plan, 1995 Stock Option Plan, 2000 Stock Option Plan, the 2002 Broad Based Plan, (collectively the Plans ) the 1997 Directors' Option Plan, and the 1994 Qualified and Non-Qualified Employee Stock Purchase Plans ( ESPP ):

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options	(b) Weighted average exercise price of outstanding options	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
<b>Equity Compensation Plans Approved by Security Holders</b>			
The Plans	3,807,012	\$ 16.63	476,570
1997 Directors Option Plan	177,000	13.42	401,070
1994 Qualified and Non-qualified ESPP	75,143	4.50	
<b>Equity Compensation Plans not approved by Security Holders</b>			
(1)	20,000	14.84	
<b>Total</b>	4,079,155	\$ 16.26	877,640

## Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

- (1) Our Board of Directors has granted options which are currently outstanding for a former consultant. The Board of Directors determines the number and terms of each grant (option exercise price, vesting and expiration date). These grants were made on 7/12/2001, 7/12/2002 and 7/14/2003.

# ITEM 6. SELECTED FINANCIAL DATA

The following selected financial data for the years ended December 31, 2006, 2005, 2004, 2003 and 2002 have been derived from the financial statements of Emisphere and notes thereto, which have been audited by our independent accountants. In January 2006, the start of the first quarter of fiscal 2006, the Company adopted the provisions of statement of Financial Accounting Standards No. 123 (revised 2004),

Share-Based Payment (SFAS No.123(R)), which requires that the costs resulting from all stock based payment transactions be recognized in the financial statements at their fair values. Results from prior periods have not been restated.

Year Ended December 31,					
	2006	2005	2004	2003	2002
(in thousands, except per share data)					
<b>Statement of Operations Data:</b>					
Revenue	\$ 7,259	\$ 3,540	\$ 1,953	\$ 400	\$ 3,378
Costs and expenses <sup>(1)</sup>	\$ 34,387	\$ 35,995	\$ 34,169	\$ 41,986	\$ 73,070
Operating loss	\$ (27,128)	\$ (32,455)	\$ (32,216)	\$ (41,586)	\$ (69,692)
Beneficial conversion of convertible security	\$ (12,215)				
Gain on extinguishment of note payable		\$ 14,663			
Change in fair value of derivative instruments	\$ (1,390)	\$ (624)	\$ (136)		
Net loss	\$ (41,766)	\$ (18,051)	\$ (37,522)	\$ (44,869)	\$ (71,342)
Net loss per share Basic and diluted	\$ (1.58)	\$ (0.81)	\$ (2.04)	\$ (2.48)	\$ (3.98)

December 31,					
	2006	2005	2004	2003	2002
(in thousands)					
<b>Balance Sheet Data:</b>					
Cash, cash equivalents, restricted cash and investments	\$ 21,533	\$ 9,218	\$ 17,550	\$ 43,008	\$ 73,701
Working capital	\$ 13,377	\$ (522)	\$ 12,858	\$ 33,240	\$ 57,421
Total assets	\$ 28,092	\$ 18,988	\$ 36,292	\$ 66,049	\$ 107,966
Derivative instruments	\$ 6,498	\$ 6,528	\$ 762		
Long-term liabilities	\$ 24,744	\$ 23,121	\$ 40,238	\$ 39,871	\$ 34,690
Accumulated deficit	\$ (392,372)	\$ (350,606)	\$ (332,555)	\$ (295,033)	\$ (250,164)
Stockholders' (deficit) equity	\$ (6,106)	\$ (14,895)	\$ (11,274)	\$ 22,807	\$ 67,540

- (1) Costs and expenses in 2003 and 2002 include impairment charges of \$5.4 million and \$4.5 million, respectively, related to intangible and fixed assets as well as restructuring charges of \$1.4 million in 2002 (\$0.1 million of which was reversed in 2003). These charges related to the restructure of our operations, which included: (a) the discontinuation of our liquid oral heparin program and related initiatives, and a scale back of associated infrastructure and (b) the closing of our Connecticut research facility and consolidating our operations into our Tarrytown facility.

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

*The following discussion and analysis should be read in conjunction with the Selected Financial Data and the Consolidated Financial Statements included elsewhere in this report and the information described under the caption Risk Factors and Special Note Regarding Forward Looking Statements above.*

### General

Emisphere Technologies, Inc. is a biopharmaceutical company specializing in the oral delivery of therapeutic macromolecules and other compounds that are not currently deliverable by oral means. Since our inception in 1986, we have devoted substantially all of our efforts and resources to research and development conducted on our own behalf and in collaborations with corporate partners and academic research institutions. Our product pipeline includes product candidates for the treatment of cardiovascular diseases, osteoarthritis, osteoporosis, growth disorders, diabetes, asthma/allergies, obesity, infectious diseases and oncology. Development and commercialization of these product candidates entails risk and significant expense. Since inception, we have had no product sales from these product candidates.

Oral heparin and oral insulin are our two lead unpartnered programs. During 2007, we will continue to develop plans for advancing these two programs. Our strategy for the heparin program includes plans for a pivotal, Phase III trial designed to determine the safety and efficacy of oral heparin versus Coumadin® (sodium warfarin) for the prevention of venous thromboembolism following elective total hip replacement. In further support of the heparin program, during the third quarter of 2005 we conducted a multi-arm, cross-over, clinical trial with sixteen subjects to compare heparin delivered by different injection routes to heparin delivered orally in normal subjects. In March 2006, we announced that preliminary results confirmed that heparin delivered orally utilizing our eligen® drug delivery technology is chemically identical to heparin delivered by injection. We have discussed the data with the FDA and are able to proceed to a Phase III study, however we are clarifying with the FDA a few remaining details with regard to the Phase III study protocol prior to its finalization.

During the fall of 2006, we announced the results of our 90 day Phase II trial to evaluate the safety and efficacy of low and high doses of oral insulin tablets utilizing our eligen® drug delivery technology. The four-arm study evaluated the safety and efficacy of low and high fixed doses of oral insulin tablets versus placebo in patients with Type 2 diabetes Mellitus on existing oral metformin monotherapy. The trial focused on the safety of oral insulin, specifically noting incidents of hypoglycemia, as well as the occurrence of insulin antibodies. The efficacy component of the trial was designed to measure changes in Hemoglobin A1c (HbA1c) over 90 days, the standard for evaluating glucose control in Type II diabetics. An additional objective was to confirm that insulin delivered orally could be administered as a fixed dose product without the need to conduct glucose monitoring or titrate the insulin dose. We are planning additional clinical studies related to the dosage form development designed to optimize efficiency of delivery. In order to design the appropriate clinical studies for the development of the product, we are establishing a scientific advisory board comprised of leading academic experts in the field of diabetes.

We also plan to continue to advance our collaboration with Novartis on salmon calcitonin, oral PHT and recombinant human growth hormone; with Genta on oral gallium; and with a pharmaceutical company based outside the United States to develop an improved oral formulation of the antiviral compound acyclovir. Our collaboration with Roche on small molecule compounds for bone related diseases was terminated after notice received in November 2006.

### Liquidity and Capital Resources

Since our inception in 1986, we have generated significant losses from operations and we anticipate that we will continue to generate significant losses from operations for the foreseeable future. As of December 31, 2006, our accumulated deficit was approximately \$392 million and our stockholders deficit was \$6.1 million. Our operating loss was \$27.1 million, \$32.5 million and \$32.2 million for the years ended December 31, 2006, 2005 and 2004, respectively, after receipts of collaboration and feasibility payments of \$7.3 million, \$3.5 million and \$2.0 million, respectively (which do not occur with regularity or at all). We believe operating loss is a more representative measure to discuss, as net loss of \$41.8 million for the year ended December 31, 2006 includes \$13.6 million of non-cash other expense items related to a beneficial conversion feature and derivatives. We have limited capital resources and operations to date have been funded primarily with the proceeds from collaborative research agreements, public and private equity and debt financings and income earned on investments. As of December 31, 2006, total cash, cash equivalents and investments were \$21.5 million. We anticipate that our existing capital resources, without implementing cost reductions, raising additional capital, or obtaining substantial cash inflows from potential partners for our products, will enable us to continue operations through approximately September 2007. However, this expectation is based on the current operating plan that could change as a result of many factors and additional funding

# Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

may be required sooner than anticipated. These conditions raise substantial doubt about our ability to continue as a going concern. The audit report prepared by our independent registered public accounting firm relating to our consolidated financial statements for the year ended December 31, 2006 includes an explanatory paragraph expressing substantial doubt about our ability to continue as a going concern.

Our business will require substantial additional investment that we have not yet secured. While our plan is to raise capital when needed and/or to pursue partnering opportunities, we cannot be sure how much we will need to spend in order to develop, market and manufacture new products and technologies in the future. We expect to continue to spend substantial amounts on research and development, including amounts spent on conducting clinical trials for our product candidates. Further, we will not have sufficient resources to develop fully any new products or technologies unless we are able to raise substantial additional financing on acceptable terms or secure funds from new or existing partners. We cannot assure you that financing will be available on favorable terms or at all. Our failure to raise capital when needed would adversely affect our business, financial condition and results of operations, and could force us to reduce or cease our operations. If additional capital is raised through the sale of equity or convertible debt securities, the issuance of such securities would result in dilution to our existing stockholders.

During the year ended December 31, 2006, our cash liquidity (consisting of cash, restricted cash and short-term investments) increased as follows:

*Cash, restricted cash and investments:*

	(in thousands)
At December 31, 2005	\$ 9,200
At December 31, 2006	21,500
Increase in cash and investments	\$ 12,300

The increase in cash and investments is comprised of the following components for the years ended December 31:

	2006	2005
	(in thousands)	
Proceeds, net, from issuance of equity securities	\$ 35,200	\$ 15,700
Proceeds from issuance of note payable		12,900
Proceeds from collaboration and other projects	7,200	3,600
Proceeds from sale of fixed assets		4,100
Proceeds from collection of CEO note receivable		1,900
Gain on sale of investment		1,000
Sources of cash	42,400	39,200
Cash used in operations (grossed up for collaborations)	29,600	33,900
Repayment of debts and capital expenditures	500	13,600
Applications of cash	30,100	47,500
Increase (decrease) in cash and investments	\$ 12,300	\$ (8,300)

During the year ended December 31, 2006, our working capital liquidity increased by \$13.9 million as follows:

	December 31,		
	2006	2005	Change
	(in thousands)		
Current assets	\$ 22,800	\$ 10,200	\$ 12,600



# Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

Current liabilities	9,500	10,800	(1,300)
Working capital	\$ 13,300	\$ (600)	\$ 13,900

The increase in current assets is driven primarily by the increase in cash and investments. The decrease in current liabilities is driven largely by decreases in accounts payable, accrued expenses and other current liabilities (\$1.0 million).

The lease for our principal executive, administrative and laboratory facilities was set to expire on August 31, 2007. On March 1, 2007, we exercised the first extension option under the existing lease for our premises for a term of five years. Fixed rent payable under the extension shall be at an annul rate equal to 95% of the fair market rental for the premises. The fair market rental for the premises will be determined by the landlord. Under the existing lease terms, we have the right to dispute the landlords determination, in which instance an arbitration process will commence.

### *Financing Activities*

During 2006, we received a \$5 million milestone payment from Novartis on the Oral Recombinant Human Growth Hormone ( rhGH ) program. Also during 2006, we received \$35.2 million through the issuance of common stock and derivative instruments, including \$31.1 million from the May 2006 offering of 4 million shares of our common stock and warrants, \$3.6 million from the exercise of warrants and stock options and \$0.6 million from the purchase of warrants. MHR was a purchaser in this offering.

During 2005, we received net proceeds of approximately \$12.9 million under a \$15 million secured loan agreement (the Loan Agreement ) executed with MHR. Under the Loan Agreement, MHR requested, and on May 16, 2006, we effected, the exchange of the loan from MHR for senior secured convertible notes (the Convertible Notes ) with substantially the same terms as the Loan Agreement, except that the Convertible Notes are convertible, at the sole discretion of MHR, into shares of our common stock at a price per share of \$3.78. The Convertible Notes are due on September 26, 2012, bear interest at 11% and are secured by a first priority lien in favor of MHR on substantially all of our assets. Interest is payable in the form of additional Convertible Notes rather than in cash and we have the right to call the Convertible Notes after September 26, 2010 if certain conditions are satisfied. Further, the Convertible Notes provide MHR with the right to require redemption in the event of a change in control, as defined, prior to September 26, 2009. The Convertible Notes provide for various events of default. If an event of default occurs, the Convertible Notes provide for the immediate repayment and certain additional amounts as set forth in the Convertible Notes. We have received a waiver from MHR, through March 17, 2008 for certain defaults under the agreement. Additionally, MHR was granted certain registration rights.

In connection with the MHR financing, the Company agreed to appoint a representative of MHR ( MHR Nominee ) and another person (the Mutual Director ) to its Board of Directors. Further, the Company has amended its certificate of incorporation to provide for continuity of the MHR Nominee and the Mutual Nominee on the Board, as described therein, so long as MHR holds at least 2% of the outstanding common stock of the Company.

On December 1, 2004 we received \$10 million in exchange for issuance of a convertible note to Novartis (the Novartis Note ) in connection with a new research collaboration option relating to the development of PTH 1-34. The Novartis Note is convertible, at our option, at any time prior to maturity on December 1, 2009 into a number of shares of our common stock equal to the principal and accrued and unpaid interest divided by the then market price of our common stock, provided certain conditions are met. The Novartis Note bears interest at a rate of 3% until December 1, 2006, 5% from then until December 1, 2008, and 7% from that point until maturity on December 1, 2009. We have the option to pay interest in cash on a current basis or accrue the periodic interest as an addition to the principal amount of the Novartis Note. We are accruing interest which is being recorded using the effective interest rate method, which results in a level interest rate of 4.5%.

In 1996, we entered into a joint venture with Elan to develop oral heparin. In connection with the re-purchase of Elan's joint venture interest in 1999, we issued a zero coupon note (the Original Elan Note ) to Elan. The Original Elan Note had an issue price of \$20 million and an original issue discount at maturity of \$35 million and a maturity date of July 2, 2006. On December 27, 2004, we entered into a Security Purchase Agreement with Elan, providing for our purchase of indebtedness to Elan under the Original Elan Note. The value of the Original Elan Note plus accrued interest on December 27, 2004 was approximately \$44 million. Pursuant to the Security Purchase Agreement, we paid Elan \$13 million and issued to Elan 600,000 shares of our common stock with a market price of approximately \$2 million. Also, we issued Elan a new zero coupon note with an issue price of approximately \$29 million (the Modified Elan Note ), representing the accrued value of the Original Elan Note minus the sum of the cash payment and the value of the 600,000 shares. In 2005, we issued Elan a warrant to purchase up to 600,000 shares of our common stock at an exercise price of \$3.88 and made a \$13 million payment to Elan, which completed our repurchase of our indebtedness to Elan.

### **Overview of Operations**

During 2006 we continued to make progress on our internally funded Heparin and Insulin projects. In Heparin, we demonstrated that heparin delivered orally utilizing our eligen® drug delivery technology is chemically identical to heparin delivered by injection. We also submitted the protocol for a Special Protocol Assessment ( SPA ) to the FDA in 2006 and received comments in January 2007. We are continuing our discussions with the FDA on Heparin. For Insulin, we completed a Phase II study which evaluated the safety and efficacy of low and high doses of oral insulin tablets utilizing our eligen® drug delivery technology. Efforts on these two projects are planned to continue in 2007.

