UNITED THERAPEUTICS CORP

FORM 10-K
(Annual Report)

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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 fiscal year ended December 31, 2007

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.**

For the transition period from to

Commission file number 0-26301

United Therapeutics Corporation
(Exact Name of Registrant as Specified in Its Charter)

Delaware (State or Other Jurisdiction of Incorporation or Organization)	**52-1984749** (I.R.S. Employer Identification No.)
1110 Spring Street, Silver Spring, MD (Address of Principal Executive Offices)	**20910** (Zip Code)

(301) 608-9292
Registrant's Telephone Number, Including Area Code

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

Title of each class	**Name of each exchange on which registered**
Common Stock, par value $.01 per share and associated preferred stock purchase rights	Nasdaq Global Select Market

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

None
(Title of Class)

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 Section 15(d) of the Act. Yes ☐ No ☒

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§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, a non-accelerated filer, or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☒	Accelerated filer ☐	Non-accelerated filer ☐ (Do not check if a smaller reporting company)	Smaller reporting company ☐

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

The aggregate market value of the Common Stock held by non-affiliates of the registrant, based on the closing price on June 30, 2007, as reported by the NASDAQ National Market was approximately $1,158,300,000.

The number of shares outstanding of the issuer's common stock, par value $0.01 per share, as of February 22, 2008, was 22,343,955

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for the registrant's 2008 annual meeting of shareholders are incorporated by reference in Part III of this Form 10-K.

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PART I

ITEM 1. BUSINESS

We are a biotechnology company focused on the development and commercialization of unique products to address the unmet medical needs of patients with chronic and life-threatening cardiovascular and infectious diseases and cancer.

Our key therapeutic platforms are:

- *Prostacyclin Analogs* , which are stable synthetic forms of prostacyclin, an important molecule produced by the body that has powerful effects on blood vessel health and function. Our lead prostacyclin analog is Remodulin®, a treprostinil-based compound for the treatment of cardiovascular disease. Remodulin (treprostinil sodium) Injection, has been approved by the U.S. Food and Drug Administration (FDA) for the treatment of pulmonary arterial hypertension (PAH) in patients with New York Heart Association (NYHA) Class II-IV (moderate to severe) symptoms to diminish symptoms associated with exercise, and in other countries for similar use, and in most of Europe for the treatment of NYHA Class III patients with idiopathic or familial PAH. Our inhaled and oral formulations of treprostinil are in the later stages of development. We are also developing Beraprost-MR, another prostacyclin analog, for the treatment of cardiovascular disease;

- *Glycobiology Antiviral Agents* , which are a class of small molecules that have shown promise against a broad range of viruses, such as hepatitis C; and

- *Monoclonal Antibodies* , which are antibodies that activate patients' immune systems to treat cancer. This platform includes the 3F8 and 8H9 murine antibodies, which are being developed for the treatment of neuroblastoma and metastatic brain cancer, respectively.

We devote most of our resources to developing products within these three therapeutic platforms. We also devote resources to the commercialization and further development of telemedicine products and services, principally for the detection of cardiac arrhythmias.

We generate revenues from sales of Remodulin, telemedicine products and services and, until September 2007, from the sale of arginine products. We field a sales and marketing organization that supports the commercial availability of Remodulin in the United States, Canada, Europe and other countries, aided by specialty pharmaceutical distributors.

United Therapeutics was incorporated in Delaware in June 1996. Our principal executive offices are located at 1110 Spring Street, Silver Spring, Maryland 20910.

Our Products

Our product portfolio includes the following as of December 31, 2007:

Product	Mode of Delivery	Indication/Market	Current Status	Our Territory
Remodulin	Continuous subcutaneous	Pulmonary arterial hypertension	Commercial in the U.S., most of the European Union, Canada, Israel, Australia, Mexico, Argentina and Peru*	Worldwide
Remodulin	Continuous intravenous	Pulmonary arterial hypertension	Commercial in the U.S., Canada, Israel, Mexico, Argentina and Peru. European reviews are ongoing	Worldwide
CardioPAL® SAVI and Decipher Cardiac Monitors	Telemedicine	Cardiac arrhythmias and ischemic heart disease	Commercial	Worldwide
Inhaled Treprostinil	Inhaled	Pulmonary arterial hypertension	Phase III	Worldwide
Oral Treprostinil	Oral	Pulmonary arterial hypertension	Phase III	Worldwide
Remodulin	Intravenous	Improved transplant outcome	Phase III	Worldwide
Beraprost—MR	Oral	Pulmonary arterial hypertension	Phase II	North America/Europe
3F8 MAb	Intravenous	Neuroblastoma	Phase II	Worldwide
Oral Treprostinil	Oral	Peripheral vascular disease	Phase II	Worldwide
CardioPAL SAVI Wireless Cardiac Event Monitors	Telemedicine	Cardiac arrhythmias and ischemic heart disease	Phase II	Worldwide
Miglustat	Oral	Hepatitis C	Phase I	Worldwide
Inhaled Treprostinil	Inhaled	Idiopathic pulmonary fibrosis	Phase I	Worldwide
Inhaled Treprostinil with AERx Essence®	Inhaled	Pulmonary arterial hypertension	Phase I	Worldwide
8H9 MAb	Intravenous	Metastatic brain cancer	Phase I	Worldwide
Glycobiology Antiviral Agents	Oral	Hepatitis C and other infectious diseases	Pre-Clinical	Worldwide

* We have obtained approval in 23 member countries of the European Union (Austria, Belgium, Czech Republic, Denmark, Estonia, France, Germany, Greece, Iceland, Italy, Luxembourg, Netherlands, Portugal, Cyprus, Finland, Hungary, Latvia, Lithuania, Norway, Poland, Slovakia, Slovenia, and Serbia), and have received formal approval letters and pricing approvals in most of them.

Products to Treat Cardiovascular Disease

Remodulin

Our lead product for treating PAH is Remodulin (treprostinil sodium) Injection, the main ingredient of which is treprostinil sodium, a prostacyclin analog. We sell Remodulin to our distributors in the United States at a discount from an average wholesale price recommended by us, and to our international distributors at a transfer price set by us. We earned approximately $200.9 million, $152.5 million and $109.2 million of revenues, representing 95%, 96% and 94% of our total revenues from sales of Remodulin in 2007, 2006 and 2005, respectively. We obtained worldwide rights for all indications to Remodulin from GlaxoSmithKline PLC (formerly Glaxo Wellcome, Inc.) in January 1997 and from Pfizer, Inc. (formerly Pharmacia & Upjohn Company) in December 1996. In May 2002, Remodulin was approved by the FDA as a continuous subcutaneous (under the skin) infusion for the treatment of PAH in patients with NYHA Class II-IV (moderate to severe) symptoms. In November 2004, our FDA approval was expanded to permit continuous intravenous (through a vein or artery) infusion in patients who cannot tolerate subcutaneous infusion. In March 2006, our FDA approval was further expanded to allow patients to transition to Remodulin from Flolan® (epoprostenol), the first FDA-approved prostacyclin for PAH. Remodulin is also approved as a continuous subcutaneous infusion treatment for various forms of PAH in 33 countries throughout the world, and as a continuous intravenous infusion treatment for various forms of PAH in Canada, Israel, Mexico, Peru and Argentina. Applications for approval for both subcutaneous and intravenous Remodulin infusion are under review in many other countries. In addition, we are continuing to work on expanding commercialization to new territories such as Japan and South Korea.

PAH is a life-threatening vascular disease that affects the blood vessels in the lungs, known as the pulmonary blood vessels, which increases blood pressure in the artery between the heart and the lungs known as the pulmonary artery. PAH is characterized by the degradation of the blood vessel wall lining, the aggregation of platelets and the disruption of smooth muscle cell function. These conditions cause blockages and affect the ability of the blood vessels to dilate and then constrict as blood flows to the lungs. The resulting elevated pulmonary blood pressure increases strain on the right side of the heart as it tries to pump blood to the lungs. It is estimated that PAH affects between 100,000 and 200,000 individuals worldwide. In recent years, as awareness of PAH has grown, we have seen an increase in the number of people diagnosed with the disease. However, because of the rareness of PAH and the complexities of diagnosing it, only a small fraction of these people are being treated. Many organizations are conducting research to develop easier, less invasive methods to diagnose PAH. If this research is successful, more patients could be diagnosed at an earlier stage.

The complexity of diagnosing PAH is due in part to the current uncertainties surrounding the etiology and pathophysiology of the condition. Currently, treatment of PAH focuses on three distinct molecular pathways that have been implicated in the disease process. These are the endothelin pathway, the nitric oxide pathway, and the prostacyclin pathway. Patients with PAH have been shown to have elevated levels of endothelin, a naturally occurring substance in the body that causes constriction of the pulmonary blood vessels. Therefore, one established therapeutic approach has been to block the action of endothelin with drugs that are known as endothelin receptor antagonists. Patients with PAH have also been shown to have reduced levels of the enzyme responsible for producing nitric oxide (NO), a naturally occurring substance in the body that has the effect of relaxing pulmonary blood vessels. NO produces this effect by increasing intracellular levels of an intermediary known as cGMP in cells. Therefore, another established therapeutic approach has been to inhibit the degradation of cGMP, using drugs that are termed phosphodiesterase 5 (PDE5) inhibitors. Finally, patients with PAH have been shown to have reduced levels of prostacyclin, a naturally occurring substance that has the effect of relaxing the pulmonary blood vessels, preventing platelet aggregation, and inhibiting the proliferation of smooth muscle cells in pulmonary vessels. Therefore, drugs that mimic the action of prostacyclin, termed prostacyclin analogs, are also established PAH treatments. Because any or all of these three

pathways may be operative in a patient, these three classes of drugs are used alone or in combination to treat patients with PAH.

A long-term outcome study published in the *European Respiratory Journal* (vol. 28, Number 6; December 2006) demonstrated improved survival with Remodulin therapy when compared to predicted survival (NIH registry formula) over a four-year period. One-, two-, three- and four-year survival was 87%, 78%, 71%, and 68%, respectively, for all 860 patients (including 130 patients who received combination therapy) and 88%, 79%, 73%, and 70%, respectively, for patients receiving only treprostinil monotherapy (730 patients). In patients with idiopathic PAH for whom baseline hemodynamics were available (332 patients), survival was 91%, 82%, 76%, and 72% at years 1-4, respectively. This compares to respective predicted survival estimates of 69%, 56%, 46%, and 38% over the four-year period based on the NIH registry formula.

Flolan, the first FDA-approved synthetic prostacyclin for PAH, is delivered continuously by an external pump through a surgically implanted intravenous catheter. Flolan is approved for the treatment of patients with certain subsets of late-stage PAH. We believe Remodulin provides patients with a less invasive alternative to Flolan. In contrast to Flolan, Remodulin is stable at room temperature and lasts significantly longer inside the human body. These attributes allow for safer and more convenient delivery of Remodulin to patients. Unlike Flolan, Remodulin can be delivered by subcutaneous infusion with a pager-sized microinfusion device. Subcutaneous delivery of Remodulin also eliminates the risk of central venous catheter infection and related hospitalization associated with an IV infusion. Remodulin's extended presence in the body may also reduce the risk of rebound PAH, and possibly death, if treatment is abruptly interrupted. The stability of Remodulin also allows it to be packaged as an aqueous solution, eliminating the need for patients to mix the drug one or more times each day, as is required with Flolan. Treprostinil, the active ingredient of Remodulin, is highly soluble in an aqueous solution and therefore Remodulin can be manufactured at highly concentrated solutions. This allows therapeutic concentrations of Remodulin to be delivered at low flow rates via miniaturized infusion pumps for both subcutaneous and intravenous infusion. Lastly, Remodulin does not require the patient to continuously keep the drug cool even during infusion. This eliminates the need for cooling packs or refrigeration to keep it stable, as is required with Flolan due to Flolan's chemical instability at room temperature.

There are noteworthy adverse events associated with Remodulin infusion. When infused subcutaneously, Remodulin causes infusion site pain and reaction in most patients to varying degrees. Patients who cannot tolerate subcutaneous Remodulin may instead use it intravenously. Intravenous Remodulin is delivered continuously by an external pump through a surgically implanted central venous catheter, similar to Flolan. When delivered intravenously, Remodulin bears the risk of a bloodstream infection known as sepsis, as does Flolan, but it does not require cooling packs or refrigeration and can be continuously infused for up to 48 hours before refilling the infusion pump, unlike Flolan which must be mixed and refilled every 24 hours.

FDA Review of Subcutaneous Remodulin

In March 2000, we completed an international, randomized, placebo-controlled, double-blind study of subcutaneous Remodulin involving a total of 470 patients with PAH. Half of the patients received Remodulin subcutaneously for 12 weeks, while the other half received a placebo. The study data showed that patients who received Remodulin had significant improvement in important clinical endpoints, including a composite index that measured exercise capacity and shortness of breath, cardiopulmonary hemodynamics and in the signs and symptoms of the disease. Based on the favorable results of this study, we filed a New Drug Application with the FDA in late 2000. In May 2002, the FDA approved Remodulin, under Subpart H regulations, as a continuous subcutaneous infusion for the treatment of PAH in patients with NYHA class II-IV symptoms (with class IV representing the most

severely ill patients) to diminish symptoms associated with exercise. Remodulin may be prescribed for all types of PAH and is the only PAH treatment approved for NYHA class II, III and IV patients.

FDA Review of Intravenous Remodulin

In July 2003, the FDA accepted our Investigational New Drug Application for the development of Remodulin by intravenous delivery for the treatment of PAH. A bioequivalence study in volunteers was performed in late 2003, which established that intravenous and subcutaneous Remodulin are bioequivalent (meaning that both routes of infusion result in comparable levels of Remodulin in the blood). In addition, animal toxicology studies were completed and indicated that there were no additional safety concerns associated with chronic intravenous infusion.

On January 30, 2004, a supplemental New Drug Application was filed with the FDA to request approval for intravenous use of Remodulin for PAH. On November 24, 2004, based on data establishing intravenous Remodulin's bioequivalence with the previously approved subcutaneous administration of Remodulin, the FDA approved the intravenous use of Remodulin for those not able to tolerate subcutaneous infusion.

Results in a prospective open-label study reported in January 2007 demonstrate that rapid transition from intravenous Flolan to intravenous Remodulin was achieved in 12 PAH patients with no serious adverse events and baseline clinical status was maintained over 12 weeks. The patients were transitioned from Flolan to intravenous Remodulin by a direct switch from a Flolan medication cassette to a Remodulin medication cassette. Rapid transition to Remodulin was achieved without serious adverse events. All patients reported fewer prostacyclin-related side effects with Remodulin and remained on Remodulin after study completion. The study demonstrated that stable patients with PAH can be safely transitioned from Flolan to intravenous Remodulin using a rapid switch protocol.

Although intravenous Remodulin does not possess all the safety and convenience benefits of subcutaneous Remodulin, it has one important advantage: it eliminates infusion site pain and reaction, a common side effect of subcutaneous Remodulin. Many patients are unsuccessful in managing such infusion site pain even when using available pain management techniques. Intravenous Remodulin has many beneficial characteristics that differentiate it from intravenous Flolan. As intravenous Remodulin does not require refrigeration, it serves as an alternative to Flolan which must be continuously refrigerated, even while being administered to a patient by continuous infusion. Furthermore, Remodulin remains active for a few hours, whereas Flolan is highly unstable and only remains active in the body for a few minutes. Because Remodulin remains active longer, it may reduce the risk of rebound PAH, a severe recurrence of the disease in the case of inadvertent therapy interruption. Intravenous Remodulin can be infused continuously for up to 48 hours while Flolan can only be infused for 24 hours. This allows patients to mix medication solutions every other day as opposed to daily. Also, because Remodulin can be made in highly concentrated solutions, a wide variety of pump options, including miniaturized pumps, is available to patients.

In February 2007, the Scientific Leadership Committee (SLC) of the Pulmonary Hypertension Association announced new guidance related to the treatment of PAH patients on long-term intravenous therapy. The SLC guidance was issued in response to the release of a slide presentation prepared by researchers with the U.S. Centers for Disease Control and Prevention (CDC) entitled " *Bloodstream infections among patients treated with intravenous epoprostenol and intravenous treprostinil for pulmonary arterial hypertension, United States 2004—2006* ". These slides accompanied a presentation to the SLC and were subsequently published in the March 2, 2007, issue of the CDC's *Morbidity and Mortality Weekly Report* . The slides and report were prepared in connection with a CDC retrospective inquiry at seven centers into a report of increased blood stream infections (sepsis), particularly gram-negative blood stream infections, among PAH patients treated with intravenous Remodulin as compared to intravenous Flolan. The SLC guidance statement noted that the CDC observations were

hypothesis-generating and did not permit definitive or specific conclusions. The SLC reminded physicians of the need to be aware of the range of possible gram negative and gram positive infectious organisms in patients with long-term central catheters and to treat them appropriately. The risk of sepsis is already noted in the Remodulin package insert. In February 2008, the FDA revised the Remodulin package insert to more fully describe the associated infection risk and appropriate techniques to be practiced when preparing and administering Remodulin intravenously.

International Regulatory Review of Subcutaneous and Intravenous Remodulin

Remodulin for subcutaneous use is approved in countries throughout the world. We used the mutual recognition process to obtain approval of subcutaneous Remodulin from European Union member countries. The mutual recognition process is described in detail in the section entitled *Government Regulation* below. The mutual recognition process for subcutaneous Remodulin was completed in August 2005, with positive decisions received from most European Union countries. We withdrew our applications in Ireland, Spain and the United Kingdom following a request for additional documentation from these countries. We anticipate resubmitting these applications following intravenous Remodulin approval in Europe. Licenses and pricing approvals have been received in most European Union countries. In addition, we have submitted a variation of the license for approval of intravenous Remodulin in the European Union through the mutual recognition process, as we are required to follow the same approval process used for the approval of subcutaneous Remodulin. The license variation for intravenous Remodulin is currently under review by the host nation, France, which has notified us that it is not satisfied with the filing we have made. We will work to address these concerns and believe that we will eventually receive commercial approval for intravenous Remodulin in at least some European countries. In the meantime, we will continue to sell (but not market) Remodulin in European Union countries where we are not approved under the named-patient system, which allows us to import Remodulin into European Union countries for sale to hospitals for use in treating specifically identified patients.

Sales and Marketing

Our marketing strategy for Remodulin relies upon our dedicated sales and marketing team to educate the prescriber community and to reach patients suffering from PAH. The sales and marketing team consisted of approximately 65 employees as of December 31, 2007, up from approximately 20 employees as of December 31, 2006, with further growth expected in 2008. Our marketing team is divided into two approximately equal groups. The first group is primarily responsible for national and large regional medical practice accounts currently prescribing Remodulin. The second group is primarily responsible for the smaller, local, community-oriented medical practices not currently prescribing Remodulin. Additionally, we rely on specialty pharmacy distributors to handle physician and patient requests for Remodulin on a non-exclusive basis in the United States. For additional information, see the section entitled *Domestic Distribution Agreements* below. These specialty distributors are experienced in all aspects of chronic therapies, including patient care, the sale and distribution of medicines and reimbursement from insurance companies and other payers. Outside of the United States, we have entered into exclusive distributor agreements covering most of Europe, South America, parts of Asia and Israel. Sales in Canada are currently conducted under the management of our wholly-owned subsidiary, Unither Biotech Inc., through a national specialty pharmaceutical wholesaler. We are working with our current distributors to expand Remodulin sales into other countries in which they have distribution rights.

Domestic Distribution of Remodulin

To provide for marketing, promotion and distribution of subcutaneous and intravenous Remodulin in the United States, we entered into non-exclusive distribution agreements with CuraScript, Inc. (a

wholly-owned subsidiary of Express Scripts, Inc., formerly Priority Healthcare Corporation), Accredo Therapeutics, Inc. (a wholly-owned subsidiary of Medco Health Solutions, Inc.), and Caremark, Inc. (a wholly-owned subsidiary of CVS Corporation). Effective January 1, 2007, Accredo also became the exclusive U.S. distributor for Flolan. Our distributors are responsible for assisting patients with obtaining reimbursement for the cost of Remodulin therapy and providing other support services. Under our distribution agreements, we sell Remodulin to our distributors at a discount from an average wholesale price recommended by us. These agreements provide for automatic renewal for additional two-year periods, in the case of CuraScript, and one-year periods in the case of Accredo and Caremark, unless either party to the agreements provides notice of termination. Due to changes in the regulatory environment, i.e., changes in the regulatory requirements, from time to time we update the contracts with our distributors. None of the changes have had or are expected to have a significant impact on our operations or relationships with these distributors, as these changes tend to be in the ordinary course of business. In addition, none of our current agreements contain the distribution rights for inhaled or oral treprostinil in the United States. If these distributor agreements expire or terminate, we may, under certain circumstances, be required to repurchase unsold Remodulin inventory held by the distributors. We have also established a patient assistance program in the United States, which provides qualified uninsured or underinsured patients with Remodulin at no charge.

International Distribution of Remodulin

We currently sell Remodulin to six distributors who have distribution rights for subcutaneous and intravenous Remodulin in European Union countries, other non-European Union countries, South America, and Israel. In the European markets where we are not licensed, we sell (but do not market) Remodulin under the named-patient system in which patients typically are approved for therapy on a case by case review by a national medical review board. We are working on expanding our sales of subcutaneous and intravenous Remodulin into new territories outside of the United States through our existing distributors and new distributors. In March 2007, we entered into a distributor agreement with Mochida Pharmaceutical Co., Ltd. (Mochida) to exclusively distribute subcutaneous and intravenous Remodulin in Japan. In addition, Grupo Ferrer Internacional, S.A. (Grupo Ferrer) has been actively working toward commencing commercial sales of Remodulin in Taiwan and South Korea, territories to which Grupo Ferrer was granted distribution rights. However, certain countries, like Japan, may require that new clinical trials, called bridging trials, be conducted in order to show the efficacy and safety of a drug in their patient population. Commercial sales in such countries could therefore be several years from realization.

Inhaled Treprostinil

We are working to develop an inhaled formulation of treprostinil for the treatment of PAH. During 2004 and 2005, independent clinical investigators in Europe and the United States performed small uncontrolled trials of inhaled formulations of treprostinil in patients with PAH. In April 2004, the European Medicines Agency granted orphan designation for inhaled treprostinil for the treatment of both PAH and chronic thromboembolic pulmonary hypertension. If inhaled treprostinil is approved by the FDA for the treatment of PAH, it will most likely be covered in the United States under the remaining orphan drug exclusivity applicable to Remodulin. This period of orphan drug exclusivity expires on May 21, 2009. If we obtain a separate orphan drug designation for inhaled treprostinil for the treatment of PAH and we demonstrate that inhaled treprostinil is clinically superior to Remodulin, then we may obtain a seven-year period of orphan drug exclusivity for inhaled treprostinil that will begin upon the approval of our New Drug Application.

In June 2005, our wholly-owned subsidiary, Lung Rx, Inc., commenced a 12-week, randomized, double-blind, placebo-controlled Phase III trial of inhaled treprostinil in patients with PAH who are also being treated and were optimized with Tracleer®, an oral endothelin antagonist marketed by Actelion Ltd. During the 12-week trial, patients were administered inhaled treprostinil or placebo in four daily inhalation sessions with a maximum dose of approximately 45 micrograms per session. The primary endpoint of the trial was the peak six minute walk (6MW) distance improvement test, which is a typical benchmark test of cardiovascular health. This trial, TRIUMPH-1 (**TR** eprostinil Sodium **I** nhalation **U** sed in the **M** anagement of **P** ulmonary Arterial **H** ypertension), was conducted at approximately 36 centers in the United States and Europe. In May 2006, the FDA agreed to also permit the inclusion in the trial of PAH patients who were also being treated with and optimized on Revatio®, an oral PDE-5 inhibitor marketed by Pfizer, Inc. The FDA also agreed to expand the trial size to at least 200 patients, and to permit an interim efficacy assessment after 150 patients had completed the trial. We did not conduct the interim efficacy assessment.

In November 2007, we announced the completion of our TRIUMPH-1 trial. The study population consisted of 235 patients. The majority of patients were classified as New York Heart Association (NYHA) Class III (98%). Patients in the trial were affected by PAH of varied etiologies, including idiopathic or familial PAH (~55%), collagen vascular disease associated PAH (~35%), and PAH associated with HIV, anorexigens (appetite suppressants) or other associated conditions (~10%). Mean baseline walk distance was approximately 350 meters.

The primary efficacy endpoint of the trial was the 6MW distance at 12 weeks measured at peak exposure, defined by the trial protocol as 10-60 minutes after inhalation of treprostinil, relative to baseline. Preliminary analysis of the TRIUMPH-1 results demonstrated an improvement in median 6MW distance by approximately 20 meters ($p<0.0006$, using the Hodges-Lehmann estimate and non-parametric analysis of covariance in accordance with the trial's pre-specified statistical analysis plan), in patients receiving treprostinil as compared to patients receiving placebo.

At trough exposure, which was defined by the trial protocol as a minimum of four hours after inhalation of treprostinil, the treatment-related change in 6MW distance at week 12 relative to baseline was also significantly improved, with an increase in median 6MW distance of approximately 14 meters ($p<0.01$). Additionally, the 6MW distance at week 6 relative to baseline was significantly improved, with an increase in median 6MW distance of approximately 18 meters ($p<0.0005$).

Preliminary analysis of other secondary endpoints, including change in Borg Dyspnea Scale rating (shortness of breath test), NYHA functional class, time to clinical worsening (as defined by death, transplant, the need for atrial septostomy (surgical opening of the septum), hospitalization due to PAH, or initiation of another approved PAH therapy), and the 6MW distance at treatment day one, did not differ significantly between the inhaled treprostinil and placebo groups ($p>0.05$). Analysis of two remaining secondary endpoints, quality of life and signs and symptoms of disease (composite measure), is ongoing.

Inhaled treprostinil was generally well-tolerated in the trial and adverse events appeared to be similar to those previously reported for treprostinil or due to administration by inhalation. The most common adverse events seen in the trial were transient cough, headache, nausea, dizziness and flushing. Detailed analysis of the reported adverse events is ongoing. All patients in the trial had the option to continue receiving inhaled treprostinil in an open-label continuation study after completion of the 12-week study period. Of the 212 patients who completed the 12-week study period, approximately 200 patients entered the open-label continuation study. Approximately 160 patients are currently being treated with inhaled treprostinil, with the longest duration of treatment exceeding two years. Further review and analysis of the TRIUMPH-1 results are ongoing. Full data from TRIUMPH-1 is expected to be presented at the American Thoracic Society meeting in May 2008 and is also expected to be available through the publication of peer-reviewed journal articles.

FDA approval for inhaled treprostinil will be sought by filing a New Drug Application (NDA). The Optineb® inhalation device will also be submitted for approval as part of this filing. Optineb is the ultra-sonic nebulizer that was used for administration of inhaled treprostinil in the TRIUMPH-1 trial. Optineb is manufactured by NEBU-TEC International Med Products Eike Kern GmbH. (NEBU-TEC), a German company. Optineb is approved in Germany and in other European countries, but is not yet approved in the United States.

This is the first time we have submitted an inhalation device for FDA approval. Since we do not manufacture the Optineb device, we rely on NEBU-TEC for certain design, mechanical, operational and study information needed for the filing. We are actively working with NEBU-TEC to obtain information necessary to complete the application. We expect to file the NDA and the application for approval of the Optineb device by mid-2008. FDA review of the NDA generally takes 10 months. We plan on filing for approval in the European Union using the centralized filing process by the end of 2008. See the section entitled *Government Regulation* below for further details.

Currently, the only FDA approved inhaled prostacyclin analog is Ventavis®. Ventavis is marketed by Actelion Ltd in the United States and by Schering AG in Europe. Ventavis' active ingredient, iloprost, has a half-life of approximately 20 to 30 minutes and lacks selectivity to the lungs. The lack of lung selectivity can cause a drop in a patient's blood pressure if the drug is dosed too high. As a result, Ventavis is generally administered six to nine times per day using a nebulizer. Each session on the nebulizer requires continuous inhalation of the drug for 4 to 10 minutes. Due to the longer half-life of treprostinil and its greater selectivity to the lungs, treprostinil can be inhaled with a nebulizer for about one minute, taking six to nine breaths per session, four times a day.

The inhalation device market is ever-changing, with smaller devices being developed concurrently with the discovery of new technologies. We are interested in new technologies that would enable a more efficient and convenient means of administering inhaled treprostinil to patients. For this reason, in August 2007, our wholly-owned subsidiary, Lung Rx Inc., entered into an exclusive license, development and commercialization agreement with Aradigm Corporation (Aradigm) for the rights to manufacture, develop and commercialize its AERx Essence® device, a pulmonary drug delivery system, for use as a next-generation metered-dose inhaler with inhaled treprostinil.

UT-15C Sustained Release (Oral Treprostinil)

We are developing an oral formulation of treprostinil, treprostinil diethanolamine, which is a novel salt form of treprostinil. During 2004, we completed studies of various formulations of treprostinil diethanolamine in healthy volunteers. Based on these studies, a formulation was selected that uses technology licensed from Supernus Pharmaceuticals, Inc. (Supernus), to provide for sustained release of treprostinil in tablets. The coating technology, which is resistant to being broken down by the body's digestive system, allows for treprostinil to be released into the body through an extremely small hole that is laser-drilled into the coating of each tablet. This technology releases the treprostinil at a relatively even rate over a controllable period of time. In 2005, a Phase I study of normal volunteers demonstrated that the formulation and coating provided sustained blood concentrations of treprostinil for 8 to 10 hours following a single oral dose. This duration may allow for twice daily dosing. In July 2005, the European Medicines Agency announced that oral treprostinil had been granted orphan product status in the European Union. If we obtain a separate orphan drug designation for oral treprostinil for the treatment of PAH and we demonstrate that oral treprostinil is clinically superior to Remodulin, then we may obtain a seven-year period of orphan drug exclusivity for oral treprostinil that will begin upon the approval of our New Drug Application. Drugs with orphan status generally receive accelerated review of approval applications and may receive longer periods of protection against competition from generic drugs.

Two multi-national, placebo-controlled clinical trials of oral treprostinil in patients with PAH commenced in October 2006. These are Phase III trials in which both dosing and efficacy are being studied. The FREEDOM-C trial is a 16-week study of up to 300 patients currently on approved background therapy using a PDE5 inhibitor, such as Revatio, or an endothelin antagonist, such as Tracleer, or a combination of both, with a possible interim assessment at 150 patients. The FREEDOM-M trial is a 12-week study of up to 150 patients, who are not on any background therapy, with a possible interim assessment at 90 patients. We do not expect to conduct the interim efficacy assessment available in either trial. Both trials are being conducted at approximately 60 centers throughout the United States and the rest of the world. During these trials, patients are administered oral treprostinil or placebo twice a day. The dosage begins at 1 mg twice daily for both trials, the maximum dose is set at 16 mg twice daily for the FREEDOM-C trial and 12 mg twice daily for the FREEDOM-M trial, based on symptomatic benefit and tolerability. The primary endpoint of the trial is the 6MW test in which the distance a patient walks in six minutes on a treadmill is measured at the start of the trial and at additional pre-specified points in time during the trial in order to detect any improvement in the distance the patient is able to walk over the course of the trial.

We commenced the trials using a 1 mg tablet, but during the open-label extension trial discovered that the absorption rate of treprostinil was higher in diseased patients than in healthy individuals. The difference in absorption rate led to a number of discontinuations from the trials due to patients suffering from tolerability-related side effects, including nausea, jaw-pain and headaches as the dose was increased. As a result, we introduced a 0.5 mg tablet in July 2007 to enable more gradual dose titration (increase). A 0.25 mg tablet is also being manufactured for use in the trials and will be available once all appropriate quality and release testing has been completed. We are also developing a 0.125 mg tablet and a 2.5 mg tablet. Since the introduction of the 0.5 mg tablet, discontinuations have greatly diminished. As of December 31, 2007, there were approximately 200 and 90 patients enrolled in the FREEDOM-C and FREEDOM-M trials, respectively. As of February 18, 2008, there were approximately 240 and 100 patients enrolled in the FREEDOM-C and FREEDOM-M trials, respectively.

There are currently no approved oral prostacyclin therapies available to patients in the United States or Europe. If we are successful in developing oral treprostinil, patients and physicians may be encouraged to use prostacyclin earlier in the PAH disease cycle and in the treatment of other diseases.

Beraprost-MR

In June 2000, we entered into an agreement with Toray Industries, Inc. (Toray), for the exclusive right to develop and market beraprost, an oral prostacyclin, in a sustained release formulation (beraprost-SR) in the United States and Canada for the treatment of cardiovascular indications. Beraprost is a chemically stable orally bioavailable prostacyclin analog. Like natural prostacyclin and Remodulin, beraprost is believed to dilate blood vessels, prevent platelet aggregation and prevent proliferation of smooth muscle cells surrounding blood vessels.

In March 2007, Lung Rx, Inc. (Lung Rx), entered into an amended agreement with Toray to assume and amend the rights and obligations of the June 2000 agreement entered into between Toray and us concerning the commercialization of a modified release formulation of beraprost (beraprost-MR). The amended agreement grants us additional exclusive rights to commercialize beraprost-MR in Europe and broadens the indication to vascular disease (excluding renal disease), among other revisions. An earlier clinical trial which examined an immediate release form of beraprost as monotherapy in PAH had demonstrated 6MW distance improvement at 12 weeks but not at 36 weeks. However, because a number of patients did respond positively to the drug, we feel that the development of beraprost-MR as combination therapy presents a promising clinical opportunity. Since individual PAH patients may respond to the same class of molecules in different ways, we believe that the development of other molecules within the same family is desirable. In addition, we are in the early

stages of exploring the use of beraprost-MR for the treatment of other cardiovascular and cardiopulmonary conditions.

On October 19, 2007, Toray announced that beraprost-MR received regulatory approval in Japan for use in the treatment of PAH.