We also continued our collaborations in 2006. We collaborated with Novartis on Oral Recombinant Human Growth Hormone ( rhGH ), Oral Salmon Calcitonin ( sCT ) and Oral Recombinant Parathyroid Hormone ( PTH 1-34 ), which resulted in a milestone payment of \$5 million related to rhGH. We entered into a collaboration agreement with Genta in

## Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

March 2006, which resulted in reimbursement of fees of approximately \$0.2 million. Our collaboration agreement with Roche relating to the small molecule to treat bone disease generated a \$1.5 million milestone payment in 2006, but the program was cancelled after notice received in November 2006. We are currently working on various feasibility studies with pharmaceutical companies (including Roche) to develop other uses for our carrier.

In February 2007, Novartis Pharma AG and its development partner Nordic Bioscience notified us of the initiation of a Phase III clinical trial for the treatment of osteoporosis with an oral form of salmon calcitonin (referred to as SMC021), a new drug candidate, using the Company's *eligen*® delivery technology. As a result of the initiation of the trial, we will be entitled to receive a milestone payment from Novartis of \$2 million as well as reimbursement for approximately \$0.7 million in costs.

Our current plans include moving our oral heparin program into Phase III development in 2007. This would involve increases in human resources and clinical costs associated with such studies to the extent that such costs are not absorbed by partners.

### Results of Operations

*Year Ended December 31, 2006 Compared to Year Ended December 31, 2005*

	Year Ended December 31,		
	2006	2005	Change
	(in thousands)		
Revenue	\$ 7,259	\$ 3,540	\$ 3,719
Operating expenses	\$ 34,387	\$ 35,995	\$ (1,608)
Operating loss	\$ (27,128)	\$ (32,455)	\$ (5,327)
Beneficial conversion of convertible security	\$ (12,215)		\$ 12,215
Change in fair value of derivative instruments	\$ (1,390)	\$ (624)	\$ (766)
Gain on extinguishment of note payable		\$ 14,663	\$ (14,663)
Net loss	\$ (41,766)	\$ (18,051)	\$ 23,715

Revenue increased significantly as compared to 2005 as a result of the \$5 million milestone payment received from Novartis for rhGH.

Operating expenses decreased by \$1.6 million (4%) as a result of the following items:

	(in thousands)
Increase in human resource costs	\$ 1,300
Reduction in clinical costs and lab fees	(1,000)
Reduction in professional fees	(1,400)
All other	(500)
Net reduction	\$ (1,600)

Human resource costs increased by \$1.3 million primarily as a result of the implementation of FAS 123R in 2006, which resulted in an additional cost of \$1.6 million that did not occur in 2005. This increase was partially offset by a reduction in 6 employees (4 in research and development and 2 in general and administration) during 2006.

Clinical costs and lab fees decreased as the Heparin and Insulin trials that began in 2005 came to a conclusion in 2006.

The reduction of \$1.4 million in professional fees is related to a decrease in legal expenses in 2006 as compared to 2005. In 2005, we experienced higher than normal legal fees as a result of the Lilly litigation, the re-negotiation of the CEO's employment contract, and the MHR Note.

The charge for beneficial conversion in 2006 is due to the conversion feature in the MHR notes, which did not exist until 2006.

The change in the fair value of the derivatives instruments increased primarily due to change in the stock price over the years and the issuance of 400,000 shares under warrants that were exercised. Additionally, we converted MHR's warrant purchase option into warrants for

617,211 shares.

## Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

The gain on the extinguishment of the note payable of debt is related to the repurchase of our indebtedness to Elan in 2005, which is considered a troubled debt restructuring.

As a result of the above factors, we sustained a net loss of \$41.8 million for the year ended December 31, 2006, compared to a net loss of \$18.1 million for the year ended December 31, 2005. These results include a number of non-recurring transactions the increase in revenue, the charge for the beneficial conversion in 2006, and the gain on the extinguishment of the note payable to Elan in 2005, and are therefore not necessarily indicative of future results.

### *Year Ended December 31, 2005 Compared to Year Ended December 31, 2004*

	Year Ended December 31,		
	2005	2004	Change
	(in thousands)		
Revenue	\$ 3,540	\$ 1,953	\$ 1,587
Operating expenses	\$ 35,995	\$ 34,169	\$ 1,826
Operating loss	\$ (32,455)	\$ (32,216)	\$ (239)
Gain on extinguishment of note payable	\$ 14,663		\$ 14,663
Interest (expense)	\$ (1,141)	\$ (6,016)	\$ (4,875)
Net loss	\$ (18,051)	\$ (37,522)	\$ 19,471

Revenue increased significantly as compared to 2004 primarily as a result of the new collaboration signed with Roche related to the small molecule for bone disease in the second half of 2004. The product being developed under the Roche agreement entered Phase I clinical trials in the second quarter of 2005, triggering a milestone payment of \$1.5 million under the agreement.

Operating expenses increased \$1.8 million (5%) as a result of the following items:

	(in thousands)
Increase in professional fees	\$ 1,400
Increase in clinical costs	1,400
Increase in utility costs	400
Decrease in lab fees and lab supplies	(600)
Gain on sale of fixed assets	(600)
All other	(200)
Net increase	\$ 1,800

Professional fees increased primarily as a result of the increase in consulting and accounting fees as a result of the implementation of certain requirements relating to the Sarbanes-Oxley Act of 2002 ( SOX ) in 2005.

The increase in clinical costs is the result of an increase of \$0.9 million in clinical trial activity; specifically, completion of the heparin trial and the initiation of the Phase II insulin trial in India. Additionally, 2004 expenses were lowered by the receipt of a \$0.5 million credit upon completion of the final reconciliation of payments related to the PROTECT liquid oral heparin trials.

Utility costs increased by \$0.4 million due to higher energy costs and an increase in the allocated common charges from the landlord.

The decrease in outside laboratory analysis fees and lab supplies reflects a progression from pre-clinical to clinical activities.

The \$0.6 million gain on sale of fixed assets relates to the sale of the Farmington, Connecticut research facility.

The gain on the extinguishment of the note payable of debt is related to the repurchase of our indebtedness to Elan in 2005, which is considered a troubled debt restructuring.

Interest expense decreased by \$4.9 million due to the repayment of the note payable to Elan, which was repaid in the first quarter of 2005. Interest expense for 2004 included \$5.9 million of interest related to the note payable to Elan.



As a result of the above factors, we sustained a net loss of \$18.1 million for the year ended December 31, 2005, compared to a net loss of \$37.5 million for the year ended December 31, 2004. These results include a number of non-recurring transactions the increase in revenue, the gain on the extinguishment of the note payable to Elan, and the gains on the sales of fixed assets and investments and are therefore not necessarily indicative of future results.

## Critical Accounting Estimates and New Accounting Pronouncements

### Critical Accounting Estimates

The preparation of financial statements in accordance with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect reported amounts and related disclosures in the financial statements. Management considers an accounting estimate to be critical if:

It requires assumptions to be made that were uncertain at the time the estimate was made, and

Changes in the estimate or different estimates that could have been selected could have a material impact on our consolidated results of operations or financial condition.

*Share-Based Payments* On January 1, 2006, we adopted SFAS 123(R), *Share-Based Payment*, which establishes standards for share-based transactions in which an entity receives employee's services for (a) equity instruments of the entity, such as stock options, or (b) liabilities that are based on the fair value of the entity's equity instruments or that may be settled by the issuance of such equity instruments. SFAS 123(R) supersedes the option of accounting for share-based compensation transactions using APB Opinion No. 25, *Accounting for Stock Issued to Employees*, and requires that companies expense the fair value of stock options and similar awards, as measured on the awards' grant date. SFAS 123(R) applies to all awards granted after the date of adoption, and to awards modified, repurchased or cancelled after that date. We have elected to apply SFAS 123(R) using a modified version of prospective application, under which compensation cost is recognized only for the portion of awards outstanding for which the requisite service has not been rendered as of the adoption date, based on the grant date fair value of those awards calculated under SFAS 123 for pro forma disclosures.

We estimate the value of stock option awards on the date of grant using the Black-Scholes-Merton option-pricing model (the Black-Scholes model). The determination of the fair value of share-based payment awards on the date of grant is affected by our stock price as well as assumptions regarding a number of complex and subjective variables. These variables include our expected stock price volatility over the term of the awards, expected term, risk-free interest rate, expected dividends and expected forfeiture rates.

If factors change and we employ different assumptions in the application of SFAS 123(R) in future periods, the compensation expense that we record under SFAS 123(R) may differ significantly from what we have recorded in the current period. There is a high degree of subjectivity involved when using option pricing models to estimate share-based compensation under SFAS 123(R). Consequently, there is a risk that our estimates of the fair values of our share-based compensation awards on the grant dates may bear little resemblance to the actual values realized upon the exercise, expiration, early termination or forfeiture of those share-based payments in the future. Employee stock options may expire worthless or otherwise result in zero intrinsic value as compared to the fair values originally estimated on the grant date and reported in our financial statements. Alternatively, value may be realized from these instruments that are significantly in excess of the fair values originally estimated on the grant date and reported in our financial statements. During the year ended December 31, 2006, we do not believe that reasonable changes in the projections would have had a material effect on share-based compensation expense.

*Revenue Recognition* Revenue includes amounts earned from collaborative agreements and feasibility studies. Revenue from collaboration agreements is recognized using the lower of the percentage complete applied to expected contractual payments or the total non-refundable cash received to date. Revenue from feasibility studies, which are typically short term in nature, is recognized upon delivery of the study, provided that all other revenue recognition criteria are met. Changes in the projected hours to complete the project could significantly change the amount of revenue recognized. During the year ended December 31, 2006, we do not believe that reasonable changes in the projections would have had a material effect on recorded revenue.

*Purchased Technology* Purchased technology represents the value assigned to patents and the rights to use, sell or license certain technology in conjunction with heparin. These assets underlie our research and development projects related to solid oral heparin, and if the projects prove unsuccessful, the assets have no alternative future use. Cash flow projections for our potential heparin product greatly exceed the \$1.8 million book value of purchased technology. However, if a competitor were to gain FDA approval for an oral heparin product before us or future clinical trials related to oral heparin failed to meet the targeted endpoints, we would likely record an impairment related to these assets.

**Warrants** Warrants issued in connection with the Kingsbridge Common Stock Purchase Agreement, the equity financing completed in March 2005 and to MHR have been classified as liabilities due to certain provisions that may require cash settlement in certain circumstances. At each balance sheet date, we adjust the warrants to reflect their current fair value. We estimate the fair value of these instruments using the Black-Scholes option pricing model which takes into account a variety of factors, including historical stock price volatility, risk-free interest rates, remaining term and the closing price of our common stock. Changes in the assumptions used to estimate the fair value of these derivative instruments could result in a material change in the fair value of the instruments. We believe the assumptions used to estimate the fair values of the warrants are reasonable. See Item 7A. Quantitative and Qualitative Disclosures about Market Risk for additional information on the volatility in market value of derivative instruments.

**Equipment and Leasehold Improvements** Equipment and leasehold improvements are stated at cost. Depreciation and amortization are provided for on a straight-line basis over the estimated useful life of the asset. Leasehold improvements are amortized over the life of the lease or of the improvements, whichever is shorter. Expenditures for maintenance and repairs that do not materially extend the useful lives of the respective assets are charged to expense as incurred. The cost and accumulated depreciation or amortization of assets retired or sold are removed from the respective accounts and any gain or loss is recognized in operations.

**Impairment of Long-Lived Assets** In accordance with Statement of Financial Accounting Standards ( SFAS ) 144, we review our long-lived assets for impairment whenever events and circumstances indicate that the carrying value of an asset might not be recoverable. An impairment loss, measured as the amount by which the carrying value exceeds the fair value, is triggered if the carrying amount exceeds estimated undiscounted future cash flows. Actual results could differ significantly from these estimates, which would result in additional impairment losses or losses on disposal of the assets. During the years ended December 31, 2006, 2005 and 2004, we did not recognize any significant impairment losses.

**Clinical Trial Accrual Methodology** Clinical trial expenses represent obligations resulting from our contracts with various research organizations in connection with conducting clinical trials for our product candidates. We account for those expenses on an accrual basis according to the progress of the trial as measured by patient enrollment and the timing of the various aspects of the trial. Accruals are recorded in accordance with the following methodology: (i) the costs for period expenses, such as investigator meetings and initial start-up costs, are expensed as incurred based on management's estimates, which are impacted by any change in the number of sites, number of patients and patient start dates; (ii) direct service costs, which are primarily on-going monitoring costs, are recognized on a straight-line basis over the life of the contract; and (iii) principal investigator expenses that are directly associated with recruitment are recognized based on actual patient recruitment. All changes to the contract amounts due to change orders are analyzed and recognized in accordance with the above methodology. Change orders are triggered by changes in the scope, time to completion and the number of sites. During the course of a trial, we adjust our rate of clinical expense recognition if actual results differ from our estimates.

#### New Accounting Pronouncements

In September 2006, the SEC staff issued Staff Accounting Bulletin ( SAB ) No. 108, Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements. SAB No. 108 was issued in order to eliminate the diversity of practice surrounding how public companies quantify financial statement misstatements. SAB No. 108 requires registrants to quantify the impact of correcting all misstatements using the rollover method, which focuses primarily on the impact of a misstatement on the income statement and the iron curtain method, which focuses primarily on the effect of correcting the prior-end balance sheet. The use of both of these methods is referred to as the dual approach and should be combined with the evaluation of qualitative elements surrounding the errors in accordance with SAB No. 99, Materiality. The provisions of SAB No. 108 became effective for us in the current fiscal year. The adoption of SAB No. 108 did not have a material impact on our consolidated financial position, results of operation or cash flows.

In September 2006, the FASB issued SFAS No. 157, Fair Value Measurements. SFAS No. 157 defines fair value, establishes a framework for measuring fair value in accordance with generally accepted accounting principles, and expands disclosures about fair value measurements. The provisions of SFAS No. 157 are effective for us for fiscal years beginning January 1, 2008. The adoption of SFAS No. 157 is not expected to have a material impact on our consolidated financial position, results of operation or cash flows.

In June 2006, the FASB published FIN 48, Accounting for Uncertainty in Income Taxes- an interpretation of FASB Statement No. 109 which clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with FASB No. 109, Accounting for Income Taxes. This Interpretation prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of tax position taken or expected to be taken in a tax return. This Interpretation also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. This Interpretation is effective for us in fiscal years beginning January 1, 2007. The adoption of FIN 48 is not expected to have a material impact on our consolidated financial position, results of operation or cash flows.



## Off-Balance Sheet Arrangements

As of December 31, 2006, we had no material off-balance sheet arrangements.

In the ordinary course of business, we enter into agreements with third parties that include indemnification provisions which, in our judgment, are normal and customary for companies in our industry sector. These agreements are typically with business partners, clinical sites, and suppliers. Pursuant to these agreements, we generally agree to indemnify, hold harmless, and reimburse indemnified parties for losses suffered or incurred by the indemnified parties with respect to our product candidates, use of such product candidates, or other actions taken or omitted by us. The maximum potential amount of future payments we could be required to make under these indemnification provisions is unlimited. We have not incurred material costs to defend lawsuits or settle claims related to these indemnification provisions. As a result, the estimated fair value of liabilities relating to these provisions is minimal. Accordingly, we have no liabilities recorded for these provisions as of December 31, 2006.