Products to Treat Peripheral Vascular Disease/Critical Limb Ischemia

UT-15C Sustained Release (Oral Treprostinil)

We are also developing oral treprostinil for late-stage peripheral vascular disease known as critical limb ischemia. Peripheral vascular disease affects the blood vessels in the legs. While the precise causes of peripheral vascular disease are unknown, diabetes, obesity, smoking and lack of exercise are associated with the disease. Peripheral vascular disease appears to be similar to PAH in that there is a reduction in natural prostacyclin in the affected blood vessels.

In the United States, it is estimated that 750,000 people suffer from critical limb ischemia. The disease is characterized by extreme pain, non-healing ulcers in the legs, reduced exercise capacity and severely reduced blood flow in the limbs. There are currently no drugs approved to treat critical limb ischemia in the United States. Physicians often perform surgical interventions (such as balloon angioplasty, stents and by-passes) to restore or improve blood flow in the limbs. These procedures can provide temporary relief to patients, but do not address the underlying causes of peripheral vascular disease. Due to the lack of adequate pharmaceutical treatments, approximately 200,000 limb amputations are performed each year on patients with critical limb ischemia.

In September 1998, we completed a Phase II study assessing the safety and blood flow effects of intravenous Remodulin on patients with critical limb ischemia. The study demonstrated that Remodulin can be administered safely to patients with critical limb ischemia and that Remodulin substantially increases blood flow in the affected areas of the legs. We commenced a 30 patient placebo-controlled, pre-pivotal clinical study of Remodulin for critical limb ischemia in 2002. Approximately 19 patients were enrolled. The study ended before becoming fully enrolled due to difficulties in patient recruitment. We believe that more convenient formulations of treprostinil, such as the oral form, may be more appropriate for patients with peripheral vascular disease. Accordingly, we have commenced safety and tolerability studies with oral treprostinil in patients with critical limb ischemia.

Products to Treat other Medical Conditions

We are currently studying the use of intravenous Remodulin in connection with liver transplants. Independent studies indicate that patients who received prostacyclin after a liver transplant tended to have a lower rate of tissue rejection and increased liver function which resulted in shorter hospital stays and improved transplant outcomes. We are currently conducting a Phase III study to demonstrate the safety and efficacy of intravenous Remodulin when administered during and after liver transplant.

Products to Treat Infectious Diseases—Glycobiology Antiviral Agents

In March 2000, we entered into a license agreement with Synergy Pharmaceuticals, Inc. (Synergy), to obtain the exclusive worldwide rights to certain patents relating to novel antiviral compounds. Synergy was working with the Glycobiology Department at the University of Oxford to develop these compounds. In 2003, by mutual consent, we terminated our licensing agreement with Synergy. We are now working directly with Oxford University on the development of new compounds. These glycobiology antiviral agents are small molecules which may be effective as oral therapies for the treatment of hepatitis B and C infections, as well as dengue fever, Japanese encephalitis and other infectious diseases. Currently, many of these agents are undergoing laboratory testing, and new agents are also being synthesized.

We are in the planning stages of conducting a Phase II clinical trial with miglustat, a glycobiology compound which inhibits alpha-glucosidase enzymes, to initially evaluate efficacy in patients with hepatitis C. Miglustat is approved and is currently marketed in the United States and Europe by Actelion Ltd for the treatment of Gaucher's disease, a glycolipid storage disorder. Patent protection for manufacturing the compound has expired. As a result of our research agreement with the University of Oxford, we have the exclusive right to commercialize miglustat as an anti-viral agent for the treatment of hepatitis C.

Products to Treat Cancer

OvaRex

In April 2002, we entered into an agreement with AltaRex Corp. (which later became AltaRex Medical Corp., a wholly-owned subsidiary of ViRexx Medical Corp.) (AltaRex) to exclusively license certain rights to a platform of five investigational immunotherapeutic monoclonal antibodies, including OvaRex, BrevaRex, OncoRex, ProstaRex and GivaRex. These products were being developed by AltaRex to treat various forms of cancer, including ovarian, prostate, lung, breast, multiple myeloma and gastrointestinal cancers. The lead product, OvaRex® MAb for the treatment of advanced ovarian cancer, had completed Phase II studies.

Ovarian cancer is the deadliest form of women's reproductive cancer and is the fifth leading cause of cancer death among women in the United States. Over 25,000 cases of ovarian cancer are diagnosed in the United States every year, with over 16,000 women dying of the disease annually.

In December 2007, we announced the completion of our two pivotal trials of OvaRex. Analysis of the results demonstrated that the studies failed to reach statistical significance.

The identical studies, known as IMPACT I and II (**IM** munotherapy **P** ivotal ov **A** rian **C** ancer **T** rial), were randomized, double-blind, placebo-controlled trials conducted at over 60 centers across the United States. The studies enrolled 367 ovarian cancer patients and assessed the efficacy of OvaRex mono-immunotherapy during the so-called "watchful waiting" period following front-line carboplatin-paclitaxel based chemotherapy. The program sought to confirm data observed in a subset analysis of a prior randomized Phase II study, which suggested the potential of OvaRex to extend the time to disease relapse among patients who had successfully completed front-line therapy. The studies were well balanced in terms of patient demographics and the safety profile and quality of life were similar between active and control populations. The studies demonstrated no difference between active (standard of care followed by OvaRex) and control (standard of care followed by placebo) populations. The results of IMPACT I and II were consistent with each other.

The full data from the IMPACT I and II trials is expected to be presented at an upcoming medical meeting and published in a peer-reviewed journal.

Based on the results from the IMPACT I and II trials, we decided to terminate our license agreement with AltaRex and to cease further development of the entire platform of antibodies licensed thereunder. We expect to incur approximately $1.1 million in total close-out costs for this program, of which we had incurred approximately $533,000 as of December 31, 2007.

3F8 and 8H9 Antibodies

In December 2007, we entered into two agreements with Memorial Sloan-Kettering Cancer Center (MSKCC) to exclusively license certain rights to two investigational monoclonal antibodies, 3F8 and 8H9, for the treatment of neuroblastoma and metastatic brain cancer. The monoclonal antibody 3F8 is a mouse IgG3 MAb, which is currently used in an investigational setting for the treatment of neuroblastoma, a rare cancer of the sympathetic nervous system mainly affecting children. It is the most common extracranial solid cancer in children and the most common cancer in infants. More than

400 patients have been treated with the 3F8 antibody since 1986 under investigator-initiated Investigational New Drug applications. There are fewer than 1,000 new cases of neuroblastoma diagnosed each year.

The monoclonal antibody 8H9 is an IgG1 antibody that is also a mouse antibody. The 8H9 antibody is highly reactive with a range of human solid tumors, including human brain cancers. The 8H9 antibody is in early investigational development for metastases which develop in the brain from the spread of cancers from other tissues in the body. Metastatic brain cancers are ten times more common than cancers that originate in the brain, and prognosis is very poor. In the United States, more than 100,000 cases of metastatic brain cancer are diagnosed each year.

Products to Provide Telemedicine Services for Cardiac Arrhythmias and Ischemic Heart Disease

CardioPAL and Decipher Recorders

We provide telemedicine services to detect cardiac arrhythmias and ischemic heart disease through our wholly-owned subsidiary Medicomp, Inc. (Medicomp), which we acquired in December 2000. Cardiac arrhythmias and ischemic heart disease affect an estimated 20 million Americans, and possibly ten times that number worldwide. If left undetected and untreated, these conditions can result in heart attacks and death. Medicomp provides cardiac Holter monitoring (a 24-hour continuous test of heart rhythms), event monitoring (a test that typically extends to 30 days and looks for more elusive, intermittent arrhythmias), analysis, and pacemaker monitoring remotely via telephone and the Internet for hospitals, clinicians and other providers. Medicomp's services are delivered through its proprietary, miniaturized, digital Decipher Holter recorder/analyzer and its CardioPAL family of event monitors. In March 2005, Medicomp received FDA market clearance for a patent pending p-wave analysis adjunct to its artificial intelligence algorithm that runs on all of its newly manufactured CardioPAL devices. The p-wave is a diminutive but important portion of the electrocardiograph that helps determine if an arrhythmia was generated from the top chambers of the heart, the atria, or from the bottom chambers of the heart, the ventricles. This level of analysis leads to more reliable, automatic detection of arrhythmias, like atrial fibrillation.

Holter, event and pacemaker services and systems are marketed to physicians, hospitals, and managed care providers directly by Medicomp's internal sales force. Revenues of approximately $7.7 million, $6.6 million and $5.8 million from the sales of telemedicine products and services were earned in 2007, 2006 and 2005, respectively.

Arginine Products for Vascular Function

In December 2000, we expanded our cardiovascular focus when we acquired the assets and certain liabilities of Cooke Pharma, Inc., the exclusive maker of the HeartBar® line of arginine-enriched products, which operated as Unither Pharma, Inc. (Unither Pharma), our wholly-owned subsidiary. Arginine is required by the body to produce nitric oxide. Unither Pharma is the exclusive licensee of patents entitling it to claim that arginine is critical for maintaining vascular function and certain other natural functions.

The HeartBar and a related line of products were marketed directly to consumers by us, by independent distributors and through the Internet. In January 2006, we discontinued sales of the HeartBar line of products, after evaluating recent clinical trial results and market potential, among other factors.

In November 2006, we settled litigation with three companies that we believed were infringing our arginine patents. We received a settlement payment and will receive additional royalties from sales of products containing arginine from one of the parties.

In September 2007, we discontinued all sales of our arginine products and we reevaluated our assumptions used in determining the value of our arginine patents, based on a then recent publication discounting the benefits of arginine supplementation and a June 2007 Supreme Court decision concerning the enforceability of patents. This decision has no effect on our current licenses with companies selling arginine products.

Approximately $123,000, $100,000 and $293,000 of revenues were earned from the sales and royalties of arginine related products in 2007, 2006 and 2005, respectively.

Strategic Licenses and Relationships

Northern Therapeutics, Inc.

In December 2000, we formed a new company in Canada, Northern Therapeutics, Inc. (Northern), in conjunction with the inventor of a new form of autologous (meaning gene transfer using materials derived from a patient's own body and not from foreign materials such as viruses) gene therapy for the treatment of PAH and other diseases. Northern is currently conducting a Phase I gene therapy trial in Canada and, until February 2006, was distributing Remodulin in Canada.

In October 2006, Northern agreed to grant us an exclusive license to develop and commercialize the autologous gene therapy in the United States for PAH. We are required under this license to make incremental milestone payments depending on patient enrollment to Northern totaling $1.5 million if the planned 18 patient Phase I trial is successfully enrolled. For the twelve months ended December 31, 2007 and 2006, we incurred approximately $150,000 and $500,000, respectively, in expense to Northern. If the Phase I trial is successfully completed, we will assume the development program and related costs for the United States market. Northern will receive royalty payments following commercialization. As part of this agreement, we terminated the Remodulin distribution agreement with Northern for Canada. We are distributing Remodulin directly in Canada under the management of our Canadian wholly-owned subsidiary, Unither Biotech Inc.

Due to our $5.0 million investment, we currently own approximately 68% of Northern, but only 49% of the voting stock. Although we own approximately 68% of Northern, minority shareholders possess substantive participating rights as defined under EITF Issue No. 96-16, *Investors Accounting for an Investee when the Investor Has a Majority of the Voting Interest but the Minority Shareholders or Shareholders Have Certain Approval or Veto Rights* , that preclude us from controlling Northern and consolidating the company's financial statements with our own.

NEBU-TEC Supply Agreement

In June 2004 and September 2006, we entered into Clinical and Commercial Supply Agreements with NEBU-TEC to provide for the availability of Optineb nebulizer devices and related supplies for use in our TRIUMPH-1 clinical trial of inhaled treprostinil and for commercial use following regulatory approval. The non-exclusive agreements provide for NEBU-TEC to sell us Optineb devices and supplies at specified prices and payment terms for clinical and commercial use. The agreements also specified the obligations that each party has with respect to regulatory approvals. In February 2008, we entered into an amendment to the September 2006 Clinical and Commercial Supply Agreement under which the term of the agreement was extended to the first anniversary of the first to occur of United States or European Union approval of inhaled treprostinil. We also agreed to an advance order of Optineb devices and related supplies following satisfactory completion of a testing program in support of our NDA filing. The amendment also clarified certain regulatory obligations of the parties and provided NEBU-TEC with the first opportunity to sell devices in Europe for so long as NEBU-TEC was able to meet market demand.

The Medtronic MiniMed Strategic Alliance

Medtronic MiniMed partnered with us for the use of its pager-sized continuous microinfusion pump for delivery of Remodulin subcutaneously. We entered into an agreement with MiniMed, Inc. (now Medtronic MiniMed), in September 1997, which was implemented in a detailed set of guidelines to collaborate in the design, development and implementation of therapies to treat PAH utilizing MiniMed products and Remodulin. The guidelines required us to purchase infusion pumps exclusively from MiniMed at a discount to MiniMed list prices. The agreement commenced on September 1997, and was to continue for seven years after the May 2002 FDA approval of Remodulin. MiniMed advised us in May 2006 that it intended to discontinue manufacturing infusion pumps for subcutaneous delivery of Remodulin after first giving us and our distributors the opportunity to purchase desired quantities. In November 2006, we mutually entered into a termination agreement with MiniMed. Our distributors are purchasing pumps from other vendors and associated supplies from either MiniMed or directly from other vendors. Approximately $56,000, $457,000 and $397,000 of revenues were earned from the resale of MiniMed pumps and supplies in 2007, 2006 and 2005, respectively.

Aradigm Licensing Agreement

In August 2007, Lung Rx entered into an exclusive license, development and commercialization agreement with Aradigm Corporation (Aradigm) for the rights to manufacture, develop and commercialize its AERx Essence device, a pulmonary drug delivery system, for use as a next-generation metered-dose inhaler with our investigational inhaled treprostinil product in patients with PAH and other conditions. Under the terms of the agreement, we made an upfront payment of $440,000 to Aradigm and paid an additional $440,000 in January 2008. Aradigm will initiate, and is responsible for conducting and funding, a study that includes a bridging clinical trial comparing the AERx Essence technology to the Optineb nebulizer used in the TRIUMPH-1 trial. If the study is successful we will fund the costs to develop, commercialize and manufacture inhaled treprostinil for use with AERx Essence.

If the study is successful, we will purchase approximately $3.5 million of Aradigm's common stock and pay it a $650,000 licensing fee. Aradigm will receive three milestone payments over the course of the development period. The milestone payments will be made upon the first to occur of a specified event or the successive anniversaries of the effective date of our agreement with Aradigm, August 30, 2007. The first milestone payment of $2.0 million is due no later than August 30, 2008. The second and third milestone payments are due no later than each successive anniversary date and increase by $1.0 million each year. The agreement allows for the extension of these payment deadlines by the amount of time equal to the duration of any delay caused by a regulatory agency. In addition, we agreed to pay Aradigm royalty fees on a sliding scale based on net sales of the AERx Essence device.

Toray Amended License Agreement

In June 2000, we obtained from Toray Industries, Inc. (Toray) the exclusive right to develop and market beraprost, a chemically stable oral prostacyclin analog, in a sustained release formulation (beraprost-SR) in the United States and Canada for the treatment of cardiovascular indications. In March 2007, Lung Rx entered into an amended agreement with Toray to assume and amend the rights and obligations of the June 2000 agreement entered into between Toray and us in June 2000 concerning the commercialization of modified release formulations of beraprost (beraprost-MR). The amended agreement grants us additional exclusive rights to commercialize beraprost-MR in Europe and broadens the indication to vascular disease (excluding renal disease), among other revisions.

In accordance with the terms of the amended agreement, in March 2007 we issued 200,000 shares of our common stock to Toray in exchange for the cancellation of Toray's existing right to receive an option grant to purchase 500,000 shares of our common stock (the Option Grant). Under the June

2000 Agreement, Toray's right to receive the Option Grant was conditioned upon Toray's delivery to us of adequate documentation regarding the use of beraprost-SR in humans and its transfer of clinical trial material to us, neither of which had occurred as of the effective date of the amended agreement. Had the Option Grant been made, the exercise price of the options would have been set at the average closing price of our common stock for the period one month prior to the delivery date. Under the terms of the amended agreement, Toray has the right to request that we repurchase the newly issued 200,000 shares of our common stock upon 30 days prior written notice at the price of $54.41 per share, which was the average closing price of our common stock between January 11, 2007, and February 23, 2007. Based on the average closing price of our common stock for the two trading days prior to and the two trading days after March 16, 2007, the effective date of the amended agreement, we recognized a research and development expense of approximately $11.0 million relating to the issuance of the 200,000 shares, because beraprost-MR had not yet obtained regulatory approval for commercial sales. In accordance with the provision of SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities* , EITF 00-19, *Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock* , and EITF Topic No. D-98, *Classification and Measurement of Redeemable Securities* , these shares of our common stock are reflected in mezzanine equity as common stock subject to repurchase valued at the repurchase price. If Toray requests that we repurchase these shares, then an amount equal to the repurchase price will be transferred to a liability account until the repurchase is completed.

The amended agreement also specifies that we make certain milestone payments to Toray during the development period and upon U.S. or European Union regulatory approval. Upon execution of the amended agreement, we made a $3.0 million payment to Toray in addition to the issuance of the 200,000 shares of our common stock discussed above. Additional annual milestone payments of $2.0 million are specified in the amended agreement and are to commence in the first quarter of 2008, increasing annually in $1.0 million increments through 2011. These payments will be expensed when incurred. These payments are contingent upon the receipt of clinical trial material and commercial drug from Toray that meet all regulatory standards and requirements, including those relating to chemistry, manufacturing and controls, and are documented to the satisfaction of U.S. and European Union regulatory authorities. In addition, if Toray elects to terminate production of beraprost-MR, no further payments would be due under the amended agreement. Conversely, if we elect to terminate development of beraprost-MR, then all remaining milestone payments would be due to Toray, unless certain regulatory standards and requirements have not been met, or if material problems have been identified with respect to manufacturing and regulatory compliance.

Patents and Proprietary Rights

Our success depends in part on our ability to obtain and maintain patent protection for our products, preserve trade secrets, prevent third parties from infringing upon our proprietary rights and operate without infringing upon the proprietary rights of others in the United States and worldwide. (See *Notes to Consolidated Financial Statements* and *Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources* for information regarding royalties and milestone payments under these agreements).

GlaxoSmithKline Assignment

In January 1997, Glaxo Wellcome, Inc. (now GlaxoSmithKline PLC), assigned to us all rights to the use of the stable prostacyclin analog now known as Remodulin. The patent covering the use of Remodulin for PAH does not expire in the United States until October 2014 (as extended—see *Patent Term Extensions* below) and until various dates from September 2009 to August 2013 in nine other countries.

Pfizer License

In December 1996, Pharmacia & Upjohn Company (now Pfizer, Inc.) exclusively licensed to us certain patents, a patent application and know-how for the composition and production of the stable prostacyclin analog now known as Remodulin. We filed our own United States patent application for a new synthesis and production method for Remodulin in October 1997, and the patent was granted in August 2002. Two additional patents covering this synthesis and production method were granted in March 2003 and August 2004. We believe that our method of synthesis is a substantial improvement over the Pharmacia method and we are using our unique synthesis method rather than the licensed Pharmacia method for the production of Remodulin. We have also registered two patents and have one pending patent application with respect to additional Remodulin synthesis improvements.

Stanford University and New York Medical College Licenses

In 2000, we acquired the exclusive license to patents from Stanford University and New York Medical College related to arginine-based dietary supplements that work to enhance the level of naturally occurring nitric oxide in the vascular system. The licenses cover worldwide territories and are valid for the life of the patents (expiration dates ranging from 2010 to 2018). We will own all rights to any new products derived from these licenses.

Supernus Pharmaceutical License

In June 2006, we entered into an exclusive license agreement with Supernus to use certain technologies developed by them in our sustained release oral treprostinil formulation. Under the agreement, in return for the license, we will pay Supernus certain amounts upon the achievement of specified milestones based on the development of oral treprostinil and its commercial launch. In addition, the agreement provides that we will pay a royalty to Supernus based on net worldwide sales of the initial product. Any such royalty will be paid for approximately twelve years commencing with the first product sale and is subject to adjustments as specified in the agreement. Additional milestone payments and royalty payments may be due for the development and commercialization of other products developed using the technology granted in this license.

TransMIT License

In March 2007, TransMIT Gesellschaft fur Technologletransfer GmbH. (TransMIT), an affiliate of the University of Giessen, assigned to Lung Rx its entire interest in the patent rights to a portable ultrasonic nebulizer and related technology in order to make, have made, use and sell products based on such patent rights. As consideration for the assignment, Lung Rx paid to TransMIT approximately $779,000 and agreed to pay a 5% running royalty on net sales of nebulizers using the technology in Germany. However, no royalty payments are due to TransMIT until royalties on net sales of products in Germany exceed the original payment of approximately $779,000.

Memorial Sloan Kettering

In December 2007, we entered into two agreements with Memorial Sloan-Kettering Cancer Center (MSKCC) to exclusively license certain rights to two investigational monoclonal antibodies, 3F8 and 8H9, for the treatment of neuroblastoma and metastatic brain cancer. The monoclonal antibody 3F8 is a mouse IgG3 MAb, which is currently used in an investigational setting for the treatment of neuroblastoma, a rare cancer of the sympathetic nervous system mainly affecting children. 8H9 is also a mouse monoclonal antibody, but of the IgG1 subclass. The 8H9 antibody is highly reactive with a range of human solid tumors, including brain cancers. The 8H9 antibody is in early investigational development for metastatic brain cancer.

Under the terms of the licensing agreements, MSKCC granted us an exclusive license for the development and commercialization of the 3F8 and 8H9 antibodies for cancer throughout the universe. In exchange for these exclusive licenses, we agreed to pay a royalty fee on net sales, with an annual minimum royalty payment for each antibody. Milestone payments may also be due for the development and commercialization of these antibodies under our licenses.

Patent Term Extensions

In February 2005, we were granted a five-year patent term extension by the United States Patent and Trademark Office for a patent covering the method of treating PAH using Remodulin. U.S. Patent Number 5,153,222, entitled "Method of Treating Pulmonary Hypertension with Benzidine Prostaglandins", was originally scheduled to expire on October 6, 2009. It will now expire on October 6, 2014. The five-year Hatch-Waxman Act extension is the maximum extension allowed under 35 U.S.C. §156. Additional patents covering other products to which we have rights may also be eligible for extensions of up to five years based upon patent term restoration procedures under the Hatch-Waxman Act in the United States, and under similar procedures in Europe.

Research & Development Expenditures

We are engaged in research and development and have incurred substantial expenses for these activities. These expenses generally include the cost of acquiring or inventing new technologies and products as well as their development. Research and development expenses during 2007, 2006 and 2005 totaled approximately $83.4 million, $57.6 million and $36.1 million, respectively. (See *Item 7—Management's Discussion* and *Analysis of Financial Condition and Results of Operations—Major Research and Development Projects* for additional information regarding expenditures related to major research and development projects.)

Manufacturing and Supply

We made treprostinil, the active ingredient for Remodulin and inhaled treprostinil, and treprostinil diethanolamine, the active ingredient for oral treprostinil, at our manufacturing facility in Chicago, Illinois, until March 2007 at which time we transitioned these activities to our new laboratory in Silver Spring, Maryland. The validation process for making these treprostinil-based compounds in the Silver Spring facility commenced in October 2006. We anticipate filing with the FDA and other regulatory agencies for approval to use the new facility for commercial purposes in the first quarter of 2008, with regulatory agency approvals expected in the latter half of 2008. Until FDA approval, we cannot commercially use any products manufactured in the Silver Spring facility. We currently maintain an inventory of formulated Remodulin that will meet over two years of expected demand.

With the transfer of our manufacturing operations to the Silver Spring, Maryland, facility, we have also changed our internal manufacturing process. When we began, we produced treprostinil starting with basic chemicals and completed the full manufacturing process. Over the last two years, we have been modifying the process to begin treprostinil manufacturing with advanced intermediate compounds made by outside vendors. We anticipate that upon commercialization of oral treprostinil, the need for treprostinil diethanolamine will be greater than the need for treprostinil sodium used for the inhaled and infusion therapies. As a result, the manufacturing process will consist of starting with the advanced intermediate compound, making treprostinil diethanolamine and then converting that compound to treprostinil sodium as needed. We expect this to allow us the most flexibility and efficiency in meeting future demands for both forms of active ingredients. We have approved three vendors to supply the advanced intermediate compounds in order to reduce the risk of supply shortages.

Baxter Healthcare Corporation formulates Remodulin from treprostinil for us. The term of our initial agreement with Baxter ended in October 2004. The contract is renewable for successive eighteen

month terms and has been renewed. We rely on Catalent Pharma Solutions, Inc. (formerly, Cardinal Health, Inc.), for conducting stability studies on Remodulin, formulating inhaled treprostinil, formulating oral treprostinil for clinical trials, and analyzing other products we are developing.

In 2008, we anticipate commencing commercial development of the 3F8 and 8H9 antibodies licensed from MSKCC at our Silver Spring, Maryland, facility. We expect to be able to use the same equipment for 3F8 and 8H9 development as we used for the OvaRex process.

Our telemedicine products are currently manufactured by MSI of Florida. In 2008, we anticipate moving the manufacturing of our telemedicine products to Winland Electronics, Inc., due to an increase in the volume of devices needed to meet patient demand.

Although we believe that other manufacturers and suppliers could provide similar products, services and materials, there are few companies that could replace these manufacturers and suppliers. A change in supplier or manufacturer could cause a delay in the manufacture, distribution and research efforts associated with our respective products or result in increased costs. (For further discussion on this risk, see *Item 1A—Risk Factors—We have limited experience with production and manufacturing products.)*

Competition

Many drug companies engage in research and development to commercialize products to treat cardiovascular and infectious diseases and cancer. For the treatment of PAH, we compete with many approved products in the United States and worldwide, including the following:

• Flolan. The first product approved by the FDA for treating PAH, Flolan has been marketed by GlaxoSmithKline PLC since 1996. In the second quarter of 2006, Myogen, Inc. acquired the marketing rights for Flolan in the United States. In November 2006, Myogen was acquired by Gilead Sciences, Inc. The generic exclusivity period for Flolan expired in April 2007, so it is possible that generic formulations of Flolan could become available for commercial sale.

• Ventavis. Approved in December 2004 in the United States and in September 2003 in Europe, Ventavis is the only prostacyclin analog that has been approved for inhalation. Ventavis was initially marketed by CoTherix, Inc., (CoTherix) in the United States and Schering AG in Europe. In January 2007, CoTherix was acquired by Actelion Ltd, the manufacturer and distributor of Tracleer.

• Tracleer. The first oral drug to be approved for PAH, Tracleer is also the first drug in its class, known as endothelin receptor antagonists. Tracleer was approved in December 2001 in the United States and in May 2002 in Europe. Tracleer is marketed by Actelion Ltd worldwide.

• Revatio. Approved in June 2005 in the United States, Revatio is also an oral therapy and is marketed by Pfizer Inc. Revatio is a different formulation of the very successful drug Viagra® and is the first drug in its class, known as PDE5 inhibitors, to be approved for PAH.

• Letairis™. Approved in June 2007 in the United States, Letairis is an oral therapy, and is marketed by Gilead Sciences, Inc. in the United States for the treatment of PAH. Like Tracleer, Letairis is an endothelin receptor antagonist. GlaxoSmithKline is seeking approval of Letairis in Europe where it is known as Volibris®. In February 2008, GlaxoSmithKline announced that Volibris received a positive opinion for approval in the European Union.

• Thelin™. Approved in August 2006 in the European Union, Thelin is an oral therapy, and is marketed by Encysive Pharmaceuticals Inc. (Encysive), for the treatment of PAH. Like Tracleer and Letairis, Thelin is an endothelin receptor antagonist. In February 2008, Pfizer Inc. announced that it had reached an agreement to acquire Encysive. Thelin is not approved in the United States.

Due to their ease of use, oral therapies, such as Tracleer and Revatio, are generally considered front-line therapies for newly diagnosed patients. Flolan and Remodulin, more complex infusion therapies, are generally considered later-stage therapies for sicker patients. The use of the available oral therapies and Ventavis, either alone or in combination, will delay the need for infusion therapy for many patients. As a result, while we may not currently compete head-to-head with these drugs as front-line therapy, the success of their use affects our commercial operations. As we develop both inhaled and oral treprostinil therapies, we will be expanding our range of therapeutics to front line treatment. (For further discussion on this risk, see *Item 1A—Risk Factors—We may not successfully compete with established drugs and the companies that develop and market them).*

Holter and event monitoring analysis services and systems are provided by many local and regional competitors and a few national competitors.

We compete with all of these companies for customers, funding, access to licenses, personnel, third-party collaborators, product development and commercialization. Almost all of these companies have substantially greater financial, marketing, sales, distribution and technical resources, and more experience in research and development, product development and marketing, clinical trials and regulatory matters, than we have.

Governmental Regulation

The research, development, testing, manufacture, promotion, marketing and distribution of pharmaceutical products are extensively regulated by governmental agencies in the United States and in other countries. Drugs are subject to rigorous regulation by the FDA in the United States and similar regulatory bodies in other countries. The steps ordinarily required before a new drug may be marketed in the United States, which are similar to steps required in most other countries, include:

- Preclinical laboratory tests, preclinical studies in animals, formulation studies and the submission to the FDA of an Investigational New Drug Application for a new drug;
- Clinical studies in healthy volunteers;
- Adequate and well-controlled clinical trials to establish the safety and efficacy of the drug for each indication;
- The submission of a New Drug Application to the FDA; and
- FDA review and approval of the New Drug Application prior to any commercial sale or shipment of the drug.

Preclinical tests include laboratory evaluation of product chemistry, toxicity and formulation, as well as animal studies. The results of preclinical testing are submitted to the FDA as part of an Investigational New Drug Application. A 30-day waiting period after the filing of each Investigational New Drug Application is required prior to the commencement of clinical testing in humans. At any time during this 30-day period or at any time thereafter, the FDA may halt proposed or ongoing clinical trials until it authorizes trials under specified terms. The Investigational New Drug Application process may be extremely costly and may substantially delay development of our products. Moreover, positive results of preclinical tests will not necessarily indicate positive results in clinical trials.

Clinical trials to support New Drug Applications are typically conducted in three sequential phases, but the phases may overlap. During Phase I, the initial introduction of the drug into healthy human subjects or patients, the drug is tested to assess its effects on bodily functions and safety, including side effects associated with increasing doses. Phase II usually involves studies in a limited patient population to:

- assess the efficacy of the drug in specific, targeted indications;
- assess dosage tolerance and optimal dosage; and
- identify possible adverse effects and safety risks.

If a compound is found to be potentially effective and to have an acceptable safety profile in Phase II evaluations, then Phase III trials, also called pivotal studies, major studies or advanced clinical trials, are undertaken to further demonstrate clinical efficacy and to further test for safety within an expanded patient population at geographically diverse clinical study sites.

After successful completion of the required clinical testing, a New Drug Application (NDA) or a Biologics License Application (both referred to as an Application) is typically submitted. The FDA may request additional information before accepting an Application for filing, in which case the Application must be resubmitted with the additional information. Once the submission has been accepted for filing, the FDA reviews the Application and responds to the applicant. The review process is often significantly extended by FDA requests for additional information or clarification. The FDA may refer the Application to an appropriate advisory committee for review, evaluation and recommendation as to whether it should be approved. The FDA is not bound by the recommendation of an advisory committee. The FDA may also inspect the manufacturing facility before approving an Application.

If FDA evaluations of the Application and the manufacturing facilities are favorable, the FDA may issue either an approval letter or an approvable letter. An approvable letter will usually contain a number of conditions that must be met in order to secure final approval of the Application and authorization of commercial marketing of the drug for certain indications. The FDA also may refuse to approve the Application and issue a not approvable letter, outlining the deficiencies in the submission and often requiring additional testing or information.

At the request of an applicant, the FDA may designate a product as an "orphan drug" if the drug is intended to treat a rare disease or condition. A disease or condition is considered rare if it affects fewer than 200,000 people in the United States. If an applicant obtains the first FDA marketing approval for a certain orphan drug, the applicant will have a seven-year exclusive right as against generic versions to market the drug for the orphan indication. The FDA has approved the orphan designation for treprostinil for the treatment of PAH without regard to drug product formulation. We believe that the orphan designation of treprostinil includes all types of PAH, regardless of etiology. However, such designation does not preclude us from seeking orphan drug designation for other formulations of treprostinil or for other etiologies of PAH or medically plausible subsets of PAH, and does not preclude the FDA from granting a new seven-year period of orphan drug exclusivity upon the approval of an NDA for a new formulation of treprostinil for the designated new indication, provided we demonstrate that such new formulation is clinically superior to the older formulation of parenteral Remodulin.

Subcutaneous Remodulin was approved by the FDA for the treatment of PAH in patients with NYHA Class II-IV symptoms to diminish symptoms associated with exercise, and intravenous Remodulin was approved for those patients not able to tolerate subcutaneous infusion. If regulatory approval of our other products is granted, such approvals will similarly be limited to certain disease states or conditions. The manufacturers of approved products and their manufacturing facilities will be subject to continual review and periodic inspections. Furthermore, identification of certain side effects or the occurrence of manufacturing problems after a drug is on the market could cause subsequent

withdrawal of approval, reformulation of the drug, additional preclinical testing or clinical trials, and changes in labeling of the product.

The Hatch-Waxman Act provides that patent terms may be extended to compensate for some of the patent life that is lost during the FDA regulatory review period for the product. This extension period would generally be one-half the time between the effective date of an investigational Application and the submission date of an Application, plus all of the time between the submission date of an Application and the approval of that Application, subject to a maximum extension of five years. Similar patent term extensions are available under European laws. Following FDA approval, we filed a patent term extension application with the United States Patent and Trademark Office for our patent covering the method of treating PAH using Remodulin following FDA approval. The application was approved in February 2005, and the patent now expires on October 6, 2014.