In the normal course of business, we may be confronted with issues or events that may result in a contingent liability. These generally relate to lawsuits, claims, environmental actions or the actions of various regulatory agencies. We consult with counsel and other appropriate experts to assess the claim. If, in our opinion, we have incurred a probable loss as set forth by accounting principles generally accepted in the United States, an estimate is made of the loss and the appropriate accounting entries are reflected in our consolidated financial statements. After consultation with legal counsel, we do not anticipate that liabilities arising out of currently pending or threatened lawsuits and claims, including the pending litigation described in Part I, Item 3 **Legal Proceedings**, will have a material adverse effect on our consolidated financial position, results of operations or cash flows.

## Contractual Arrangements

Significant contractual obligations as of December 31, 2006 are as follows:

Type of Obligation	Total	Amount Due in			
		Less than 1 year	1 to 3 years	4 to 5 years	More than 5 years
(in thousands)					
Long-term debt <sup>(1) (2)</sup>	\$ 43,032	\$	\$ 12,515	\$	\$ 30,517
Derivative liabilities <sup>(3)</sup>	6,498	6,498			
Operating lease obligations <sup>(4)</sup>	1,173	1,173			
Clinical research organizations <sup>(5)</sup>	52	52			
Total	\$ 50,755	\$ 7,723	\$ 12,515	\$	\$ 30,517

(1) Amounts include both principal and related interest payments.

(2) In December 2004, we issued a \$10 million convertible note payable to Novartis (the **Novartis Note**) due December 2009. Interest may be paid annually or accreted as additional principal. We may convert the Novartis Note at any time prior to maturity into a number of shares of our common stock equal to the principal and accrued and unpaid interest to be converted divided by the then market price of our common stock, provided certain conditions are met. Upon the occurrence of an event of default prior to conversion, or within six months of conversion, any unpaid principal and accrued interest on the Novartis Note would become immediately due and payable. At December 31, 2006, the balance on the Novartis Note was \$11 million.

We have outstanding \$16.3 million in Convertible Notes payable to MHR and its affiliates ( **MHR** ) due September 2012 and convertible at the sole discretion of MHR into shares of our common stock at a price of \$3.78. Interest at 11% is payable in additional Convertible Notes rather than in cash and we have the right to call the Convertible Notes after September 10, 2010 if certain conditions are satisfied. The Convertible Notes are subject to acceleration upon the occurrence of certain events of default.

(3) We have issued warrants to purchase shares of our common stock which contain provisions requiring us to make a cash payment to the holders of the warrant for any gain that could have been realized if the holders exercise the warrants and we subsequently fail to deliver a

## Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

certificate representing the shares to be issued upon such exercise by the third trading day after such warrants have been exercised. As a result, these warrants have been recorded at their fair value and are classified as current liabilities. The value and timing of the actual cash payments, if any, related to these derivative instruments could differ materially from the amounts and periods shown.

(4) The lease for our principal executive, administrative and laboratory facilities was set to expire on August 31, 2007. On March 1, 2007, we exercised the first extension option under the existing lease for our premises for a term of five years. Fixed rent payable under the extension shall be at an annual rate equal to 95% of the fair market rental for the premises. The fair market rental for the premises will be determined by the landlord. Under the existing lease terms, we have the right to dispute the landlord's determination, in which instance an arbitration process will commence. For the year ended December 31, 2006, rental expense, including real estate taxes and common maintenance charges totaled approximately \$2.5 million. The table above reflects our commitment through August 31, 2007, as we were not obligated under the lease extension at December 31, 2006.

(5) We are obligated to make payments under certain contracts with third parties who provide clinical research services to support our ongoing research and development.

In April 2005, the Company entered into an employment contract with its then Chief Executive Officer, Dr. Michael M. Goldberg, for services through July 31, 2007. On January 16, 2007, our Board of Directors terminated Dr. Goldberg's services. The Company continues to discuss the terms of Dr. Goldberg's separation from the Company. Dr. Goldberg's employment agreement provides, among other things, that in the event he is terminated without cause, Dr. Goldberg would be paid his base salary plus bonus (aggregating approximately \$0.8 million), if any, monthly for an eighteen month period, and he would also be entitled to continued health and life insurance coverage during the severance period and all unvested stock options and restricted stock awards would immediately vest in full upon such termination. Dr. Goldberg's employment agreement provides that in the event he is terminated with cause he will receive no additional compensation. On March 2, 2007, Dr. Goldberg, through his counsel, advised of his intent to file suit against the Company in this matter as well as his intent to seek punitive damages.

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

**Fair Value of Warrants and Derivative Liabilities.** At December 31, 2006, the value of derivative instruments was \$6.5 million. We estimate the fair values of these instruments using the Black-Scholes option pricing model which takes into account a variety of factors, including historical stock price volatility, risk-free interest rates, remaining term and the closing price of our common stock. We are required to revalue this liability each quarter. We believe that the assumption that has the greatest impact on the determination of fair value is the closing price of our common stock. The following table illustrates the potential effect on the fair value of derivative instruments from changes in the assumptions made:

	Increase/(decrease)
	(in thousands)
10% increase in stock price	\$ 891
20% increase in stock price	1,798
5% increase in assumed volatility	228
10% decrease in stock price	(874)
20% decrease in stock price	(1,726)
5% decrease in assumed volatility	(234)

**Investments.** Our primary investment objective is to preserve principal while maximizing yield without significantly increasing risk. Our investments may consist of commercial paper, mortgage-backed securities, and auction rate securities. Our fixed rate interest-bearing investments totaled \$1 million at December 31, 2006. This investment matures in one to two years. We have classified all investments as short-term based on our intent to liquidate the investments to fund operations over the upcoming twelve month period.

Due to the conservative nature of our fixed interest rate investment, we do not believe that they have a material exposure to interest rate risk.

**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

**EMISPHERE TECHNOLOGIES, INC.**

**CONSOLIDATED FINANCIAL STATEMENTS**

**Index**

	<b>Page</b>
<b>Emisphere Technologies, Inc.</b>	
<u>Report of Independent Registered Public Accounting Firm</u>	40
<u>Consolidated Balance Sheets as of December 31, 2006 and 2005</u>	42
<u>Consolidated Statements of Operations for the years ended December 31, 2006, 2005 and 2004</u>	43
<u>Consolidated Statements of Cash Flows for the years ended December 31, 2006, 2005 and 2004</u>	44
<u>Consolidated Statements of Stockholders' (Deficit) Equity for the years ended December 31, 2006, 2005 and 2004</u>	45
<u>Notes to the Consolidated Financial Statements</u>	46

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Emisphere Technologies, Inc.:

We have completed integrated audits of Emisphere Technologies, Inc.'s 2006 and 2005 consolidated financial statements and of its internal control over financial reporting as of December 31, 2006 and an audit of its 2004 consolidated financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Our opinions, based on our audits, are presented below.

### Consolidated financial statements

In our opinion, the consolidated financial statements listed in the accompanying index present fairly, in all material respects, the financial position of Emisphere Technologies, Inc. and its subsidiary, at December 31, 2006 and 2005, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2006, in conformity with accounting principles generally accepted in the United States of America. 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 of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit of financial statements includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note 2 to the consolidated financial statements, the Company has changed its method of accounting for share-based compensation in 2006.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to consolidated the financial statements, the Company has experienced sustained operating losses, has limited capital resources and has significant future commitments that raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

### Internal control over financial reporting

Also, in our opinion, management's assessment, included in Management's Report on Internal Controls over Financial Reporting appearing under Item 9A, that the Company maintained effective internal control over financial reporting as of December 31, 2006, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), is fairly stated, in all material respects, based on those criteria. Furthermore, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2006, based on the criteria established in *Internal Control - Integrated Framework* issued by the COSO. The Company'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 opinions on management's assessment and on the effectiveness of the Company's internal control over financial reporting based on our audit. We conducted our audit of internal control over financial reporting in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. An audit of internal control over financial reporting includes 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 consider necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinions.

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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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.

/s/ PricewaterhouseCoopers LLP

New York, New York  
March 5, 2007

**EMISPHERE TECHNOLOGIES, INC.**  
**CONSOLIDATED BALANCE SHEETS**  
(in thousands, except share data)

	December 31,	
	2006	2005
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 8,035	\$ 1,950
Restricted cash		4,294
Short-term investments	13,498	2,974
Accounts receivable	216	71
Prepaid expenses and other current assets	1,082	951
	<hr/>	<hr/>
Total current assets	22,831	10,240
Equipment and leasehold improvements, net	2,652	5,899
Purchased technology, net	1,794	2,034
Other assets	815	815
	<hr/>	<hr/>
Total assets	\$ 28,092	\$ 18,988
	<hr/>	<hr/>
<b>LIABILITIES AND STOCKHOLDERS' DEFICIT</b>		
Current liabilities:		
Accounts payable and accrued expenses	\$ 2,649	\$ 3,316
Deferred revenue	30	290
Derivative instruments	6,498	6,528
Other current liabilities	277	628
	<hr/>	<hr/>
Total current liabilities	9,454	10,762
Notes payable, including accrued interest and net of related discount	24,744	22,857
Deferred lease liability, net of current portion		264
	<hr/>	<hr/>
Total liabilities	34,198	33,883
	<hr/>	<hr/>
Commitments and contingencies (Note 15)		
Stockholders' deficit:		
Preferred stock, \$.01 par value; authorized 1,000,000 shares; issued and outstanding-none		
Common stock, \$.01 par value; authorized 50,000,000 shares; issued 28,528,677 shares (28,238,945 outstanding) in 2006 and 23,673,299 shares (23,383,567 outstanding) in 2005	285	237
Additional paid-in capital	389,935	339,452
Accumulated deficit	(392,372)	(350,606)
Accumulated other comprehensive loss	(2)	(26)
Common stock held in treasury, at cost; 289,732 shares	(3,952)	(3,952)
	<hr/>	<hr/>
Total stockholders' deficit	(6,106)	(14,895)
	<hr/>	<hr/>
Total liabilities and stockholders' deficit	\$ 28,092	\$ 18,988
	<hr/>	<hr/>

The accompanying notes are an integral part of the consolidated financial statements

**EMISPHERE TECHNOLOGIES, INC.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
(in thousands, except share and per share data)

	Year Ended December 31,		
	2006	2005	2004
Revenue	\$ 7,259	\$ 3,540	\$ 1,953
Costs and expenses:			
Research and development	18,892	18,915	17,462
General and administrative	11,693	13,165	11,765
Loss/(gain) on sale of fixed assets, net of impairment loss	2	(397)	1
Depreciation and amortization	3,800	4,312	4,941
Total costs and expenses	34,387	35,995	34,169
Operating loss	(27,128)	(32,455)	(32,216)
Other income (expense):			
Beneficial conversion of convertible security	(12,215)		
Gain on extinguishment of note payable		14,663	
Investment and other income	1,302	1,506	846
Change in fair value of derivative instruments	(1,390)	(624)	(136)
Interest expense	(2,335)	(1,141)	(6,016)
Total other income (expense)	(14,638)	14,404	(5,306)
Net loss	\$ (41,766)	\$ (18,051)	\$ (37,522)
Net loss per share, basic and diluted	\$ (1.58)	\$ (0.81)	\$ (2.04)
Weighted average shares outstanding, basic	26,474,072	22,300,646	18,411,240
Weighted average shares outstanding, diluted	26,474,072	22,311,881	18,411,240

The accompanying notes are an integral part of the consolidated financial statements



**EMISPHERE TECHNOLOGIES, INC.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(in thousands)

	Year Ended December 31,		
	2006	2005	2004
Cash flows from operating activities:			
Net loss	\$ (41,766)	\$ (18,051)	\$ (37,522)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	3,800	4,312	4,941
Non-cash beneficial conversion feature	12,215		
Non-cash interest expense	1,909	667	6,103
Changes in the fair value of derivative instruments	1,390	624	
Gain on extinguishment of note payable		(14,663)	
Non-cash compensation	1,653	167	919
Net realized loss (gain) on sale of investments	6	(980)	
Loss (gain) on sale of fixed assets	2	(563)	1
Impairment of intangible and fixed assets and other	(42)	316	(235)
Changes in assets and liabilities excluding non-cash charges:			
(Increase) decrease in accounts receivable	(145)	49	206
(Increase) decrease in prepaid expenses and other current and non-current assets	(156)	293	87
(Decrease) increase in accounts payable and accrued expenses	(667)	(507)	1,439
(Decrease) increase in deferred revenue	(260)	(1,549)	1,714
Decrease in deferred lease liability	(397)	(397)	(396)
Total adjustments	19,308	(12,231)	14,779
Net cash used in operating activities	(22,458)	(30,282)	(22,743)
Cash flows from investing activities:			
Proceeds from sale and maturity of investments	14,994	8,593	7,227
Purchases of investments	(25,450)		(5,957)
Decrease (increase) in restricted cash	4,294	(4,294)	
Proceeds from collection of CEO note receivable		1,883	
Proceeds from sale of fixed assets	6	4,142	24
Capital expenditures	(322)	(121)	(758)
Net cash (used in) provided by investing activities	(6,478)	10,203	536
Cash flows from financing activities:			
Proceeds from exercise of stock options and warrants	3,637	655	1,199
Net proceeds from issuance of common stock	31,059	11,321	
Proceeds from issuance of warrants	551	3,737	
Net proceeds from issuance of note payable		12,866	10,000
Repayment of Elan note payable		(13,000)	(13,000)
Repayment of notes payable and capital lease obligation	(226)	(517)	(312)
Net cash provided by (used in) financing activities	35,021	15,062	(2,113)
Net increase (decrease) in cash and cash equivalents	6,085	(5,017)	(24,320)
Cash and cash equivalents, beginning of year	1,950	6,967	31,287
Cash and cash equivalents, end of year	\$ 8,035	\$ 1,950	\$ 6,967

Supplemental disclosure of cash flow information:

Interest paid	\$	426	\$	474	\$	49
Non-cash investing and financing activities:						
Settlement of derivative instrument liability	\$	958	\$		\$	
Issuance of stock options to consultants	\$	32	\$	117	\$	198
Financing of insurance premiums					\$	373
Issuance of common stock in connection with paydown of Elan note					\$	1,980
Issuance of warrants			\$	1,632	\$	626
Treasury stock received as partial settlement of CEO note receivable			\$	164		
Fair value of stock-based compensation under employee stock purchase plan					\$	672

The accompanying notes are an integral part of the consolidated financial statements

**EMISPHERE TECHNOLOGIES, INC.**  
**CONSOLIDATED STATEMENTS OF STOCKHOLDERS (DEFICIT) EQUITY**  
**For the years ended December 31, 2006, 2005 and 2004**  
(in thousands, except share data)

	Common Stock		Additional Paid-in Capital	Note Receivable	Accumulated Deficit	Accumulated Other Comprehensive (Loss) Income	Common Stock Held in Treasury		Total
	Shares	Amount					Shares	Amount	
Balance, December 31, 2003	18,447,088	\$ 184	\$ 322,257	\$ (804)	\$ (295,033)	\$ (10)	243,600	\$ (3,787)	\$ 22,807
Net loss					(37,522)				(37,522)
Unrealized loss on investments						(32)			(32)
Comprehensive loss									(37,554)
Issuance of common stock in connection with paydown of Elan note	600,000	6	1,974						1,980
Sale of common stock under employee stock purchase plans and exercise of options	297,641	3	1,868						1,871
Issuance of warrants in connection with financing agreement			(626)						(626)
Issuance of stock to directors	9,620		50						50
Issuance of stock options for services rendered			198						198
Balance, December 31, 2004	19,354,349	193	325,721	(804)	(332,555)	(42)	243,600	(3,787)	(11,274)
Net loss					(18,051)				(18,051)
Unrealized gain on investments						16			16
Comprehensive loss									(18,035)
Issuance of common stock in connection with paydown of Elan note			1,632						1,632
Proceeds attributed to Issuance of common stock	4,000,000	40	11,281						11,321
Sale of common stock under employee stock purchase plans and exercise of options	305,100	4	651						655
Collection of CEO note receivable				804			46,132	(165)	639
Issuance of stock to directors	13,850		50						50
Issuance of stock options for consulting services			117						117
Balance, December 31, 2005	23,673,299	237	339,452		(350,606)	(26)	289,732	(3,952)	(14,895)
Net loss					(41,766)				(41,766)
Unrealized gain on investments						24			24

## Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

Comprehensive loss										(41,742)
Exercise of warrants	400,000	4	3,520							3,524
Beneficial conversion of convertible security			12,215							12,215
Equity proceeds from issuance of common stock, net of share issuance expenses	4,000,000	40	31,018							31,058
Sale of common stock under employee stock purchase plans and exercise of options	450,918	4	2,077							2,081
Stock based compensation expense for employees			1,581							1,581
Stock based compensation expense for directors	4,460		40							40
Issuance of stock options for consulting services			32							32
Balance, December 31, 2006	28,528,677	\$ 285	\$ 389,935		\$ (392,372)		(2)	289,732	\$ (3,952)	\$ (6,106)

The accompanying notes are an integral part of the consolidated financial statements

**EMISPHERE TECHNOLOGIES, INC.**

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

**1. Nature of Operations, Risks and Uncertainties and Liquidity**

**Nature of Operations.** Emisphere Technologies, Inc. ( Emisphere , our , us , the company or we ) is a biopharmaceutical company specializing in the oral delivery of therapeutic macromolecules and other compounds that are not currently deliverable by oral means. Since our inception in 1986, we have devoted substantially all of our efforts and resources to research and development conducted on our own behalf as well as through collaborations with corporate partners and academic research institutions. We operate under a single segment.

Our core business strategy is to develop oral forms of drugs that are not currently available or have poor bioavailability in oral form, either alone or with partners, by applying our proprietary *eligen*® technology to those drugs. Typically, we conduct proof-of-concept Phase I and II clinical trials with the objective of attracting a partner to commercialize our product candidates without significant further funding. We also pursue development of certain product candidates on our own. Since inception, we have no product sales from these product candidates.

**Risks and Uncertainties.** We have no products approved for sale by the U.S. Food and Drug Administration. There can be no assurance that our research and development will be successfully completed, that any products developed will obtain necessary government regulatory approval or that any approved products will be commercially viable. In addition, we operate in an environment of rapid change in technology and are dependent upon the continued services of our current employees, consultants and subcontractors.

**Liquidity.** As of December 31, 2006, we had approximately \$21.5 million in cash and investments, approximately \$13.4 million in working capital, a stockholders' deficit of approximately \$6.1 million and an accumulated deficit of approximately \$392 million. Our operating loss for the year ended December 31, 2006 (after receipt of \$7.3 million of collaboration and milestone payments which does not recur with regularity or at all) was approximately \$27 million. We believe operating loss is a more representative measure to discuss, as net loss of \$41.8 million for the year ended December 31, 2006 includes \$13.6 million of non-cash other expense items related to a beneficial conversion feature and derivatives. We anticipate that we will continue to generate significant losses from operations for the foreseeable future, and that our business will require substantial additional investment that we have not yet secured. As such, we anticipate that our existing cash resources will enable us to continue operations only through approximately September 2007 or earlier if unforeseen events arise that negatively affect our liquidity. Further, we have significant future commitments and obligations. These conditions raise substantial doubt about our ability to continue as a going concern.

While our plan is to raise capital when needed and/or to pursue product partnering opportunities, we cannot be sure how much we will need to spend in order to develop, market and manufacture new products and technologies in the future. We expect to continue to spend substantial amounts on research and development, including amounts spent on conducting clinical trials for our product candidates. Further, we will not have sufficient resources to develop fully any new products or technologies unless we are able to raise substantial additional financing on acceptable terms or secure funds from new or existing partners. We cannot assure that financing will be available when needed, or on favorable terms or at all. If additional capital is raised through the sale of equity or convertible debt securities, the issuance of such securities would result in dilution to our existing stockholders. Our failure to raise capital when needed would adversely affect our business, financial condition and results of operations, and could force us to reduce or cease our operations. No adjustment has been made in the accompanying financial statements to the carrying amount and classification of recorded assets and liabilities should we be unable to continue operations.

**2. Summary of Significant Accounting Policies**

**Use of Estimates.** The preparation of consolidated financial statements in accordance with accounting principles generally accepted in the United States involves the use of estimates and assumptions that affect the recorded amounts of assets and liabilities as of the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results may differ substantially from these estimates. Significant estimates include the fair value and recoverability of the carrying value of purchased technology, recognition of on-going clinical trial costs, estimated costs to complete research collaboration projects, the variables and method used to calculate stock-based compensation, derivative instruments and deferred taxes.

**Principles of Consolidation.** The consolidated financial statements include the accounts of one subsidiary for 2005 and prior. All inter-company transactions have been eliminated in consolidation. In June 2005, we sold this subsidiary.

**Concentration of Credit Risk.** Financial instruments, which potentially subject us to concentrations of credit risk, consist of cash, cash equivalents and investments. We invest excess funds in accordance with a policy objective seeking to preserve both liquidity and safety of principal. We generally invest our excess funds in obligations of the U.S. government and its agencies, bank deposits, money market funds, mortgage-backed securities, and investment grade debt securities issued by corporations and financial institutions. We hold no collateral for these financial instruments.

**Cash, Cash Equivalents, and Investments.** We consider all highly liquid, interest-bearing instruments with maturity of three months or less when purchased to be cash equivalents. Cash and cash equivalents may include demand deposits held in banks and interest bearing money market funds.

We consider our investments to be available for sale. Investments are carried at fair value, with unrealized holding gains and losses reported in stockholders' deficit. The fair value of the investments has been estimated based on quoted market prices. Included in investments are auction rate securities. Auction rate securities are securities that have stated maturities beyond three months, but are priced and traded as short-term investments due to the liquidity provided through the auction mechanism that generally resets interest rates every 26 or 35 days. We have classified all investments as short-term based on our intent to liquidate the investments to fund operations over the upcoming twelve month period.

**Equipment and Leasehold Improvements.** Equipment and leasehold improvements are stated at cost. Depreciation and amortization are provided for on a straight-line basis over the estimated useful life of the asset. Leasehold improvements are amortized over the life of the lease or of the improvements, whichever is shorter. Expenditures for maintenance and repairs that do not materially extend the useful lives of the respective assets are charged to expense as incurred. The cost and accumulated depreciation or amortization of assets retired or sold are removed from the respective accounts and any gain or loss is recognized in operations.

**Purchased Technology.** Purchased technology represents the value assigned to patents and the right to use, sell or license certain technology in conjunction with solid oral heparin that were acquired from Ebbisham Ltd. These assets underlie our research and development projects related to solid oral heparin and, if the projects prove unsuccessful, the assets have no alternative future use. Such purchased technology is being amortized over 15 years, until 2014, which represents the average life of the patents acquired.

**Impairment of Long-Lived Assets.** In accordance with SFAS 144, we review our long-lived assets including purchased technology, for impairment whenever events and circumstances indicate that the carrying value of an asset might not be recoverable. An impairment loss, measured as the amount by which the carrying value exceeds the fair value, is recognized if the carrying amount exceeds estimated undiscounted future cash flows.

**Deferred Lease Liability.** Our lease provides for rental holidays and escalations of the minimum rent during the lease term, as well as additional rent based upon increases in real estate taxes and common maintenance charges. We record rent expense from leases with rental holidays and escalations using the straight-line method, thereby prorating the total rental commitment over the term of the lease. Under this method, the deferred lease liability represents the difference between the minimum cash rental payments and the rent expense computed on a straight-line basis.

**Revenue Recognition.** We recognize revenue in accordance with Staff Accounting Bulletin No. 104, Revenue Recognition ( SAB 104 ), and Financial Accounting Standards Board ( FASB ) Emerging Issues Task Force No. 00-21 Accounting for Revenue Arrangements with Multiple Deliverables ( EITF 00-21 ). Revenue includes amounts earned from collaborative agreements and feasibility studies and is comprised of reimbursed research and development costs, as well as upfront and research and development milestone payments. Deferred revenue represents payments received which are related to future performance. Non-refundable upfront and research and development milestone payments and payments for services are recognized as revenue as the related services are performed over the term of the collaboration. Revenue recognized related to collaboration agreements is the lower of the percentage complete, measured by incurred costs, applied to expected contractual payments or the total non-refundable cash received to date. With regard to revenue from non-refundable fees, changes in assumptions of estimated costs to complete could have a material impact on the revenue recognized. Revenue from feasibility studies, which are typically short term in nature, is recognized upon delivery of the study, provided that all other revenue recognition criteria are met.

**Research and Development and Clinical Trial Expenses.** Research and development expenses include costs directly attributable to the conduct of research and development programs, including the cost of salaries, payroll taxes, employee benefits, materials, supplies, maintenance of research equipment, costs related to research collaboration and licensing agreements, the cost of services provided by outside contractors, including services related to our clinical trials, clinical trial expenses, the full cost of manufacturing drug for use in research, preclinical development, and clinical trials. All costs associated with research and development are expensed as incurred.



Clinical research expenses represent obligations resulting from our contracts with various research organizations in connection with conducting clinical trials for our product candidates. We account for those expenses on an accrual basis according to the progress of the trial as measured by patient enrollment and the timing of the various aspects of the trial. Accruals are recorded in accordance with the following methodology: (i) the costs for period expenses, such as investigator meetings and initial start-up costs, are expensed as incurred based on management's estimates, which are impacted by any change in the number of sites, number of patients and patient start dates; (ii) direct service costs, which are primarily on-going monitoring costs, are recognized on a straight-line basis over the life of the contract; and (iii) principal investigator expenses that are directly associated with recruitment are recognized based on actual patient recruitment. All changes to the contract amounts due to change orders are analyzed and recognized in accordance with the above methodology. Change orders are triggered by changes in the scope, time to completion and the number of sites. During the course of a trial, we adjust our rate of clinical expense recognition if actual results differ from our estimates.

**Income Taxes.** Deferred tax liabilities and assets are recognized for the expected future tax consequences of events that have been included in the financial statements or tax returns. These liabilities and assets are determined based on differences between the financial reporting and tax basis of assets and liabilities measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. A valuation allowance is recognized to reduce deferred tax assets to the amount that is more likely than not to be realized. In assessing the likelihood of realization, management considered estimates of future taxable income.

**Stock-Based Employee Compensation.** Beginning January 1, 2006, we account for Stock-Based Compensation in accordance with SFAS 123(R) Share-Based Payment and SAB 107. We adopted SFAS 123(R) using a modified version of prospective application, under which compensation cost is recognized for new awards or awards modified, repurchased or cancelled and only for the portion of outstanding awards for which the requisite service has not been rendered as of the adoption date. The expense related to such portion of outstanding awards upon adoption is based on the grant date fair value of those awards calculated under SFAS 123 for pro forma disclosures. SFAS 123(R) supersedes the option of accounting for share-based compensation transactions using APB Opinion No. 25, Accounting for Stock Issued to Employees. Since we have adopted SFAS 123(R) under the modified version of prospective application, there is no restatement of prior periods. Therefore the 2006 operations reflect a stock based compensation charge, employee stock options and the 2005 and 2004 operations do not reflect such charge other than in pro-forma information contained in Note 11.

We estimate the value of stock option awards on the date of grant using the Black-Scholes-Merton option-pricing model (the Black-Scholes model). The determination of the fair value of share-based payment awards on the date of grant is affected by our stock price as well as assumptions regarding a number of complex and subjective variables. These variables include our expected stock price volatility over the term of the awards, expected term, risk-free interest rate, expected dividends and expected forfeiture rates. The forfeiture rate is estimated using historical option cancellation information, adjusted for anticipated changes in expected exercise and employment termination behavior. Our outstanding awards do not contain market or performance conditions therefore we have elected to recognize share-based employee compensation expense on a straight-line basis over the requisite service period.

**Fair Value of Financial Instruments.** The carrying amounts for cash, cash equivalents, accounts payable, and accrued expenses approximate fair value because of their short-term nature. We have determined that it is not practical to estimate the fair value of our notes payable because of their unique nature and the costs that would be incurred to obtain an independent valuation. We do not have comparable outstanding debt on which to base an estimated current borrowing rate or other discount rate for purposes of estimating the fair value of the notes payable and we have not yet obtained or developed a valuation model. Additionally, we are engaged in research and development activities and have not yet developed products for sale. Accordingly, at this stage of our development, a credit risk assessment is highly judgmental. These factors all contribute to the impracticability of estimating the fair value of the notes payable. At December 31, 2006, the carrying value of the notes payable and accrued interest was \$24.7 million. See Note 7 for further discussion of the notes payable.

**Derivative Instruments.** Derivative instruments consist of common stock warrants, and certain instruments embedded in the certain Notes payable and related agreements. These financial instruments are recorded in the consolidated balance sheets at fair value as liabilities. Changes in fair value are recognized in earnings in the period of change.

**Comprehensive Loss.** Comprehensive loss represents the change in net assets of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. Comprehensive loss includes net loss adjusted for the change in net unrealized gain or loss on marketable securities. The disclosures required by Statement of Financial Accounting Standards No. 130, Reporting Comprehensive Income for the years ended December 31, 2006, 2005 and 2004 have been included in the consolidated statements of stockholders' equity.



**Reclassification of Prior Year Balances.** Certain balances in prior years consolidated financial statements have been reclassified to conform with current year presentation.

**Future Impact of Recently Issued Accounting Standards.** In September 2006, the SEC staff issued Staff Accounting Bulletin (SAB) No. 108, Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements. SAB No. 108 was issued in order to eliminate the diversity of practice surrounding how public companies quantify financial statement misstatements. SAB No. 108 requires registrants to quantify the impact of correcting all misstatements using the rollover method, which focuses primarily on the impact of a misstatement on the income statement and the iron curtain method, which focuses primarily on the effect of correcting the prior-end balance sheet. The use of both of these methods is referred to as the dual approach and should be combined with the evaluation of qualitative elements surrounding the errors in accordance with SAB No. 99, Materiality. The provisions of SAB No. 108 became effective for us in the current fiscal year. The adoption of SAB No. 108 did not have a material impact on our consolidated financial position, results of operation or cash flows.