Outside of the United States, our ability to market our products will also be contingent upon receiving marketing authorizations from the appropriate regulatory authorities. The foreign regulatory approval process may include some or all of the risks associated with FDA approval set forth above. The requirements governing the conduct of clinical trials and marketing authorization vary widely from country to country. At present, foreign marketing authorizations are applied for at a national level, although, within Europe, procedures are available to companies wishing to market a product in more than one European Union (EU) member state.

In the EU, marketing authorizations may be submitted through a centralized body or through a decentralized or a national level process. The centralized procedure is mandatory for the approval of biotechnology products and high technology products and is available at the applicant's option for other products. The centralized procedure provides for the grant of a single marketing authorization that is valid in all EU member states. The decentralized procedure is available for all medicinal products that are not subject to the centralized procedure. The decentralized procedure provides for mutual recognition of national approval decisions, changes existing procedures for national approvals and establishes procedures for coordinated EU actions on products, suspensions and withdrawals. Under this procedure, the holder of a national marketing authorization for which mutual recognition is sought may submit an application to one or more EU member states, certify that the dossier is identical to that on which the first approval was based, or explain any differences and certify that identical dossiers are being submitted to all member states for which recognition is sought. Within 90 days of receiving the application and assessment report, each EU member state must decide whether to recognize approval. The procedure encourages member states to work with applicants and other regulatory authorities to resolve disputes concerning mutual recognition. Lack of objection of a given country within 90 days automatically results in approval in that country. Following receipt of marketing authorization in a member state, the applicant is then required to engage in pricing discussions and negotiations with a separate prescription pricing authority in that country.

To secure European regulatory approvals for subcutaneous use of Remodulin for PAH, we used the mutual recognition procedure. Under the rules then applicable, centralized filing was not required and we perceived the decentralized procedure to be the most effective means for approval. We filed our first Marketing Authorization Application in France in February 2001. Review of our application was completed in 2005. As a result, Remodulin was approved in 23 countries of the EU under the mutual recognition process described above. We withdrew applications in Spain, the United Kingdom and Ireland with the intent of resubmitting the applications when we file for approval for intravenous Remodulin since these countries required additional information not required by the other European countries. We have to file for approval for intravenous use of Remodulin using the mutual recognition process since intravenous use of Remodulin is considered a variation to the original license. We have filed our application with our reference member state, France, which has notified us that it is not satisfied with the filing we have made. We will work to address these concerns and believe that we will

eventually receive commercial approval for intravenous Remodulin in at least some European countries. We have regulatory applications pending in other countries as well.

To secure European regulatory approval for inhaled treprostinil, we will use the centralized process. Regulations in Europe have changed since we made our initial filing for Remodulin and all therapies for orphan diseases must use the centralized process. We plan on filing for European approval of inhaled treprostinil in late 2008.

To secure approval of the Optineb device in the United States, applicable regulations require a quality system for the design, manufacture, packaging, labeling, storage, installation and servicing of devices intended for commercial distribution. These quality system regulations require that various specifications and controls be established for devices, devices be designed under a quality system to meet these specifications, devices be manufactured under a quality system, finished devices meet these specifications, devices be correctly installed, checked and serviced, quality data be analyzed to identify and correct quality problems, and complaints be processed. Regulatory authorities may also require additional patient data to support approval for these devices. We are also subject to inspections by regulatory agencies and ensuring that we and NEBU-TEC meet all requirements during inspections.

To continue marketing our products after approval, applicable regulations require us to maintain a positive benefit-risk profile, maintaining regulatory applications through periodic reports to regulatory authorities, fulfilling pharmacovigilance requirements, maintaining manufacturing facilities to Good Manufacturing Practices requirements, and successfully completing regulatory agency inspections, among other requirements.

Telemedicine products are manufactured at contract facilities that are regulated by the FDA under different laws and regulations that apply to medical devices. The telemedicine devices designed and sold by Medicomp have received marketing clearance from the FDA under Section 510(k) of the Food, Drug and Cosmetic Act. Medical devices are required to be manufactured in conformance with the FDA's Quality System Regulations.

In the United States, reimbursements are provided for Remodulin by many independent third-party payers, as well as the Medicare and Medicaid programs. Medicare is the federal program which provides health care benefits to certain senior citizens and certain disabled and chronically ill persons, and Medicaid is the federal program administered by the states to provide health care benefits to certain indigent persons. The Medicare contractors who administer the program provide reimbursement for Remodulin at a rate generally equal to 95% of the published average wholesale price, as recommended by us. The state Medicaid programs generally provide reimbursement for Remodulin at a price that is below the published average wholesale price. Beginning in 2007, the Medicare Modernization Act requires that we and the Centers for Medicare and Medicaid Services negotiate a new price for Remodulin. We anticipate that the new rules will not have an impact on Remodulin reimbursement rates in 2008. In return for including Remodulin in the Medicare and Medicaid programs, we have agreed to pay a rebate to state Medicaid agencies that provide reimbursement for Remodulin. We have also agreed to sell Remodulin under contracts with the Veterans Administration, Department of Defense, Public Health Service and numerous other federal agencies as well as certain hospitals that are designated as 340B entities (entities designated by federal programs to receive discounted drug prices) at prices that are significantly below the price we charge to our distributors. These programs and contracts impose many regulations and restrictions on our business. Failure to comply with these regulations and restrictions could result in a loss of our ability to continue receiving reimbursement for Remodulin. We estimate that between 35-50% of Remodulin sales in the United States are reimbursed under the Medicare and Medicaid programs.

Employees

We had approximately 320 employees as of February 26, 2008. We also maintain active independent contractor relationships with various individuals, most of whom have month-to-month or annual consulting contracts. We believe our employee relations are excellent.

Industry Segments and Geographic Areas

We operate two business segments: pharmaceuticals and telemedicine. We sell our products in the United States and abroad. The information required by Item 101(b) and 101(d) of Regulation S-K relating to financial information about industry segments and geographical areas is contained in Notes 2 and 18, respectively, of the audited consolidated financial statements, which are included in this Annual Report on Form 10-K.

Corporate Website

Our Internet website address is *http://www.unither.com* . Our filings on Form 10-K, Form 10-Q, Form 3, Form 4, Form 5, and Form 8-K, and amendments thereto, are available free of charge through this internet website as soon as reasonably practicable after they are filed or furnished to the Securities and Exchange Commission (SEC). They are also available through the SEC's EDGAR portal.

EXECUTIVE OFFICERS OF THE REGISTRANT

The following is a list, as of February 21, 2008, setting forth certain information regarding our executive officers. Each executive officer holds office until the first meeting of the Board of Directors after the annual meeting of stockholders, and until his or her successor is elected and qualified or until his or her earlier resignation or removal. Each executive officer's employment will end pursuant to the terms of his or her employment contract. Each of the employment contracts generally provides for an initial term of service of five years, which five-year term may be renewed after each year for additional one-year periods.

Name	Age	Position
Martine A. Rothblatt, Ph.D., J.D., M.B.A.	53	Chairman, Chief Executive Officer and Director
Roger Jeffs, Ph.D.	46	President, Chief Operating Officer and Director
John M. Ferrari	53	Chief Financial Officer and Treasurer
Paul A. Mahon, J.D.	44	Executive Vice President for Strategic Planning, General Counsel and Corporate Secretary

Martine A. Rothblatt, Ph.D., J.D., M.B.A ., started United Therapeutics in 1996 and has served as Chairman and Chief Executive Officer since its inception. Prior to founding United Therapeutics, she founded and served as Chief Executive Officer of Sirius Satellite Radio and was principally responsible for several other unique applications of satellite communications technology. She also represented the radio astronomy interests of the National Academy of Sciences' Committee on Radio Frequencies before the FCC and led the International Bar Association's efforts to present the United Nations with a draft Human Genome Treaty. Her book, YOUR LIFE OR MINE: *H OW G EOETHICS C AN R ESOLVE THE C ONFLICT B ETWEEN P UBLIC AND P RIVATE I NTERESTS I N X ENOTRANSPLANTATION* , was published by Ashgate in 2004.

Roger Jeffs, Ph.D., joined United Therapeutics in September 1998 as Director of Research, Development and Medical. Dr. Jeffs was promoted to Vice President of Research, Development and Medical in July 2000 and to President and Chief Operating Officer in January 2001. Prior to 1998, Dr. Jeffs worked at Amgen, Inc. as Manager of Clinical Affairs and Associate Director of Clinical Research from 1995 to 1998, where he served as the worldwide clinical leader of the Infectious Disease Program.

John M. Ferrari, joined United Therapeutics in May 2001 as Controller. Mr. Ferrari was promoted to Vice President of Finance in December 2003 and to Vice President of Finance and Treasurer in June 2004. In August 2006 Mr. Ferrari was promoted to Chief Financial Officer and Treasurer. Prior to joining United Therapeutics, Mr. Ferrari served as Controller for Blackboard, Inc., from 1998 to 2001. Prior to his employment with Blackboard, Inc., Mr. Ferrari served in various senior financial management positions since 1984.

Paul A. Mahon, J.D., has served as General Counsel and Assistant Corporate Secretary of United Therapeutics since its inception in 1996. In June 2001, Mr. Mahon joined United Therapeutics full-time as Senior Vice President, General Counsel and Corporate Secretary. In November 2003, Mr. Mahon was promoted to Executive Vice President for Strategic Planning, General Counsel and Corporate Secretary. Prior to June 2001, he served United Therapeutics from its formation in 1996 in his capacity as principal and managing partner of a law firm specializing in technology and media law.

PART II. OTHER INFORMATION

ITEM 1A. RISK FACTORS

Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements made pursuant to the safe harbor provisions of Section 21E of the Securities Exchange Act of 1934 (the Exchange Act) and the Private Securities Litigation Reform Act of 1995 which are based on our beliefs and expectations as to future outcomes. These statements include, among others, statements relating to the following:

- Expectations of revenues and profitability;
- The timing and outcome of clinical studies and regulatory filings;
- The achievement and maintenance of regulatory approvals;
- The existence and activities of competitors;
- The pricing of Remodulin;
- The expected levels and timing of Remodulin sales;
- The dosing and rate of patient consumption of Remodulin;
- The outcome of potential future regulatory actions from the FDA and international regulatory agencies;
- The adequacy of our intellectual property protections and their expiration dates;
- The ability of third parties to market, distribute and sell our products;
- The current and expected future value of our goodwill and recorded intangible assets;
- The ability to obtain financing in the future;
- The value of our common stock;
- The expectation of future repurchases of those shares subject to repurchase from Toray;
- The expectation of continued profits or losses;
- The pace and timing of enrollment in clinical trials;
- The expectation and timing of filing for regulatory approvals of inhaled treprostinil;
- The timing, resubmission, completion and outcome of the applications for approval of subcutaneous Remodulin in Ireland, Spain and the United Kingdom;
- The expectation, outcome and timing of marketing approvals in European Union countries for intravenous Remodulin;
- The expected timing of milestone payments from Mochida and commercial activities in Japan;
- The expected timing of payments to third parties under licensing agreements;
- The potential impacts of new accounting rules;
- The outcome of any litigation in which we are or become involved;
- Any statements preceded by, followed by or that include any form of the words "believe," "expect," "predict," "anticipate," "intend," "estimate," "should," "may," "will," or similar expressions; and
- Other statements contained or incorporated by reference in this Annual Report on Form 10-K that are not historical facts.

The statements identified as forward-looking statements may exist in the section entitled *Item 2—Management's Discussion and Analysis of Financial Condition and Results of Operations* above or elsewhere in this Annual Report on Form 10-K. These statements are subject to risks and uncertainties and our actual results may differ materially from anticipated results. Factors that may cause such differences include, but are not limited to, those discussed below. We undertake no obligation to publicly update forward-looking statements, whether as a result of new information, future events or otherwise.

Unless the context requires otherwise or unless otherwise noted, all references in this section to "United Therapeutics" and to the "company", "we", "us" or "our" are to United Therapeutics Corporation and its subsidiaries.

Risks Related to Our Business

We have a history of losses and may not continue to be profitable

Although we have been profitable for each calendar year since 2004, we have had quarters in which we experienced a loss. At December 31, 2007, our accumulated deficit was approximately $21.5 million. Although we set our annual operating budgets to be less than our estimated revenues, numerous factors, some of which are beyond our control, could affect consolidated revenues and profitability and cause our quarterly and annual operating results to fluctuate.

We rely heavily on sales of Remodulin to produce revenues.

We rely heavily on sales of Remodulin. During the year ended December 31, 2007, our Remodulin sales accounted for 95% of our total revenues. A wide variety of events, many of which are described in other risk factors below, could cause Remodulin sales to decline. For example, if regulatory approvals for Remodulin are withdrawn, we will be unable to sell that product and our revenues will suffer. In the event that GlaxoSmithKline terminates its assignment agreement or Pfizer terminates its license agreement, we will have no further rights to utilize the assigned patents or trade secrets to develop and commercialize Remodulin. GlaxoSmithKline or Pfizer could seek to terminate the assignment or license, respectively, in the event that we fail to pay royalties based on sales of Remodulin. In addition, we rely on third parties to produce, market, distribute and sell Remodulin. The loss of third parties to perform these functions, or the failure of these parties to do so successfully, also could cause our revenues to suffer. Because we are so dependent on sales of Remodulin, any reduction in the sale of Remodulin would cause our results of operations to suffer.

Most of our pharmaceutical products are in clinical development and may never generate profits.

Our only pharmaceutical product currently in commercial distribution is Remodulin. Most of our pharmaceutical products are in clinical studies; therefore, many of those products may not be commercially available for a number of years, if at all. We might not maintain or obtain regulatory approvals for our pharmaceutical products and may not be able to sell our pharmaceutical products commercially. Even if we sell our products, we may not be profitable and may not be able to sustain any profitability we achieve.

We may not successfully compete with established drugs, products and the companies that develop and market them.

We compete with established drug companies during product development for, among other things, funding, access to licenses, expertise, personnel, clinical trial patients, and third-party collaborators. We also compete with these companies following approval of our products. Almost all of these competitors have substantially greater financial, marketing, sales, distribution and technical resources, and more experience in research and development, clinical trials and regulatory matters than we do.

We are aware of existing treatments that compete with our products, especially in the field of PAH. Patients and doctors may perceive these competing products to be safer, more effective, more convenient or less expensive than Remodulin. Accordingly, sales of Remodulin may not increase, or may even decrease if doctors prescribe less Remodulin than they are prescribing at present.

For the treatment of PAH, we compete with many approved products in the United States and worldwide, including the following:

- Flolan. The first product approved by the FDA for treating PAH, Flolan has been marketed by GlaxoSmithKline PLC since 1996. In the second quarter of 2006, Myogen, Inc. (Myogen), acquired the marketing rights for Flolan in the United States. In November 2006, Myogen was acquired by Gilead Sciences, Inc., which is regarded as a large and successful biotechnology company in the United States. The generic exclusivity period for Flolan expired in April 2007, so it is possible that generic formulations of Flolan could become available for commercial sale. Flolan is delivered by intravenous infusion and considered to be an effective treatment by most PAH experts.

- Ventavis. Approved in December 2004 in the United States and in September 2003 in Europe, Ventavis is the only prostacyclin analog that has been approved for inhalation, whereas Remodulin is only currently approved to be delivered through intravenous or subcutaneous infusion. Ventavis was initially marketed by CoTherix, Inc. (CoTherix), in the United States and Schering AG in Europe. In January 2007, CoTherix was acquired by Actelion Ltd, the manufacturer and distributor of Tracleer. Actelion is regarded as a large and successful biotechnology company.

- Tracleer. The first oral drug to be approved for PAH, Tracleer is also the first drug in its class, known as endothelin receptor antagonists. Tracleer was approved in December 2001 in the United States and in May 2002 in Europe. Tracleer is marketed by Actelion worldwide.

- Revatio. Approved in June 2005 in the United States, Revatio is also an oral therapy and is marketed by Pfizer Inc. (Pfizer). Revatio is a different formulation of the very successful drug Viagra and is the first drug in its class, known as PDE5 inhibitors, to be approved for PAH. Pfizer is regarded as a large and successful pharmaceutical company in the United States.

- Letairis. Approved in June 2007 in the United States, Letairis is an oral therapy, and is marketed by Gilead Sciences, Inc. in the United States for the treatment of PAH. Like Tracleer, Letairis is an endothelin receptor antagonist. GlaxoSmithKline is seeking approval of Letairis in Europe where it is known as Volibris. In February 2008, GlaxoSmithKline announced that Volibris received a positive opinion for approval in the European Union.

- Thelin. Approved in August 2006 in the European Union, Thelin is an oral therapy, and is marketed by Encysive Pharmaceuticals Inc. (Encysive), for the treatment of PAH. Like Tracleer and Letairis, Thelin is an endothelin receptor antagonist. In February 2008, Pfizer announced that it had reached an agreement to acquire Encysive.

Doctors may reduce the dose of Remodulin they give to their patients if they prescribe our competitors' products in combination with Remodulin. In addition, certain of our competitors' products are less invasive than Remodulin and the use of these products may delay or prevent initiation of Remodulin therapy. Finally, as a result of Actelion's acquisition of CoTherix, Gilead's acquisition of Myogen, and Pfizer's pending acquisition of Encysive, each of these three companies now controls two of the seven approved therapies for PAH in the United States, the seventh of which is Remodulin. In addition to reducing competition through consolidation, each company brings considerable influence over prescribers to the sales and marketing of their respective two approved therapies through market dominance in this therapeutic area.

A number of drug companies are pursuing treatments for the hepatitis C virus and cancer that will compete with any products we may develop from our glycobiology antiviral agents and monoclonal antibodies platforms.

Many local and regional competitors and a few national competitors provide cardiac Holter and event monitoring services and systems that compete with our telemedicine products.

Discoveries or development of new products or technologies by others may make our products obsolete or less useful.

Companies may make discoveries or introduce new products that render all or some of our technologies and products obsolete or not commercially viable. Researchers are continually making new discoveries that may lead to new technologies that treat the diseases for which our products are intended. In addition, alternative approaches to treating chronic diseases, such as gene therapy, may make our products obsolete or noncompetitive. Other investigational therapies for PAH could be used in combination with or as a substitute for Remodulin. If this happens, doctors may reduce the dose of Remodulin they give to their patients or may prescribe other treatments instead of Remodulin. This could result in less Remodulin being used by patients and, hence, reduced sales of Remodulin.

Remodulin and our other treprostinil-based products may have to compete with investigational products currently being developed by other companies, including:

- Thelin. Thelin is currently being developed by Encysive Pharmaceuticals, Inc. (Encysive), worldwide for the treatment of PAH. Although Encysive has received marketing authorization in all nations in the European Union, they have not received FDA approval in the United States. In February 2008, Pfizer announced that it had reached an agreement to acquire Encysive and that it intended to conduct an additional clinical trial in order to file for FDA approval;

- Cialis®. An approved oral treatment for erectile dysfunction, Cialis is currently marketed by Eli Lilly and Company (Lilly). Prior to January 2007, Cialis was jointly marketed by ICOS Corporation and Lilly. Cialis is currently being studied in patients with PAH, and is in the same class of drugs as Revatio. In January 2007, ICOS Corporation was acquired by Lilly, which is a large and successful pharmaceutical company in the United States;

- Gleevec® An approved oral treatment for chronic myeloid leukemia (a cancer of the blood and bone marrow), Gleevec is currently marketed by Novartis Pharmaceuticals Corporation. Recently, experienced PAH researchers have conducted studies with Gleevec and believe that it may be effective in treating PAH;

- Aviptadil. An inhaled formulation of a vasoactive intestinal peptide, Aviptadil is being developed by mondoBIOTECH Holding SA for the treatment of PAH. In September 2006, mondoBIOTECH announced that it had outlicensed Aviptadil for the treatment of PAH to Biogen Idec Inc., which is regarded as a large and successful biotechnology company in the United States;

- PRX-08066. A serotonin receptor 5-HT2B antagonist, PRX-08066 is being developed by Predix Pharmaceuticals Holdings, Inc., as an oral tablet for the treatment of PAH. Two Phase I clinical trials of PRX-08066 are being conducted in healthy volunteers;

- PulmoLAR. Currently in development by PR Pharmaceuticals, Inc., PulmoLAR is a once-a-month injectible therapy which contains a metabolite of estradiol and has been shown in animal and cell models to address certain processes associated with PAH;

- Fasudil. Oral and inhaled formulations of Fasudil, a rho-kinase inhibitor, may be developed by Actelion Ltd for the treatment of PAH. Fasudil is currently approved in Japan as an intravenous drug to treat a disease unrelated to PAH;

- Sorafenib. Originally marketed by Bayer AG as Nexavar® for advanced renal cell cancer, Sorafenib is a small molecule that inhibits Raf kinase and that may interfere with the thickening of blood vessel walls associated with PAH. A Phase I clinical trial in PAH has been proposed;

- Recombinant Elafin. Currently being developed by PROTEO Biotech AG, Recombinant Elafin is a synthetic version of a protein that is produced naturally in the body and may inhibit inflammatory reactions. In February 2007, Elafin was granted orphan product status in the European Union for the treatment of PAH and chronic thromboembolic pulmonary hypertension;

- Cicletanine. Marketed by Navitas Pharma for hypertension in Europe, Cicletatnine is an eNOS coupler that works to increase the flexibility of blood vessel linings; and

- 6R-BH4. A naturally occurring enzyme cofactor that is required for numerous biochemical and physiologic processes, including the synthesis of nitric oxide, 6R-BH4 is being developed by BioMarin Pharmaceutical Inc. for the treatment of poorly controlled hypertension, peripheral arterial disease and phenylketonuria. A Phase I clinical trial of 6R-BH4 for PAH is also underway.

There may be additional drugs in development for PAH in addition to those listed above and there may also be currently approved drugs that prove effective in treating the disease. If any of these drugs in development, additional new drugs or other currently approved drugs are used to treat PAH, sales of Remodulin may fall.

If third-party payers will not reimburse patients for our drug products or if third-party payers limit the amount of reimbursement, our sales will suffer.

Our commercial success depends heavily on third-party payers, such as Medicare, Medicaid and private insurance companies, agreeing to reimburse patients for the costs of our pharmaceutical products. These third-party payers frequently challenge the pricing of new and expensive drugs, and it may be difficult for distributors selling Remodulin to obtain reimbursement from these payers. Remodulin and the associated infusion pumps and supplies are very expensive. We believe our investigational products, if approved, will also be very expensive. Presently, most third-party payers, including Medicare and Medicaid, reimburse patients for the cost of Remodulin therapy. In the past, Medicare has not reimbursed the full cost of the therapy for some patients. Beginning on January 1, 2007, the Medicare Modernization Act requires that we and the Centers for Medicare and Medicaid Services (CMS) negotiate a new price for Remodulin. As the result of the staggered implementation of this Act, Remodulin has not yet been subject to the pricing provisions. In addition, to the extent that private insurers or managed care programs follow any Medicaid and Medicare coverage and payment developments, the adverse effects of lower Medicare payment rates may be expanded by private insurers adopting lower payment schedules. Additionally, some states have enacted health care reform legislation. Further federal and state developments are possible.

Third-party payers may not approve our new products for reimbursement or may not continue to approve Remodulin for reimbursement, or may seek to reduce the amount of reimbursement for Remodulin based on changes in pricing of other therapies for PAH, including possible generic formulations of other approved therapies, such as Flolan, which may currently be sold in generic form. If third-party payers do not approve a product of ours for reimbursement or limit the amount of reimbursement, sales will suffer, as patients could opt for a competing product that is approved for reimbursement.

The growth of our cardiac monitoring business is dependent upon physicians utilizing our services; if we fail to maintain our current level of physician utilization, our cardiac monitoring revenues may stagnate and our business could be adversely affected.

Our ability to provide our cardiac monitoring services is dependent upon physicians prescribing our diagnostic tests to their patients. Our success in obtaining patients to monitor will be directly influenced by the relationships we develop and maintain with physicians and physician groups in a manner consistent with government regulations affecting such relationships. If we are unable to maintain such relationships and create new relationships in compliance with applicable laws, the number of patients using our cardiac monitoring services will decline, which may have a material adverse effect on our revenues and our business, financial condition and results of operations.

If we are unable to educate physicians regarding the benefits of our CardioPAL® SAVI System and achieve sufficient levels of utilization, revenues from the provision of our cardiac monitoring services could fail to grow and could decrease.

Reimbursement for cardiac monitoring services by Medicare is highly regulated and subject to change and the operation of our call centers and monitoring facilities is subject to rules and regulations governing Independent Diagnostic Testing Facilities; failure to comply with these rules could prevent us from receiving reimbursement for our cardiac services from Medicare and some commercial payers.

We receive approximately 15% of our cardiac monitoring service revenues as reimbursement from Medicare. Reimbursement from Medicare for cardiac monitoring services is subject to statutory and regulatory changes, rate adjustments and administrative rulings, all of which could materially affect the range of services covered or the reimbursement rates paid by Medicare for use of our cardiac monitoring services. In 2007, CMS adopted a change in methodology for calculating reimbursement under the Physician Fee Schedule that will be implemented over a 4 year period. This resulted in reduced reimbursement for our cardiac monitoring services from Medicare by 3% to 18%, depending on the type of service. Similar reductions have been adopted for 2008 and are expected annually through 2010. In addition, we cannot predict whether future modifications to Medicare's reimbursement policies could reduce the amounts we receive from Medicare for the services we provide. Finally, Medicare's reimbursement rates can affect the rate that commercial payers are willing to pay for our products and services.

The Medicare program is administered by CMS, which imposes extensive and detailed requirements on medical services providers, including, but not limited to, rules that govern how we structure our relationships with physicians, how and when we submit reimbursement claims, how we operate our monitoring facilities and how we provide our cardiac monitors and monitoring services. Our failure to comply with applicable Medicare rules could result in Medicare discontinuing our reimbursement, our being required to return funds already paid to us, civil monetary penalties, criminal penalties and/or exclusion from the Medicare program.

Furthermore, in order for us to receive reimbursement for cardiac monitoring services from Medicare and some commercial payers, we must have a call center certified as an Independent Diagnostic Testing Facility, or IDTF. Certification as an IDTF requires that we follow strict regulations governing how the center operates, such as requirements regarding the experience and certifications of the technicians who review data transmitted from our cardiac monitors. These rules and regulations vary from location to location and are subject to change. If they change, we may have to change the operating procedures at our monitoring facilities, which could increase our costs significantly. If we fail to obtain and maintain IDTF certification, our services may no longer be reimbursed by Medicare and some commercial payers, which could materially affect our telemedicine business adversely.

We rely on third parties to market, distribute and sell most of our products and those third parties may not perform.

We are currently marketing products in two of our four therapeutic platforms: Remodulin in our prostacyclin analog platform and CardioPAL SAVI cardiac event monitors and Holter monitors in our telemedicine platform. We also have several products in the clinical trial stage. We do not have the ability to independently conduct clinical studies, obtain regulatory approvals, market, distribute or sell most of our products and intend to rely substantially on experienced third parties to perform some or all of those functions. We may not locate acceptable contractors or enter into favorable agreements with them. If third parties do not successfully carry out their contractual duties or meet expected deadlines, we might not be able to develop, market, distribute or sell our products and our future revenues could suffer.

We rely on Accredo Therapeutics, Inc., CuraScript, Inc. and Caremark, Inc. to market, distribute, and sell Remodulin in the United States. Accredo, CuraScript and Caremark are also responsible for convincing third-party payers to reimburse patients for the cost of Remodulin, which is very expensive. If our distribution partners and contractors do not achieve acceptable profit margins, they may not continue to distribute our products. If our distribution partners in the United States and internationally are unsuccessful in their efforts, our revenues will suffer.

Since the commercial launch of Remodulin, all of our Remodulin distributors in the United States have been sold to larger companies. When these distributors were independently managed, the Remodulin franchise was a more significant business to them, because they were much smaller. As divisions or subsidiaries of much larger companies, Remodulin could be much less significant to these distributors. There can be no assurance that the mergers experienced by each of our distributors will not adversely affect Remodulin distribution. In addition, effective January 1, 2007, Accredo became the exclusive U.S. distributor for Flolan. It is possible that our distributors may devote fewer resources to the distribution of Remodulin. If so, this may negatively impact our sales.

Our operations depend on compliance with complex FDA and comparable international regulations. Failure to obtain broad approvals on a timely basis or to achieve continued compliance could delay or halt commercialization of our products.

The products that we develop must be approved for marketing and sale by regulatory authorities and, once approved, are subject to extensive regulation by the FDA and comparable regulatory agencies in other countries. The process of obtaining and maintaining regulatory approvals for new drugs is lengthy, expensive and uncertain. The manufacture, distribution, advertising and marketing of these products are subject to extensive regulation. Any new product approvals we receive in the future could include significant restrictions on the use or marketing of the product. Potential products may fail to receive marketing approval on a timely basis, or at all. Product approvals, if granted, can be withdrawn for failure to comply with regulatory requirements, including those relating to misleading advertising or upon the occurrence of adverse events following commercial introduction of the products.

In addition, our marketed products and how we manufacture and sell these products are subject to extensive continued regulation and review. We received one warning letter from the FDA related to advertising in 2005, which was resolved satisfactorily. In early August 2007, three European Union countries requested that we perform repeat sterility testing of Remodulin vials sold in the European Union. France was our sponsoring country for European Union approval, and we had been operating under an understanding with French regulatory authorities that additional sterility testing was not necessary since these tests were already performed in the United States and meet both United States and European Union regulatory requirements. Our ability to add new patients in those countries depended on our validating and repeating the sterility testing process in the European Union. We

arranged for repeat sterility testing of Remodulin vials for use in the European Union and worked with appropriate regulatory agencies and our distributors to ensure that there was no disruption of Remodulin therapy during the repeat testing period. All Remodulin patients in the three countries remained on therapy throughout the testing process. We completed this process in September 2007. We have received regulatory clearance from all countries.

We have never experienced a sterility-related or other product specification failure with respect to our Remodulin vials. However, discovery of previously unknown problems with our marketed products or problems with our manufacturing, regulatory, promotional or other commercialization activities may result in regulatory restrictions on our products, including withdrawal of the products from the market. If we fail to comply with applicable regulatory requirements, we could be subject to penalties including fines, suspensions of regulatory approvals, product recalls, seizure of products and criminal prosecution.

If approvals are withdrawn for Remodulin or any other product, we will not be able to sell that product and our revenues will suffer. In addition, if product approvals are withdrawn, governmental authorities could seize our products or force us to recall our products.

Reports of side effects, such as sepsis, associated with intravenous Remodulin could cause physicians and patients to not accept Remodulin or to cease to use Remodulin in favor of alternative treatments.

Sepsis is a serious and potentially life-threatening infection of the bloodstream caused by a wide variety of bacteria. Intravenous prostacyclins are infused continuously through a catheter placed in patients' chests, and sepsis is an expected consequence of this type of delivery. As a result, sepsis is included as a risk in both the Remodulin and Flolan package inserts. The Flolan package insert specifically documents the risk rate of sepsis at 0.32 events per patient per year, meaning one patient out of every three taking the drug is expected to have a sepsis infection each year. Or, each patient on Flolan is expected to have one sepsis infection every three years. The Remodulin package insert notes that two out of 38 patients experienced catheter-related infections in an open-label 12-week study, but does not provide any data relating to expected risk rate. Historical data on intravenous prostacyclin administration does not identify the specific types of bacteria responsible for these infections.

In February 2007, the Scientific Leadership Committee (SLC) of the Pulmonary Hypertension Association announced new guidance relating to the treatment of PAH patients on long-term intravenous therapy. The SLC guidance was issued in response to the release of a slide presentation prepared by researchers with the U.S. Centers for Disease Control and Prevention (CDC) entitled *Bloodstream infections among patients treated with intravenous epoprostenol and intravenous treprostinil for pulmonary arterial hypertension, United States 2004—2006* . These slides accompanied a presentation to the SLC and were subsequently published as a report in the CDC's *Morbidity and Mortality Weekly Report* on March 2, 2007. The slides and report were prepared in connection with a CDC retrospective inquiry at seven centers regarding a report of increased bloodstream infections, particularly gram-negative blood stream infections, among PAH patients treated with intravenous Remodulin as compared to intravenous Flolan. The SLC guidance statement noted that the CDC observations were hypothesis-generating and did not permit definitive or specific conclusions. The SLC reminded physicians of the need to be aware of the range of possible gram negative and gram positive infectious organisms in patients with long-term central catheters and to treat them appropriately. We have been informed that the SLC is planning a study to evaluate the risk of sepsis and sepsis sub-types among parenterally-delivered prostanoids. Finally, the FDA revised the Remodulin package insert in February 2008 to more fully describe the known infection risk and appropriate techniques to be practiced when preparing and administering Remodulin intravenously.

Although the risk of sepsis is currently included in the Remodulin label, and the occurrence of sepsis is familiar to physicians who treat PAH patients, concern about bloodstream infections may

adversely affect physicians' prescribing practices in regard to Remodulin. If that occurs, Remodulin sales could suffer and our profitability could be diminished.

We have transitioned our manufacturing operations to a new location.

We are in the process of validating treprostinil manufacturing in our new Silver Spring, Maryland, laboratory. This manufacturing process will be done on a larger scale than that performed in our former Chicago, Illinois, facility. We closed the Chicago facility in May 2007. Until we have received FDA and international approvals for the Silver Spring laboratory, we cannot sell products made with compounds produced there. In addition, commercial treprostinil is being manufactured only by us with reliance on third parties for certain raw and advanced intermediate materials.

We depend on third parties to formulate and manufacture our products and related devices.

We rely on third parties to formulate our treprostinil-based products. We rely on Baxter Healthcare Corporation for the formulation of Remodulin from treprostinil. We rely on Catalent Pharma Solutions, Inc. for conducting stability studies on Remodulin, formulating treprostinil for inhalation use, formulating tablets for our oral clinical trials, and analyzing other products that we are developing. We also rely on third parties for the manufacture of all our products other than treprostinil. We rely on MSI of Central Florida, Inc. to manufacture our telemedicine devices. We rely on other manufacturers to make our investigational drugs and devices for use in clinical trials.

We also rely on NEBU-TEC, a German company, to manufacture the Optineb nebulizer used with inhaled treprostinil. NEBU-TEC is responsible for managing and controlling the manufacturing process of its device, all associated parts, and work performed by its suppliers, in accordance with all applicable regulatory requirements. Because regulatory approval of inhaled treprostinil will be linked to regulatory approval of the Optineb device, any regulatory compliance problems encountered by NEBU-TEC with respect to the manufacture of its device could delay or otherwise adversely affect regulatory approvals of inhaled treprostinil, and our revenues could suffer. In addition, following regulatory approval of inhaled treprostinil, any inability of NEBU-TEC to manufacture a sufficient quantity of nebulizers to meet patient demand could have an adverse effect on our revenue growth.

Although there are few companies that could replace each of these suppliers, we believe that other suppliers could provide similar services and materials. A change in suppliers, however, could cause a delay in distribution of Remodulin and other products, and in the conduct of clinical trials and commercial launch, which would adversely affect our research and development efforts and future sales efforts.

Our manufacturing strategy presents the following risks:

- The manufacturing processes for some of our products have not been tested in quantities needed for commercial sales;
- Delays in scale-up to commercial quantities and process validation could delay clinical studies, regulatory submissions and commercialization of our products;
- A long lead time is needed to manufacture treprostinil and Remodulin, and the manufacturing process is complex;
- We and the manufacturers and formulators of our products are subject to the FDA's and international drug regulatory authorities' good manufacturing practices regulations and similar international standards, and although we control compliance issues with respect to synthesis and manufacturing conducted internally, we do not have control over compliance with these regulations by our third-party manufacturers;

- Even if we and the manufacturers and formulators of our products comply with the FDA's and international drug regulatory authorities' good manufacturing practices regulations and similar international standards, the sterility and quality of the products being manufactured and formulated could be deficient. If this occurred, such products would not be available for sale or use;

- If we have to change to another manufacturing or formulation contractor for any reason or abandon our own manufacturing operations, the FDA and international drug regulators would require new testing and compliance inspections, and the new manufacturer would have to be educated in the processes necessary for the validation and production of the affected product. Cardinal Health recently sold its formulation business to Catalent Pharma Solutions, Inc. and there can be no assurances that they will continue formulating treprostinil for both our inhalation and oral clinical trials;

- We may not be able to develop or commercialize our products, other than Remodulin, as planned or at all and may have to rely solely on internal manufacturing capacity;

- The supply of raw and advanced intermediate materials and components used in the manufacture and packaging of treprostinil, Remodulin and other products may become scarce or be interrupted, which could delay the manufacture and subsequent sale of such products. Any proposed substitute materials and components are subject to approval by the FDA and international drug regulators before any manufactured product can be sold. The timing of such FDA and international drug regulatory approval is difficult to predict and approvals may not be timely obtained; and

- We may not have intellectual property rights, or may have to share intellectual property rights, to many of the improvements in the manufacturing processes or new manufacturing processes for our new products.

Any of these factors could delay clinical studies or commercialization of our products, entail higher costs, and result in our inability to effectively sell our products.

Until November 2006, Medtronic MiniMed was our exclusive partner for the subcutaneous delivery of Remodulin using the MiniMed microinfusion device for PAH. Medtronic has discontinued making infusion pumps for subcutaneous delivery of Remodulin after first giving us and our distributors the opportunity to purchase desired quantities. In November 2006, we mutually agreed with MiniMed to terminate our contract. We relied on Medtronic MiniMed's experience, expertise and performance in supplying the infusion pumps. Any disruption in the supply to PAH patients of infusion devices could delay or prevent patients from initiating or continuing Remodulin therapy, which could adversely affect our revenues. Doctors and patients may not be able to obtain acceptable substitute delivery devices to replace the MiniMed microinfusion devises when the available supply held by our distributors has been depleted.

If our products fail in clinical studies, we will not be able to obtain or maintain FDA and international approvals and will not be able to sell those products.

In order to sell our pharmaceutical products, we must receive regulatory approvals. To obtain those approvals, we must conduct clinical studies demonstrating that the drug product, including its delivery mechanism, is safe and effective. If we cannot obtain approval from the FDA and international drug regulators for a product, that product cannot be sold, and our revenues will suffer.

In November we announced we are conducting Phase III clinical studies of an oral formulation of treprostinil and are working on submission to the FDA for our completed Phase III study of inhaled treprostinil. Our glycobiology antiviral agent, UT-231B as monotherapy, completed a Phase II, proof-of-concept study in late 2004. In that trial, UT-231B did not demonstrate efficacy as a

monotherapy against hepatitis C in a population of patients that previously failed conventional treatments. We are now conducting preclinical testing of additional glycobiology drug candidates and we are exploring opportunities to accelerate our glycobiology clinical development efforts. We are still completing or planning pre-clinical studies for our other products.

In the past, several of our product candidates have failed or been discontinued at various stages in the product development process, including, but not limited to: OvaRex MAb for the treatment of advanced ovarian cancer; immediate release beraprost for early stage peripheral vascular disease; Ketotop for osteoarthritis of the knee; and UT-77 for chronic obstructive pulmonary disease. Also, the length of time that it takes for us to complete clinical trials and obtain regulatory approval for product marketing has in the past varied by product and by the intended use of a product. We expect that this will likely be the case with future product candidates and we cannot predict the length of time to complete necessary clinical trials and obtain regulatory approval.

Our ongoing and planned clinical studies might be delayed or halted for various reasons, including:

- The drug is not effective, or physicians think that the drug is not effective;
- Patients do not enroll in the studies at the rate we expect;
- Patients experience severe side effects during treatment;
- Other investigational or approved therapies are viewed as more effective or convenient by physicians or patients;
- Patients die during the clinical study because their disease is too advanced or because they experience medical problems that are not related to the drug being studied;
- Drug supplies are not available or suitable for use in the studies; and
- The results of preclinical testing cause delays in clinical trials.

In addition, the FDA and international regulatory authorities have substantial discretion in the approval process for pharmaceutical products. The FDA and international regulatory authorities may not agree that we have demonstrated that our products are safe and effective.

Finally, because regulatory approval of inhaled treprostinil will be linked to regulatory approval of the Optineb nebulizer, any regulatory compliance problems encountered by NEBU-TEC with respect to the manufacture of its device could delay or otherwise adversely affect regulatory approval of inhaled treprostinil.

Our corporate compliance program cannot guarantee that we are in compliance with all potentially applicable federal, state and international regulations.

The development, manufacture, distribution, pricing, sales, marketing, and reimbursement of our products, together with our general operations, are subject to extensive federal, state, local and international regulation. While we have developed and instituted corporate compliance programs, we cannot ensure that we or our employees are or will be in compliance with all potentially applicable federal, state and international regulations. If we fail to comply with any of these regulations, a range of actions could result, including, but not limited to, the termination of clinical trials, the failure to approve a product candidate, restrictions on our products or manufacturing processes, including withdrawal of our products from the market, significant fines, exclusion from government healthcare programs, or other sanctions or litigation.

If the licenses, assignments and alliance agreements we depend on are breached or terminated, we would lose our right to develop and sell the products covered by the licenses, assignments and alliance agreements.

Our business depends upon the acquisition, assignment and license of drugs and other products which have been discovered and initially developed by others, including Remodulin and all of the other products in the prostacyclin platform, all of the products in the glycobiology antiviral agents platform, and all of the products in our monoclonal antibodies platform. Under our product license agreements, we are granted certain rights to existing intellectual property owned by third parties subject to the terms of each license agreement, whereas assignment agreements transfer all right, title and ownership of the intellectual property to us, subject to the terms of each assignment agreement. We have also obtained licenses to other third-party technology to conduct our business. In addition, we may be required to obtain licenses to other third-party technology to commercialize our early-stage products. This dependence has the following risks:

- We may not be able to obtain future licenses, assignments and agreements at a reasonable cost or at all;
- If any of our licenses or assignments are terminated, we will lose our rights to develop and market the products covered by such licenses or assignments;
- The licenses and assignments that we hold generally provide for termination by the licensor or assignor in the event we breach the license or assignment agreement, including failing to pay royalties and other fees on a timely basis; and
- If licensors fail to maintain the intellectual property licensed or assigned to us as required by most of our license and assignment agreements, we may lose our rights to develop and market some or all of our products and may be forced to incur substantial additional costs to maintain the intellectual property ourselves or force the licensor or assignor to do so.

Certain license and assignment agreements relating to our products may restrict our ability to develop products in certain countries and/or for particular diseases and impose other restrictions on our freedom to develop and market our products.

When we acquire, license or receive assignments of drugs and other products that have been discovered and initially developed by others, we may receive rights only to develop such drugs or products in certain territories and not throughout the world. For example, we only have the rights to market beraprost-MR for sale in North America and Europe.

In addition, provisions in our license and assignment agreements impose other restrictions on our freedom to develop and market our products. For example, in assigning Remodulin to us, GlaxoSmithKline retained an exclusive option and right of first refusal to negotiate a license agreement with us if we ever decide to license any aspect of the commercialization of Remodulin anywhere in the world. Similarly, in connection with Toray's license of beraprost-MR to us, we agreed to provisions establishing a conditional, restricted non-competition clause in Toray's favor, giving them the right to be our exclusive provider of beraprost-MR and requiring that we make certain minimum annual sales in order to maintain our exclusive rights to beraprost-MR. The restrictions that we have accepted in our license and assignment agreements affect our freedom to develop and market our products in the future.

If our or our suppliers' patent and other intellectual property protection are inadequate, our sales and profits could suffer or our competitors could force our products completely out of the market.

Our United States patent for the method of treating PAH with Remodulin is currently set to expire in October 2014 and the patent for inhaled treprostinil is set to expire in 2020. We believe that

some of the patents to which we have rights may be eligible for extensions of up to five years based upon patent term restoration procedures in Europe and under the Hatch-Waxman Act in the United States. Our patent for treating PAH with Remodulin has already received the maximum five-year extension. Competitors may develop products based on the same active ingredients as our products, including Remodulin, and market those products after the patents expire, or may design around or seek to invalidate our existing patents before they expire. If this happens, our sales would suffer and our profits could be severely impacted. In addition, if our suppliers' intellectual property protection is inadequate, our sales and profits could be adversely affected.

We have been granted patents in the United States for the synthesis of Remodulin, but patent applications that have been or may be filed by us may not result in the issuance of additional patents. The scope of any patent issued may not be sufficient to protect our technology. The laws of international jurisdictions in which we intend to sell our products may not protect our rights to the same extent as the laws of the United States.

In addition to patent protection, we also rely on trade secrets, proprietary know-how and technology advances. We enter into confidentiality agreements with our employees and others, but these agreements may not be effective in protecting our proprietary information. Others may independently develop substantially equivalent proprietary information or obtain access to our know-how.

Litigation, which is very expensive, may be necessary to enforce or defend our patents or proprietary rights and may not end favorably for us. While we have recently settled pending litigation against two parties related to enforcing our arginine patents, we may in the future choose to initiate litigation against other parties who we come to believe have violated our patents or other proprietary rights. If such litigation is unsuccessful or if the patents are invalidated or canceled, we may have to write off the related intangible assets which could significantly reduce our earnings. Any of our licenses, patents or other intellectual property may be challenged, invalidated, canceled, infringed or circumvented and may not provide any competitive advantage to us.

Patents may be issued to others that prevent the manufacture or sale of our products. We may have to license those patents and pay significant fees or royalties to the owners of the patents in order to keep marketing our products. This would cause profits to suffer.

To the extent valid third-party patent rights cover our products or services, we or our strategic collaborators would be required to seek licenses from the holders of these patents in order to manufacture, use, or sell our products and services. Payments under these licenses would reduce our profits from these products and services. We may not be able to obtain these licenses on acceptable terms, or at all. If we fail to obtain a required license or are unable to alter the design of our technology to fall outside the scope of a third party patent, we may be unable to market some of our products and services, which would limit our profitability.

Proposed changes to United States patent law are currently pending in Congress. If these proposed patent reforms become law, it could make it easier for patents to be invalidated and/or could reduce the amount of damages in cases of patent infringement. Because we rely on patents to protect our products, the proposed patent reform could have an adverse impact on our business.

Pursuant to our agreements with certain business partners, any new inventions or intellectual properties that arise from our activities will be owned jointly by us and these partners. If we do not have rights to new developments or inventions that arise during the terms of these agreements, or we have to share the rights with others, we may lose some or all of the benefit of these new rights, which may mean a loss of future profits or savings generated from improved technology.

Our success depends in large part on our ability to operate without infringing upon the patents or other proprietary rights of third parties.

If we infringe the patents of others, we may be prevented from commercializing products or may be required to obtain licenses from these third parties. We may not be able to obtain alternative technologies or acquire a license on reasonable terms or at all. If we fail to obtain such licenses or alternative technologies, we may be unable to develop or commercialize some or all of our products.

If our highly qualified management and technical personnel leave us, our business may suffer.

We are dependent on our current management, particularly our founder and Chief Executive Officer, Martine Rothblatt, Ph.D.; our President and Chief Operating Officer, Roger Jeffs, Ph.D.; our Chief Financial Officer and Treasurer, John Ferrari; our Executive Vice President for Strategic Planning and General Counsel, Paul Mahon; our Senior Vice President for Pharmaceutical Development, David Zaccardelli, Pharm.D.; our Senior Vice President for Regulatory Affairs, Dean Bunce; and our Senior Vice President for Biologics Production, Development and Supply, James Levin, DVM. While these individuals are employed by us pursuant to multi-year employment agreements, employment agreements do not ensure the continued retention of employees. We do not maintain key person life insurance on these officers, although we do incentivize them to remain employed by us until at least age 60 through our Supplemental Executive Retirement Plan. Our success will depend in part on retaining the services of our existing management and key personnel and attracting and retaining new highly qualified personnel. Few individuals possess expertise in the field of cardiovascular medicine, infectious disease and oncology, and competition for qualified management and personnel is intense.

We may not have adequate insurance and may have substantial exposure to payment of product liability claims.

The testing, manufacture, marketing, and sale of human drugs and diagnostics involve product liability risks. Although we currently have product liability insurance covering claims up to $25 million per occurrence and in the aggregate for our products, we may not be able to maintain this product liability insurance at an acceptable cost, if at all. In addition, this insurance may not provide adequate coverage against potential losses. If claims or losses exceed our liability insurance coverage, we may go out of business.

If we need additional financing and cannot obtain it, product development and sales may be limited.

We may need to spend more money than currently expected because we may need to change our product development plans or product offerings to address difficulties with clinical studies, to prepare for commercial sales or to continue sales of Remodulin. We may not be able to obtain additional funds on commercially reasonable terms or at all. If additional funds are not available, we may be compelled to delay clinical studies, curtail operations or obtain funds through collaborative arrangements that may require us to relinquish rights to certain products or potential markets.

At least a portion of the repayment of our 0.50% Convertible Senior Notes due 2011 (Convertible Notes) will be required to be made in cash. Our product development plans and product offerings could be negatively impacted if we do not have sufficient financial resources, or are not able to arrange suitable financing, to pay required amounts upon conversion or tender of the notes and fund our operations.

Our activities involve hazardous materials, and improper handling of these materials could expose us to significant liabilities.

Our research and development and manufacturing activities involve the controlled use of chemicals and hazardous materials and we are expanding these activities to new locations. As a consequence, we

are subject to numerous federal, state, and local environmental and safety laws and regulations, including those governing the management, storage and disposal of hazardous materials. We may be required to incur significant costs in order to comply with current or future environmental laws and regulations, and substantial fines and penalties for failure to comply with those laws and regulations. While we believe that we are currently in substantial compliance with laws and regulations governing these materials, the risk of accidental contamination or injury from these materials cannot be eliminated. Furthermore, once these materials leave our site, we cannot control what our hazardous waste removal contractors choose to do with them. In the event of an accident or we could be liable for civil damages that result or for costs associated with the cleanup of any release of hazardous materials, which could be substantial. Any such liability could exceed our resources and could have a material adverse effect on our business, financial condition and results of operations.

We may encounter substantial difficulties managing our growth.

Several risks are inherent to our plans to grow our business. Achieving our goals will require substantial investments in research and development, sales and marketing, and facilities. For example, we have spent considerable resources building and seeking regulatory approvals for our laboratories and manufacturing facilities. These facilities may not prove sufficient to meet demand for our products or we may have excess capacity at these facilities. In addition, building our facilities is expensive, and our ability to recover these costs will depend on increased revenue from the products produced at the facilities.

If we are able to grow sales of our products, we may have difficulty managing inventory levels. Marketing new therapies is a complicated process, and gauging future demand is difficult.

Growth in our business may also contribute to fluctuations in our operating results, which may cause the price of our securities to decline.

Our financial results may be impacted by future accounting rules.

Our future, as well as our previously published financial results could be affected by new accounting rules. The FASB recently proposed FASB staff position (FSP) APB 14-a, *Accounting for Convertible Debt Instruments That May Be Settled in Cash Upon Conversion (Including Partial Cash Settlement) (FSP 14-a)* . The proposed FSP specifies that issuers of such instruments should separately account for the liability and equity components of the instrument in a manner that will reflect the entity's nonconvertible debt borrowing rate on the instrument's issuance date when interest cost is recognized in subsequent periods. Our Convertible Notes are within the scope of FSP 14-a; therefore, we would be required to record the debt portions of our Convertible Notes at their fair value on the date of issuance and amortize the resulting discount into interest expense over the life of the debt. However, there would be no effect on our cash interest payments. As currently proposed, FSP 14-a will be effective for financial statements issued for fiscal years beginning after December 15, 2008, and will be applied retrospectively to all periods presented. If adopted as proposed, these changes would be reflected in our financial statements beginning with the first quarter of 2009. We believe that the change, if adopted as proposed, could have a significant impact in the future on our results of operations.

Risks Related to Our Common Stock

The price of our common stock could be volatile and could decline.

The market prices for securities of drug and biotechnology companies are highly volatile, and there are significant price and volume fluctuations in the market that may be unrelated to particular

companies' operating performances. The table below sets forth the high and low closing prices for our common stock for the periods indicated:

	High	Low
January 1, 2005—December 31, 2005	$ 77.82	$ 41.37
January 1, 2006—December 31, 2006	$ 71.33	$ 47.96
January 1, 2007—December 31, 2007	$ 108.62	$ 47.87

The price of our common stock could decline suddenly due to the following factors, among others:

- Quarterly and annual financial and operating results;
- Failure to meet estimates or expectations of securities analysts or our projections;
- The pace of enrollment in and the results of clinical trials;
- Physician, patient, investor or public concerns as to the efficacy and/or safety of products marketed or being developed by us or by others;
- Changes in or new legislation and regulations affecting reimbursement of Remodulin by Medicare or Medicaid and changes in reimbursement policies of private health insurance companies;
- Announcements by us or others of technological innovations or new products or announcements regarding our existing products;
- Developments in patent or other proprietary rights;
- Disagreements with our licensors and vendors;
- Future sales of substantial amounts of our common stock by us or our existing stockholders;
- Future sales of our common stock by our directors and officers;
- Rumors among investors and/or analysts concerning the company, its products or operations;
- Failure to maintain, or changes to, our approvals to sell Remodulin;
- Failure to successfully obtain FDA approval for our new Silver Spring, Maryland, Remodulin and monoclonal antibody laboratory;
- The accumulation of significant short positions in our common stock by hedge funds or other investors or the significant accumulation of our common stock by hedge funds or other institutional investors with investment strategies that may lead to short-term holdings;
- Timing and outcome of additional regulatory submissions and approvals; and
- General market conditions.

We may fail to meet third party projections for our revenue or profits.

Many independent securities analysts have published quarterly and annual projections of our revenues and profits. These projections were made independently by the securities analysts based on their own analysis. Such estimates are inherently subject to a degree of uncertainty, particularly because we do not generally provide forward-looking guidance to the public. As a result, the actual revenues and net income may be greater or less than projected by such securities analysts. Even small variations in reported revenues and profits as compared to securities analysts' expectations can lead to significant changes in our stock price.

Future sales of shares of our common stock may depress our stock price.

If we issue common stock to raise capital, or our stockholders transfer their ownership of our common stock or sell a substantial number of shares of our common stock in the public market, or investors become concerned that substantial sales might occur, the market price of our common stock could decrease. All of our executive officers have announced their adoption of 10b5-1 prearranged trading plans. In accordance with these plans, these executives periodically sell a specified number of our shares of our common stock either owned by them or acquired through the exercise of stock options. However, our executives and directors may choose to sell additional shares outside of 10b5-1 trading plans and two executive officers and six directors have done so. A decrease in our common stock price could make it difficult for us to raise capital by selling stock or to pay for acquisitions using stock. To the extent outstanding options are exercised or additional shares of capital stock are issued, existing stockholders may incur additional dilution.

Furthermore, the conversion of some or all of the Convertible Notes after the price of our common stock reached $105.67 per share dilutes the ownership interests of our existing stockholders. We have filed a resale registration statement covering sales of such shares. The Convertible Notes initially are convertible into an aggregate 3.3 million shares of our common stock. Any sales in the public market of our common stock issuable upon such conversion could adversely affect prevailing market prices of our common stock. In addition, the existence of the Convertible Notes may encourage short selling by market participants because the conversion of the Convertible Notes could depress the price of our common stock.

The fundamental change purchase feature of the Convertible Notes may delay or prevent an otherwise beneficial attempt to take over our company.

The terms of the Convertible Notes require us to purchase the Convertible Notes for cash in the event of a fundamental change. A takeover of our company would trigger the requirement that we purchase the Convertible Notes. This may have the effect of delaying or preventing a takeover of our company that would otherwise be beneficial to investors.

We will need cash to pay at least a portion of the conversion value of the Convertible Notes, as required by the indenture governing the notes.

At least a portion of the repayment of the Convertible Notes will be required to be made in cash. Our product development plans and product offerings could be negatively impacted if we do not have sufficient financial resources, or are not able to arrange suitable financing, to pay required amounts upon conversion or tender of the notes and fund our operations.

Provisions of Delaware law and our certificate of incorporation, by-laws, shareholder rights plan, and employment and licensing agreements could prevent or delay a change in control or change in management that could be beneficial to us and our public stockholders.

Certain provisions of Delaware law and our certificate of incorporation, by-laws, shareholder rights plan, and employment and licensing agreements may prevent, delay or discourage:

- A merger, tender offer or proxy contest;
- The assumption of control by a holder of a large block of our securities; and
- The replacement or removal of current management by our stockholders.

For example, our certificate of incorporation divides our board of directors into three classes, with members of each class to be elected for staggered three-year terms. This provision may make it more difficult for stockholders to change the majority of directors and may hinder accumulations of large

blocks of our common stock by limiting the voting power of such blocks. This may further result in discouraging a change in control or change in current management.

In addition, the non-competition and other restrictive covenants in all of our employees' employment agreements (other than those few employees who may be entitled to severance following a change in control) will terminate upon a change in control that is not approved by our board of directors in accordance with the terms of such employment agreements.

Further, certain of our license agreements with other companies contain a provision prohibiting each party to the agreement and its affiliates from directly or indirectly seeking to acquire or merge with us, or taking any steps in furtherance thereof, for the term of the agreement and for five years thereafter, subject to certain exceptions. As a result, the companies that are party to these license agreements with us would be prevented from pursuing an acquisition of our company unless we consent. Furthermore, other companies may be deterred from seeking to acquire our company because of the limitations that would be imposed on further acquisition activities.

Change in control restrictions in certain of our agreements could prevent or delay a change in control or change in management that could be beneficial to us and our public stockholders.

Certain of our license and other agreements with other companies contain provisions restricting our ability to assign or transfer the agreement to a company which desires to merge with or acquire us. These restrictions often require the prior consent of the other party to the agreement to a proposed change in control of our company. In the event that the other party to a contract with us chooses to withhold its consent to such a merger or acquisition, then such party could seek to terminate the agreement and we would no longer have the rights and benefits under such agreement which may adversely affect our revenues and business prospects. In addition, certain of our license and other agreements with other companies contain provisions allowing the other company to terminate the agreement if a third party attempts to acquire control of our company without our consent, unless certain conditions are met. These restrictive contractual provisions may delay or discourage a change in control of our company.

Our existing directors and executive officers own a substantial block of our common stock and might be able to influence the outcome of matters requiring stockholder approval.

Our directors and named executive officers beneficially owned approximately 11% of our outstanding common stock as of December 31, 2007, including stock options that could be exercised by those directors and executive officers within 60 days of that date. Accordingly, these stockholders as a group might be able to influence the outcome of matters requiring approval by our stockholders, including the election of our directors. Such stockholder influence could delay or prevent a change in control with respect to us.

If stockholders do not receive dividends, stockholders must rely on stock appreciation for any return on their investment in us.

We have never declared or paid cash dividends on any of our capital stock. We currently intend to retain our earnings for future growth and therefore do not anticipate paying cash dividends in the future.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Maryland—We own our corporate headquarters office building in Silver Spring, Maryland. We also own the three buildings and land adjacent to our corporate headquarters. We lease our laboratory facility adjacent to our corporate headquarters which is used for the synthesis of treprostinil-based compounds and monoclonal antibodies. In addition, in late 2007 we began construction on a new combination office and laboratory building which will connect to our existing laboratory facility in Silver Spring. We lease space at a warehouse near Silver Spring to maintain some of our raw material inventory used in the manufacturing and synthesis process.

Florida—We own our Remodulin Therapy Assistance office building in Satellite Beach, Florida. Our subsidiary, Lung Rx, Inc., also occupies a portion of this building. Our original office building in Satellite Beach, Florida, was demolished in early 2007 as a condition of the building permit approval we received for the new office adjacent to this property. The land was returned to its natural state. Our subsidiaries, Lung Rx Inc. and Medicomp, Inc., lease manufacturing and office space, respectively, in Melbourne, Florida.

North Carolina—We lease office space in Research Triangle Park, North Carolina, for our clinical development and Remodulin commercialization staff. In June 2006, we purchased approximately 54 acres of land in Research Triangle Park, where we are building a new manufacturing facility and office building that will be used by our clinical research and development and Remodulin commercialization staff. The manufacturing facility will formulate oral treprostinil. This 200,000 square foot building project began in early 2007 and is expected to be completed in early 2009.

Other locations—In March 2007, we purchased land and a building adjacent to our leased legal and governmental affairs office in Washington, D.C. Our subsidiary, Unither Neurosciences, Inc., leases office space in Burlington, Vermont. Our subsidiary, United Therapeutics Europe Ltd., leases office space near London, England. Our Canadian subsidiary, Unither Biotech Inc., leases office space in Magog, Quebec, Canada.

We believe that these facilities are adequate for our current operations and that additional land and facilities for future expansion are reasonably available.

The office space in Melbourne, Florida, is used in our telemedicine segment. All other properties and leased facilities are used in our pharmaceutical segment.

ITEM 3. LEGAL PROCEEDINGS

Currently, and from time to time, we are involved in litigation incidental to the conduct of our business. We are not a party to any lawsuit or proceedings that, in the opinion of our management and based on consultation with legal counsel, is likely to have a material adverse effect on our financial position or results of operations.

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

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

PART II

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

Market for Common Equity

Our common stock (and associated preferred stock purchase rights) trades on the NASDAQ Global Select Market under the symbol "UTHR". The table below sets forth the high and low closing prices for our common stock for the periods indicated:

	2007		2006	
	High	Low	High	Low
January 1—March 31	$ 59.13	$ 47.87	$ 71.33	$ 61.57
April 1—June 30	$ 67.64	$ 52.03	$ 66.61	$ 47.96
July 1—September 30	$ 70.04	$ 63.96	$ 59.60	$ 50.69
October 1—December 31	$ 108.62	$ 65.53	$ 62.17	$ 51.12

As of February 22, 2008, there were 53 holders of record of our common stock. We estimate that included within the holders of record are approximately 16,100 beneficial owners of our common stock. As of February 22, 2008, the closing price for our common stock was $81.98.

Dividend Policy

We have never paid and have no present intention to pay dividends on our common stock in the foreseeable future. We intend to retain any earnings for use in our business operations.

ITEM 6. SELECTED FINANCIAL DATA

The following selected consolidated financial data should be read in conjunction with our consolidated financial statements and related notes and *Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations* included elsewhere in this Annual Report on Form 10-K. The historical results are not necessarily indicative of results to be expected for future periods. The following information is presented in thousands, except per share data.

	Years Ended December 31,				
	2007	2006	2005	2004	2003
Consolidated Statements of Operations Data:					
Revenues	$ 210,943	$ 159,632	$ 115,915	$ 73,590	$ 53,341
Operating expenses:					
Research and development	83,352	57,570	36,052	30,713	35,417
Selling, general and administrative	99,027	56,052	24,655	21,418	22,667
Cost of sales	22,261	17,028	12,315	8,250	6,783
Total operating expenses	204,640	130,650	73,022	60,381	64,867
Income (loss) from operations	6,303	28,982	42,893	13,209	(11,526)
Other income (expense):					
Interest income	13,602	10,700	5,359	2,986	2,435
Interest expense	(2,175)	(482)	(29)	(4)	(112)
Equity loss in affiliate	(321)	(491)	(754)	(785)	(953)
Other, net	(826)	1,199	53	43	187
Total other income (expense), net	10,280	10,926	4,629	2,240	1,557
Net income (loss) before income tax	16,583	39,908	47,522	15,449	(9,969)
Income tax benefit	3,276	34,057	17,494	—	—
Net income (loss)	$ 19,859	$ 73,965	$ 65,016	$ 15,449	$ (9,969)
Net income (loss) per share:					
Basic(1)	$ 0.94	$ 3.21	$ 2.85	$ 0.71	$ (0.47)
Diluted(1)	$ 0.88	$ 3.06	$ 2.58	$ 0.66	$ (0.47)
Weighted average number of common shares outstanding:					
Basic	21,224	23,010	22,825	21,726	21,135
Diluted	22,451	24,138	25,206	23,351	21,135

	Years Ended December 31,				
	2007	2006	2005	2004	2003
Consolidated Balance Sheet Data:					
Cash, cash equivalents and marketable investments(2)	$ 299,287	$ 264,163	$ 170,347	$ 139,140	$ 117,337
Total assets	587,018	478,550	291,413	207,158	179,502
Notes and leases payable(3)	250,014	250,025	23	26	798
Accumulated deficit	(21,501)	(41,360)	(115,325)	(180,341)	(195,790)
Total stockholders' equity	295,790	204,606	275,102	191,636	167,765

(1) See Note 2 in the *Notes to Consolidated Financial Statements* for a description of the computation of basic and diluted net income per share.

(2) Excludes restricted marketable investments and cash of $44,195, $38,988, and $20,666 for the years ending December 31, 2007, 2006 and 2005, respectively.

(3) Includes current portion of notes and leases payable.

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

The following discussion should be read in conjunction with the consolidated financial statements and related notes appearing in this Annual Report. The following discussion contains forward-looking statements made pursuant to the safe harbor provisions of Section 21E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995, including the statements listed under *Item 1A—Risk Factors* . These statements are based on our beliefs and expectations as to future outcomes and are subject to risks and uncertainties that could cause our results to differ materially from anticipated results. Factors that could cause or contribute to such differences include those discussed below and described in this Annual Report on Form 10-K under *Item 1A—Risk Factors—Forward-Looking Statements* , and the other cautionary statements, cautionary language and risk factors set forth in other reports and documents filed with the SEC. We undertake no obligation to publicly update forward-looking statements, whether as a result of new information, future events or otherwise.

Overview

United Therapeutics Corporation is a biotechnology company focused on the development and commercialization of unique products to address the unmet medical needs of patients with chronic and life-threatening cardiovascular and infectious diseases and cancer. We commenced operations in June 1996 and, since our inception, have devoted substantially all of our resources to acquisitions and research and development programs.

Our key therapeutic platforms are:

- Prostacyclin analogs, which are stable synthetic forms of prostacyclin, an important molecule produced by the body that has powerful effects on blood vessel health and function;
- Glycobiology antiviral agents, which are a class of small molecules that have shown pre-clinical indications of efficacy against a broad range of viruses, such as hepatitis C; and
- Monoclonal antibodies, which are antibodies that activate patients' immune systems to treat cancer.

We focus most of our resources on these three key platforms. We also devote resources to the commercialization and further development of telemedicine products and services, principally for the detection of cardiac arrhythmias.

We commenced operations in June 1996. We began to earn pharmaceutical revenues in May 2002 after we received FDA approval for Remodulin, our lead product, by subcutaneous (under the skin) infusion to treat pulmonary arterial hypertension (PAH). Remodulin is also approved in 33 countries throughout the world for similar uses. Marketing authorization applications are currently under review in other countries.

Revenues

We derive substantially all of our revenue from the sale of Remodulin, a prostacyclin analog.

Our sales and marketing team consisted of approximately 65 employees as of December 31, 2007, up from approximately 20 employees as of December 31, 2006, with further growth expected in 2008. Our marketing team is divided into two approximately equal groups. The first group is primarily responsible for national and large regional medical practice accounts currently prescribing Remodulin, while the second group is primarily responsible for smaller, local, community-oriented medical practices not currently prescribing Remodulin. Our distributors augment the efforts of our sales and marketing

staff. We face stiff competition from several other companies that market and sell competing therapies and we expect this competition will continue to grow.