In September 2006, the FASB issued SFAS No. 157, Fair Value Measurements. SFAS No. 157 defines fair value, establishes a framework for measuring fair value in accordance with generally accepted accounting principles, and expands disclosures about fair value measurements. The provisions of SFAS No. 157 are effective for us for fiscal years beginning January 1, 2008. The adoption of SFAS No. 157 is not expected to have a material impact on our consolidated financial position, results of operation or cash flows.

In June 2006, the FASB published FIN 48, Accounting for Uncertainty in Income Taxes- an interpretation of FASB Statement No. 109 which clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with FASB No. 109, Accounting for Income Taxes. This Interpretation prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of tax position taken or expected to be taken in a tax return. This Interpretation also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. This Interpretation is effective for us in fiscal years beginning January 1, 2007. The adoption of FIN 48 is not expected to have a material impact on our consolidated financial position, results of operation or cash flows.

### 3. Investments

Realized gains and losses are included as a component of investment income. In computing realized gains and losses, we determine the cost of our investments on a specific identification basis. Such cost includes the direct costs to acquire the investments, adjusted for the amortization of any discount or premium. The following is a summary of sales of investments, which resulted in a realized gain or loss:

			Realized		
	Amortized Cost Basis	Proceeds	Gains	Losses	Net
			(in thousands)		
Year ended December 31,					
2006	\$ 1,000	\$ 994	\$	\$ (6)	\$ (6)
2005	1,088	2,068	989	(9)	980
2004					

The following is a summary of the fair value of available for sale investments:

	December 31, 2006				
	Amortized Cost Basis	Fair Value	Unrealized Holding		
			Gains	Losses	Net
	(in thousands)				
Maturities less than one year:					
Auction rate securities	\$ 12,500	\$ 12,500			
Maturities between one and two years:					
Mortgage-backed securities	1,000	998		\$ (2)	\$ (2)
	\$ 13,500	\$ 13,498		\$ (2)	\$ (2)



December 31, 2005

	<div></div>				
	Amortized Cost Basis	Fair Value	Unrealized Holding		
			Gains	Losses	Net
			(in thousands)		
Maturities less than one year:					
Mortgage-backed securities	\$ 3,000	\$ 2,974		\$ (26)	\$ (26)

The following table shows the unrealized losses and fair value of the Company's marketable securities with unrealized losses that are deemed to be only temporarily impaired, aggregated by investment category and length of time that the individual security has been in a continuous loss position at December 31, 2006 and 2005. The securities listed at December 31, 2006 mature at various dates through December 2008.

	Less than 12 Months		12 Months or Greater		Total	
	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
(in thousands)						
<b>At December 31, 2006:</b>						
Mortgage-backed securities	\$ 998	\$ (2)			\$ 998	\$ (2)
<b>At December 31, 2005:</b>						
Mortgage-backed securities			\$ 2,974	\$ (26)	\$ 2,974	\$ (26)

The unrealized losses on our investments were primarily caused by interest rate increases, which generally resulted in a decrease in the market value of our portfolio. Changes in fair value due to interest rate changes typically diminish as the securities approach maturity. We intend to hold these securities for most, if not all, of their remaining term. As a result, we do not consider these marketable securities at December 31, 2006 and 2005 to be other-than-temporarily impaired.

Interest income, as well as realized gains and losses are included in investment income and are recognized as earned.

#### 4. Fixed Assets

**Tarrytown Facility Transaction.** In 2003, we surrendered certain of our leased space back to the landlord who subsequently leased the space to another tenant (the subsequent tenant). We sold the subsequent tenant certain equipment for approximately \$1.0 million which is payable through 2012. The subsequent tenant makes their payment directly to our landlord and we receive a credit from the landlord against our rental payment.

**Farmington Facility Transaction.** In June 2005, we completed the sale of our Farmington, Connecticut research facility for net proceeds of \$4.1 million. A gain of \$0.6 million was recorded in connection with the sale.

**Fixed Assets.** Equipment and leasehold improvements, net, including assets held under capital lease in 2005, consists of the following:

	Useful Lives in Years	December 31,	
		2006	2005
		(in thousands)	
Equipment	3-7	\$ 9,685	\$ 9,611
Leasehold improvements	Life of lease	19,224	19,209
		28,909	28,820
Less, accumulated depreciation and amortization		26,257	22,921

## Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

\$	2,652	\$	5,899
----	-------	----	-------

Depreciation expense for the years ended December 31, 2006, 2005 and 2004, was \$3.6 million, \$4.1 million and \$4.7 million, respectively. Included in equipment at December 31, 2005 are assets which were acquired under capital leases with a cost of \$0.7 million and a net book value of \$0.3 million.

## 5. Purchased Technology

The carrying value of the purchased technology is comprised as follows:

	December 31,	
	2006	2005
	(in thousands)	
Gross carrying amount	\$ 4,533	\$ 4,533
Less, accumulated amortization	2,739	2,499
Net book value	\$ 1,794	\$ 2,034

Annual amortization of purchased technology was \$239 thousand for 2004, 2005 and 2006 and is estimated to be \$239 thousand for each of the next five years.

At December 31, 2006 and 2005, we performed an evaluation of the recoverability of the remaining purchased technology related to the solid forms of oral heparin. We are proceeding with planned studies related to this formulation and we estimate that future undiscounted cash flows from programs related to the solid forms of oral heparin are sufficient to realize the carrying value of the asset and, therefore, no impairment of the remaining purchased technology has been recorded.

## 6. Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses consist of the following:

	December 31,	
	2006	2005
	(in thousands)	
Accounts payable	\$ 817	\$ 1,577
Accrued legal, professional fees and other	1,277	1,119
Accrued vacation	503	477
Clinical trial expenses and contract research	52	143
	\$ 2,649	\$ 3,316

## 7. Notes Payable and Restructuring of Debt

Notes payable consist of the following:

	December 31,	
	2006	2005
	(in thousands)	
MHR Note	\$ 13,764	\$ 12,359
Novartis Note	10,980	10,498
	\$ 24,744	\$ 22,857

**MHR Note.** On September 26, 2005, we received net proceeds of approximately \$12.9 million under a \$15 million secured loan agreement (the "Loan Agreement") executed with MHR Institutional Partners IIA LP (together with its affiliates, "MHR"). Under the Loan Agreement, MHR requested, and on May 16, 2006, we effected, the exchange of the loan from MHR for senior secured convertible notes (the

## Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

Convertible Notes ) with substantially the same terms as the Loan Agreement, except that the Convertible Notes are convertible, at the sole discretion of MHR, into shares of our common stock at a price per share of \$3.78. At December 31, 2006, the Convertible Notes were convertible into 4,307,899 shares of our common stock. The Convertible Notes are due on September 26, 2012, bear interest at 11% and are secured by a first priority lien in favor of MHR on substantially all of our assets. Interest is payable in the form of additional Convertible Notes rather than in cash and we have the right to call the Convertible Notes after September 26, 2010 if certain conditions are satisfied. Further, the Convertible Notes provide MHR with the right to require redemption in the event of a change in control, as defined, prior to September 26, 2009. Such required redemption would be at 104% of the then outstanding principal and interest through September 26, 2006 and decreasing to 103%, 102% and 101% in the years through September 26, 2007, 2008 and 2009, respectively. Additionally, MHR was granted certain registration rights.

## Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

In connection with the MHR financing, we amended MHR's existing warrants to purchase 387,374 shares of common stock to provide for additional anti-dilution protection. MHR was also granted the option to purchase warrants for up to an additional 617,211 shares of our common stock (the warrant purchase option) at a price per warrant equal to \$0.01 per warrant for each of the first 67,084 warrants and \$1.00 per warrant for each additional warrant. This option was exercised by MHR in April 2006. These warrants have an exercise price of \$4.00 per share, subject to anti-dilution protection. The fair value of the warrant purchase option at issuance was \$1.3 million, which has been recorded as a separate liability and as a discount from the face value of the note.

Total issuance costs associated with the Loan Agreement were \$2.1 million, of which \$1.9 million were allocated to the MHR Note and \$0.2 million were allocated to the related derivative instruments. Of the \$1.9 million allocated to the MHR Note, \$1.4 million represents reimbursement of MHR's legal fees and \$0.5 million represents our legal and other transaction costs. The \$1.4 million paid on behalf of the lender has been recorded as a reduction of the face value of the note, while the \$0.5 million of our costs has been recorded as deferred financing costs, which is included in other assets on the consolidated balance sheet.

The Company has calculated the fair value of the beneficial conversion feature of the Convertible Notes based on the effective conversion price after allocating a portion of the proceeds of the loan to the warrant purchase option and adjusting for financing costs paid by us on behalf of the lender. Since the calculated value for the beneficial conversion feature exceeded the net proceeds allocated to the Convertible Notes, the beneficial conversion feature was recorded at an amount equal to the net proceeds allocated to the Convertible Notes, or \$12.2 million, with a corresponding amount being recorded as additional paid-in-capital. Since MHR can convert the Convertible Notes to realize a return at any time, the beneficial conversion feature was charged to expense in January 2006, the date the Company received shareholder approval to exchange the MHR Note for the Convertible Notes.

The Convertible Notes provide MHR with the right to require us to redeem the Loan in the event of a change in control. Based on the provisions of SFAS 133, the change in control redemption feature has been determined to be an embedded derivative instrument which must be separated from the host contract. The fair value of the change in control redemption feature was estimated using a combination of a put option model for the penalties and the Black-Scholes option pricing model for the conversion option that would exist under the Convertible Note. The estimate resulted in a value that was de minimis and therefore, no separate liability was recorded. Changes in the assumptions used to estimate the fair value of this derivative instrument, in particular the probability that a change in control will occur, could result in a material change to the fair value of the instrument. The fair value of the change in control redemption feature at issuance was de minimis.

The book value of the MHR Note is comprised of the following:

	December 31,	
	2006	2005
	(in thousands)	
Face value of the note	\$ 16,283	\$ 15,000
Discount (related to the warrant purchase option)	(1,181)	(1,238)
Lender's financing costs	(1,338)	(1,403)
	<u>\$ 13,764</u>	<u>\$ 12,359</u>

The debt discount, lenders financing costs, deferred financing costs and amounts attributed to derivative instruments are being amortized to interest expense over the life of the Convertible Notes using an effective interest method to yield an effective interest rate of 14.3%.

In connection with the MHR financing, the Company agreed to appoint a representative of MHR (MHR Nominee) and another person (the Mutual Director) to its Board of Directors. Further, the Company agreed to amend, and in January 2006 did amend, its certificate of incorporation to provide for continuity of the MHR Nominee and the Mutual Nominee on the Board, as described therein, so long as MHR holds at least 2% of the outstanding common stock of the Company.

The Convertible Notes provide for various events of default including for failure to perfect any of the liens in favor of MHR, failure to observe any covenant or agreement, failure to maintain the listing and trading of our common stock, sale of a substantial portion of our assets, merger with another entity without the prior consent of MHR, or any governmental action.

renders us unable to honor or perform our obligations under the Loan Agreement or results in a material adverse effect on our operations. If an event of default occurs, the Convertible Notes provide for the immediate repayment and certain additional amounts as set forth in the Convertible Notes. We have received a waiver from MHR, through March 17, 2008 for certain defaults under the agreement.

**Novartis Note.** On December 1, 2004 we received \$10 million in exchange for issuance of a convertible note to Novartis (the Novartis Note) in connection with a new research collaboration option relating to the development of PTH 1-34. The Novartis Note is convertible, at our option, at any time prior to maturity on December 1, 2009 into a number of shares of our common stock equal to the principal and accrued and unpaid interest divided by the then market price of our common stock, provided certain conditions are met. Those conditions include that the number of shares issued to Novartis does not exceed 19.9% of the total shares of our common stock outstanding, that at the time of such conversion no event of default under the Note has occurred and is continuing and that there is either an effective shelf registration statement in effect covering the resale of the shares issued in connection with such conversion or the shares may be resold by Novartis pursuant to SEC Rule 144(k). At December 31, 2006, the Novartis Note was convertible into 2,050,785 shares of our common stock.

The Novartis Note bears interest at a rate of 3% until December 1, 2006, 5% from then until December 1, 2008, and 7% from that point until maturity on December 1, 2009. We have the option to pay interest in cash on a current basis or accrue the periodic interest as an addition to the principal amount of the Novartis Note. We are accruing interest which is being recorded using the effective interest rate method, which results in an effective interest rate of 4.5%.

The Novartis Note contains customary events of default including our failure to timely cure a default in the payment of certain other indebtedness, acceleration of certain indebtedness, we become entitled to terminate the registration of our securities or the filing of reports under the Securities Exchange Act of 1934, our common stock is delisted from NASDAQ, we experience a change of control (including by, among other things, a change in the composition of a majority of our board (other than as approved by the board) in any one-year period, a merger which results in our stockholders holding shares that represent less than a majority of the voting power of the merged entity, and any other acquisition by a third party of shares that represent a majority of the voting power of the company), we sell substantially all of our assets, or we are effectively unable to honor or perform our obligations under the new research collaboration option relating to the development of PTH 1-34. Upon the occurrence of an event of default prior to conversion, any unpaid principal and accrued interest on the Novartis Note would become immediately due and payable. If the Novartis Note is converted into our common stock, Novartis would have the right to require us to repurchase the shares of common stock within six months after an event of default under the Novartis Note, for an aggregate purchase price equal to the principal and interest that was converted, plus interest from the date of conversion, as if no conversion had occurred.

The scheduled repayments of all debt outstanding, net of unamortized discount, including capital leases as of December 31, 2006 are as follows:

	<b>Debt</b>
	<b>(in thousands)</b>
2007	
2008	
2009	\$ 10,980
Thereafter	13,764
	<b>\$ 24,744</b>

**Restructuring of Debt.** Ebbisham was an Irish corporation which had been formed by Elan Corporation, plc (Elan) and us to develop and market heparin products using technologies contributed by both parties. In July 1999, we acquired from Elan its ownership interest in Ebbisham in exchange for a seven year, \$20 million zero coupon note due July 2006 carrying a 15% interest rate, compounding semi-annually (the Original Elan Note), plus royalties on oral heparin product sales, subject to an annual maximum and certain milestone payments. On February 28, 2002 Ebbisham was voluntarily liquidated.

On December 27, 2004, we entered into a Security Purchase Agreement with Elan, providing for our purchase of our indebtedness to Elan under the Original Elan Note. The value of the Original Elan Note plus accrued interest on December 27, 2004 was \$44.2 million. Pursuant to the Security Purchase Agreement, we paid Elan \$13 million and issued to Elan 600,000 shares of our common stock with a market value of \$2 million. Also, we issued to Elan a new zero coupon note with an issue price of \$29.2 million (the Modified Elan Note), representing the accrued value of the Original Elan Note minus the sum of the cash payment and the value of the 600,000 shares.



As of March 31, 2005, we issued to Elan a warrant to purchase up to 600,000 shares of our common stock at an exercise price of \$3.88. The warrants provide for certain anti-dilution protection. On April 1, 2005, we made a \$13 million payment to Elan, which completed the repurchase of our indebtedness to Elan. This transaction was accounted for as a troubled debt restructuring. The carrying amount of the debt was reduced to an amount equal to the total cash payments, or \$13 million. The fair value of the warrant issued, estimated using the Black-Scholes option pricing model, was \$1.6 million at the date of issuance. As such, a gain of \$14.7 million, calculated as the difference between the carrying value of approximately \$29 million and the fair value of cash paid and warrants issued, was recognized in our consolidated statement of operations for 2005. Under the accounting for a restructuring of debt, no interest expense was recorded during 2005.

## 8. Derivative Instruments

Derivative instruments consist of the following:

	December 31,	
	2006	2005
	(in thousands)	
Stock warrants issued in equity financing	\$ 4,132	\$ 4,330
MHR warrant/ warrant purchase option	2,366	1,455
Stock warrant issued to Kingsbridge		743
	\$ 6,498	\$ 6,528

**Kingsbridge Warrant.** On December 27, 2004, we entered into a Common Stock Purchase Agreement (the "Common Stock Purchase Agreement") with Kingsbridge, providing for the commitment of Kingsbridge to purchase up to \$20 million of our common stock until December 27, 2006. In return for the commitment, we issued to Kingsbridge a warrant to purchase 250,000 shares of our common stock at an exercise price of \$3.811 (representing a premium to the market price of shares of our common stock on the date of issuance of the warrant) together with certain registration rights. On September 21, 2005, the Common Stock Purchase Agreement was terminated as a condition of closing the Loan Agreement with MHR. In January 2006, Kingsbridge exercised all of the warrants for proceeds of approximately \$1.0 million, and as a result, the related liability was reclassified as equity. The fair value of the warrants increased by \$216 thousand from the period between January 1, 2006 and the exercise and sale of all shares, and this increase is included in the statement of operations.

**Equity Financing Warrants.** As of March 31, 2005, we completed the sale of 4 million shares of common stock and warrants to purchase up to 1.5 million shares of common stock. The stock and warrants were sold as units, each unit consisting of one share of common stock and a warrant to purchase 0.375 shares of common stock. The warrants have an exercise price of \$4.00 and an exercise period that begins on March 31, 2005 and expires on March 31, 2010. The warrants provide for certain anti-dilution protection as provided therein. Warrants to purchase up to 1,112,626 shares of common stock provide that under no circumstances will the adjusted exercise price be less than \$3.81. The remaining warrants do not limit adjustments to the exercise price. Under the terms of the warrant, we have an obligation to make a cash payment to the holders of the warrant for any gain that could have been realized if the holders exercise the warrants and we subsequently fail to deliver a certificate representing the shares to be issued upon such exercise by the third trading day after such warrants have been exercised. Accordingly, the warrant has been accounted for as a liability. The fair value of the warrants is estimated, at the end of each quarterly reporting period, using the Black-Scholes option pricing model. The assumptions used in computing the fair value as of December 31, 2006 are a closing stock price of \$5.29, expected volatility of 68.88% over the remaining term of three years and three months and a risk-free rate of 4.65%. In October 2006, 150,000 of these warrants were exercised. The Company realized proceeds of \$600,000 related to the exercise of the warrants, and as a result, the related liability was reclassified as equity. The fair value of the warrants that were exercised increased by \$580 thousand from the period between January 1, 2006 and the exercise. The fair value of the remaining warrants increased by \$234 thousand for the year ended December 31, 2006 and \$435 thousand during the period between issuance and December 31, 2005, and the fluctuation has been recorded in the statement of operations. The warrants will be adjusted to estimated fair value for each future period it remains outstanding.

**MHR Warrants.** In connection with the Loan Agreement with MHR, Emisphere agreed to sell, and in April 2006 did sell, warrants for 617,211 shares to MHR for \$551 thousand. The warrants have an exercise price of \$4.00 and are exercisable through September 26, 2011. The warrants have the same terms as the equity financing warrants, with no limit upon adjustments to the exercise price. Based on the provisions of SFAS 133, "Accounting for Derivative Instruments and Hedging Activities" (SFAS 133), the warrant purchase option has been determined to be an embedded derivative instrument which must be separated from the host contract. The MHR warrants contain the same potential cash settlement provisions as the equity financing warrants and therefore they have been accounted for as a separate liability. The fair value

of the warrant purchase option was \$1.3 million at issuance, which was estimated, at the end of each quarterly reporting period, using the Black-Scholes option pricing model. The assumptions used in computing the fair value as of December 31, 2006 are a closing stock price of \$5.29, expected volatility of 84.79% over the remaining term of four years and nine months and a risk-free rate of 4.24%. \$49 thousand of the deferred financing costs related to the Loan Agreement and \$128 thousand representing reimbursement of MHR's legal fees have been allocated to the warrant purchase option. Both amounts were expensed at issuance. The fair value of the MHR warrants/ warrant purchase option increased by \$360 thousand for the year ended December 31, 2006 and \$208 thousand during the period between issuance and December 31, 2005 and the fluctuation has been recorded in the statement of operations. The MHR warrants will be adjusted to estimated fair value for each future period it remains outstanding. See Note 7 for a further discussion of the warrant purchase option and the MHR Note.

## 9. Income Taxes

As of December 31, 2006, we have available unused federal net operating loss carry-forwards of \$322.1 million and unused state net operating loss carryforward of \$311.4 million. If not utilized, \$6 million, \$7.1 million and \$7.6 million of the federal and state net operating loss carry-forwards will expire in 2007, 2008 and 2009, respectively, with the remainder expiring in various years from 2010 to 2026. Our research and experimental tax credit carry-forwards expire in various years from 2006 to 2026.

The effective rate differs from the statutory rate of 34% for 2006 primarily due to the following:

	2006	2005
Statutory rate on pre-tax book loss	(34.00)%	(34.00)%
Stock option issuance	0.90%	0.00%
Disallowed interest	0.41%	0.00%
Derivatives	1.13%	1.18%
Research and experimentation tax credit	(2.03)%	(9.80)%
Expired net operating losses	4.90%	7.25%
Sales tax and other	(3.18)%	3.04%
Change in valuation allowance	31.87%	32.33%
	0.00%	0.00%

There is no provision for income taxes because we have incurred recurring losses.

The tax effect of temporary differences, net operating loss carry-forwards, and research and experimental tax credit carry-forwards as of December 31, 2006 and 2005 is as follows:

	December 31,	
	2006	2005
	(in thousands)	
Deferred tax assets and valuation allowance:		
Current deferred tax asset:		
Accrued liabilities	\$ 316	\$ 591
Valuation Allowance	(316)	(591)
Net current deferred tax asset	\$	\$
Noncurrent deferred tax assets:		
Accrued liabilities	\$ 20	\$ 110
Fixed and intangible assets	5,896	5,081
Net operating loss carry-forwards	128,178	121,430
Research and experimental tax credits	13,269	12,473
Stock compensation	83	70
Interest	414	
Valuation allowance	(147,860)	(139,164)

Net noncurrent deferred tax asset	\$	\$
-----------------------------------	----	----

Future ownership changes may limit the future utilization of these net operating loss and research and development tax credit carry-forwards as defined by the Internal Revenue Code. The amount of any potential limitation is unknown. The net deferred tax asset has been fully offset by a valuation allowance due to our history of taxable losses and uncertainty regarding our ability to generate sufficient taxable income in the future to utilize these deferred tax assets.

#### **10. Stockholders Deficit**

On May 15, 2006, we completed the sale of 4 million registered shares of common stock at \$8.26 per share. Net proceeds from this offering were \$31.1 million, net of total issuance costs of \$2.0 million, which are being used for general corporate purposes. MHR purchased 24% of this offering.

Our certificate of incorporation provides for the issuance of 1,000,000 shares of preferred stock with the rights, preferences, qualifications, and terms to be determined by our Board of Directors. As of December 31, 2006 and 2005, there were no shares of preferred stock outstanding.

We have a stockholder rights plan in which Preferred Stock Purchase Rights (the Rights) have been granted at the rate of one one-hundredth of a share of Series A Junior Participating Cumulative Preferred Stock (A Preferred Stock) at an exercise price of \$80 for each share of our common stock. The Rights expire on April 7, 2016.

The Rights are not exercisable, or transferable apart from the common stock, until the earlier of (i) ten days following a public announcement that a person or group of affiliated or associated persons have acquired beneficial ownership of 20% or more of our outstanding common stock or (ii) ten business days (or such later date, as defined) following the commencement of, or announcement of an intention to make a tender offer or exchange offer, the consummation of which would result in the beneficial ownership by a person, or group, of 20% or more of our outstanding common stock. MHR is specifically excluded from the provisions of the plan.

Furthermore, if we enter into consolidation, merger, or other business combinations, as defined, each Right would entitle the holder upon exercise to receive, in lieu of shares of A Preferred Stock, a number of shares of common stock of the acquiring company having a value of two times the exercise price of the Right, as defined. The Rights contain antidilutive provisions and are redeemable at our option, subject to certain defined restrictions for \$.01 per Right.

As a result of the Rights dividend, the Board of Directors designated 200,000 shares of preferred stock as A Preferred Stock. A Preferred Stockholders will be entitled to a preferential cumulative quarterly dividend of the greater of \$1.00 per share or 100 times the per share dividend declared on our common stock. Shares of A Preferred Stock have a liquidation preference, as defined, and each share will have 100 votes and will vote together with the common shares.

We have purchased 243,600 shares of our common stock for a total of \$3.8 million. Additionally, on August 1, 2005, our former Chairman and Chief Executive Officer, Dr. Michael Goldberg, repaid a note receivable with \$1.9 million in cash and 46,132 shares of Emisphere common stock, valued at \$0.2 million that had been held as collateral. All such repurchased stock is held by us as treasury stock.

#### **11. Stock-Based Compensation Plans**

Total compensation expense recorded during the year ended December 31, 2006 for share-based payment awards was \$1.6 million, of which \$0.9 million is recorded in research and development and \$0.7 million is recorded in general and administrative expenses in the consolidated statement of operations for the year ended December 31, 2006, respectively. At December 31, 2006, total unrecognized estimated compensation expense related to non-vested stock options granted prior to that date was approximately \$1.8 million, which is expected to be recognized over a weighted-average period of 1.8 years. No tax benefit was realized due to a continued pattern of operating losses. We have a policy of issuing new shares to satisfy share option exercises.

Using the Black-Scholes model, we have estimated our stock price volatility using the historical volatility in the market price of our common stock for the expected term of the option. The risk-free interest rate is based on the yield curve of U.S. Treasury strip securities for the expected term of the option. We have never paid cash dividends and do not intend to pay cash dividends in the foreseeable future. Accordingly, we assumed a 0% dividend yield. The forfeiture rate is estimated using historical option cancellation information, adjusted for anticipated changes in expected exercise and employment termination behavior. Forfeiture rates and the expected term of options are estimated separately for groups of employees that have similar historical exercise behavior. The ranges presented below are the result of certain groups of employees displaying different behavior.

# Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

The following weighted-average assumptions were used for grants made under the stock option plans for the year ended December 31, 2006:

	Directors	Employees
Expected volatility	73.7%	82.9%
Expected term	0.5 years	5.5 years
Risk-free interest rate	4.8%	4.54%
Dividend yield	0%	0%
Annual forfeiture rate	0%	5%

**Pro Forma Information under FAS 123 For the years ended December 31, 2005 and 2004, Prior To Adoption Of FAS 123(R).** Prior to January 1, 2006, we accounted for share-based payment awards in accordance with APB Opinion No. 25, Accounting for Stock Issued to Employees (APB No. 25). Under APB No. 25, compensation expense is generally not recognized in connection with the awarding of stock option grants to employees, provided that, as of the grant date, all terms associated with the awards are fixed and the quoted market price of our stock as of the grant date is equal to or less than the option exercise price. In accordance with Statement of Financial Accounting Standards No. 123, Accounting for Stock-Based Compensation (SFAS No. 123), as amended by Statement of Financial Accounting Standards No. 148, Accounting for Stock-Based Compensation Transition and Disclosure, an amendment of SFAS 123 (SFAS No. 148), pro forma operating results have been determined as if we had prepared our financial statements in accordance with the fair value based method. The following table illustrates the effect on net income and net income per share as if we had applied the fair value based method of accounting for stock based compensation during 2005 and 2004. Since option grants awarded during 2005 and 2004 vest over several years and additional awards are expected to be issued in the future, the pro forma results shown below are not likely to be representative of the effects on future years of the application of the fair value based method.

	Year Ended December 31,	
	2005	2004
	(in thousands, except per share amounts)	
Net loss, as reported	\$ (18,051)	\$ (37,522)
Add: Stock based compensation expense included in reported net loss	50	824
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards	(2,690)	(7,968)
Pro forma net loss	\$ (20,691)	\$ (44,667)
Net loss per share amounts, basic and diluted:		
As reported	\$ (0.81)	\$ (2.04)
Pro forma	\$ (0.93)	\$ (2.43)

For the purpose of the above pro forma calculation, the fair value of each option granted was estimated on the date of grant using the Black-Scholes model. The assumptions used in computing the fair value of options granted are expected volatility of 86% in 2005, and 94% in 2004, expected lives of five years, zero dividend yield, and weighted-average risk-free interest rate of 3.9% in 2005 and 2004. For the Employee Stock Purchase Plans, the total number of quarterly options awarded can vary as the exercise price per share is equal to the lesser of the fair market value of our common stock on the date of grant or 85% of the fair market value on the date of exercise. Therefore the final measure of compensation cost for these awards has been determined on the date at which the number of shares to which an employee is entitled and the exercise price are determinable, which is the exercise date. We calculate estimates of compensation cost as of balance sheet dates subsequent to the grant date and prior to the exercise date based on the current intrinsic value of the award, determined in accordance with the terms that would apply if the award had been exercised on those balance sheet dates. Those amounts are included in the pro forma compensation expense for the years ended December 31, 2005 and 2004.

**Stock Option Plans.** Under our 1991 and 2000 Stock Option Plans, the 2002 Broad Based Plan and the 1995 Non-Qualified Stock Option Plan (individually, the 91 Plan, 00 Plan, 02 Plan and 95 Plan, respectively, or collectively, the Plans) a maximum of 2,500,000, 2,319,500, 160,000 and 2,550,000 shares of our common stock, respectively, were available for issuance under the Plans. The 91 Plan is available to employees and consultants; the 00 Plan is available to employees, directors and consultants; and the 02 Plan is available to employees only. The 91 Plan, 00 Plan and 02 Plan

# Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

provide for the grant of either incentive stock options ( ISOs ), as defined by the Internal Revenue Code, or non-qualified stock options, which do not qualify as ISOs. The 95 Plan provides for grants of non-qualified stock options to officers and key employees. Generally, the options vest at the rate of 20% per year and expire within a five- to ten-year period, as determined by the compensation committee of the Board of Directors and as defined by the Plans. As of December 31, 2006, shares available for future grants under the 00 Plan and 02 Plan amounted to 476,570. There are no shares available for issuance under the 91 Plan and the 95 Plan as these plans have expired.

Transactions involving stock options awarded under the Plans during the year ended December 31, 2006 are summarized as follows:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term in Years	Aggregate Intrinsic Value
			(in thousands)	
Outstanding at December 31, 2005	3,799,513	\$ 16.65		
Granted	241,305	\$ 5.99		\$
Expired	(30,342)	\$ 12.69		
Forfeited	(119,397)	\$ 5.70		
Exercised	(84,067)	\$ 4.24		\$ 396
Outstanding at December 31, 2006	3,807,012	\$ 16.63	4.3	\$ 1,352
Exercisable at December 31, 2006	3,039,690	\$ 19.62	3.2	\$ 674

The weighted-average grant date fair value of options granted during the year ended December 31, 2006 was \$4.25.