Remodulin is sold to patients in the United States by Accredo Therapeutics, Inc., CuraScript, Inc., and Caremark, Inc., and outside of the United States by various international distributors. We sell Remodulin in bulk shipments to these distributors. Because discontinuation of our therapy can be life-threatening to patients, we require that our distributors maintain inventory levels as specified in our distribution agreements. Due to the contractual requirement to maintain a minimum level of inventory, sales of Remodulin to distributors in any given quarter may not be indicative of patient demand during that quarter. In addition, inventory levels reported by distributors are affected by the timing of their sales around the end of each reporting period. Our U.S.-based distributors typically place one order per month, usually in the first half of the month. The timing and magnitude of our sales of Remodulin are affected by the timing and magnitude of these bulk orders from distributors. Bulk orders placed by our distributors are based on their estimates of the amount of drug required for new and existing patients, as well as maintaining the contractual level of inventory that can meet approximately thirty days' demand as a contingent supply. Effective January 1, 2007, CuraScript's minimum inventory requirement was reduced from 60 days to 30 days to make its contractual inventory requirement consistent with those of our two other U.S. distributors. This inventory reduction resulted in a decrease in CuraScript's inventory of approximately $2.0 million. Sales of Remodulin are recognized as revenue when delivered to our distributors.

In March 2007, we entered into an exclusive agreement with Mochida Pharmaceutical Co., Ltd. (Mochida), to distribute subcutaneous and intravenous Remodulin in Japan. Mochida will be responsible, with our assistance, for obtaining Japanese marketing authorization for Remodulin, including conducting bridging studies required in Japan. We will supply study drug at no charge to Mochida. Due to the bridging studies and required Japanese regulatory reviews, commercial activities in Japan are not expected to commence until 2010 or later. Upon receipt of marketing authorization and pricing approval, Mochida will purchase Remodulin from us at an agreed-upon transfer price. In addition, Mochida has agreed to make certain exclusive distribution rights payments to us. Payments for distribution rights received through the filing of the New Drug Application will be recognized ratably over the estimated period of time from when the payment is due until marketing authorization is received.

In addition to revenues from sales of Remodulin, we have generated revenues from telemedicine products and services primarily designed for patients in the United States with abnormal heart rhythms, called cardiac arrhythmias, and ischemic heart disease, a condition that causes poor blood flow to the heart. We have also generated revenues from sales of arginine (which deliver an amino acid that is necessary for maintaining cardiovascular function) products and from royalty fees from licensing agreements in the United States and other countries. In September 2007, we stopped selling all arginine products based on publications discounting the benefits of arginine supplementation.

Expenses

Since our inception, we devoted substantially all of our resources to acquisitions and research and development programs. We incur significant expenses in connection with our clinical trials and other aspects of our research and development programs. Since the approval of Remodulin in 2002, we have funded our operations from revenue generated from the sales of our products and services. Our operating expenses consist primarily of research and development, selling, general and administrative, cost of product sales and cost of service sales.

Major Research and Development Projects

Our major research and development projects have been and are focused on the use of treprostinil to treat cardiovascular diseases, glycobiology antiviral agents (a novel class of small molecules that may be effective as oral therapies) to treat infectious diseases, such as hepatitis C, dengue fever and Japanese encephalitis, among other viruses, and monoclonal antibodies (antibodies that activate a patient's immune response) to treat a variety of cancers.

Cardiovascular Disease Projects

Subcutaneous use of Remodulin was approved by the FDA in May 2002 and material net cash inflows from the sales of Remodulin for PAH commenced thereafter. In November 2004, the FDA approved intravenous infusion of Remodulin for patients who are not able to tolerate subcutaneous infusion. This approval was based on data establishing the bioequivalence of intravenous Remodulin with subcutaneous Remodulin.

We are working to develop an inhaled formulation of treprostinil sodium for the treatment of PAH. In June 2005, we commenced a 12-week randomized, double-blind, placebo-controlled Phase III trial of inhaled treprostinil in patients with PAH who were also being treated with and were optimized on Tracleer, an oral endothelin antagonist. This trial, TRIUMPH-1 (**TR** eprostinil **I** nhalation **U** sed in the **M** anagement of **P** ulmonary Arterial **H** ypertension), was conducted at approximately 36 centers in the United States and Europe. In May 2006, the FDA agreed to also permit the inclusion in the trial of PAH patients who were also being treated with and optimized on Revatio, an oral PDE5 inhibitor marketed by Pfizer Inc. The FDA also agreed to expand the trial size to at least 200 patients, and to permit an interim efficacy assessment after 150 patients had completed the trial. We did not conduct the interim efficacy assessment.

In November 2007, we announced the completion of our TRIUMPH-1 trial. The study population consisted of 235 patients. Preliminary Analysis of the TRIUMPH-1 results demonstrates an improvement in median six minute walk (6MW) distance by approximately 20 meters ($p<0.0006$, using the Hodges-Lehmann estimate and non-parametric analysis of covariance in accordance with the trial's pre-specified statistical analysis plan), in patients receiving inhaled treprostinil as compared to patients receiving placebo. FDA approval for inhaled treprostinil will be sought by filing a New Drug Application (NDA). The Optineb inhalation device will also be submitted for approval as part of this filing. Optineb is the ultra-sonic nebulizer that was exclusively used for administration of inhaled treprostinil in the TRIUMPH-1 trial. Optineb is manufactured by NEBU-TEC International Med Products Eike Kern GmbH. (NEBU-TEC), a German company. Optineb is approved in Germany and in other European countries, but is not yet approved in the United States. We expect to file the New Drug Application and the application for approval of the Optineb device by mid-2008. FDA review of the New Drug Application generally takes 10 months. We plan on filing for approval in the European Union using the centralized filing process by the end of 2008.

We have also begun planning an open-label study in which patients on Ventavis, the only currently approved inhaled prostacyclin, will be switched to inhaled treprostinil. The study is expected to start in late 2008 and will continue through the FDA regulatory approval process for inhaled treprostinil, which is currently expected to be completed by mid-2009.

We are developing an oral formulation of treprostinil, treprostinil diethanolamine, a novel salt form. Two multi-national placebo-controlled clinical trials of oral treprostinil in patients with PAH commenced in October 2006. These trials are Phase III trials, in which both dosing and efficacy are being studied. The FREEDOM-C trial is a 16-week study of up to 300 patients currently on approved background therapy using a PDE5 inhibitor, such as Revatio, or an endothelin antagonist, such as Tracleer, or a combination of both. The FREEDOM-M trial is a 12-week study of up to 150 patients, who are not on any background therapy. Both trials are being conducted at approximately 60 centers

throughout the United States and the rest of the world. As of December 31, 2007, there were approximately 200 and 90 patients enrolled in the FREEDOM-C and FREEDOM-M trials, respectively. As of February 18, 2008 there were approximately 240 and 100 patients enrolled in the FREEDOM-C and FREEDOM-M trials, respectively.

We are also in the early planning stages of designing a dose-ranging study for oral treprostinil to commence later in 2008 upon the completion of both FREEDOM trials. A dose-ranging study measures the therapeutic effect of a drug at predetermined escalating doses. The results of this study should show corresponding increased therapeutic benefit with increased dosage.

We incurred expenses of approximately $35.0 million and $33.0 million, and $20.1 million during the years ended December 31, 2007, 2006, and 2005, respectively, on Remodulin development. Approximately $228.9 million from inception to date has been incurred on Remodulin development.

We are also developing a modified release formulation of beraprost (beraprost-MR) for PAH. Beraprost-MR is an oral prostacyclin analog. In March 2007, Lung Rx entered into an amended agreement with Toray Industries, Inc. (Toray) to assume and amend the rights and obligations of the June 2000 agreement entered into between Toray and us concerning the commercialization of beraprost-MR. This amended agreement is discussed in greater detail in the section entitled *Strategic Licenses and Relationships* . We recognized approximately $14.0 million of expense during the year ended December 31, 2007, related to the licensing transaction. Approximately $14.4 of expenses were incurred on beraprost-MR development during the year ended December 31, 2007.

Infectious Disease Projects

We are in the planning stages of conducting a Phase II clinical trial with miglustat, a glycobiology compound which inhibits alpha-glucosidase enzymes, to initially evaluate efficacy against hepatitis C. Miglustat is approved and is currently marketed in the United States and Europe by Actelion Ltd for the treatment of Gaucher's disease, a glycolipid storage disorder. Patent protection for manufacturing the compound has expired. As a result of our research agreement with the University of Oxford, we have the exclusive right to commercialize miglustat as an anti-viral agent for the treatment of hepatitis C. Our infectious disease program also includes glycobiology antiviral drug candidates in various preclinical and clinical stages of testing. The drugs in this program are being developed for the treatment of a wide variety of viruses. Through our agreement with Oxford University, we are supporting research into new glycobiology antiviral candidates. We incurred expenses of approximately $824,000, $753,000 and $3.2 million during the years ended December 31, 2007, 2006, and 2005, respectively, on infectious disease projects. Approximately $36.5 million from inception to date has been incurred for infectious disease programs.

Cancer Disease Projects

In April 2002, we entered into an agreement with AltaRex Corp. (which later became AltaRex Medical Corp., a wholly-owned subsidiary of ViRexx Medical Corp.) (AltaRex) to exclusively license monoclonal antibody immunotherapies. In December 2007, we announced the completion of our two pivotal trials of OvaRex MAb, called IMPACT I and II. Analysis of the results demonstrated that the studies failed to reach statistical significance. The studies showed no difference between active (standard of care followed by OvaRex) and control (standard of care followed by placebo) populations. The results of IMPACT I and II were consistent with each other.

Based on the results from the IMPACT I and II trials, we decided to terminate our license agreement with AltaRex and to cease further development of the entire platform of antibodies licensed thereunder. We expect to incur approximately $1.1 million in total close-out costs for this program, of which we had incurred approximately $533,000 as of December 31, 2007.

In December 2007, we entered into two agreements with Memorial Sloan-Kettering Cancer Center (MSKCC) to exclusively license certain rights to two investigational monoclonal antibodies, 3F8 and 8H9, for the treatment of neuroblastoma and metastatic brain cancer. The monoclonal antibody 3F8 is a mouse IgG3 MAb, which is currently used in an investigational setting for the treatment of neuroblastoma, a rare cancer of the sympathetic nervous system mainly affecting children. 8H9 is also a mouse monoclonal antibody, but of the IgG1 subclass. The 8H9 antibody is highly reactive with a range of human solid tumors, including brain cancers. The 8H9 antibody is in early investigational development for metastatic brain cancer. We expect to begin clinical development of these antibodies in 2008.

We incurred expenses of approximately $13.9 million, $10.5 million and $8.7 million during the years ended December 31, 2007, 2006, and 2005, respectively, on cancer projects. Approximately $56.8 million from inception to date has been incurred for the cancer programs.

Project Risks

Due to the inherent uncertainties involved in the drug development, regulatory review and approval processes, the anticipated completion dates, the cost of completing the research and development and the period in which material net cash inflows from these projects are expected to commence are not known or estimable. There are many risks and uncertainties associated with completing the development of the unapproved products discussed above, including the following:

- Products may fail in clinical studies;
- Hospitals, physicians and patients may not be willing to participate in clinical studies;
- Hospitals, physicians and patients may not properly adhere to clinical study procedures;
- The drugs may not be safe and effective or may not be perceived as safe and effective;
- Other approved or investigational therapies may be viewed as safer, more effective or more convenient;
- Patients may experience severe side effects during treatment;
- Patients may die during the clinical study because their disease is too advanced or because they experience medical problems that are not related to the drug being studied;
- Other ongoing or new clinical trials sponsored by other drug companies or ourselves may reduce the number of patients available for our studies;
- Patients may not enroll in the studies at the rate we expect;
- The FDA, international regulatory authorities or local internal review boards may delay or withhold approvals to commence clinical trials or to manufacture drugs;
- The FDA or international regulatory authorities may request that additional studies be performed;
- Higher than anticipated costs may be incurred due to the high cost of contractors for drug manufacture, research and clinical trials;
- Drug supplies may not be sufficient to treat the patients in the studies; and
- The results of preclinical testing may cause delays in the commencement of clinical trials.

If our projects are not completed in a timely manner, regulatory approvals could be delayed and our operations, liquidity and financial position could suffer. Without regulatory approvals, we cannot

commercialize and sell these products and, therefore, potential revenues and profits from these products could be delayed or be impossible to achieve.

Selling, general and administrative expenses

Selling, general and administrative expenses consist primarily of salaries and related expenses including stock option expense for corporate and marketing personnel, travel, office expenses, insurance, rent and utilities, professional fees, advertising and marketing and depreciation and amortization.

Cost of product sales

Cost of product sales consists of the cost to manufacture or acquire products that are sold to customers. We manufacture treprostinil using advanced intermediate compounds purchased in bulk from third-party vendors. We have approved three vendors that have the capability to manufacture greater quantities of these compounds less expensively than if we did so ourselves. We expect to begin commercial manufacturing of treprostinil in our new facility in Silver Spring, Maryland, in 2008, which is when FDA approval of the facility is expected. We anticipate that upon commercialization of oral treprostinil, the need for treprostinil diethanolamine, the active ingredient in our tablet, will be greater than the need for treprostinil sodium, the active ingredient for Remodulin and inhaled treprostinil. As a result, the manufacturing process at the Silver Spring facility consists of starting with an advance intermediate compound, making treprostinil diethanolamine and then converting that compound to treprostinil as demand requires. We believe that this will allow us the most flexibility and efficiency to meet future demands for both forms of active ingredients.

Cost of service sales

Cost of service sales consists of the salaries, stock option expense, and related overhead necessary to provide telemedicine services to customers.

Future Prospects

We have experienced annual revenue growth exceeding 30% each year since Remodulin was approved in 2002. Continued growth at a high rate is contingent upon future commercial development of our pipeline. One of our goals is to expand the use of treprostinil-based drugs to include the treatment of patients at earlier stages of the PAH disease pathway. In other words, we seek to move treprostinil from the last line of treatment for the sickest patients to front line therapy for newly diagnosed patients.

We expect to file for approval of inhaled treprostinil with the FDA in mid-2008. If we are successful in obtaining FDA approval in accordance with FDA requirements and anticipated review period, then we expect to begin commercial sales of inhaled treprostinil in 2009. We are currently in the later stages of development of our oral treprostinil formulation. We expect to unblind our FREEDOM-C trial in late 2008. If this trial is successful, we expect to file for approval with the FDA in 2009 with commercial sales beginning in 2010, assuming a regular FDA review period.

We believe that our trials for both the inhaled and oral formulations of treprostinil will be successful and will lead to products that generate revenues. However, for either or both of these formulations, we could be required to do additional studies which would delay commercialization. This could reduce our ability to continue to grow our revenues at our historic rate. Delays, if they occur, should not reduce our ability to continue revenue growth of Remodulin. Because PAH is a progressive disease with no cure, more patients each year are diagnosed with the disease and many patients continue to deteriorate on the current approved oral and inhaled therapies. In addition, we will need to sign new distribution agreements on acceptable terms for the inhaled and oral formulations of treprostinil in the United States and most foreign countries.

While we have been profitable for each year since 2003, we have experienced quarterly losses. At December 31, 2007, we had an accumulated deficit of approximately $21.5 million. Future profitability will depend on many factors, including the price, level of sales, level of reimbursement by public and private insurance payers, the impact of competitive products and the number of patients using Remodulin and other currently commercialized products and services.

Financial Position

Cash, cash equivalents and marketable investments (including all amounts classified as current and non-current, but excluding all restricted amounts) at December 31, 2007, were approximately $299.3 million, as compared to approximately $264.2 million at December 31, 2006.

Restricted marketable investments and cash totaled approximately $44.2 million at December 31, 2007, as compared to approximately $39.0 million at December 31, 2006. The restricted amounts include approximately $39.2 million pledged to secure our obligations under our financing arrangements for our Silver Spring, Maryland, laboratory facility, discussed below under *Off Balance Sheet Arrangement* , and approximately $5.0 million set aside for our Supplemental Executive Retirement Plan and placed in a Rabbi Trust.

Prepaid expenses at December 31, 2007, were approximately $5.9 million, as compared to approximately $9.2 million at December 31, 2006. The decrease was primarily due to the expensing of a portion of those assets used in operations during 2007.

Property, plant and equipment at December 31, 2007, were approximately $69.4 million as compared to approximately $34.7 million at December 31, 2006. The increase was primarily due to the acquisition for $5.7 million of an office building adjacent to our leased legal and governmental affairs office in Washington, D.C., and construction expenditures for our Research Triangle Park, North Carolina, and Silver Spring, Maryland, facilities projects of approximately $21.8 million.

Accrued expenses at December 31, 2007, were approximately $17.9 million, as compared to approximately $15.3 million at December 31, 2006. The increase was due primarily to an increase in Remodulin-related royalty expense of approximately $1.3 million and an increase in accrued bonuses of approximately $1.1 million.

Common stock subject to repurchase at December 31, 2007, was approximately $10.9 million, as compared to none at December 31, 2006. The common stock subject to repurchase represents the issuance of 200,000 shares of our common stock to Toray, which are subject to repurchase under our amended license agreement. See the *Toray Amended License Agreement* for further details.

Total stockholders' equity at December 31, 2007, was approximately $295.8 million, as compared to approximately $204.6 million at December 31, 2006. The increase in stockholder's equity is highlighted as follows (in thousands):

Balance at December 31, 2006	$	204,606
Net Income		19,859
Foreign currency translation adjustments		285
Unrealized (loss) on available-for-sale securities		(214)
Realized (loss) on available-for-sale securities		(678)
Unrealized (loss) on pension liability		(552)
Exercise of stock options		58,344
Tax benefits primarily from the exercise of stock options		32,089
Treasury stock repurchases		(67,059)
Options issued in exchange for services		48,979
Stock issued for license		131
Balance at December 31, 2007	$	295,790

Results Of Operations

Years ended December 31, 2007 and 2006

Revenues for the year ended December 31, 2007, were approximately $210.9 million, as compared to approximately $159.6 million for the year ended December 31, 2006. The increase of approximately $51.3 million was due primarily to growth in sales of Remodulin to our distributors as a result of an increase in the number of patients being treated with Remodulin.

The following table sets forth our revenues by source for the periods presented (dollars in thousands):

	Years Ended December 31,		Percentage Change
	2007	2006	
Remodulin	$ 200,879	$ 152,478	31.7%
Telemedicine services and products	7,725	6,597	17.1%
Other products	179	557	(67.9)%
Distributor fees	2,160	—	N/A
Total revenues	$ 210,943	$ 159,632	32.1%

For the year ended December 31, 2007 and 2006, approximately 87% and 90% of our Remodulin revenues, respectively, were earned from our three distributors located in the United States.

Total revenues are reported net of estimated government rebates, prompt pay discounts and fees due to distributors for services. We pay government rebates to state Medicaid agencies that pay for Remodulin. We estimate our liability for such rebates based on the historical level of government rebates invoiced by state Medicaid agencies relative to U.S. sales of Remodulin. Prompt pay discounts are offered on sales of Remodulin if the related invoices are paid in full generally within 60 days from the date of sale. We estimated our liability for prompt pay discounts based on historical payment patterns. Fees paid to distributors for services are estimated based on contractual rates for specific services applied to estimated units of service provided by the distributors for the period.

A roll forward of the liability accounts associated with estimated government rebates, fees to distributors for services, and prompt pay discounts as well as the net amount of reductions to revenues for these items are presented as follows (in thousands):

	Years Ended December 31,	
	2007	2006
Liability accounts, at beginning of period	$ 2,366	$ 1,590
Additions to liability attributed to sales in:		
Current period	12,439	9,442
Prior period	278	—
Payments or reductions attributed to sales in:		
Current period	(9,838)	(7,163)
Prior period	(2,366)	(1,503)
Liability accounts, at end of period	$ 2,879	$ 2,366
Net reductions to revenues	$ 12,703	$ 9,442

Research and development expenses were approximately $83.4 million for the year ended December 31, 2007, as compared to approximately $57.6 million for the year ended December 31, 2006.

The table below summarizes research and development by major project and non-project components (dollars in thousands):

	Years Ended December 31,		Percentage Change
	2007	2006	
Project and non-project:			
Cardiovascular	$ 38,459	$ 33,005	16.5%
Cancer	13,874	10,462	32.6%
Infectious disease	824	753	9.4%
Stock option	12,373	9,240	33.9%
Other	6,809	4,110	65.7%
R&D expense from issuance of common stock for license	11,013	—	N/A
Total research and development expense	$ 83,352	$ 57,570	44.8%

For the year ended December 31, 2007, the increase in cardiovascular expenses was primarily due to expensing a $3.0 million milestone payment to Toray in connection with the amended license agreement for modified release beraprost (beraprost-MR). For the year ended December 31, 2007, the increase in our cancer program expenses as compared to 2006 was primarily related to the development of our OvaRex manufacturing processes. The research and development expense from issuance of common stock is related to the 200,000 shares of our common stock issued to Toray for our amended license agreement for beraprost-MR.

Selling, general and administrative expenses were approximately $99.0 million for the year ended December 31, 2007 as compared to approximately $56.1 million for the year ended December 31, 2006. The table below summarizes selling, general and administrative expenses by major categories (dollars in thousands):

	Years Ended December 31,		Percentage Change
	2007	2006	
Category:			
General and administrative	$ 34,933	$ 25,434	37.3%
Sales and marketing	24,159	14,438	67.3%
Impairment charges	3,582	2,024	77.0%
Stock option	36,353	14,156	156.8%
Total selling, general and administrative expense	$ 99,027	$ 56,052	76.7%

The increase in general and administrative expenses was due primarily to increased expenses of approximately: (1) $3.2 million for salaries and related expenses from headcount growth to support expanding operations; and (2) $1.1 million for other operating expenses supporting the growth in our operations. The increase in sales and marketing related expenses is the result of an increase in salaries and related expenses of approximately $5.4 million primarily due to an increase in staffing and an increase in travel expenses of approximately $1.3 million. In November 2006, we settled an arginine infringement case and the $1.6 million settlement payment that we received was recorded as a reduction to general and administrative expense.

Under the terms of her employment agreement, as amended, our Chief Executive Officer is entitled to receive stock options in December of each calendar year based on the average closing bid price of our stock for the month of December. At December 31, 2007, we granted her options to purchase 582,607 shares of our common stock, which represents one-eighteenth of one percent of the

increase in our market capitalization from its average in December of 2006 based on the average closing bid price of our stock for the month of December 2007. Our stock market capitalization increased approximately $1.0 billion from January 1, 2007, to December 31, 2007. We recognized stock option expense in December 2007 of approximately $20.3 million, representing the fair market value of these stock options in excess of the $3.5 million recognized at September 30, 2007. Our market capitalization increased by approximately $814.7 million from September 30, 2007, to December 31, 2007. The offset to this expense was an increase to additional paid-in capital.

An impairment of the intangible assets related to the HeartBar product trade name totaling approximately $2.0 million was recorded during the year ended December 31, 2006. This impairment was required since the HeartBar product was discontinued in January 2006 and is no longer sold. In September 2007, based on a recent Supreme Court decision concerning the enforceability of patents and a publication discounting the benefits of arginine supplementation, we decided to discontinue selling any arginine related products and we reevaluated our assumptions used in determining the recoverability of our arginine patents. As a result, an impairment charge of $1.6 million was recorded.

In December 2007, based on the announcement of the failure of the IMPACT I and II Phase III trials of OvaRex in advanced ovarian cancer, the stock price of ViRexx declined We considered this decline to be an other-than-temporary impairment of approximately $1.9 million. Based on the quoted market price at December 31, 2007, the book value of our ViRexx investment is approximately $505,000.

Cost of product sales was approximately 10% of net product sales for each of the years ended December 31, 2007 and 2006. Cost of service sales was approximately 32% and 33% of service sales for the years ended December 31, 2007 and 2006, respectively.

Interest income for the year ended December 31, 2007, was approximately $13.6 million, as compared to interest income of approximately $10.7 million for the year ended December 31, 2006. The increase was due primarily to an increase in market interest rates and amounts available to invest.

Equity loss in affiliate represents our share of Northern Therapeutics' losses. The equity loss in affiliate was approximately $321,000 for the year ended December 31, 2007, as compared to approximately $491,000 for the year ended December 31, 2006. Northern Therapeutics' loss was due primarily to expenditures for its autologous (gene transfer using materials derived from a patient's own body and not from foreign materials such as viruses) gene therapy research for PAH.

We recognized an income tax benefit of approximately $3.3 million and $34.1 million for the years ended December 31, 2007 and 2006, respectively. The tax benefit generated for 2007 was primarily due to the amount of tax credits generated during the year from our orphan drug related research and development activities. For the year ended December 31, 2006 the tax benefit recognized was due primarily to reductions of approximately $45.7 million in the valuation allowance against our deferred tax assets based on our determination that certain of these deferred tax assets are more likely than not to be realizable.

Years ended December 31, 2006 and 2005

Revenues for the year ended December 31, 2006, were approximately $159.6 million, as compared to approximately $115.9 million for the year ended December 31, 2005. The increase of approximately $43.7 million was due primarily to growth in sales of Remodulin to our distributors.

The following table sets forth our revenues by source for the periods presented (dollars in thousands):

	Years Ended December 31,		Percentage Change
	2006	2005	
Remodulin	$ 152,478	$ 109,191	39.6%
Telemedicine services and products	6,597	5,773	14.3%
Other products	557	689	(19.2)%
License fees	—	262	N/A
Total revenues	$ 159,632	$ 115,915	37.7%

For each of the years ended December 31, 2006 and 2005, approximately 90% and 89%, respectively, of our Remodulin revenues, respectively, were earned from our three distributors located in the United States.

A roll forward of the liability accounts associated with estimated government rebates, fees to distributors for services, and prompt pay discounts as well as the net amount of reductions to revenues for these items are presented as follows (in thousands):

	Years Ended December 31,	
	2006	2005
Liability accounts, at beginning of period	$ 1,590	$ 2,121
Additions to liability attributed to sales in:		
Current period	9,442	6,789
Prior period	—	—
Payments or reductions attributed to sales in:		
Current period	(7,163)	(5,701)
Prior period	(1,503)	(1,619)
Liability accounts, at end of period	$ 2,366	$ 1,590
Net reductions to revenues	$ 9,442	$ 6,789

Research and development expenses were approximately $57.6 million for the year ended December 31, 2006, as compared to approximately $36.1 million for the year ended December 31, 2005. The increase in expenses was due primarily to increased expenses for treprostinil-related programs of approximately $12.9 million, primarily in our oral program, the adoption of SFAS No. 123R effective January 1, 2006, which resulted in the recognition of employee stock option expense of approximately $6.7 million, an increase in expenses of approximately $1.6 million related to stock option expense for option grants to scientific advisory board members, and an increase in spending in our cancer program of approximately $1.7 million. These increases were offset by a reduction of approximately $2.5 million in expenses associated with our infectious disease research program. During 2006, we purchased approximately $6.5 million of advanced intermediate compounds, which were either used or earmarked for use in the production of clinical trial material for our oral program. Because these compounds are for research and development purposes, they were expensed during the year. See *Major Research and Development Projects* above, for additional information regarding our research programs.

Selling, general and administrative expenses were approximately $54.0 million for the year ended December 31, 2006, as compared to approximately $24.7 million for the year ended December 31, 2005. The increase in selling, general and administrative expenses was due primarily to approximately $14.2 million of employee stock option expense related to our adoption of SFAS No. 123R. Also

contributing to this expense increase were an increase in marketing related expenses of approximately $6.3 million, representing an increase in marketing staff and marketing initiatives, an increase in non-marketing related salaries (mainly due to an increase in headcount and salary increases) of approximately $5.0 million and an increase in rent and other operating expenses, primarily due to the opening of the new laboratory facility in Silver Spring, Maryland, of approximately $2.1 million. In December 2006, Fred Hadeed, our Executive Vice President for Business Development, resigned from his position with the company. In accordance with his employment contract, Mr. Hadeed received a salary payout of two times his annual salary and the average bonus received over the last two years, as well as the immediate vesting of all of his unvested stock option grants. As a result, in December 2006, we recognized a cash salary expense of approximately $1.5 million and a non-cash stock option expense of approximately $3.9 million, representing 225,000 options which were immediately vested.

An impairment of intangible assets related to the HeartBar product trade name totaling approximately $2.0 million was recorded during the year ended December 31, 2006. This impairment was required since the HeartBar product was discontinued in January 2006 and is no longer sold. The decision to discontinue HeartBar did not impact other aspects of our arginine business, which includes sales of non-HeartBar arginine products and license royalties from third parties selling arginine based products. We made this decision after evaluating the recent clinical trial results and market potential, among other things.

Cost of product sales was approximately 10% of net product sales for the year ended December 31, 2006, which is consistent with approximately 9% for the year ended December 31, 2005. Cost of service sales was approximately 33% of service sales for the year ended December 31, 2006, as compared to approximately 40% for the year ended December 31, 2005. The improvement in the cost of service sales as a percentage of service revenues was due to the growth in telemedicine service sales during 2006, with no corresponding increase in costs, as a result of scheduling efficiencies.

Interest income for the year ended December 31, 2006, was approximately $10.7 million, as compared to interest income of approximately $5.4 million for the year ended December 31, 2005. The increase was due primarily to an increase in cash available for investing during 2006 and increased market interest rates.

Equity loss in affiliate represents our share of Northern Therapeutics' losses. The equity loss in affiliate was approximately $491,000 for the year ended December 31, 2006, as compared to approximately $754,000 for the year ended December 31, 2005. Northern Therapeutics' loss was due primarily to expenditures for its cell-based gene transfer technology research for PAH.

An income tax benefit of approximately $34.1 million was recognized for the year ended December 31, 2006, as compared to $17.5 million for the year ended December 31, 2005. The benefit in 2006 was due to an approximately $45.7 million reduction in the valuation allowance of our deferred tax assets as of December 31, 2006. The reduction of the valuation allowance is based on our review of both historical and projected taxable income which has shown that it is more likely than not that certain portions of our deferred tax assets will be realized. As a result, a reduction of the valuation allowance related to our net operating loss carry forwards, all of our business credits and other temporary assets was required. The remaining valuation allowance of approximately $6.8 million is on those deferred tax assets that need a capital gain to occur in order to be recognized. Because these events are not likely to occur in the near future, we continue to maintain a valuation allowance. Prior to 2005, due to the company's long history of operating losses, we did not believe our deferred tax assets had a realizable value and they were fully reserved. As a result, we did not report tax benefits or deferred tax assets prior to 2005. In 2005, we reduced the valuation reserve by approximately $19.7 million.

Liquidity and Capital Resources

Until May 2002, we funded the majority of our operations from the net proceeds of sales of our common stock. Since May 2002, we have funded the majority of our operations from revenues, mainly Remodulin-related, and we expect this to continue. We believe that our existing revenues, together with existing working capital resources (consisting primarily of unrestricted cash, cash equivalents and marketable investments), will be adequate to fund our operations. However, any projections of future cash needs and cash flows are subject to substantial uncertainty. See *Item 1A—Risk Factors—We have a history of losses and may not continue to be profitable* and *Item 1A—Risk Factors—We may fail to meet third party projections for our revenue or profits.*

Net cash provided by operating activities was approximately $49.1 million for the year ended December 31, 2007, as compared to approximately $51.8 million for the year ended December 31, 2006. The increase in cash provided by operating activities is due primarily to growth in sales of Remodulin and the collections on receivables from sales. In addition, for the year ended December 31, 2007, we also received approximately $87.9 million in stock option exercise proceeds and in excess tax benefits related to the stock option exercises as compared to approximately $25.2 million during the year ended December 31, 2006. With the increase of our common stock price in the fourth quarter of 2007, we experienced a much larger than usual volume of stock option exercises. We don't expect that the level of stock option exercises experienced in the fourth quarter of 2007 will continue into 2008 unless our common stock price increases in a similar magnitude as it did in 2007.

Our working capital at December 31, 2007, was approximately $79.7 million, as compared to approximately $258.1 million at December 31, 2006. The decrease is primarily due to the reclassification of our $250.0 million 0.50% Convertible Senior Notes (Convertible Notes) from long term debt to short term debt as of December 31, 2007, as a result of these Convertible Notes becoming eligible for conversion by the bondholders. Our expectation, based on our understanding of historical behavior of holders of convertible notes with terms similar to ours, is that our Convertible Notes will continue to be held until they mature in October 2011. Consequently, we believe that we have approximately $329.7 million of working capital available at December 31, 2007, for our operating needs.

We are currently constructing an approximately 200,000 square foot facility in Research Triangle Park, North Carolina, which will consist of a manufacturing operation and offices. The manufacturing operation will primarily be for oral treprostinil, although it is expected to support other programs, and the offices will be used by our clinical development and sales and marketing staffs, who currently occupy a leased facility in the area. Construction of this facility is expected to be completed in early 2009. The project may cost up to $107.1 million, and we expect to fund the construction of this facility from our current working capital and working capital generated from existing operations. As of December 31, 2007, we have spent approximately $19.3 million on this construction project.

In March 2007, we entered into a construction management agreement with DPR Construction, Inc. (DPR), based in Falls Church, Virginia. DPR will manage the construction of our manufacturing and office facility in Research Triangle Park, North Carolina. The agreement has a guaranteed maximum price clause in which DPR agrees that the construction cost of the facility will not exceed approximately $78.0 million, which amount is subject to change with agreed-upon changes to the scope of work. DPR will be responsible for covering any costs in excess of the guaranteed maximum price. If the ultimate cost of the project is less than the guaranteed maximum price, we will share a portion of these savings with DPR. In addition, DPR must pay us penalties if the construction is not completed by February 2009, which date is subject to change based on agreed-upon changes to the scope of work. DPR has no material relationship with us or any of our affiliates.

At the end of December 2007, we began construction of a new office and laboratory building which will connect to our current laboratory facility in Silver Spring, Maryland. The cost of this project is expected to be approximately $106.1 million. The construction of this facility is expected to take two

years to complete. Based on the current amount of working capital and working capital to be generated from future operations, we have decided to self-fund this construction project.

During the year ended December 31, 2007, we paid approximately $1.2 million in interest to the holders of our Convertible Notes. We are required to pay a semi-annual interest payment of $625,000 to our bondholders until the Convertible Notes mature in October 2011.