**Outside Directors Plan.** We have adopted a stock option plan for outside directors (the Outside Directors Plan ). As amended, a maximum of 725,000 shares of our common stock is available for issuance under the Outside Directors Plan. Directors who are neither officers nor employees of Emisphere nor holders of more than 5% of our common stock are granted options to purchase 7,000 shares of our common stock on the date of each annual stockholders meeting. The options have an exercise price equal to the fair market value of our common stock on the date of grant, vest on the six month anniversary of the grant date, provided that the director continuously serves as a director from the grant date through the vesting date, and expire ten years after the date of grant. The Outside Directors Plan also provides for the ability to grant nondiscretionary awards of restricted stock. Each outside director will receive an award of restricted stock on the date of each regular annual stockholders meeting equivalent to 50% of the director's annual cash board retainer fee. These restricted shares vest on the six month anniversary of the grant date, provided that the director continuously serves as a director from the grant date through the vesting date. As of December 31, 2006 shares available for future grants under the plan amounted to 401,070.

Transactions involving stock options awarded under the Outside Directors Plan during the year ended December 31, 2006 are summarized as follows:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term in Years	Aggregate Intrinsic Value
			(in thousands)	
Outstanding at December 31, 2005	240,000	\$ 11.21		
Granted	25,460	\$ 7.40		\$ 40
Exercised	(88,460)	\$ 5.69		\$ 86
Outstanding at December 31, 2006	177,000	\$ 13.42	5.3	\$ 50
Exercisable at December 31, 2006	163,000	\$ 14.08	5.2	\$ 50

The weighted-average grant date fair value of options granted during the year ended December 31, 2006 was \$1.94.

**Directors Deferred Compensation Stock Plan.** The Directors Deferred Compensation Stock Plan (the Directors Deferred Plan ) ceased as of May 2004 and was replaced by a new compensation package, as approved at the annual stockholders meeting in May 2004. Under the

## Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

Director's Deferred Plan, directors who were neither officers nor employees of Emisphere had the option to elect to receive one half of the annual Board of Directors' retainer compensation, paid for

services as a Director, in deferred common stock. An aggregate of 25,000 shares of our common stock has been reserved for issuance under the Directors' Deferred Plan. During the years ended December 31, 2004 and 2003, the outside directors earned the rights to receive an aggregate of 1,775 shares and 2,144 shares, respectively. Under the terms of the Directors' Deferred Plan, shares are to be issued to a director within six months after he or she ceases to serve on the Board of Directors. In September 2005, we issued 2,651 shares to Mr. Levenson and 355 shares to Mr. Black. We recorded as an expense the fair market value of the common stock issuable under the plan. As of December 31, 2006, there are 3,122 shares issuable under the plan.

**Non-Plan Options.** Our Board of Directors has granted options ( Non-Plan Options ) which are currently outstanding for the accounts of two consultants. The Board of Directors determines the number and terms of each grant (option exercise price, vesting, and expiration date).

Transactions involving awards of Non-Plan Options during the year ended December 31, 2006 are summarized as follows:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term in Years	Aggregate Intrinsic Value
			(in thousands)	
Outstanding at December 31, 2005	50,000	\$ 8.86		
Exercised	30,000	\$ 4.88		\$ 117
Outstanding at December 31, 2006	20,000	\$ 14.84	5.3	\$ 17
Exercisable at December 31, 2006	20,000	\$ 14.84	5.3	\$ 17

**Employee Stock Purchase Plans.** We have adopted two employee stock purchase plans (the Purchase Plans ) - the 1994 Employee Stock Purchase Plan (the Qualified Plan ) and the 1994 Non-Qualified Employee Stock Purchase Plan (the Non-Qualified Plan ). The Purchase Plans provide for the grant to qualified employees of options to purchase our common stock. These options are granted for dollar amounts of up to 15% of an employee's quarterly compensation. The exercise price per share is equal to the lesser of the fair market value of our common stock on the date of grant or 85% of the fair market value on the date of exercise. Options are granted automatically on February 1, May 1, August 1, and November 1 and expire six months after the date of grant. The Qualified Plan is not available for employees owning more than 5% of our common stock and imposes certain other quarterly limitations on the option grants. Options under the Non-Qualified Plan are granted to the extent that the option grants are restricted under the Qualified Plan. The Purchase Plans provide for the issuance of up to 1,500,000 shares of our common stock under the Qualified Plan and 200,000 shares under the Non-Qualified Plan. These plans were terminated effective October 31, 2006.

Transactions involving awards of Purchase Plan options during the year ended December 31, 2006 are summarized as follows:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term in Years	Aggregate Intrinsic Value
			(in thousands)	
Granted	203,257	\$ 5.70		\$ 344
Exercised	320,519	\$ 4.84		\$ 809
Outstanding at December 31, 2006	75,143	\$ 4.50	0.1	\$ 60
Exercisable at December 31, 2006	75,143	\$ 4.50	0.1	\$ 60

The number and weighted average exercise price of shares outstanding and exercisable at December 31, 2006 is subject to change because the exercise price is set as the lesser of the fair market value of our common stock on the date of grant or 85% of the fair market value on the date of exercise.



The following table summarizes transactions involving the exercise of stock option awards during years ended December 31, 2006 and 2005:

	Year Ended December 31,	
	2006	2005
	(in thousands)	
Cash received from options exercised	\$ 2,085	\$ 651
Intrinsic value of options exercised	\$ 1,408	\$ 619

## 12. Collaborative Research Agreements

We are a party to collaborative agreements with corporate partners to provide development and commercialization services relating to the collaborative products. These agreements are in the form of research and development collaboration and licensing agreements. In connection with these agreements, we have granted licenses or the rights to obtain licenses to our oral drug delivery technology. In return, we are entitled to receive certain payments upon the achievement of milestones and will receive royalties on sales of products should they be commercialized. Under these agreements, we are entitled to also be reimbursed for research and development costs. We also have the right to manufacture and supply delivery agents developed under these agreements to our corporate partners.

We also perform research and development for others pursuant to feasibility agreements, which are of short duration and are designed to evaluate the applicability of our drug delivery agents to specific drugs. Under the feasibility agreements, we are generally reimbursed for the cost of work performed.

All of our collaborative agreements are subject to termination by our corporate partners without significant financial penalty to them. Milestone payments recognized in connection with these agreements was \$6.5 million, \$3 million and \$1.7 million in the years ended December 31, 2006, 2005 and 2004, respectively. Expense reimbursements recognized in connection with these agreements was \$0.5 million, \$0.4 million and \$0.1 million for the years ended December 31, 2006, 2005 and 2004, respectively. Expenses incurred in connection with these agreements and included in research and development were \$0.3 million, \$0.2 million and \$0.2 million in the years ended December 31, 2006, 2005 and 2004, respectively. Significant agreements are described below.

**Novartis Pharma AG.** In September 2004, we entered into a licensing agreement with Novartis to develop our oral recombinant human growth hormone ( rhGH ) program. Under this collaboration, we are working with Novartis to initiate clinical trials of a convenient oral human growth hormone product using the *eligen*® technology. In November 2004, we received a non-refundable upfront payment of \$1 million. On May 3, 2006, we received a \$5 million payment from Novartis for development commencement. We may receive up to \$28 million in additional milestone payments during the course of product development, and royalties based on sales.

In December 2004, we entered into an agreement with Novartis whereby Novartis obtained an option to license our existing technology to develop oral forms of parathyroid hormone ( PTH 1-34 ). On March 7, 2006, Novartis exercised its option to the license. Based on the terms of the agreement, we are eligible for milestone payments totaling up to a maximum of \$30 million, plus royalties on sales of product developed using our *eligen*® technology.

In December 1997, we entered into a collaboration agreement with Novartis to develop an oral salmon calcitonin ( sCT ), currently used to treat osteoporosis. In February 2000, Novartis agreed to execute its option to acquire an exclusive license to develop and commercialize oral sCT and as a result, Novartis made a \$2 million milestone payment to us. In March 2000, Novartis paid us \$2.5 million to obtain the license to our technology for sCT, and to obtain an option to use the *eligen*® technology for a second compound. Novartis' rights to certain financial terms concerning the second compound have since expired. In February 2003, we announced favorable results of a Phase IIa study conducted by Novartis evaluating the performance in post-menopausal women of an oral tablet form of salmon calcitonin. Based on the data from that study, Novartis has initiated a parallel program to develop oral salmon calcitonin for the treatment of osteoarthritis. In February 2007, Novartis Pharma AG and its development partner Nordic Bioscience notified us of the initiation of a Phase III clinical trial for the treatment of osteoporosis with an oral form of salmon calcitonin (referred to as SMC021), a new drug candidate, using the Company's *eligen*® delivery technology. As a result of the initiation of the trial, Emisphere will be entitled to receive a milestone payment from Novartis of \$2 million as well as reimbursement for approximately \$0.7 million in costs. Under the terms of the agreement, we may receive up to \$5 million in additional milestone payments.

**Roche.** In November 2004, we entered into a licensing agreement with Hoffman-La Roche, Inc. and F. Hoffman-La Roche, LTD (collectively, Roche ) to develop oral formulations of undisclosed small molecule compounds approved for use in the field of bone related diseases. In November 2006, we received notice from Roche that they are exercising their right to terminate this agreement. Roche's decision was not related to the performance of the *eligen*® technology. For the years ended December 31, 2006, 2005 and 2004, we recognized \$1.5 million, \$1.8 million and \$2.6 million related to this contract, which included milestone payments and reimbursement of costs. We continue to work with Roche on the multi-product research collaboration agreement signed in July 2006 to explore the use of Emispheres *eligen*® technology in feasibility studies for new formulations of a number of Roche molecules.

**Genta.** In March 2006, we entered into a collaborative agreement with Genta, Incorporated ( Genta ) to develop an oral formulation of a gallium-containing compound. We currently receive reimbursements from Genta for the work performed during the formulation phase. We have recognized \$0.2 million in revenue related to these reimbursements for the year ended December 31, 2006. We are eligible for milestone payments totaling up to a maximum of \$24.3 million under this agreement.

### 13. Defined Contribution Retirement Plan

We have a defined contribution retirement plan (the Retirement Plan ), the terms of which, as amended, allow eligible employees who have met certain age and service requirements to participate by electing to contribute a percentage of their compensation to be set aside to pay their future retirement benefits, as defined by the Retirement Plan. We have agreed to make discretionary contributions to the Retirement Plan. For the years ended December 31, 2006, 2005 and 2004, we made contributions to the Retirement Plan totaling approximately \$368 thousand, \$351 thousand and \$350 thousand, respectively.

### 14. Net Loss Per Share

The following table sets forth the information needed to compute basic and diluted earnings per share for the years ended December 31, 2006 and 2005:

	Year Ended December 31,	
	2006	2005
	(in thousands, except share amounts)	
Basic net loss	\$ (41,766)	\$ (18,051)
Dilutive securities:		
Warrants		(19)
Diluted net loss	\$ (41,766)	\$ (18,070)
Weighted average common shares outstanding	26,474,072	22,300,646
Dilutive securities:		
Warrants		11,235
Diluted average common stock equivalents outstanding	26,474,072	22,311,881
Basic and diluted net loss per share	\$ (1.58)	\$ (0.81)

The following table sets forth the number of potential shares of common stock that have been excluded from diluted net loss per share because their effect was anti-dilutive:

	Year Ended December 31,		
	2006	2005	2004
Options to purchase common shares	4,079,155	4,302,142	5,759,042
Outstanding warrants and options to purchase warrants	2,567,211	2,717,211	250,000
Novartis convertible note payable	2,050,785	2,418,362	2,925,095
MHR note payable	4,307,899		

	13,005,050	9,437,715	8,934,137
--	------------	-----------	-----------

## 15. Commitments and Contingencies

**Commitments.** We currently lease office and laboratory space under non-cancelable operating lease expiring in 2007. As of December 31, 2006, future minimum rental payments are as follows:

Years Ending December 31,	(in thousands)
2007	1,173

Rent expense for the years ended December 31, 2006, 2005 and 2004 was \$1.4 million, \$1.4 million and \$1.3 million, respectively. Additional charges under this lease for real estate taxes and common maintenance charges for the years ended December 31, 2006, 2005 and 2004, were \$1.1 million, \$1.2 million and \$1.1 million, respectively.

The lease for our principal executive, administrative and laboratory facilities was set to expire on August 31, 2007. On March 1, 2007, we exercised the first extension option under the existing lease for our premises for a term of five years. Fixed rent payable under the extension shall be at an annul rate equal to 95% of the fair market rental for the premises. The fair market rental for the premises will be determined by the landlord. Under the existing lease terms, we have the right to dispute the landlords' determination, in which instance an arbitration process will commence.

In April 2005, the Company entered into an employment contract with its then Chief Executive Officer, Dr. Michael M. Goldberg, for services through July 31, 2007. On January 16, 2007, our Board of Directors terminated Dr. Goldberg's services. The Company continues to discuss the terms of Dr. Goldberg's separation from the Company. Dr. Goldberg's employment agreement provides, among other things, that in the event he is terminated without cause, Dr. Goldberg would be paid his base salary plus bonus, if any, monthly for an eighteen month period (aggregating approximately \$0.8 million), and he would also be entitled to continued health and life insurance coverage during the severance period and all unvested stock options and restricted stock awards would immediately vest in full upon such termination. Dr. Goldberg's employment agreement provides that in the event he is terminated with cause he will receive no additional compensation. On March 2, 2007, Dr. Goldberg, through his counsel, advised of his intent to file suit against the Company in this matter as well as his intent to seek punitive damages.

**Contingencies.** In the ordinary course of business, we enter into agreements with third parties that include indemnification provisions which, in our judgment, are normal and customary for companies in our industry sector. These agreements are typically with business partners, clinical sites, and suppliers. Pursuant to these agreements, we generally agree to indemnify, hold harmless, and reimburse indemnified parties for losses suffered or incurred by the indemnified parties with respect to our product candidates, use of such product candidates, or other actions taken or omitted by us. The maximum potential amount of future payments we could be required to make under these indemnification provisions is unlimited. We have not incurred material costs to defend lawsuits or settle claims related to these indemnification provisions. As a result, the estimated fair value of liabilities relating to these provisions is minimal. Accordingly, we have no liabilities recorded for these provisions as of December 31, 2006.

In the normal course of business, we may be confronted with issues or events that may result in a contingent liability. These generally relate to lawsuits, claims, environmental actions or the action of various regulatory agencies. We consult with counsel and other appropriate experts to assess the claim. If, in our opinion, we have incurred a probable loss as set forth by accounting principles generally accepted in the United States, an estimate is made of the loss and the appropriate accounting entries are reflected in our consolidated financial statements. Based upon consultation with legal counsel, we do not anticipate that liabilities arising out of currently pending or threatened lawsuits and claims will have a material adverse effect on our consolidated financial position, results of operations or cash flows.