Under our existing license agreements we are obligated to make royalty payments on sales of Remodulin that exceed annual net sales of $25.0 million and on all arginine royalty fees received. Royalties on sales of all products currently marketed range up to 10 percent of sales of those products and are recorded as cost of sales in our consolidated statements of income.

Convertible Senior Notes

On October 30, 2006, we issued $250.0 million of Convertible Notes. Proceeds from the offering, after deducting the initial purchaser's, Deutsche Bank Securities Inc. (Deutsche Bank), discount and commission and estimated expenses were approximately $242.0 million. The Convertible Notes were issued at par value and pay interest in cash semi-annually in arrears on April 15 and October 15 of each year, beginning in April 2007. The Convertible Notes are unsecured unsubordinated obligations and rank equally with all other unsecured and unsubordinated indebtedness. The Convertible Notes have an initial conversion price of $75.2257 per share. The Convertible Notes may only be converted: (i) any time after July 15, 2011; (ii) during any calendar quarter commencing after the date of original issuance of the notes, if the closing sale price of our common stock for at least 20 trading days in the period of 30 consecutive trading days ending on the last trading day of the calendar quarter preceding the quarter in which the conversion occurs is more than 120% of the conversion price of the notes in effect on that last trading day; (iii) during the ten consecutive trading-day period following any five consecutive trading-day period in which the trading price for the notes for each such trading day was less than 95% of the closing sale price of our common stock on such date multiplied by the then current conversion rate; or (iv) if specified significant distributions to holders of our common stock are made, specified corporate transactions occur, or our common stock ceases to be approved for listing on The NASDAQ Global Select Market and is not listed for trading on another U.S. national or regional securities exchange. Upon conversion, a holder will receive: (i) cash equal to the lesser of the principal amount of the note or the conversion value; and (ii) to the extent the conversion value exceeds the principal amount of the note, shares of our common stock. In addition, upon a change in control, as defined in the indenture under which the Convertible Notes have been issued, the holders may require us to purchase all or a portion of their Convertible Notes for 100% of the principal amount plus accrued and unpaid interest, if any, plus a number of additional shares of our common stock, as set forth in the related indenture. The indenture under which the Convertible Notes were issued contains customary covenants.

Concurrent with the issuance of the Convertible Notes (see Note 7 in the *Consolidated Financial Statements*), we purchased call options on our common stock in a private transaction with Deutsche Bank AG London (the Call Option). The Call Option allows us to purchase up to approximately 3.3 million shares of our common stock at $75.2257 per share from Deutsche Bank AG London, equal to the amount of our common stock related to the excess conversion value that we would deliver to the holders of the Convertible Notes upon conversion. The Convertible Notes are generally convertible once our stock price exceeds $75.2257 per share. The Call Option will terminate upon the earlier of the maturity dates of the related Convertible Notes or the first day all of the related Convertible Notes are no longer outstanding due to conversion or otherwise. The Call Option, which cost approximately $80.8 million, was recorded as a reduction to additional paid-in-capital.

In a separate transaction that took place concurrently with the issuance of the Convertible Notes, we sold warrants to Deutsche Bank AG London under which Deutsche Bank AG London has the right to purchase approximately 3.3 million shares of our common stock at an exercise price of $105.689 per

share (the "Warrant"). Proceeds received from the issuance of the warrants totaled approximately $45.4 million and were recorded as an increase to additional paid-in-capital.

The combination of the Call Option and Warrant effectively serves to reduce the potential dilutive effect of the conversion the Convertible Notes. The Call Option has a strike price equal to the conversion price for the Convertible Notes, and the Warrant has a higher strike price of $105.689 per share that serves to cap the amount of dilution protection provided. The Call Option and Warrant are settled on a net share basis. The Warrant may be settled in registered or, subject to certain potential adjustments in the delivery amount, unregistered shares. Furthermore, if additional shares are required to be delivered with respect to a settlement in unregistered shares or any anti-dilution adjustments in the related Convertible Notes, the Warrant provides that in no event shall we be required to deliver in excess of approximately 6.6 million shares in connection with the Warrant. We have reserved approximately 6.6 million shares for the settlement of the Warrant and have sufficient shares available as of December 31, 2007, to effect such settlement.

Deutsche Bank AG London is responsible for providing 100% of the necessary shares of our common stock upon an exercise of the Call Option triggered upon conversion of the Convertible Notes by a bondholder. The shares of our common stock that Deutsche Bank AG London will deliver must be obtained from existing shareholders. If the market price per share of our common stock is above $105.689 per share, we will be required to deliver to Deutsche Bank AG London shares of our common stock representing the value in excess of the Warrant strike price. In accordance with the provisions of EITF No. 00-19 and SFAS 133, these transactions meet the definition of equity and are indexed to our common stock; therefore, the Call Option and Warrant are not considered derivative instruments or required to be accounted for separately.

Stock Repurchases

In July 2006, in a privately negotiated transaction, we repurchased 766,666 shares of our common stock, par value $0.01 per share, from Toray Industries for a cash purchase price of approximately $42.2 million (or $55.08 per share), pursuant to a stock purchase agreement between Toray Industries and us. The purchase price was the average of the closing price of our common stock for the 30 consecutive trading days ending July 26, 2006. Toray Industries retains ownership of 100,000 shares of our common stock.

Due to our desire to return value to our shareholders, on October 17, 2006, our Board of Directors approved a stock repurchase program to repurchase up to 4 million shares of our common stock over a two year period. As of December 31, 2007, approximately 3.1 million shares have been repurchased under the program at a cost of approximately $182.5 million. Approximately 1.8 million shares of our common stock were repurchased using approximately $112.4 million of the net proceeds from the issuance of the Convertible Notes, based on the closing price of our common stock on October 24, 2006, of $62.17. The remaining shares were repurchased on the open market. As of December 31, 2007, we had approximately 912,000 shares remaining under the approved stock repurchase program. We may also repurchase shares outside of this program.

Under the amended and restated agreement with Toray entered into in March 2007, we issued to Toray 200,000 shares of our common stock which are subject to repurchase. Toray has the right, upon 30 days prior written notice, to request that we repurchase these newly issued shares at the price of $54.41 per share, which was the average closing price of our common stock between January 11, 2007, and February 23, 2007. We have not received notice from Toray to repurchase any of these shares of our common stock.

Income taxes

We recognized an income tax benefit of approximately $3.3 million, $34.1 million and $17.5 million for the years ended December 31, 2007, 2006 and 2005, respectively. The tax benefit generated for 2007

was primarily due to the amount of tax credits generated during the year from our orphan drug related research and development activities. For the years ended December 31, 2006 and 2005, the tax benefit recognized is due primarily to reductions of approximately $45.7 million and $19.7 million, respectively, in the valuation allowance against our deferred tax assets based on our determination that certain of these deferred tax assets are more likely than not realizable.

At December 31, 2007, we had, for federal income tax purposes, net operating loss carryforwards of approximately $69.8 million and business tax credit carryforwards of approximately $48.8 million, which expire at various dates from 2012 through 2024. The majority of the net operating loss carryforwards is attributable to exercised stock options, the benefit of which was realized as direct increases in additional paid-in-capital. Business tax credits can offset future tax liabilities and arise from qualified research expenditures. We have been and may continue to be subject to federal alternative minimum tax and state income taxes, even though we have significant net operating loss and tax credit carryforwards. We have paid and expect to continue to pay state income taxes. A portion of the net operating loss carryforwards continues to be reserved through a valuation allowance as of December 31, 2007.

Section 382 of the Internal Revenue Code limits the utilization of net operating losses when ownership changes occur as defined by that section. We have annually reviewed our ownership change position pursuant to Section 382. Through December 31, 2006, we have determined that ownership changes have occurred in December 1997, June 1999, and November 2004 and, as a result, the utilization of certain of our net operating loss carryforwards may be limited. However, we do not expect any significant portion of our net operating loss carryforwards or general business tax credits to expire unused. We are currently reviewing the ownership changes for the year ended December 31, 2007.

Off Balance Sheet Arrangement

In June 2004, we entered into a synthetic operating lease and related agreements with Wachovia Development Corporation and its affiliates (Wachovia) to fund the construction of a laboratory facility in Silver Spring, Maryland. Under these agreements, Wachovia funded $32.0 million towards the construction of the laboratory facility on land owned by us. The construction phase commenced in 2004 and was completed in May 2006. Following construction, Wachovia leased the laboratory facility to us with a term ending in May 2011. Under the 99-year ground lease, Wachovia paid fair value rent to us for use of the land during the construction phase and will pay fair value rent after the laboratory lease is terminated. During the term of the laboratory lease, Wachovia will pay $1 per year to us for use of the land.

We pledged a portion of our marketable investments as collateral to secure our lease obligations. At December 31, 2007, approximately $39.2 million of marketable investments and cash were pledged as collateral and are reported as restricted marketable investments and cash in our consolidated balance sheet.

Upon termination of the lease, we will generally have the option of renewing the lease (subject to approval of both parties), purchasing the laboratory at a price approximately equal to the funded construction cost, or selling it and repaying Wachovia the cost of its construction. We have guaranteed that if the laboratory is sold, Wachovia will receive at least 86% of the amount it funded toward construction. The maximum potential amount of this guarantee is approximately $27.5 million, equivalent to 86% of the total construction costs of $32.0 million. We have reported the fair value of this guarantee as a non-current asset (prepaid rent) and non-current liability (other liability). At December 31, 2007, the liability and the corresponding asset are approximately $566,000, net of accumulated amortization.

The laboratory lease and other agreements require, among other things, that we maintain a consolidated net worth of at least $70.0 million. The agreements contain other covenants and

conditions with which we must comply throughout the lease periods and upon termination of the lease. If we were unable to comply with these covenants and conditions, if the noncompliance went uncured, and if the parties could not agree otherwise, the agreements could terminate. A termination of these agreements could result in the loss of our liquid collateral, among other consequences.

Wachovia receives monthly payments from us, generally based on applying the 30-day LIBOR rate plus approximately 55 basis points to the amount funded by Wachovia towards the construction of the laboratory. This monthly payment commenced when the laboratory construction was completed in May 2006 and will continue until the termination of the lease in May 2011. The monthly payment from May 2006 through December 2007 is recorded as rent expense.

Upon completion of our laboratory facility in May 2006, Wachovia advanced to us approximately $5.2 million, which constituted the remaining funds available for construction due to the lengthy process involved in finalizing construction costs. At December 31, 2007, there were no remaining construction advances.

Based on construction costs of approximately $32.0 million and the then current effective rate of approximately 5.2% (equivalent to the current 30-day LIBOR rate plus approximately 55 basis points at December 31, 2007), the payments to be made are approximately $1.7 million annually. In addition, Wachovia paid us ground rent of approximately $307,000 in June 2004 covering the construction period through May 2006. This amount is being recognized as income ratably through May 2011.

We intend to enter into a construction agreement that generally obligates us to complete construction on a new combination laboratory and office building that will connect to our existing Silver Spring, Maryland, laboratory facility. Upon execution of an amendment to our leasing agreements with Wachovia permitting us to attach the new facility to the existing Silver Spring laboratory facility, the estimated fair value of the building and the corresponding financing obligation to Wachovia will be classified as a component of our Property, Plant and Equipment and as a lease obligation in our consolidated balance sheet. The existing Silver Spring laboratory facility will not be considered a standalone structure, which is a significant factor contributing to our current off balance sheet accounting of it. We will continue to make lease payments to Wachovia as specified in the agreement; however, those payments will be recorded as interest expense and a reduction to the lease obligation instead of as an operating lease payment.

Contractual Obligations

At December 31, 2007, we had contractual obligations coming due approximately as follows (in thousands):

	Payment Due In				
	Total	2008	2009 to 2010	2011 to 2012	2013 and Later
Notes payable and capital lease obligations(1)	$ 251,272	$ 251,272	$ —	$ —	$ —
Operating lease obligations	9,180	2,981	5,107	1,078	14
Purchase Obligations(2)	5,764	2,764	2,000	1,000	—
Other long term Obligations(3)	566	—	—	566	—
Milestone payments(4)	20,555	2,430	8,910	6,590	2,625
Totals	$ 287,337	$ 259,447	$ 16,017	$ 9,234	$ 2,639

(1) In October 2006, we issued $250.0 million aggregate principal amount of Convertible Notes. The principal balance of the notes is to be repaid in cash. The notes can be redeemed by the bondholders once the market price of our common stock exceeds $90.27 for a specified period which was satisfied as of December 31, 2007. While the Convertible Notes are classifed as current, we believe that the bondholders will hold the notes until maturity in October 2011.

(2) Includes specified payments to Toray for clinical trial material and related services.

(3) Upon termination of the synthetic operating lease with Wachovia for the laboratory facility, we will generally have the option of renewing the lease, purchasing the laboratory or selling it and repaying Wachovia the cost of its construction. We guaranteed Wachovia that if the laboratory is sold, Wachovia will receive at least 86% of the amount it funded towards the construction. The final cost of constructing the laboratory was approximately $32.0 million and the guarantee is estimated at approximately $27.5 million. The remaining value of the guarantee is included in other long-term liabilities reflected in the statement of financial position. See the section entitled *Off Balance Sheet Arrangement* above for additional information.

(4) We licensed products from other companies under license agreements. These agreements generally include milestone payments to be paid in cash by us upon the achievement of product development and commercialization goals set forth in each license agreement. Total milestone payments under these license agreements have been estimated based on the assumption that the products currently under study will be successfully developed and on the estimated timing of these development and commercialization goals.

(5) As of December 31, 2007, we had approximately $3.0 million of unrecognized tax benefits. The table excludes these amounts due to uncertainty of timing surrounding future payments. See Note 8 to the consolidated financial statements for additional information.

Summary of Critical Accounting Policies

Income Taxes

We account for income taxes in accordance with Statement of Financial Accounting Standards (SFAS) No. 109, *Accounting for Income Taxes* . Under the asset and liability method of SFAS No. 109, deferred tax assets and liabilities are determined based on the differences between the financial reporting and the tax bases of assets and liabilities and are measured using the tax rates and laws that are expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. A net deferred tax asset or liability is reported in the balance sheet.

At each reporting date, we consider whether it is more likely than not that some portion or the entire net deferred tax asset is realizable. If the net deferred tax asset is not fully realizable, then a valuation allowance is established to reduce the amount of net deferred tax assets reported in the balance sheet. Based on the weight of available evidence at December 31, 2007, it was determined that a partial valuation allowance totaling approximately $7.5 million was necessary at December 31, 2007.

Uncertain Tax Positions

In July 2006, the FASB issued FIN 48, *Accounting for Uncertainty in Income Taxes* , and an interpretation of SFAS No. 109. FIN 48 clarifies the accounting for income taxes by prescribing the minimum recognition threshold a tax position is required to meet before being recognized in the financial statements. FIN 48 also provides guidance on derecognition, measurement, classification, interest and penalties, accounting in interim periods, disclosure and transition. The interpretation applies to all tax positions related to income taxes subject to SFAS 109. FIN 48 is effective for fiscal years beginning after December 15, 2006.

Remodulin Revenue Recognition

Product sales of Remodulin are recognized when delivered to distributors, which comprise our customers for Remodulin. Product sales of Remodulin delivery pumps and related supplies are recognized when delivered to distributors on a gross basis in accordance with Emerging Issues Task Force Issue (EITF) No. 99-19, *Reporting Revenue Gross as a Principal versus Net as an Agent* . Title to these products passes upon delivery. Had the net basis been applied, the amounts of revenues and cost of product sales reported in the consolidated financial statements would have been lower, but there would have been no impact on net income or losses. Prompt payment discounts, government rebates and fees to a distributor are estimated and recognized as reductions of revenue in the same period that revenues are recognized. Had these discounts, rebates and fees not been reported as reductions of revenue, the amounts reported as revenues and selling expenses would have been higher, but there would have been no impact on net income or losses.

Return policies provide that product that has expired or become damaged in shipment may be replaced, but not returned. We follow the guidance provided by Statement of Financial Accounting Standards No. 48, *Revenue Recognition When Right of Return Exists* (SFAS 48). Exchanges for expired or damaged in shipment product is generally less that 0.20% of the volume of vials that we sell. An exchange for expired vials generally occurs months after the vial was sold. Reserves for exchanges are not recorded unless product expiration or damage occurred during shipping are known to us. The shelf life of Remodulin is two and one-half years from the date of its manufacture. We rely on our distributors to report damage in shipment or expirations of Remodulin product.

One of our Remodulin distribution agreements stipulated minimum quarterly purchases by the distributor for periods through June 30, 2005, and no minimum quarterly purchases after June 30, 2005. The distribution agreement, however, does not permit the distributor to return Remodulin product solely based on the distributor's ability or inability to resell the product. As a result, revenues from sales to this distributor are recognized in the period that the Remodulin product is delivered to the distributor. During the years ended December 31, 2007, 2006 and 2005, approximately $20.6 million, $16.6 million, and $5.3 million, respectively, was recognized as revenue from sales to this distributor who has made voluntary purchases since June 30, 2005.

We closely monitor levels of inventory in the distribution channels for contractual compliance. The shelf life of Remodulin is 30 months. Obsolescence due to dating expiration has not been a historical concern, given the rapidity with which our products move through the channel. Changes due to our competitors' price movements have not adversely affected us. We do not provide incentives to our distributors to assume additional inventory levels beyond what is customary in the ordinary course of business.

We record Remodulin and related product sales net of the following significant categories of product sales allowances: prompt payment discounts, Medicaid discounts, and fees paid to distributors. Calculating each of these items involves significant estimates and judgments and requires us to use information from external sources.

Prompt payment discounts—We offer our distributors a 2% prompt-pay cash discount as an incentive to remit payment within the first thirty days after the date of the invoice. Prompt-pay discount calculations are based on the gross amount of each invoice. These discounts are accounted for by reducing sales by the 2% discount amount when product is sold, and applying earned cash discounts at the time of payment. Our customers have routinely taken advantage of this discount. If information is available, such as an outstanding invoice, which would indicate that the invoice will not be paid within the discount period, we adjust the accrual to reflect actual experience as necessary and, as a result, the actual amount recognized in any period may be slightly different from the accrual amount.

Medicaid discounts—We record accruals for rebates to be provided through governmental rebate programs, such as the Medicaid Drug Rebate Program, as a reduction of sales when product is sold. These reductions are based on historical rebate amounts and trends of sales eligible for these governmental programs for a period, as well as any expected changes to the trends of our total product sales. In addition, we estimate the expected unit rebate amounts to be used and adjust the rebate accruals based on the expected changes in rebate pricing. Rebate amounts are generally invoiced and paid a quarter in arrears, so that the accrual consists of an estimate of the amount expected to be incurred for the current quarter's activity, and an estimated accrual for prior quarters' unpaid rebates. While we have not experienced large variability in our estimated rates of rebates, using historical amounts and trends could lead to fluctuations in recorded revenue due to differences between amounts accrued and amounts actually paid.

Distributor Fee and Non-Refundable Upfront License Revenue Recognition

Our revenue recognition policy for all non-refundable upfront license and distribution rights fees and milestone arrangements are in accordance with the guidance provided in the Commission's Staff

Accounting Bulletin ("SAB") No. 101, *Revenue Recognition in Financial Statements* as amended by SAB No. 104, *Revenue Recognition* . In addition, we follow the provisions of EITF, Issue No. 00-21, *Revenue Arrangements with Multiple Deliverables* , (EITF 00-21) for multiple element revenue arrangements. EITF 00-21 provides guidance on how to determine when an arrangement that involves multiple revenue-generating activities or deliverables should be divided into separate units of accounting for revenue recognition purposes, and if this division is required, how the arrangement consideration should be allocated among the separate units of accounting. If the deliverables in a revenue arrangement constitute separate units of accounting according to the EITF's separation criteria, the revenue recognition policy must be determined for each identified unit. If the arrangement is a single unit of accounting, the revenue recognition policy must be determined for the entire arrangement.

Under arrangements where the license or distribution rights fees and research and development activities can be accounted for as separate units of accounting, non-refundable upfront license and distribution fees are deferred and recognized as revenue on a straight-line basis over the expected term of our continued involvement in the research and development process. Revenues from the achievement of certain research and development milestones, if deemed substantive, are recognized as revenue when the milestones are achieved and the milestone payments are due and collectible. Milestones are considered substantive if all the following criteria are met: (1) the milestone payment is non-refundable; (2) achievement of the milestone was not reasonably assured at the inception of the arrangement; (3) substantive effort is involved to achieve the milestone; and (4) the amount of the milestone payment appears reasonable in relation to the effort expended, the other milestones in the arrangement and the related risk associated with achievement of the milestone. If any of these conditions is not met, we would recognize a proportionate amount of the milestone payment upon receipt as revenue that correlates to work already performed and the remaining portion of the milestone payment would be deferred and recognized as we complete our performance obligations.

Intangible Assets

We adopted the provisions of SFAS No. 142 , *Goodwill and Other Intangible Assets* , on January 1, 2002, which eliminated the amortization of goodwill. Rather, goodwill is subject to at least an annual assessment for impairment by applying a fair value-based test that is performed on October 1 st of each year. We continually evaluate whether events and circumstances have occurred that indicate that the remaining value of goodwill may not be recoverable. If we believe impairment has occurred, we generally use a discounted cash flow methodology to calculate the actual impairment. At December 31, 2007, we believed that goodwill was not impaired and therefore no impairment losses have been recorded. This conclusion is based on our judgment, taking into consideration expectations regarding future profitability and the status of the reporting units which have reported goodwill. However, changes in strategy or adverse changes in market conditions could impact this judgment and require an impairment loss to be recognized for the amount that the carrying value of goodwill exceeds its fair value.

Marketable Investments

Currently, we invest portions of our cash in marketable debt securities issued primarily by corporations and federally-sponsored agencies. We do invest in state and municipal government agencies, mainly auction rate securities and in selected corporate debt issues. Due to our intent and ability to hold these marketable debt investments until their maturities, these investments are reported at their amortized cost. We believe that we are able to hold these investments to maturity, due to the significant level of cash and cash equivalents that we have and the generally short term nature of the investments. The weighted average maturity on these investments is approximately 14 months. If we did not have the ability and intent to hold these investments to maturity, we would have reported them in the consolidated balance sheets at their fair market values with changes in the fair value being recorded

in our results of operations. At December 31, 2007, the amortized cost of these debt securities was approximately $141.0 million and their fair values were approximately $140.9 million.

Stock Options

Effective January 1, 2006, we adopted the fair value recognition provisions of SFAS No. 123R, *Share-Based Payment* , using the modified prospective transition method. Under the modified prospective transition method, compensation cost recognized in 2006 includes compensation cost for all equity-based payments granted prior to but not yet vest as of January 1, 2006. This estimation is based on the grant date fair value estimated in accordance with the original provisions of SFAS No. 123 and compensation cost for all equity-based payments granted subsequent to January 1, 2006, based on the grant date fair value estimated in accordance with the provisions of SFAS No. 123R. Results for prior periods have not been restated.

We have utilized the Black-Scholes-Merton valuation model for estimating the fair value of the stock options granted since adoption of SFAS No. 123R, as well as, for option grants during all prior periods. The Black-Scholes-Merton valuation model includes many assumptions that are subject to substantial judgments, such as risk-free rate of interest, expected dividend yield, expected volatility, expected term of options and expected forfeiture rate.

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

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

Expected Term of Options— This is the period of time that the options granted are expected to remain outstanding. We adopted SAB 107's simplified method for estimating the expected term of share-based awards granted during the year ended December 31, 2007 and 2006. The use of SAB 107 to calculate expected term has been extended past the original curtailment date of December 31, 2007. We are evaluating the historical holding patterns of our options to determine if we can calculate a reasonable estimate of expected term for stock option grants beginning in 2008. Given the increase in our stock price, our stock options could be exercised sooner than we have seen in prior years.

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

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

Investments in Affiliates

The equity method of accounting is used to account for some of our investments in affiliates, including Northern Therapeutics, Inc. (Northern). The equity method of accounting generally requires that we report our share of our affiliates' net losses or profits in our financial statements, but does not require that assets, liabilities, revenues, and expenses of the affiliates be consolidated with our consolidated financial statements. The equity method of accounting is being applied generally due to the lack of control over these affiliates and the levels of ownership held by us. Although our investment

in Northern exceeds 50%, minority shareholders possess substantive participating rights that preclude Northern's financial statements from being consolidated.

Other investments in affiliates are accounted for on the cost method generally due to the lack of significant influence over these affiliates and a less than 20% ownership by us. The cost method of accounting does not require that we report our share of the affiliates' net losses or profits in our financial statements, nor are affiliates' assets, liabilities, revenues and expenses consolidated with our consolidated financial statements.

Lease of Laboratory Facility

In June 2004, we entered into a synthetic operating lease and related agreements with Wachovia to fund the construction of a laboratory facility in Silver Spring, Maryland. The construction of the laboratory facility was completed in May 2006. The total cost of the construction was $32.0 million. The laboratory facility is owned by Wachovia, the lessor. We are the lessee and pay rent to Wachovia now that the facility is completed. This arrangement is a form of off balance sheet financing under which Wachovia funded 100% of the costs for the construction of the property and now leases the laboratory facility to us. We have provided a residual value guarantee to Wachovia that the residual value of the leased assets will be at least equal to a specified amount at lease termination.

In accordance with the guidance in SFAS No. 13, *Accounting for Leases* , EITF Issue No. 97-1, *Implementation Issues in Accounting for Lease Transactions, Including Those Involving Special-Purpose Entities* , EITF Issue No. 97-10, *The Effect of Lessee Involvement in Asset Construction* , and Financial Accounting Standards Board (FASB) Interpretation No. 46, *Consolidation of Variable Interest Entities* , we determined that the lease is properly classified as an operating lease for accounting purposes. Furthermore, we determined that Wachovia has sufficient substance such that it can be treated as an unrelated entity and, accordingly, does not require consolidation into our financial statements.

Operating leases of assets do not require that the leased asset and the related rent obligation be reported in the lessee's balance sheet, but rather be disclosed as future commitments. In contrast, capital leases do require that the leased asset and rent obligations be reported in the lessee's balance sheet as assets and debt. Changes in the levels of investment made by Wachovia and its affiliates in the laboratory could affect the classification of the lease from operating to capital. In that event, we would include both the assets and debt associated with the laboratory facility on our balance sheet.

Senior Executive Retirement Plan

We account for our Senior Executive Retirement Plan (SERP) in accordance with SFAS No. 87, *Employers Accounting for Pensions* (SFAS 87), and SFAS 158, *Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans* (SFAS 158), and related standards and interpretations. In accordance with SFAS 87, a material change in the plan, such as adding a participant which occurred in August 2006, requires a remeasurement of the Plan. Since there are no plan assets, no interest on assets is assumed earned. With the addition of a participant in 2006, there is an unrecognized prior service cost of approximately $713,000 as of December 31, 2007 which will be amortized over the next 12 years, the average expected future service period of all the plan participants. In addition, any unrealized actuarial losses will be amortized as an expense only when the cumulative unrecognized losses exceed 10% of projected benefit obligations. Benefit payments are not expected to be paid over the next five years since no current participants will reach the age of 60 within this time period.

Recent Accounting Pronouncements

Fair Value Measurements

In September 2006, the FASB issued SFAS 157, *Fair Value Measurements* , SFAS 157 defines fair value, establishes a framework for measuring fair value under generally accepted accounting principles, and expands disclosures about fair value measurements. SFAS 157 is effective for financial statements

issued for fiscal years beginning after November 15, 2007, and interim periods within those fiscal years. We are currently evaluating the impact the adoption of this statement could have on our financial condition, results of operations or cash flows.

Fair Value Option for Financial Assets and Liabilities

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities—Including an Amendment of FASB Statement No. 115* . SFAS No. 159 permits an entity to measure many financial instruments and certain other items at fair value that are not currently required to be measured at fair value. Entities that elect the fair value option will report unrealized gains and losses in earnings at each subsequent reporting date. SFAS No. 159 is effective for fiscal years beginning after November 15, 2007. We are currently evaluating the impact the adoption of this statement could have on our financial condition, results of operations and cash flows.

Non-Refundable Advance Payments for Research and Development Activities

In June 2007, the FASB ratified EITF Issue No. 07-3, *Accounting for Non-Refundable Advance Payments for Goods or Services to Be Used in Future Research and Development Activities* (EITF 07-3), which provides that non-refundable advance payments for future research and development activities should be deferred and capitalized until the related goods are delivered or the related services are performed. EITF 07-3 will be for fiscal years beginning after December 15, 2007 and will be evaluated on a contract by contract basis. This standard is not expected to have a material impact on our future consolidated financial statements.

Collaboration Arrangements

In December 2007, the FASB ratified EITF Issue No. 07-1, *Accounting for Collaboration Arrangements Related to the Development and Commercialization of Intellectual Property* (EITF 07-1), which provides guidance on how the parties to a collaborative agreement should account for costs incurred and revenue generated on sales to third parties, how sharing payments pursuant to a collaboration agreement should be presented in the income statement and certain related disclosure requirements. EITF 07-01 will be effective for the Company beginning January 2009 on a retrospective basis. We are currently evaluating the impact of the adoption of EITF 07-1 will have, if any, on our consolidated financial statements.

Noncontrolling Interests in Consolidated Financial Statements

In December 2007, the FASB issued SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements—an amendment of ARB No. 51* . SFAS No. 160 requires all entities to report noncontrolling (minority) interests in subsidiaries as equity in the consolidated financial statements. Its intention is to eliminate the diversity in practice regarding the accounting for transactions between an entity and noncontrolling interests. This Statement is effective for fiscal years, and interim periods within those fiscal years, beginning on or after December 15, 2008. Earlier adoption is prohibited. We are currently evaluating the impact the adoption of this statement could have on our financial condition, results of operations and cash flows.

Business Combinations

In December 2007, the FASB issued SFAS No. 141(R), a revised version of SFAS No. 141, *Business Combinations* . The revision is intended to simplify existing guidance and converge rulemaking under U.S. generally accepted accounting principles (GAAP) with international accounting rules. This statement applies prospectively to business combinations where the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008, and may affect the release of our valuation allowance against prior acquisition intangibles. An entity may not apply it before that date. The new standard also converges financial reporting under U.S. GAAP with international accounting rules. We are currently evaluating the impact the adoption of this statement could have on our financial condition, results of operations and cash flows.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

At December 31, 2007, a substantial portion of our assets was comprised of debt securities issued by corporations and federally-sponsored agencies. The market value of these investments fluctuates with changes in current market interest rates. In general, as rates increase, the market value of a debt investment would be expected to decrease. Likewise, as rates decrease, the market value of a debt investment would be expected to increase. To minimize such market risk, we hold such instruments to maturity at which time these instruments will be redeemed at their stated or face value. At December 31, 2007, we had approximately $141.0 million in debt securities issued by federally-sponsored agencies and corporations with a weighted average stated interest rate of approximately 4.4% maturing through March 2012 and callable annually. The fair market value based on quoted market prices of this held-to-maturity portfolio at December 31, 2007, was approximately $140.9 million.

At December 31, 2007, a portion of our assets was comprised of auction rate debt securities issued by state-sponsored agencies. While these securities have long-term maturities, their interest rates are reset approximately every 7-28 days through an auction process. As a result, the interest income from these securities is subject to market risk since the rate is adjusted to accommodate market conditions on each reset date. However, since the interest rates are reflective of current market conditions, the fair value of these securities typically does not fluctuate from par or cost. At December 31, 2007, we had approximately $54.0 million in these debt securities with a weighted average stated interest rate of approximately 6.3%. The fair market value based on quoted market prices of these available-for-sale debt securities as of December 31, 2007 was approximately $54.0 million.

At February 28, 2008, we held approximately $35.4 million of investments in municipal notes, classified as current assets, with an auction reset feature ("auction rate securities"). The underlying assets of these investments are generally student loans which are substantially backed by the federal government. In February 2008, auctions failed for approximately $11.3 million of our auction rate securities and there is no assurance that currently successful auctions on the other auction rate securities in our investment portfolio will continue to succeed. As a result, our ability to liquidate and fully recover the carrying value of our investments in the near term may be limited. An auction failure means that the parties wishing to sell securities could not. All of our auction rate securities, including those subject to the failure, are currently rated AAA, the highest rating, by a rating agency. If the issuers are unable to successfully close future auctions and their credit ratings deteriorate, we may be required to record an impairment charge on these investments. We believe we will be able to liquidate our investments without significant losses within the next year, and we currently believe these securities are not significantly impaired, primarily due to the government guarantee of the underlying securities, however, it could take until the final maturity of the underlying notes (up to 30 years) to realize our investments' recorded value. Based on our expected operating cash flows, and our other sources of cash, we do not anticipate the potential lack of liquidity of these investments to affect our ability to execute our current business plan or the carrying value of these investments.

In June 2004, we entered into a synthetic operating lease and related agreements with Wachovia Development Corporation and its affiliates (Wachovia) to fund the construction of a laboratory facility in Silver Spring, Maryland. Under these agreements, we pay rents to Wachovia generally based on applying the 30-day LIBOR rate plus approximately 55 basis points to the amount funded by Wachovia towards the construction of the laboratory. The total amount of construction was $32.0 million. These rents, therefore, are subject to the risk that the LIBOR rate will increase or decrease during the period until termination in May 2011. At December 31, 2007, the 30-day LIBOR rate was approximately 4.6%. For every movement of 100 basis points (1%) in the 30-day LIBOR rate, the rents under this lease could increase or decrease by approximately $320,000 on an annualized basis.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

UNITED THERAPEUTICS CORPORATION
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders
United Therapeutics Corporation

We have audited the accompanying consolidated balance sheets of United Therapeutics Corporation as of December 31, 2007 and 2006, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2007. Our audits also included the financial statement schedule listed in the Index at Item 15 (a)(2). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of United Therapeutics Corporation at December 31, 2007 and 2006, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2007, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

As discussed in Note 7 to the consolidated financial statements, in fiscal year 2006, United Therapeutics Corporation changed its method of accounting for stock-based compensation in accordance with guidance provided in Statement of Financial Accounting Standards no.123(R) *Share- Based Payment* . As discussed in Note 8 to the consolidated financial statement, United Therapeutics Corporation adopted FASB Interpretation No. 48. *Accounting for Uncertainty in Income Taxes* , effective January 1, 2007.