## 16. Summarized Quarterly Financial Data (Unaudited)

Following are summarized quarterly financial data (unaudited) for the years ended December 31, 2006 and 2005:

	2006			
	March 31	June 30	September 30	December 31
	(in thousands)			
Total revenue	\$ 1,696	\$ 5,220	\$ 60	\$ 283
Operating loss	(6,613)	(3,422)	(8,691)	(8,402)
Net loss	(26,836)	(3,757)	(8,158)	(3,015)
Net loss per share, basic	\$ (1.13)	\$ (0.14)	\$ (0.29)	\$ (0.11)

Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

Net loss per share, diluted	\$	(1.13)	\$	(0.14)	\$	(0.30)	\$	(0.30)
-----------------------------	----	--------	----	--------	----	--------	----	--------

2005

	<div></div>							
	March 31		June 30		September 30		December 31	
	<div>(in thousands)</div>							
Total revenue	\$	993	\$	1,961	\$	431	\$	155
Operating loss		(8,195)		(6,463)		(8,111)		(9,686)
Net income (loss)		6,529		(5,784)		(9,640)		(9,156)
Net income (loss) per share, basic	\$	0.34	\$	(0.25)	\$	(0.41)	\$	(0.39)
Net income (loss) per share, diluted	\$	0.29	\$	(0.25)	\$	(0.41)	\$	(0.41)

**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***

The Company's senior management is responsible for establishing and maintaining a system of disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934 (the "Exchange Act") designed to ensure that the information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by an issuer in the reports that it files or submits under the Exchange Act is accumulated and communicated to the issuer's management, including its principal executive officer or officers and principal financial officer or officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

The Company has evaluated the effectiveness of the design and operation of its disclosure controls and procedures under the supervision of and with the participation of management, including the Chief Executive Officer and Principal Accounting Officer (who takes on this role in the absence of a Chief Financial Officer), as of the end of the period covered by this report. Based on that evaluation, our Chief Executive Officer and Principal Accounting Officer have concluded that our disclosure controls and procedures are effective.

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

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on that evaluation, our management has concluded that our internal control over financial reporting was effective as of December 31, 2006. PricewaterhouseCoopers LLP, our independent registered public accounting firm, has issued a report on management's assessment and on the effectiveness of our internal control over financial reporting as of December 31, 2006, which report is included herein at page 40.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. 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.

***Changes in Internal Control over Financial Reporting***

There has been no change in our internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the quarter ended December 31, 2006 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Our management, including our chief executive officer and principal accounting officer, does not expect that our disclosure controls and procedures or internal controls over financial reporting will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the system are met and cannot detect all deviations. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud or deviations, if any, within the company have been detected. 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.

**ITEM 9B. OTHER INFORMATION**

None.

**PART III**

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

Information required by this item is incorporated by reference to the Proxy Statement to be distributed in connection with our next annual meeting of stockholders. We have adopted a code of ethics applicable to our directors, chief executive officer, chief financial officer, controller and senior financial management. Our code of ethics is available on our website at [www.emisphere.com/ovr\\_cgcoe.asp](http://www.emisphere.com/ovr_cgcoe.asp).

**ITEM 11. EXECUTIVE COMPENSATION**

Information required by this item is incorporated by reference to the Proxy Statement to be distributed in connection with our next annual meeting of stockholders.

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

Information required by this item is incorporated by reference to the Proxy Statement to be distributed in connection with our next annual meeting of stockholders.

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

Information required by this item is incorporated by reference to the Proxy Statement to be distributed in connection with our next annual meeting of stockholders.

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

Information required by this item is incorporated by reference to the Proxy Statement to be distributed in connection with our next annual meeting of stockholders.

**PART IV**

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

(a) (1) Financial Statements

A list of the financial statements filed as a part of this report appears on page 39.

(2) Financial Statement Schedules

Schedules have been omitted because the information required is not applicable or is shown in the Financial Statements or the corresponding Notes to the Consolidated Financial Statements.

(3) Exhibits

A list of the exhibits filed as a part of this report appears on pages 66 thru 68.

(b) See Exhibits listed under the heading Exhibit Index set forth on page 66.

(c) Schedules have been omitted because the information required is not applicable or is shown in the Financial Statements or the corresponding Notes to the Consolidated Financial Statements.



**EXHIBITS INDEX**

<b>Exhibit</b>		<b>Incorporated by Reference(1)</b>
3.1	Amended and restated Certificate of Incorporation of the Company dated January 27, 2006.	P
3.2	By-Laws of Emisphere, as amended December 7, 1998 and September 26, 2005.	A, N
4.1	Restated Rights Agreement dated as of April 7, 2006 between Emisphere and Mellon Investor Services, LLC.	R
4.2	Restated Rights Agreement dated as of February 23, 1996 between Emisphere and Mellon Investor Services, LLC, as amended September 26, 2005.	B, N
10.1(a)	1991 Stock Option Plan, as amended.	H (2)
10.1(b)	Amendment to the 1991 Stock Option Plan.	* (2)
10.2(a)	Stock Incentive Plan for Outside Directors, as amended.	E (2)
10.2(b)	Amendment to the Amended and Restated Stock Incentive Plan for Outside Directors.	* (2)
10.3(a)	Directors Deferred Compensation Stock Plan.	G (2)
10.3(b)	Amendment to the Directors Deferred Compensation Stock Plan	* (2)
10.4(a)	Employee Stock Purchase Plan, as amended.	D (2)
10.4(b)	Amendment to Emisphere Technologies, Inc. Employee Stock Purchase Plan.	J (2)
10.5	Non-Qualified Employee Stock Purchase Plan.	D (2)
10.6(a)	1995 Non-Qualified Stock Option Plan, as amended.	H (2)
10.6(b)	Amendment to the 1995 Non-Qualified Stock Option Plan.	* (2)
10.7	Amended and Restated Employment Agreement, dated April 28, 2005, between Michael M. Goldberg and Emisphere.	I (2)
10.8	Stock Option Agreements, dated January 1, 1991, February 15, 1991, December 1, 1991, August 1, 1992 and October 6, 1995 between Michael M. Goldberg and Emisphere.	D (2)(3)
10.9	Stock Option Agreement, dated July 31, 2000, between Michael M. Goldberg and Emisphere.	I (2)
10.10	Termination Agreement, dated July 2, 1999, among Emisphere, Elan Corporation, plc and Ebbisham Limited, now a wholly owned Subsidiary of Emisphere.	C
10.11	Patent License Agreement, dated July 2, 1999, between Emisphere and Elan Corporation, plc.	C
10.12	Subscription Agreement, dated July 2, 1999 between Emisphere and Elan International Management, Ltd.	C
10.13	Registration Rights Agreement, dated July 2, 1999 between Emisphere and Elan International Management, Ltd.	C
10.14	Research Collaboration and Option Agreement dated as of December 3, 1997 between Emisphere and Novartis Pharma AG.	F (3)
10.15	Research Collaboration and Option Agreement dated as of June 8, 2000 between Emisphere and Eli Lilly and Company.	I (3)
10.16(a)	License Agreement dated as of April 7, 1998 between Emisphere and Eli Lilly and Company.	I (3)
10.16(b)	License Agreement, dated as of April 7, 1998, between Emisphere and Eli Lilly and Company.	I (3)
10.17(a)	Amendment to Lease Agreement, dated as of March 31, 2000, between Emisphere and Eastview Holdings, LLC.	I
10.17(b)	Amendment to Lease Agreement, dated as of March 31, 2000, between Emisphere and Eastview Holdings, LLC.	I
10.18(a)	Emisphere Technologies, Inc. 2000 Stock Option Plan	I (2)

# Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

Exhibit		Incorporated by Reference(1)
10.18(b)	Amendment to Emisphere Technologies, Inc. 2000 Stock Option Plan.	* (2)
10.19(a)	Emisphere Technologies, Inc. 2002 Broadbased Stock Option Plan.	J (2)
10.19(b)	Amendment to Emisphere Technologies, Inc. 2002 Broadbased Stock Option Plan.	* (2)
10.20	Amendment to Lease Agreement, dated as of September 23, 2003, between Emisphere and Eastview Holdings, LLC.	K
10.21	Agreement, dated September 23, 2003, between Emisphere and Progenics Pharmaceuticals, Inc.	K
10.22(a)	Consulting Agreement, dated November 13, 2003, between Emisphere and Dr. Jere Goyan	K
10.22(b)	Consulting Agreement, dated November 13, 2003, between Emisphere and Mr. Joseph R. Robinson	K
10.23	License Agreement dated as of September 23, 2004 between Emisphere and Novartis Pharma AG, as amended on November 4, 2005.	L (3)
10.24	Development and License Agreement, dated and effective as of November 17, 2004 among Hoffmann-La Roche Inc., F. Hoffmann-La Roche LTD and Emisphere	L (3)
10.25(a)	Research Collaboration Option and License Agreement dated December 1, 2004 by and between Emisphere and Novartis Pharma AG	L (3)
10.25(b)	Research Collaboration Option and License Agreement dated December 1, 2004 by and between Emisphere and Novartis Pharma AG	L (3)
10.25(c)	Registration Rights Agreement dated as of December 1, 2004 between Emisphere and Novartis Pharma AG	L
10.26(a)	Common Stock Purchase Agreement dated as of December 27, 2004 by and between Kingsbridge Capital Limited and Emisphere	L
10.26(b)	Registration Rights Agreement dated as of December 27, 2004 by and between Kingsbridge Capital Limited and Emisphere	L
10.26(c)	Warrant dated December 27, 2004 issued by Emisphere to Kingsbridge Capital Limited	L
10.27	Security Purchase Agreement dated as of December 27, 2004 by and between Elan International Services, Ltd. and Emisphere	L
10.28 (a)	Senior Secured Loan Agreement between Emisphere and MHR, dated September 26, 2005, as amended on November 11, 2005	N, O
10.28 (b)	Investment and Exchange Agreement between Emisphere and MHR, dated September 26, 2005	N
10.28 (c)	Pledge and Security Agreement between Emisphere and MHR, dated September 26, 2005	N
10.28 (d)	Registration Rights Agreement between Emisphere and MHR, dated September 26, 2005	N
10.28 (e)	Amendment No. 1 to the Senior Secured Term Loan Agreement, dated November 11, 2005	N
10.28 (f)	Form of 11% Senior Secured Convertible Note	N
10.29	Development and License Agreement between Genta Incorporated and Emisphere Technologies, Inc., dated March 22, 2006	Q
10.30	Warrant dated as of March 31, 2005 between Emisphere and NR Securities LTD, filed as Exhibit 10.3 to the Quarterly Report on Form 10-Q as filed with the SEC on May 12, 2005	M
10.31	Warrant dated as of March 31, 2005 between Emisphere and Atticus European Fund LTD, filed as Exhibit 10.4 to the Quarterly Report on Form 10-Q as filed with the SEC on May 12, 2005	M
10.32	Warrant dated as of March 31, 2005 between Emisphere and Elan International Services, Ltd., filed as Exhibit 10.8 to the Quarterly Report on Form 10-Q as filed with the SEC on May 12, 2005	M
10.33	Warrant dated as of September 23, 2005 between Emisphere and MHR Capital Partners (100) LP	*
10.34	Warrant dated as of September 23, 2005 between Emisphere and MHR Capital Partners (500) LP	*
10.35	Warrant dated as of September 23, 2005 between Emisphere and Michael Targoff	*
10.36	Warrant dated as of September 21, 2006 between Emisphere and MHR Institutional Partners IIA LP	*

# Edgar Filing: EMISPHERE TECHNOLOGIES INC - Form 10-K

Exhibit		Incorporated by Reference(1)
10.37	Warrant dated as of September 21, 2006 between Emisphere and MHR Institutional Partners II LP	*
10.38	Warrant dated as of September 21, 2006 between Emisphere and MHR Capital Partners (100) LP	*
10.39	Warrant dated as of September 21, 2006 between Emisphere and MHR Capital Partners Masters Account LP	*
14.1	Emisphere Technologies, Inc. Code of Business Conduct and Ethics	K
23.1	Consent of Independent Registered Public Accounting Firm	*
31.1	Certification Pursuant to Rule 13a-14(a) and 15d-14(a), as adopted pursuant to section 302 of the Sarbanes-Oxley Act of 2002	*
31.2	Certification Pursuant to Rule 13a-14(a) and 15d-14(a), as adopted pursuant to section 302 of the Sarbanes-Oxley Act of 2002	*
32.1	Certification Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	*

\* Filed herewith.

- (1) If not filed herewith, filed as an exhibit to the document referred to by letter as follows:
- A. Quarterly Report on Form 10-Q for the quarterly period ended January 31, 1999.
  - B. Registration Statement on Form 8-A12G/A dated and filed June 7, 2001.
  - C. Current Report on Form 8-K, filed July 2, 1999.
  - D. Annual Report on Form 10-K for the fiscal year ended July 31, 1995.
  - E. Annual Report on Form 10-K for the fiscal year ended July 31, 1997.
  - F. Quarterly Report on Form 10-Q for the quarterly period ended October 31, 1997.
  - G. Annual Report on Form 10-K for the fiscal year ended July 31, 1998.
  - H. Annual Report on Form 10-K for the fiscal year ended July 31, 1999.
  - I. Annual Report on Form 10-K for the fiscal year ended July 31, 2000.
  - J. Registration statement on Form S-8 dated and filed on November 27, 2002.
  - K. Annual Report on Form 10-K for the year ended December 31, 2003.
  - L. Registration on Form S-3/A dated and filed February 1, 2005.
  - M. Current Report on Form 10-Q for the quarterly period ended March 31, 2005.
  - N. Current Report on Form 8-K, filed September 30, 2005.
  - O. Current Report on Form 8-K, filed November 14, 2005.
  - P. Annual Report on Form 10-K for the fiscal year ended December 31, 2005.
  - Q. Current Report on Form 10-Q for the quarterly period ended March 31, 2006.
  - R. Current Report on Form 8-K filed April 10, 2006.
- (2) Management contract or compensatory plan or arrangement.
- (3) Portions of this exhibit have been omitted based on a request for confidential treatment filed separately with the Securities and Exchange Commission.

**SIGNATURES**

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

Date: February 28, 2007

EMISPHERE TECHNOLOGIES, INC.

By: /s/ Lewis H. Bender

**Lewis H. Bender**  
**President and Chief Executive Officer**

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

<b>Name and Signature</b>	<b>Title</b>	<b>Date</b>
<u>/s/ Lewis H. Bender</u>	President and Chief Executive Officer	February 28, 2007
<b>Lewis H. Bender</b>		
<u>/s/ HOWARD M. PACK</u>	Director	February 28, 2007
<b>Howard M. Pack</b>		
<u>/s/ MARK H. RACHESKY</u>	Director	February 28, 2007
<b>Mark H. Rachesky, M.D.</b>		
<u>/s/ MICHAEL WEISER</u>	Director	February 28, 2007
<b>Michael Weiser, M.D.</b>		
<u>/s/ STEPHEN K. CARTER</u>	Director	February 28, 2007
<b>Stephen K. Carter, M.D.</b>		
<u>/s/ John D. Harkey, Jr.</u>	Director	February 28, 2007
<b>John D. Harkey, Jr.</b>		
<u>/s/ William T. Rumble</u>	Corporate Controller (Principal Accounting Officer)	February 28, 2007
<b>William T. Rumble C.P.A.</b>		