We also have audited, in accordance with the Standards of the Public Company Accounting Oversight Board (United States), the effectiveness of United Therapeutics Corporation's internal control over financial reporting as of December 31, 2007, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 28, 2008 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

McLean, Virginia
February 28, 2008

Report of Independent Registered Public Accounting Firm on Internal Control over Financial Reporting

The Board of Directors and Shareholders
United Therapeutics Corporation

We have audited United Therapeutics Corporation internal control over financial reporting as of December 31, 2007, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). United Therapeutics Corporation's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying *Management's Report on Internal Control Over Financial Reporting* . Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

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

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

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

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

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the 2007 consolidated financial statements of United Therapeutics Corporation, and our report dated February 28, 2008, expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

McLean, Virginia
February 28, 2008

UNITED THERAPEUTICS CORPORATION

Consolidated Balance Sheets

(In thousands, except share and per share data)

	December 31,	
	2007	2006
Assets		
Current assets:		
Cash and cash equivalents	$ 139,323	$ 91,067
Marketable investments	150,729	136,682
Accounts receivable, net of allowance of none for 2007 and $1 for 2006	25,654	22,453
Other receivable	2,959	1,581
Interest receivable	1,049	1,611
Prepaid expenses	5,948	9,242
Inventories, net	13,211	12,047
Deferred tax assets	13,588	2,691
Total current assets	352,461	277,374
Marketable investments	9,740	36,414
Marketable investments and cash—restricted	44,195	38,988
Goodwill	7,465	7,465
Other intangible assets, net	962	3,140
Property, plant, and equipment, net	69,354	34,681
Investments in affiliates	1,247	4,700
Deferred tax assets	93,700	65,308
Other assets	7,894	8,901
Total assets	$ 587,018	$ 476,971
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 2,000	$ 3,093
Accrued expenses	17,942	15,265
Current portion of notes and leases payable	250,012	10
Other current liabilities	2,806	882
Total current liabilities	272,760	19,250
Notes and leases payable, excluding current portion	2	250,015
Other liabilities	7,584	3,100
Total liabilities	280,346	272,365
Commitments and contingencies:		
Common stock subject to repurchase	10,882	—
Stockholders' equity:		
Preferred stock, par value $.01, 10,000,000 shares authorized, no shares issued	—	—
Series A junior participating preferred stock, par value $.01, 100,000 authorized, no shares issued	—	—
Common stock, par value $.01, 100,000,000 shares authorized, 26,629,189 and 24,632,153 shares issued at December 31, 2007 and 2006, respectively, and 22,247,592 and 21,475,078 outstanding at December 31, 2007 and 2006, respectively	266	246
Additional paid-in capital	548,327	408,804
Accumulated other comprehensive income	317	1,476
Treasury stock at cost, 4,381,597 shares and 3,157,075 shares at December 31, 2007 and 2006, respectively	(231,619)	(164,560)
Accumulated deficit	(21,501)	(41,360)
Total stockholders' equity	295,790	204,606
Total liabilities and stockholders' equity	$ 587,018	$ 476,971

See accompanying notes to consolidated financial statements.

UNITED THERAPEUTICS CORPORATION

Consolidated Statements of Income

(In thousands, except per share data)

	For Years Ended December 31,		
	2007	**2006**	**2005**
Revenues:			
Net product sales	$ 201,348	$ 153,448	$ 110,412
Service sales	7,435	6,184	5,241
License fees	2,160	—	262
Total revenue	210,943	159,632	115,915
Operating expenses:			
Research and development	83,352	57,570	36,052
Selling, general and administrative.	99,027	56,052	24,655
Cost of product sales	19,919	14,973	10,242
Cost of service sales	2,342	2,055	2,073
Total operating expenses	204,640	130,650	73,022
Income from operations	6,303	28,982	42,893
Other income (expense):			
Interest income	13,602	10,700	5,359
Interest expense	(2,175)	(482)	(29)
Equity loss in affiliate	(321)	(491)	(754)
Other, net	(826)	1,199	53
Total other income (expense), net	10,280	10,926	4,629
Net income before income tax benefit	16,583	39,908	47,522
Income tax benefit	3,276	34,057	17,494
Net income	$ 19,859	$ 73,965	$ 65,016
Net income per common share:			
Basic	$ 0.94	$ 3.21	$ 2.85
Diluted	$ 0.88	$ 3.06	$ 2.58
Weighted average number of common shares outstanding:			
Basic	21,224	23,010	22,825
Diluted	22,451	24,138	25,206

See accompanying notes to consolidated financial statements.

UNITED THERAPEUTICS CORPORATION

Consolidated Statements of Stockholders' Equity

(In thousands, except share data)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income	Treasury Stock	Accumulated Deficit	Total
	Shares	Amount					
Balance, December 31, 2004	22,955,129	$ 229	$ 375,945	$ 2,677	$ (6,874)	$ (180,341)	$ 191,636
Net income	—	—	—	—	—	65,016	65,016
Foreign currency translation adjustments	—	—	—	(220)	—	—	(220)
Unrealized gain (loss) on available-for-sale securities	—	—	—	1,136	—	—	1,136
Total other comprehensive income	—	—	—	916	—	65,016	65,932
Exercise of stock options	889,875	10	14,955	—	—	—	14,965
Tax benefit from exercises of non-qualified stock options	—	—	1,586	—	—	—	1,586
Options issued in exchange for services	—	—	983	—	—	—	983
Balance, December 31, 2005	23,845,004	239	393,469	3,593	(6,874)	(115,325)	275,102
Net income	—	—	—	—	—	73,965	73,965
Foreign currency translation adjustments	—	—	—	336	—	—	336
Unrealized (loss) on available-for-sale securities	—	—	—	(2,453)	—	—	(2,453)
Total other comprehensive income	—	—	—	(2,117)	—	73,965	71,848
Exercise of stock options	787,149	7	14,437	—	—	—	14,444
Tax benefit from exercises of non-qualified stock options	—	—	12,236	—	—	—	12,236
Treasury stock repurchases	—	—	—	—	(157,686)	—	(157,686)
Cost of call spread options, net	—	—	(35,400)	—	—	—	(35,400)
Options issued in exchange for services	—	—	24,062	—	—	—	24,062
Balance, December 31, 2006	24,632,153	246	408,804	1,476	(164,560)	(41,360)	204,606
Net income	—	—	—	—	—	19,859	19,859
Foreign currency translation adjustments	—	—	—	285	—	—	285
Unrealized (loss) on available-for-sale securities	—	—	—	(214)	—	—	(214)
Realized (loss) on available-for-sale securities	—	—	—	(678)	—	—	(678)
Unrealized (loss) on pension liability	—	—	—	(552)	—	—	(552)
Total other comprehensive income	—	—	—	(1,159)	—	19,859	18,700
Exercise of stock options	1,797,036	18	58,326	—	—	—	58,344
Tax benefit from exercises							

of non-qualified stock options	—	—	32,089	—	—	—	32,089
Treasury stock repurchases	—	—	—	—	(67,059)	—	(67,059)
Options issued in exchange for services	—	—	48,979	—	—	—	48,979
Stock issued for license	200,000	2	129	—	—	—	131
Balance, December 31, 2007	26,629,189	$ 266	$ 548,327	$ 317	$ (231,619)	$ (21,501)	$ 295,790

See accompanying notes to consolidated financial statements.

UNITED THERAPEUTICS CORPORATION

Consolidated Statements of Cash Flows

(In thousands)

	Years Ended December 31,		
	2007	2006	2005
Cash flows from operating activities:			
Net income	$ 19,859	$ 73,965	$ 65,016
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Depreciation and amortization	3,427	2,713	2,534
Loss on disposals of equipment	1,345	240	58
Provisions for bad debt and write downs	754	(151)	90
Stock and options issued in exchange for services	48,704	24,062	983
Impairment losses	3,582	2,024	—
Deferred tax benefit	(3,276)	(37,047)	(18,125)
Provisions for inventory obsolescence and write downs	1,221	407	228
Amortization of premiums and discounts on marketable investments	(4,065)	(1,249)	(120)
Equity loss in affiliate	321	490	754
Excess tax benefit from stock-based compensation	(29,604)	(10,761)	—
Amortization of deferred financing cost	1,595	—	—
Issuance of stock for license	11,013	—	—
Changes of operating assets and liabilities:			
Restrictions on cash	(5,176)	(2,396)	(534)
Accounts receivable	(4,030)	(8,869)	(220)
Interest receivable	496	(812)	(234)
Inventories	(2,339)	(1,006)	(3,461)
Prepaid expenses	3,642	(2,867)	(2,377)
Other assets	(2,959)	2,389	(2,331)
Accounts payable	(1,072)	(1,082)	(2,122)
Accrued expenses	2,667	4,892	2,705
Other liabilities	2,978	4,446	322
Net cash provided by operating activities	49,083	49,388	43,166
Cash flows from investing activities:			
Purchases of property, plant and equipment	(38,658)	(15,634)	(6,117)
Purchases of held-to-maturity investments	(221,986)	(120,405)	(16,475)
Purchases of available-for-sale investments	(80,000)	(84,350)	(61,050)
Maturities of held-to-maturity investments	260,888	32,360	—
Sales of available-for-sale investments	58,050	86,400	12,900
Net cash (used in) investing activities	(21,706)	(101,629)	(70,742)
Cash flows from financing activities:			
Proceeds from exercise of stock options	58,344	14,445	14,965
Proceeds from the issuance of Convertible Notes, net of issuance costs	—	242,024	—
Payments to repurchase common stock	(67,059)	(157,686)	—
Purchase of call spread options, net	—	(35,400)	—
Proceeds from excess tax benefits	29,604	10,761	—
Principal payments on notes payable and capital lease obligations	(10)	(16)	(795)
Net cash provided by financing activities	20,879	74,128	14,170
Net increase (decrease) in cash and cash equivalents	48,256	21,887	(13,406)
Cash and cash equivalents, beginning of year	91,067	69,180	82,586
Cash and cash equivalents, end of year	$ 139,323	$ 91,067	$ 69,180
Supplemental cash flow information—cash paid for interest	$ 1,210	$ 7	$ 29
Cash paid for income taxes	$ 1,555	$ 304	$ 185

See accompanying notes to consolidated financial statements.

1. Organization and Business Description

United Therapeutics Corporation is a biotechnology company focused on the development and commercialization of unique products to address the unmet medical needs of patients with chronic and life-threatening cardiovascular and infectious diseases and cancer. We were incorporated on June 26, 1996, under the laws of the State of Delaware. We have the following wholly-owned subsidiaries: Lung Rx, Inc. (Lung Rx), Unither Pharmaceuticals, Inc. (UPI), Unither Telmed, Ltd (Unither Telmed and formerly Unither Telemedicine Services Corporation), Unither.com, Inc., United Therapeutics Europe, Ltd., Unither Pharma, Inc., Medicomp, Inc., Unither Neurosciences, Inc. (formerly Unither Nutriceuticals, Inc.), LungRx Limited, Unither Biotech Inc., and Unither Virology, LLC.

Our lead product is Remodulin®. Remodulin was first approved for use on May 21, 2002, by the United States Food and Drug Administration (FDA) as a continuous subcutaneous infusion for the treatment of pulmonary arterial hypertension (PAH) in patients with New York Heart Association (NYHA) class II-IV symptoms to diminish symptoms associated with exercise. In November 2004, the FDA approved intravenous infusion of Remodulin, based on data establishing intravenous bioequivalence with subcutaneous Remodulin, for patients who are not able to tolerate a subcutaneous infusion. In 2006, the FDA expanded its approval of Remodulin to include patients requiring transition from Flolan®, the only other FDA-approved intravenous prostacyclin. The FDA also agreed that we had fulfilled its Subpart H approval requirement for a Phase IV post-marketing study to confirm the clinical benefit of Remodulin. In addition to the United States, Remodulin is approved for subcutaneous infusion in most of Europe, Canada, Israel, Australia and several countries in South America. It is also approved for intravenous infusion in Canada, Israel, Mexico, Argentina and Peru. Other international applications for the approval of Remodulin are pending.

We have generated pharmaceutical revenues from sales of Remodulin and arginine products in the United States, Europe and Asia. In addition, we have generated non-pharmaceutical revenues from telemedicine products and services in the United States.

2. Summary of Significant Accounting Policies

Principles of Consolidation

The consolidated financial statements include the financial statements of United Therapeutics Corporation and its wholly-owned subsidiaries. All significant intercompany balances and transactions are eliminated in consolidation.

Cash Equivalents

Cash equivalents consist of highly liquid investments with original maturities of three months or less at the time of purchase. Cash equivalents consist of money market funds, commercial paper, and certificates of deposit and amounted to approximately $139.3 million and $91.1 million at December 31, 2007 and 2006, respectively. Approximately $1.5 million at December 31, 2007 and 2006 was held by a bank as a compensating balance in order to reduce fees charged by the bank. However, the agreement with the bank does not restrict our ability to withdraw such balances.

Inventories

We manufacture certain chemical compounds, such as treprostinil-based compounds. We contract with third-party manufacturers to make our cardiac monitoring devices and to formulate Remodulin. These inventories are accounted for under the first-in, first-out method and are carried at the lower of cost or market.

2. Summary of Significant Accounting Policies (Continued)

Inventories consisted of the following, net of reserves (in thousands):

	December 31,	
	2007	2006
Remodulin:		
Raw materials	$ 3,364	$ 149
Work in progress	4,782	7,807
Finished goods	4,615	3,355
Remodulin delivery pumps and medical supplies	291	661
Cardiac monitoring equipment components	159	38
Arginine related product lines	—	37
Total inventories	$ 13,211	$ 12,047

Property, Plant and Equipment

Property, plant and equipment are stated at cost. Depreciation of assets placed in service is computed using the straight-line method over the estimated useful lives of the assets. Estimated useful lives of the assets are as follows:

Buildings	39 Years
Building improvements	15-39 Years
Furniture, equipment and vehicle	3-15 Years
Holter and event cardiac monitoring systems	3-7 Years
Leasehold improvements	Life of the lease or asset, whichever is shorter

Property, plant and equipment consisted of the following (in thousands):

	December 31,	
	2007	2006
Land	$ 10,507	$ 9,789
Buildings, building improvements and leasehold improvements	19,203	13,023
Buildings under construction	26,134	4,363
Holter and event cardiac monitoring systems	3,915	3,540
Furniture, equipment and vehicle	19,955	13,230
	79,714	43,945
Less—accumulated depreciation	(10,360)	(9,264)
Property, plant and equipment, net	$ 69,354	$ 34,681

Depreciation expense for the years ended December 31, 2007, 2006 and 2005, was approximately $2.9 million, $2.4 million, and $2.1 million, respectively.

The laboratory facility in Silver Spring, Maryland, was completed in May 2006. It was financed through a synthetic operating lease with Wachovia Development Corporation (Wachovia). This project and its related financing are discussed in Note 10 in the *Consolidated Financial Statements* . In addition, in late December 2007, we began construction on a new combination office and laboratory building

2. Summary of Significant Accounting Policies (Continued)

which will connect to this laboratory facility. This new building is anticipated to cost approximately $106.1 million and is expected to be funded from working capital. The building project could take up to two years to complete.

In June 2006, we purchased 54 acres of land in Research Triangle Park, North Carolina, for approximately $3.2 million which will be used to build an approximately 200,000 square foot office and manufacturing facility. The manufacturing facility will formulate oral treprostinil and future glycobiology antiviral compounds, and the office will be used by our clinical development and Remodulin commercialization staff currently occupying leased space in the area. We anticipate that the building project which began in early 2007 will have an estimated cost of approximately $107.1 million and is expected to be funded from working capital. The new facility is expected to be completed by early 2009.

In May 2006, we purchased land and a building adjacent to our Silver Spring, Maryland, headquarters for approximately $1.8 million. In January 2007, we paid $5.7 million for an office building adjacent to our leased legal and governmental affairs office in Washington, D.C.

Research and Development

Research and product development costs are expensed as incurred. Research and development expenses consist primarily of salaries and related expenses, costs to acquire pharmaceutical products and product rights for development, and amounts paid to contract research organizations, hospitals and laboratories for the provision of services and materials for drug development and clinical trials. Clinical trial materials are expensed as research and development expense as they are used.

We expense the costs relating to the production activities in our laboratory facility in Silver Spring, Maryland as research and development expense in the period incurred until such time as we receive approval from the FDA for the facility.

Costs incurred in licensing the rights to technologies in the research and development stage and that have no alternative future uses are expensed as incurred and in accordance with the specific contractual terms of the applicable license agreements. Acquired in-process research and development is expensed if technological feasibility has not been demonstrated and there is no alternative use for the in-process technology.

Income Taxes

Income taxes are accounted for in accordance with SFAS No. 109, *Accounting for Income Taxes* . Under the asset and liability method of SFAS No. 109, deferred tax assets and liabilities are determined based on the differences between the financial reporting and the tax bases of assets and liabilities and are measured using the tax rates and laws that are expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect of a change in tax rates on deferred taxes and liabilities is recognized as either a change in the valuation allowance or in income in the period that includes the enactment date. Valuation allowances are provided against deferred tax assets, including those arising from net operating loss carry forwards, if it is anticipated that some or the entire asset may not be realized through future taxable income. We assess quarterly the likelihood that the deferred tax assets will be recovered from future taxable income and to the extent we believe that recovery is not likely, a valuation allowance is established. To the extent that we establish a valuation allowance or changes to the valuation allowance occur in a given period, an

2. Summary of Significant Accounting Policies (Continued)

income tax expense or benefit (i.e. reduction of expense) may be recognized in the statement of operations. For the years ended December 31, 2006 and 2005, we released a portion of the valuation allowance on the deferred tax assets. See Note 8 in the *Consolidated Financial Statements* for further information.

On January 1, 2007, we adopted the provisions of FASB Interpretation of No. 48, *Accounting for Uncertainty in Income Taxes* (FIN 48). FIN 48 clarifies the accounting for uncertainty for income taxes recognized in the financial statements and requires the impact of a tax position to be recognized in the financial statements if that position is more likely than not of being sustained by the taxing authority. Implementation of FIN 48 did not result in a cumulative adjustment to accumulated deficit and did not have a material effect on our consolidated financial position or results of operations.

Marketable Investments

Approximately $141.0 million and $162.1 million of our marketable investments were considered held-to-maturity securities at December 31, 2007 and 2006, respectively. Held-to-maturity securities are those securities which we have the ability and intent to hold until maturity and are recorded at amortized cost, adjusted for the amortization or accretion of premiums or discounts. Premiums and discounts are amortized or accreted over the life of the related held-to-maturity security as an adjustment to yield using the effective interest method. We monitor our investment portfolio for impairment on a periodic basis. In the event that the carrying value of an investment exceeds its fair value and the decline in value is determined to be other-than-temporary, we record an impairment charge and establish a new cost basis for the investment at its then current fair value. In order to determine whether a decline in value is other-than-temporary, we evaluate, among other factors: the duration and extent to which the fair value has been less than the carrying value; the financial condition of and business outlook for the issuer, including key operational and cash flow metrics, current market conditions and future trends in the issuer's industry; the issuer's relative competitive position within the industry; and our intent and ability to retain the investment for a period of time sufficient to allow for any anticipated recovery in fair value. Declines in market values below amortized cost that are considered other-than-temporary are reported in the statement of operations as losses.

Approximately $54.9 million and $46.3 million of our marketable investments were considered available-for-sale securities at December 31, 2007 and 2006, respectively. Available-for-sale securities are those securities which we neither intend to hold until maturity nor intend to sell in the near term. Available-for-sale securities are recorded at their fair values. Changes in fair values are excluded from earnings and reported in other comprehensive income. Our available-for-sale-securities are auction rate debt securities which have long term maturities and publicly traded equity securities. The interest rates on auction rate debt securities reset approximately every 7 to 28 days through a re-auctioning process. Since the interest rates are generally reflective of current market conditions, the fair value of these securities typically approximates cost.

Goodwill and Other Intangible Assets

Goodwill represents the excess of purchase price and related costs over the value assigned to the net tangible and intangible assets of the business acquired. Other intangible assets resulting from business acquired relate to covenants not to compete, employment agreements, technology, patents, and trade names and were determined on the basis of independent valuations. The other intangibles are being amortized over three to eighteen years, consistent with the terms of the underlying agreements.

2. Summary of Significant Accounting Policies (Continued)

Goodwill is tested for impairment in October of each year. Intangible assets subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. The measurement of possible impairment is based primarily on the ability to recover the balance of the goodwill and other intangible assets from expected future operating cash flows on an undiscounted basis. Impairment losses for other intangible assets are recognized when expected future cash flows are estimated to be less than the asset's carrying value. In management's opinion, no impairment exists at December 31, 2007.

An impairment of intangible assets related to the HeartBar product trade name totaling approximately $2.0 million was recorded during the year ended December 31, 2006. This impairment was required since the HeartBar product was discontinued in January 2006 and is no longer sold. In September 2007, based on a recent Supreme Court decision concerning the enforceability of patents and a publication discounting the benefits of arginine supplementation, we reevaluated our assumptions used in determining the recovery of our arginine patents. As a result using a discounted cash flow methodology, we recognized an impairment charge of approximately $1.6 million as a charge to selling, general and administrative expenses. The impairment was recorded in the pharmaceutical segment of our business.

Goodwill and other intangible assets were comprised as follows (in thousands):

	As of December 31, 2007			As of December 31, 2006		
	Gross	Accumulated Amortization	Net	Gross	Accumulated Amortization	Net
Goodwill	$ 7,465	$ —	$ 7,465	$ 7,465	$ —	$ 7,465
Intangible assets:						
Technology and patents	4,532	(3,570)	962	6,164	(3,024)	3,140
Total intangible assets	$ 4,532	$ (3,570)	$ 962	$ 6,164	$ (3,024)	$ 3,140

Total amortization expense for the years ended December 31, 2007, 2006 and 2005, was approximately $545,000, $324,000 and $479,000, respectively. The intangible asset related to patents for arginine has a remaining amortization period of approximately 5 years as of December 31, 2007. As of December 31, 2007, the aggregate amortization expense related to these intangible assets for each of the five succeeding years is estimated as follows (in thousands):

Years ending December 31,	
2008	$ 558
2009	122
2010	122
2011	122
2012	38

Investments in Affiliates

The investments in affiliates represent our investment in Northern Therapeutics, Inc. (Northern). The investment in Northern is being accounted for on the equity method of accounting which requires us to report our share of the affiliate's net losses or profits in our financial statements, but does not require that assets, liabilities, revenues and expenses of the affiliates be consolidated with our

2. Summary of Significant Accounting Policies (Continued)

consolidated financial statements. We own approximately 68% of Northern, but only hold 49.9% of the voting shares. The equity method is used because the minority shareholders of Northern possess substantive participating rights as defined by EITF Issue No. 96-16, *Investors Accounting for an Investee when the Investor Has a Majority of the Voting Interest but the Minority Shareholders or Shareholders Have Certain Approval or Veto Rights* .

Fair Value of Financial Instruments

The carrying amounts of cash and cash equivalents, accounts receivables, accounts payable, and accrued expenses, approximate fair value due to their short maturities. The carrying value of marketable investments and notes payable approximated its fair value based on quoted market prices. The fair values of leases payable approximate their carrying values based on notes that are currently available to us for obligations with similar terms and maturities.

Earnings per Common Share

Basic earnings per common share are computed by dividing net income by the weighted average number of shares of common stock outstanding during the respective period. Diluted earnings per common share are computed by dividing net income by the weighted average number of shares of common stock outstanding during the period plus the number of shares issuable upon the exercise of outstanding stock options and warrants using the treasury stock method.

At December 31, 2007, the holders of the components of basic and dilutive earnings per share are as follows (in thousands, except per share amounts):

	Years ended December 31,		
	2007	2006	2005
Net income (Numerator)	$ 19,859	$ 73,965	$ 65,016
Shares (Denominator):			
Weighted average outstanding shares for basic EPS	21,224	23,010	22,825
0.50% Convertible Senior Note	—	—	—
Dilutive effect of stock options	1,227	1,128	2,381
Adjusted weighted average shares for diluted EPS	22,451	24,138	25,206
Earnings per share			
Basic	$ 0.94	$ 3.21	$ 2.85
Diluted	$ 0.88	$ 3.06	$ 2.58
Stock options and warrants excluded from calculation	4,776	1,588	2,020

Certain stock options and warrants were not included in the computation of earnings per share because the exercise prices of these options and warrants were greater than the average market price of our common stock during these periods; therefore their effect was antidilutive.

2. Summary of Significant Accounting Policies (Continued)

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements. Estimates also affect the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

Reclassifications

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

Stock Option Plan

Effective January 1, 2006, we adopted the fair value recognition provisions of SFAS No. 123 (revised 2004), *Share-Based Payment* (SFAS 123R), using the modified prospective transition method and therefore have not restated results for prior periods. Under this transition method, stock-based compensation expense in fiscal year 2006 included stock-based compensation expense for all share-based payment awards granted prior to, but not yet vested as of, January 1, 2006, based on the grant-date fair value estimated in accordance with the original provisions of SFAS No. 123, *Accounting for Stock-Based Compensation* (SFAS 123). Stock-based compensation expense for all share-based payment awards granted after January 1, 2006 is based on the grant-date fair value estimated in accordance with the provisions of SFAS 123R. We recognize these compensation costs on a straight-line basis over the requisite service period of the award, which is generally the option vesting term of three years. For awards that contain a performance condition, we recognize compensation costs on an accelerated attribution model. We account for equity instruments issued to consultants in accordance with SFAS No. 123 and EITF Issue No. 96-18, *Accounting for Equity Instruments that are Issued to Other than Employees for Acquiring, or in Conjunction with Selling Goods or Services* . Prior to the adoption of SFAS 123R, we recognized stock-based compensation expense in accordance with Accounting Principles Board (APB) Opinion No. 25, *Accounting for Stock Issued to Employees* (APB 25). In March 2005, the Securities and Exchange Commission (the SEC) issued Staff Accounting Bulletin No. 107 (SAB 107) regarding the SEC's interpretation of SFAS 123R and the valuation of share-based payments for public companies. We have applied the provisions of SAB 107 in our adoption of SFAS 123R. See Note 7 in the *Consolidated Financial Statements* for a further discussion of stock-based compensation.

Revenues

Revenues are recognized in the financial statements only when considered realizable and earned.

Product sales of Remodulin are recognized when delivered to distributors, which are our customers for Remodulin. Product sales of Remodulin delivery pumps and related supplies are recognized when delivered to distributors on a gross basis in accordance with EITF Issue No. 99-19, *Reporting Revenue Gross as a Principal versus Net as an Agent* . Title to these products passes upon delivery.

We record Remodulin and related product sales net of the following significant categories of product sales allowances: prompt payment discounts; Medicaid discounts; and fees paid to distributors. Calculating each of these items involves significant estimates and judgments and requires us to use information from external sources. Prompt payment discounts and government rebates are estimated

2. Summary of Significant Accounting Policies (Continued)

and recognized as reductions in revenue for the same period that revenues are recognized. Return policies provide that product that has expired or become damaged in shipment may be replaced, but not returned.

Prompt payment discounts—we offer our distributors a 2% prompt-pay cash discount as an incentive to remit payment within the first thirty days after the date of the invoice. Prompt-pay discount calculations are based on the gross amount of each invoice. These discounts are accounted for by reducing sales by the 2% discount amount when product is sold, and applying earned cash discounts at the time of payment. Our customers have routinely taken advantage of this discount. If information is available, such as an outstanding invoice, which would indicate that the invoice will not be paid within the discount period the discount accrual is adjusted. We adjust the accrual to reflect actual experience as necessary and, as a result, the actual amount recognized in any period may be slightly different from the accrual amount.

Medicaid discounts—we record accruals for rebates to be provided through governmental rebate programs, such as the Medicaid Drug Rebate Program, as a reduction of sales when product is sold. These reductions are based on historical rebate amounts and trends of sales eligible for these governmental programs for a period, as well as any expected changes to the trends of our total product sales. In addition, we estimate the expected unit rebate amounts to be used and adjust the rebate accruals based on the expected changes in rebate pricing. Rebate amounts are generally invoiced and paid a quarter in arrears, so that the accrual consists of an estimate of the amount expected to be incurred for the current quarter's activity, and an estimated accrual for prior quarters' unpaid rebates.

Fees paid to distributors—we pay two of our distributors fees for services that they render on our behalf. These fees are recorded as a reduction to revenue. Fees to distributors are accrued monthly and are estimated based on contractual rates for specific services applied to estimated units of service provided by the distributors for the period.

Distributor fees and non-refundable license revenue

Our revenue recognition policy for all non-refundable upfront license and distribution rights fees and milestone arrangements are in accordance with the guidance provided in the Commission's Staff Accounting Bulletin ("SAB") No. 101, " *Revenue Recognition in Financial Statements* " as amended by SAB No. 104, " *Revenue Recognition* ." In addition, we follow the provisions of EITF, Issue No. 00-21, " *Revenue Arrangements with Multiple Deliverables* ," (EITF 00-21) for multiple element revenue arrangements. EITF 00-21 provides guidance on how to determine when an arrangement that involves multiple revenue-generating activities or deliverables should be divided into separate units of accounting for revenue recognition purposes, and if this division is required, how the arrangement consideration should be allocated among the separate units of accounting. If the deliverables in a revenue arrangement constitute separate units of accounting according to the EITF's separation criteria, the revenue recognition policy must be determined for each identified unit. If the arrangement is a single unit of accounting, the revenue recognition policy must be determined for the entire arrangement.

Under arrangements where the license or distribution rights fees and research and development activities can be accounted for as separate units of accounting, non-refundable upfront license and distribution fees are deferred and recognized as revenue on a straight-line basis over the expected term of our continued involvement in the research and development process. Revenues from the

2. Summary of Significant Accounting Policies (Continued)

achievement of certain research and development milestones, if deemed substantive, are recognized as revenue when the milestones are achieved and the milestone payments are due and collectible. Milestones are considered substantive if all the following criteria are met: (1) the milestone payment is non-refundable; (2) achievement of the milestone was not reasonably assured at the inception of the arrangement; (3) substantive effort is involved to achieve the milestone; and (4) the amount of the milestone payment appears reasonable in relation to the effort expended, the other milestones in the arrangement and the related risk associated with achievement of the milestone. If any of these conditions is not met, we would recognize a proportionate amount of the milestone payment upon receipt as revenue that correlates to work already performed and the remaining portion of the milestone payment would be deferred and recognized as we complete our performance obligations.

Telemedicine and arginine revenue

Service sales from cardiac monitoring analysis services are recognized when the services are performed.

Product sales of cardiac monitoring systems are recognized when delivered to customers and installed.

Product sales from the arginine related products were recognized when delivered to customers. If the products were consigned, sales were recognized in the period that the consignee has sold the product. Product sales were recorded net of allowances for estimated returns and rebates.

Trade Receivables

Trade receivables that are deemed collectible and will be held until payment is received are reported in the consolidated balance sheets at the outstanding amounts less an allowance for doubtful accounts. We write off uncollectible receivables when the likelihood of collection is remote.

Other Receivables

Other receivables consist primarily of recoverable import duties on shipments of Remodulin to other countries.

Treasury Stock

Treasury stock is reported at cost, including commissions and fees.

Advertising Costs

Advertising costs are expensed when incurred. Advertising costs expensed during the years ended December 31, 2007, 2006 and 2005, were approximately $1.2 million, $630,000 and $31,000, respectively.

Concentrations of Credit Risk, Suppliers, Products, Revenues and Customers

Financial instruments, which potentially subject us to credit risk, consist primarily of cash, money market funds, commercial paper, marketable investments, and trade receivables. We maintain our cash and money market funds with major financial institutions. The amounts deposited with these institutions exceed the Federal Deposit Insurance Corporation insurance limits. We have not

2. Summary of Significant Accounting Policies (Continued)

experienced any losses on such bank accounts. Our commercial paper and marketable investments have been issued by corporate, state and local government agencies with high credit ratings and by federally sponsored agencies.

If these financial institutions, issuing companies, federal agencies or customers failed to perform their obligations under the terms of these financial instruments, the maximum amount of loss resulting from these credit risks would be approximately equal to the amounts reported in the consolidated balance sheets for cash and cash equivalents, marketable investments, accounts receivable and interest receivable.

We currently rely on a single supplier for stability studies on Remodulin, the formulation of oral treprostinil and inhaled treprostinil, and to analyze other products. Additionally, Remodulin is formulated and packaged by a single formulator. Although there are a limited number of companies that could replace these suppliers, we believe that other suppliers could provide similar services and materials. A change in suppliers, however, could cause a delay in distribution of Remodulin and in the conduct of clinical trials and commercial launch for products in development, which would adversely affect our research and development efforts and future sales efforts.

We rely solely on one manufacturer to make our cardiac monitoring devices. Although there are a limited number of companies that could replace this supplier, we believe that other suppliers could provide similar services and materials. A change in supplier, however, could cause a delay in the manufacture and distribution of cardiac monitoring devices which would adversely affect our sales efforts.

During the year ended December 31, 2007, Remodulin drug sales accounted for approximately 95% of total revenues.

The majority of Remodulin drug sales were made to United States distributors. In the United States, we have contracted with three distributors which purchase and market Remodulin. There are several other qualified distributors that could market Remodulin, if an existing distributor ceased to market Remodulin. If these distributor agreements expire or are terminated, under certain conditions, we may have to repurchase unsold Remodulin inventory held by the distributors.

In 2007, 2006 and 2005, approximately 88%, 90% and 90% of our Remodulin revenues, respectively, were earned from customers located in the United States. Foreign revenues were derived from several countries mainly located in Europe. Virtually all of our long-lived assets are located in the United States. At December 31, 2007 and 2006, trade receivables were due primarily from three customers in the pharmaceutical segment.

We earned approximately 69% of our total net domestic revenues and approximately 63% of our total net Remodulin revenues from one customer in our pharmaceutical segment. Gross revenues from that customer totaled as follows (in thousands):

	Years Ended December 31,		
	2007	2006	2005
Accredo Therapeutics	$ 136,975	$ 101,584	$ 75,317

3. Related Party Transactions

Receivable from Employees

At December 31, 2007 and 2006, we had approximately $46,000 and $38,000, respectively, in non-interest bearing advances due from employees. The advances are classified as other assets in the *consolidated balance sheets* .

Marketing and Consulting Agreements

In May 2007, we entered into a technical services agreement with Kurzweil Technologies Inc. (KTI), a company controlled by Raymond Kurweil, a member of our Board of Directors. Pursuant to this agreement, we agreed to pay KTI consulting fees up to $12,000 monthly. We also agreed to reimburse KTI on a monthly basis for all necessary, reasonable and direct out of pocket expenses. In addition, we agreed to pay KTI up to 5% royalty on certain sales of products reasonably attributed to and dependent upon certain technology developed by KTI under the technical services agreement. We incurred approximately $84,000 in expenses during 2007 under this agreement.

In September 2002, we entered into a technical services agreement with KTI. Pursuant to this agreement, we paid KTI $40,000 monthly for consulting fees, additional sums for preapproved patent work, and up to $1,000 monthly for reimbursement of expenses for certain telemedicine technology development services. In addition, we agreed to pay KTI a 5% royalty on certain sales of products reasonably attributed to and dependent upon technology developed by KTI under the technical services agreement and which are covered by claims of an issued and unexpired United States patent(s). The agreement was terminated by the parties as of December 31, 2006. During the years ended December 31, 2007, 2006 and 2005, we incurred approximately none, $568,000, and $541,000, respectively, of fees and expenses related to this agreement, of which approximately none were payable to KTI at December 31, 2007 and 2006.

4. License Agreements

Glaxo SmithKline

In January 1997, GlaxoSmithKline PLC (formerly known as Glaxo Wellcome, Inc.) assigned to us patents and patent applications for the use of the stable prostacyclin analog UT-15 (now known as Remodulin) for the treatment of PAH and congestive heart failure. GlaxoSmithKline has a right to negotiate a license from us if we decide to license any part of the marketing rights to a third party. Under the agreement, GlaxoSmithKline is entitled to certain royalties on sales exceeding a specified threshold from us for a period of ten years from the date of the first commercial sale of any product containing Remodulin. If we grant any license to Remodulin to a third party, GlaxoSmithKline is also entitled to a percentage of all consideration payable to us by such licensee. We are responsible for all patent prosecution and maintenance for Remodulin.

Pfizer License

In December 1996, Pfizer Inc. (formerly known as Pharmacia & Upjohn Company) exclusively licensed us patents and a patent application for the composition and production of treprostinil. Under the amended 2002 license agreement with Pfizer, we pay royalties to Pfizer of 4% on annual net sales of Remodulin in excess of $25.0 million. This 4% royalty is subject to a 50% reduction for royalties due to other parties. Under the amended license agreement, Pfizer is entitled to these royalties from us for

4. License Agreements (Continued)

a period of ten years from date of the first commercial sale in the applicable country of any product containing Remodulin.

Medtronic MiniMed

We entered into an agreement with Medtronic MiniMed (MiniMed) in September 1997 to collaborate in the design, development, and implementation of therapies to treat PAH and peripheral vascular disease utilizing MiniMed products with subcutaneous Remodulin. In May 2006, MiniMed advised us that it intended to discontinue making infusion pumps for subcutaneous delivery of Remodulin after first giving us and our distributors the opportunity to purchase desired quantities. In November 2006, MiniMed and we mutually entered into a termination agreement.

Toray Industries, Inc. License

In June 2000, we entered into an agreement with Toray Industries, Inc. (Toray), for the exclusive right to develop and market beraprost, a chemically stable oral prostacyclin analog, in a sustained release formulation (beraprost-SR) in the United States and Canada for the treatment of all cardiovascular indications. Under this agreement, Toray was granted the right to receive an option grant to purchase 500,000 shares of our common stock (the Option Grant). Toray's right to receive the Option Grant was conditioned upon Toray's delivery to us of adequate documentation regarding the use of beraprost-SR in humans and its transfer of clinical trial material to us. The exercise price of the options would be based on the average of closing market prices of our common stock for the month preceding delivery of the clinical trial material.

In March 2007, Lung Rx entered into an amended agreement with Toray to assume and amend the rights and obligations of the agreement entered into between Toray and us in June 2000 concerning the commercialization of modified release formulations of beraprost (beraprost-MR). Under our original agreement with Toray, we had exclusive North American rights to commercialize beraprost-MR in the United States for all cardiovascular diseases. The amended agreement grants us additional exclusive rights to commercialize beraprost-MR in Europe and broadens the indication to vascular disease (excluding renal disease), among other revisions.

In accordance with the terms of the amended agreement, in March 2007 we issued 200,000 shares of our common stock to Toray in exchange for the cancellation of Toray's existing right to receive the Option Grant. At the time the amendment was entered into, the conditions for Toray's receipt of the Option Grant had not been met. Under the terms of the amended agreement, Toray has the right to request that we repurchase the issued 200,000 shares of our common stock upon 30 days prior written notice at the price of $54.41 per share. We recognized research and development expenses of approximately $11.0 million relating to the issuance of the 200,000 shares, because beraprost-MR had not yet obtained regulatory approval for commercial sales. In accordance with the provision of SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities* , EITF 00-19, *Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock* , and EITF Topic No. D-98, *Classification and Measurement of Redeemable Securities* , these shares of common stock are reflected in mezzanine equity as common stock subject to repurchase valued at the repurchase price. If Toray requests that we repurchase these shares, then an amount equal to the repurchase price will be reclassified to a liability account until the repurchase is completed.

4. License Agreements (Continued)

The amended agreement also specifies that we make certain milestone payments to Toray during the development period and upon U.S. or European Union regulatory approval. Upon execution of the amended agreement, we made a $3.0 million payment to Toray in addition to the issuance of the 200,000 shares of our common stock discussed above. Additional annual milestone payments of $2.0 million are specified in the amended agreement and are to commence in the first quarter of 2008, increasing in $1.0 million increments annually through 2011. These payments will be expensed when incurred. These payments are contingent upon the receipt of clinical trial material and commercial drug from Toray that meet all regulatory standards and requirements, including those relating to chemistry, manufacturing and controls, and are documented to the satisfaction of U.S. and European Union regulatory authorities. In addition, if Toray elects to terminate production of beraprost-MR, no further payments would be due under the amended agreement. Conversely, if we elect to terminate development of beraprost-MR, then all remaining milestone payments would be due to Toray, unless certain regulatory standards and requirements have not been met, or if material problems have been identified with respect to manufacturing and regulatory compliance.

On October 19, 2007, beraprost-MR received regulatory approval in Japan for use in the treatment of PAH.

Supernus Pharmaceutical License

In June 2006, we entered into an exclusive license agreement with Supernus Pharmaceuticals, Inc. (Supernus), for use of certain technologies developed by Supernus in our sustained release oral treprostinil formulation. Under the agreement, in return for the license, we will pay Supernus certain amounts upon the achievement of specified milestones based on the development of oral treprostinil and its commercial launch. In addition, the agreement provides that we will pay a royalty to Supernus based on net worldwide sales of the initial product. Any such royalty will be paid for approximately twelve years commencing with the first product sale and is subject to adjustments as specified in the agreement. Additional milestone payments and royalty payments may be due for the development and commercialization of other products developed using the technology granted in this license.

Northern Therapeutics, Inc. Licenses

On October 15, 2006, Lung Rx entered into an exclusive license agreement with Northern Therapeutics, Inc. (Northern), to obtain the developmental and commercial rights to Northern's cell-based gene transfer technology for the treatment of PAH in the United States. Under the terms of the agreement, Lung Rx would assume the development activities of this technology upon the successful completion of the current Phase I trial being conducted by Northern in Canada, PHACeT. In addition, Lung Rx will pay Northern certain milestone payments during the PHACeT trial, totaling approximately $1.5 million, if the trial is successful. We have incurred expenses totaling $150,000 and $500,000 during the years ended December 31, 2007 and 2006, respectively. Upon successful commercial launch of a product using this technology, royalties would be due to Northern at various rates from 5% to 10% depending on sales level.

Stanford University and New York Medical College

Unither Pharma, Inc. has exclusively licensed patents related to arginine-based dietary supplements to enhance the level of naturally occurring nitric oxide in the vascular system from Stanford University

4. License Agreements (Continued)

and New York Medical College. The licenses cover worldwide territories and are valid for the life of the patents. In return, Unither Pharma, Inc. has agreed to pay royalties equal to 1% of net sales of amino acid based products to each licensor respectively, subject to reductions. Minimum annual royalties of $10,000 are due to each licensor.

Aradigm Licensing Agreement

In August 2007, Lung Rx entered into an exclusive license, development and commercialization agreement with Aradigm Corporation (Aradigm) for the rights to manufacture, develop and commercialize its AERx Essence® device, a pulmonary drug delivery system, for use as a next-generation metered-dose inhaler with our investigational inhaled treprostinil product in patients with PAH and other conditions. Under the terms of the Agreement, we made an upfront payment of $440,000 to Aradigm and paid an additional $440,000 in January 2008. Aradigm will initiate, and is responsible for conducting and funding, a study that includes a bridging clinical trial comparing the AERx Essence technology to the NEBU-TEC Optineb nebulizer used in our clinical trial for inhaled treprostinil, TRIUMPH-1.

If the study is successful, we will purchase approximately $3.5 million of Aradigm's common stock. Aradigm will receive certain milestones and license fees over the course of the development period and we will fund the costs to develop, commercialize and manufacture inhaled treprostinil for use with AERx Essence.

TransMIT License

In March 2007, TransMIT Gesellschaft fur Technologletransfer GmbH. (TransMIT), an affiliate of the University of Giessen, assigned to Lung Rx its entire interest in the patent rights to a portable ultrasonic nebulizer and related technology in order to make, have made, use and sell products based on such patent rights. As consideration for the assignment, Lung Rx paid to TransMIT approximately $779,000 and agreed to pay a 5% running royalty on net sales of nebulizers using their technology in Germany. However, no royalty payments are due to TransMIT until royalties on net sales of products in Germany exceed the original payment of approximately $779,000.

Memorial Sloan Kettering

In December 2007, we entered into two agreements with Memorial Sloan-Kettering Cancer Center (MSKCC) to exclusively license certain rights to two investigational monoclonal antibodies, 3F8 and 8H9, for the treatment of neuroblastoma and metastatic brain cancer. The monoclonal antibody 3F8 is a mouse IgG3 MAb, which is currently used in an investigational setting for the treatment of neuroblastoma, a rare cancer of the sympathetic nervous system mainly affecting children. 8H9 is also a mouse monoclonal antibody, but of the IgG1 subclass. The 8H9 antibody is highly reactive with a range of human solid tumors, including brain cancers. The 8H9 antibody is in early investigational development for metastatic brain cancer.

Under the terms of the licensing agreements, MSKCC granted us an exclusive license for the development and commercialization of the 3F8 and 8H9 antibodies for cancer throughout the universe. In exchange for these exclusive licenses, we agreed to pay a royalty fee on net sales, with an annual minimum royalty payment for each antibody. Milestone payments may also be due for the development and commercialization of these antibodies under our licenses.

5. Distribution Agreement

NEBU-TEC Supply Agreement

In June 2004 and September 2006, we entered into Clinical and Commercial Supply Agreements with NEBU-TEC International Med Products Eike Kern GmbH. (NEBU-TEC) to provide for the availability of Optineb® inhalation devices and related supplies for use in our TRIUMPH-1 clinical trial of inhaled treprostinil and for commercial use following regulatory approval. The non-exclusive agreements provide for NEBU-TEC to sell us Optineb devices and supplies at specified prices and payment terms for clinical and commercial use. The agreements also specified the obligations that each party has with respect to regulatory approvals. In February 2008, we entered into an amendment to the September 2006 Clinical and Commercial Supply Agreement under which the term of the agreement was extended to the first anniversary of the first to occur of United States or European Union approval of inhaled treprostinil. We also agreed to terms for an advance order of Optineb devices and related supplies following satisfactory completion of a testing program in support of our NDA filing. The amendment also clarified certain regulatory obligations of the parties and provided NEBU-TEC with the first opportunity to sell devices in Europe for so long as NEBU-TEC was able to meet market demand.

On March 27, 2007, we entered into an exclusive agreement with Mochida Pharmaceutical Co., Ltd. (Mochida) to distribute subcutaneous and intravenous Remodulin in Japan. Mochida will be responsible, with our assistance, for obtaining Japanese marketing authorization, including conducting necessary bridging studies. We will supply study drug at no charge to Mochida. Due to the bridging studies and required Japanese regulatory reviews, commercial activities in Japan are not expected to commence until 2010 or later. Upon receipt of marketing authorization and pricing approval, Mochida will purchase Remodulin from us at an agreed-upon transfer price. In addition, Mochida has agreed to make certain exclusive distribution rights payments to us. We received the first payment of $4.0 million in May 2007. Certain other distribution rights payments are due as follows: (1) $4.0 million upon Remodulin receiving orphan drug status in Japan or February 1, 2008, whichever first occurs; (2) $2.0 million upon filing a New Drug Application (NDA) in Japan; and (3) $2.0 million upon marketing approval in Japan. Payments for distribution rights received through the filing of the NDA will be recognized ratably over the estimated period of time from when the payment is due until marketing authorization is received.

6. Commitments

Oxford University

Unither Pharmaceuticals, Inc. (UPI) has a research agreement with the University of Oxford (Oxford) to develop antiviral compounds licensed from Synergy Pharmaceuticals and from Oxford. The research agreement provided for payments of up to approximately $1.1 million over two years and had an initial term expiring in September 2002, which was renewed until September 2006. Under the agreement, UPI is required to fund the research and make milestone payments to Oxford for successful completion of clinical trials. UPI will also pay to Oxford a royalty equal to a percentage of net sales that UPI earns from discoveries and products developed by Oxford. The milestone payments and royalties are subject to reduction depending upon third-party contributions to inventions and/or third-party licenses necessary to develop products. On October 1, 2006, the research agreement was extended through September 30, 2011, obligating us to make 60 equal monthly payments for a total amount of approximately $3.7 million. As of December 31, 2007, approximately $2.9 million remains due on this

6. Commitments (Continued)

contract. During the twelve months ended December 31, 2007, 2006, and 2005, we have incurred approximately, $652,000, $562,000, and $544,000, respectively, in expenses under the terms of this agreement.

Milestone and Royalty Payments

We have licensed certain products from other companies under license agreements described in Note 4 *in the Consolidated Financial Statements* . These agreements generally include milestone payments to be paid in cash by us upon the achievement of certain product development and commercialization goals set forth in each license agreement.

Total milestone payments under these license agreements are expected based on estimates of the timing and success of the development and commercialization of products covered by these agreements to come due approximately as follows (in thousands):

Years ending December 31,	
2008	$ 2,430
2009	$ 4,330
2010	$ 4,580
2011	$ 5,545
2012 and thereafter	$ 3,670

Additionally, certain agreements described in Note 4 to the *Consolidated Financial Statements* require us to pay royalties. The royalties are generally based on a percentage of net sales or other product fees earned by us. Royalties will become due when sales are generated and will range from 1.0% to 12.0% of net product revenues as defined in the respective agreements.

7. Stockholders' Equity

Stock Incentive Plan

Our Board of Directors adopted an equity incentive plan (the Plan) effective in November 1997. In April 1999, the Board of Directors and stockholders approved an amendment and restatement of the Plan that increased the total number of shares of common stock that may be issued pursuant to the Plan to 14,939,517 shares, which includes 7,939,517 shares reserved for issuance to the CEO under her employment agreement. The Plan provides for the grant of awards to eligible participants, including options (qualified and nonqualified), stock appreciation rights, restricted stock awards, and other rights as defined in the Plan. Options currently granted under the Plan generally vest over a period of up to three years, are not transferable and must generally be exercised within 10 years. The price of all options granted under the Plan must be at least equal to the fair market value of the common stock on the date of grant. With respect to any participant who owns 10% or more of our outstanding common stock on the date of grant, the exercise price of any incentive stock option granted to that participant must equal or exceed 110% of the fair market value of the common stock on the date of grant and the option must not be exercisable for longer than five years. We have historically issued new shares to satisfy share option exercises.

7. Stockholders' Equity (Continued)

Employee Options

We utilize the Black-Scholes-Merton valuation model for estimating the fair value of our granted stock options. Option valuation models, including Black-Scholes-Merton, require the input of highly subjective assumptions. Changes in the assumptions used can materially affect the grant date fair value of an award. These assumptions include the risk-free interest rate, expected dividend yield, expected volatility, expected forfeiture rate and the expected term of options.

Expected Volatility —Volatility is a measure of the amount by which a financial variable such as a share price has fluctuated (historical volatility) or is expected to fluctuate (expected volatility) during a period. We use the historical volatility based on the weekly price observations of our common stock during the period immediately preceding the share-based award grant that is equal in length to the award's expected term (up to a maximum of five years). We believe that historical volatility within the last five years represents the best estimate of future long term volatility. Since 2002, our annual volatility has ranged from 92.9% in 2002, to 48.5% in 2007 with an average of 59.3% during the five-year period.

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

Expected Term of Options— This is the period of time that the options granted are expected to remain outstanding. We adopted SAB 107's simplified method for estimating the expected term of share-based awards granted during the years ended December 31, 2007 and 2006.
Expected Dividend Yield— We have never declared or paid dividends on our common stock and do not anticipate paying any dividends in the foreseeable future. As such, the dividend yield percentage is assumed to be zero.

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

Following are the weighted-average assumptions used in valuing the stock options granted to employees during the years ended December 31, 2007, 2006 and 2005:

	Years ended December 31,		
	2007	2006	2005
Expected volatility	39.8%	42.6%	43.6%
Risk-free interest rate	4.1%	4.8%	3.7%
Expected term of options	5.7 years	6.0 years	2.4 years
Expected dividend	0.0%	0.0%	0.0%
Forfeiture rate	4.7%	8.2%	0.0%

7. Stockholders' Equity (Continued)

A summary of the status of our employee stock options as of December 31, 2007 and the changes during the year then ended is presented below:

	2007			
	Shares	Weighted-Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value ($ in 000s)
Outstanding at beginning of period	5,503,765	$ 43.83		
Granted	2,053,093	72.01		
Exercised	(1,750,287)	32.23		
Forfeited	(192,822)	57.70		
Canceled	—	—		
Outstanding at end of period	5,613,749	$ 57.28	7.6	$ 226,643
Options exercisable at end of period	3,416,511	$ 55.17	6.6	$ 145,129
Expected to vest at December 31, 2007	2,056,615	$ 60.55	9.1	$ 76,297

The total intrinsic value of options exercised during the years ended December 31, 2007, 2006 and 2005, was approximately $88.8 million, $30.5 million and $36.8 million, respectively. The weighted average fair value of options granted during the year ended December 31, 2007, 2006 and 2005 was $31.44, $27.27 and $15.92, respectively.

As of December 31, 2007, there was approximately $47.3 million of total unrecognized compensation cost related to nonvested employee stock options which is expected to be recognized over a weighted-average period of 2.1 years. The total fair value of shares vested during the years ended December 31, 2007, 2006 and 2005, was approximately $42.2 million, $20.5 million and $19.8 million, respectively.

Total employee share-based compensation expense recognized for the years ended December 31, 2007 and 2006 are as follows (in thousands, except per share data):

	Years ended December 31,	
	2007	2006
Cost of service sales	$ 42	$ 117
Research and development	10,969	6,679
Selling, general and administrative	36,353	14,156
Share-based compensation expense before taxes	47,364	20,952
Related income tax benefits	(17,927)	(8,278)
Share-based compensation expense, net of taxes	$ 29,437	$ 12,674

Equity-based compensation cost capitalized as part of inventory during years ended December 31, 2007 and 2006, were approximately $213,000, and $505,000, respectively. We recorded approximately $31.4 million and $5.2 million in share-based compensation expense during the years ended

7. Stockholders' Equity (Continued)

December 31, 2007 and 2006, respectively, related to the grant of options to purchase 2,053,093 and 988,061 shares of common stock to employees, respectively.

The following table (in thousands, except per share amounts) illustrates the effect on net income and net income per share if we had applied the fair value recognition provisions of SFAS 123R to equity-based compensation for the years ended December 31, 2007, 2006 and 2005. Information for the years ended December 31, 2007, 2006 and 2005, is presented for comparative purposes only and is consistent with the presented statement of operations.

	Years Ended December 31,		
	2007	2006	2005
Net income, as reported	$ 19,859	$ 73,965	$ 65,016
Less total stock-based employee compensation expense determined under fair value based method for all awards	—	—	(23,097)
Pro forma net income	$ 19,859	$ 73,965	$ 41,919
Basic net income per common share:			
As reported	$ 0.94	$ 3.21	$ 2.85
Pro forma	$ —	$ —	$ 1.84
Diluted net income per common share:			
As reported	$ 0.88	$ 3.06	$ 2.58
Pro forma	$ —	$ —	$ 1.66

A summary of option exercises under all share-based payment is as follows (dollars in thousands):

	Years Ended December 31,		
	2007	2006	2005
Number of options exercised	1,797,036	787,149	889,875
Cash received	$ 58,344	$ 14,445	$ 14,965

As of December 31, 2007, there were 6,110,939 shares available for grant under the plan.

Options granted to employees under this Plan were as follows:

	Number of Options Granted	Weighted Average Grant Price
For the years ended December 31,		
2007	2,053,093	$ 72.01
2006	988,061	$ 56.18
2005	2,564,303	$ 55.35

7. Stockholders' Equity (Continued)

Options Issued in Exchange for Services

We issued options under the plan to consultants for services during 2007, 2006 and 2005. The options generally vest over a period of up to one year. The fair value of these options is being recognized as expense over the performance period which is typically one year. The grant activity is summarized as follows:

	Number of Options Granted	Weighted Average Grant Price
For the years ended December 31,		
2007	41,000	$ 53.22
2006	49,437	$ 66.70
2005	31,417	$ 48.02

Stock Repurchases

In July 2006, in a privately negotiated transaction, we repurchased 766,666 shares of our common stock, par value $0.01 per share, from Toray Industries, Inc. (Toray), for a cash purchase price of approximately $42.2 million (or $55.08 per share) pursuant to a stock purchase agreement between us and Toray. The purchase price was the average of the closing prices of our common stock for the 30 consecutive trading days ending on July 26, 2006.

Our Board of Directors approved a stock repurchase program to repurchase up to 4.0 million shares of our stock over a two year period on October 17, 2006. As of December 31, 2007 and 2006, approximately 1.2 million shares and 1.9 million shares, respectively, had been repurchased under the stock repurchase program at a cost of approximately $67.1 million and $115.5 million, respectively. As of December 31, 2007, 911,669 shares remained eligible for repurchase under this program.

Preferred Stock

A total of 10,000,000 shares of preferred stock with a par value of $0.01 were authorized in 1997. No preferred stock has been issued.

Shareholder Rights Plan

In December 2000, our Board of Directors approved the adoption of a Shareholder Rights Plan designed to discourage takeovers that involve abusive tactics or do not provide fair value to our shareholders. The Shareholder Rights Plan provides for a dividend distribution of one Preferred Share Purchase Right (Rights) for each outstanding share of our common stock. The dividend distribution was made to shareholders of record on December 29, 2000. The Rights will be exercisable only if a person or group (except for certain exempted persons or groups) acquires 15% or more of our common stock or announces a tender offer which would result in ownership of 15% or more of our common stock. The Rights entitle each holder of one share to purchase one one-thousandth of a share of Series A Junior Participating Preferred Stock (par value $.01) and will expire on December 29, 2010. A total of 100,000 shares of Series A Junior Participating Preferred Stock with a par value of $.01 were authorized in 2000. No Series A Junior Participating Preferred Stock has been issued.

7. Stockholders' Equity (Continued)

Call Spread Option

Concurrent with the issuance of the 0.50% Convertible Senior Notes (Convertible Notes) (see Note 8 in the *Consolidated Financial Statements)* , we purchased call options on our common stock in a private transaction with Deutsche Bank AG London (the Call Option). The Call Option allows us to purchase up to approximately 3.3 million shares of our common stock at $75.2257 per share from Deutsche Bank AG London, equal to the amount of our common stock related to the excess conversion value that we would deliver to the holders of the Convertible Notes upon conversion. The Convertible Notes are generally convertible once our stock price exceeds $75.2257 per share. The Call Option will terminate upon the earlier of the maturity dates of the related Convertible Notes or the first day all of the related Convertible Notes are no longer outstanding due to conversion or otherwise. The Call Option, which cost approximately $80.8 million, was recorded as a reduction to additional paid-in-capital.

In a separate transaction that took place concurrently with the issuance of the Convertible Notes, we sold warrants to Deutsche Bank AG London under which Deutsche Bank AG London has the right to purchase approximately 3.3 million shares our common stock at an exercise price of $105.689 per share (the Warrant). Proceeds received from the issuance of the warrants totaled approximately $45.4 million and were recorded as an increase to additional paid-in-capital.

The combination of the Call Option and Warrant effectively serves to reduce the potential dilutive effect of the conversion the Convertible Notes. The Call Option has a strike price equal to the conversion price for the Convertible Notes and the Warrant has a higher strike price of $105.689 per share that serves to cap the amount of dilution protection provided. The Call Option and Warrant are settled on a net share basis. The Warrant may be settled in registered or, subject to certain potential adjustments in the delivery amount, unregistered shares. Furthermore, if additional shares are required to be delivered with respect to a settlement in unregistered shares or any anti-dilution adjustments in the related Convertible Notes, the Warrant provides that in no event shall we be required to deliver in excess of approximately 6.6 million shares in connection with the Warrant. We have reserved approximately 6.6 million shares for the settlement of the Warrant and have sufficient shares available as of December 31, 2007, to effect such settlement.

Deutsche Bank AG London is responsible for providing 100% of the necessary shares of our common stock upon an exercise of the Call Option triggered upon conversion of the Convertible Notes by a bondholder. The shares of common stock that Deutsche Bank AG London will deliver must be obtained from existing shareholders. If the market price per share of our common stock is above $105.689 per share, we will be required to deliver to Deutsche Bank AG London shares of our common stock representing the value in excess of the Warrant strike price. In accordance with the provisions of EITF No. 00-19 and SFAS 133, these transactions meet the definition of equity and are indexed to our common stock; therefore, the Call Option and Warrant are not considered derivative instruments or required to be accounted for separately.

8. Income Taxes

Significant components of the provision for (benefit from) income taxes attributable to operations consist of the following (in thousands):

	Year Ended December 31,		
	2007	2006	2005
Current:			
Federal	$ 634	$ —	$ —
State	103	868	953
Foreign	78	—	—
Total current	815	868	953
Deferred			
Federal	(39,025)	(43,133)	(18,706)
State	(83)	(3,449)	259
Total deferred	(39,108)	(46,582)	(18,447)
Other Non-Current			
Federal	32,526	10,326	—
State	2,491	1,331	—
Total other non-current	35,017	11,657	—
Total provision for (benefit from) income taxes	$ (3,276)	$ (34,057)	$ (17,494)

Prior year amounts have been reclassified to conform to the current year presentation. Other non-current is predominately related to equity based compensation

A reconciliation of tax benefit computed at the statutory federal tax rate on income (loss) from operations before income taxes to the actual income tax expense is approximately as follows (in thousands):

	Years Ended December 31,		
	2007	2006	2005
Federal tax provision computed at 35% in 2007 and 2006, 34% in 2005	$ 5,804	$ 13,877	$ 16,804
State tax provision, net of federal tax provision	473	1,908	1,212
Change in the valuation allowance for deferred tax assets allocated to tax expenses	795	(45,662)	(36,934)
General business credits	(12,849)	(4,358)	—
ISO stock option expense	1,234	1,771	—
Change in rate of deferred tax assets	903	(1,402)	—
Nondeductible expenses	364	(191)	1,424
Total income tax (benefit)	$ (3,276)	$ (34,057)	$ (17,494)

Deferred tax assets reflect the net effect of net operating loss carryforwards and the temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and

8. Income Taxes (Continued)

the amounts used for income tax purposes. We adopted the tax law approach for determining the order in which deductions, carryforwards and business credits are realized. Significant components of our net deferred tax asset as of December 31, 2007 and 2006, respectively, are approximately as follows (in thousands):

	December 31,	
	2007	2006
Deferred tax assets:		
Net operating loss carryforwards	$ 2,296	$ 866
General business credits	69,771	46,355
Impairment losses on investments	2,543	3,279
Realized losses on marketable investments	4,635	2,286
License fees capitalized for tax purposes	11,896	8,881
Nonqualified stock option	20,446	8,210
Other	7,876	6,454
Total deferred tax assets	119,463	76,331
Deferred tax liabilities:		
Furniture and equipment principally due to differences in depreciation	(2,691)	(1,579)
Total deferred tax liabilities	(2,691)	(1,579)
Net deferred tax asset before valuation allowance	116,772	74,752
Valuation allowance	(7,548)	(6,754)
Net deferred tax asset	$ 109,224	$ 67,998

In assessing the valuation allowance on our net deferred tax assets, we consider whether it is more likely than not that some portion or all of our net deferred tax assets are realizable. We review our deferred tax assets on a quarterly basis to determine if a valuation allowance is required, primarily based on our estimates of future taxable income. Changes in the valuation allowance based on the assessment could result in the period of change in the recording of tax expense if the valuation allowance is increased or the recording of either a tax benefit or an increase to additional paid-in-capital if the valuation allowance is decreased. The change in the valuation allowance during the year ended December 31, 2007, related to losses in foreign subsidiaries and the impairment of our investment in ViRexx that are not deemed to be realizable.

At December 31, 2007, we had for federal income tax purposes net operating loss carryforwards of approximately $48.7 million and business tax credit carryforwards of approximately $69.8 million which expire at various dates from 2012 through 2025. As a result of certain realization requirements of SFAS 123(R), the table of deferred tax assets and liabilities shown above does not include certain deferred tax assets at December 31, 2007 and 2006 that arose directly from tax deductions related to equity compensation in excess of compensation recognized for financial reporting. Additional paid-in capital will be increased by approximately $48.7 million if such deferred tax assets are ultimately realized. We have been and may continue to be subject to federal alternative minimum tax and state income taxes, even though we have existing net operating loss and credit carryforwards.

Section 382 of the Internal Revenue Code limits the utilization of net operating losses when ownership changes occur as defined by that section. We have reviewed our ownership change positions

8. Income Taxes (Continued)

pursuant to Section 382 through December 31, 2006 and have determined that ownership changes occurred in December 1997, June 1999, and November 2004 and, as a result, the utilization of certain of our net operating loss carryforwards may be limited. However, we do not expect any significant portion of our net operating loss carryforwards or business tax credits to expire unused. We are currently reviewing our stock trading history for the year ended December 31, 2007 to ascertain if any ownership changes pursuant to Section 382 have occurred.

A reconciliation of the beginning and ending balance of the total amounts of unrecognized tax benefit for the year is as follows (in thousands):

Unrecognized tax benefit at January 1, 2007	$ —
Gross increases—tax positions in prior period	2,989
Gross decreases—tax positions in prior period	—
Gross increases—tax positions in the current period	—
Settlements	—
Lapse of statute of limitations	—
Unrecognized tax benefit at December 31, 2007	$ 2,989

Included in the balance of unrecognized tax benefits at December 31, 2007 are $1.8 million of tax benefits that, if recognized, would affect the effective tax rate. We are unaware of any positions for which it is reasonably possible that the total amounts of unrecognized tax benefits will significantly increase or decrease within the next 12 months.

We recognize interest accrued related to unrecognized tax benefits and penalties as income tax expense.

We are subject to federal and state taxation in the United States and various foreign jurisdictions. Our tax years for 2004, 2005, and 2006 are subject to examination by the state tax authorities and all of our federal tax years are subject to examination as a result of none of our business credits being utilized. We believe that appropriate provisions for all outstanding items have been made for all jurisdictions and for all open years.

9. Notes Payable

Convertible Senior Notes

On October 30, 2006, we issued $250.0 million of 0.50% Convertible Senior Notes due in October 2011 (Convertible Notes). In connection with the issuance of the Convertible Notes, we also entered into a call spread option (See Note 7 in the *Consolidated Financial Statements*). The Convertible Notes were issued at par value and pay interest in cash semi-annually in arrears on April 15 and October 15 of each year, beginning on April 15, 2007. The Convertible Notes are unsecured unsubordinated obligations and rank equally with all other unsecured and unsubordinated indebtedness. The Convertible Notes have an initial conversion price of $75.2257 per share. The Convertible Notes may only be converted: (i) any time after July 15, 2011; (ii) during any calendar quarter commencing after the date of original issuance of the Convertible Notes, if the closing sale price of our common stock for at least 20 trading days in the period of 30 consecutive trading days ending on the last trading day of the calendar quarter preceding the quarter in which the conversion

9. Notes Payable (Continued)

occurs is more than 120% of the conversion price of the Convertible Notes in effect on that last trading day; (iii) during the ten consecutive trading-day period following any five consecutive trading-day period in which the trading price for the Convertible Notes for each such trading day was less than 95% of the closing sale price of our common stock on such date multiplied by the then current conversion rate; or (iv) if specified significant distributions to holders of our common stock are made, specified corporate transactions occur, or our common stock ceases to be approved for listing on The NASDAQ Global Select Market and is not listed for trading on another U.S. national or regional securities exchange.

As of December 31, 2007 our common stock price was greater than 120% of the 75.2257 per share conversion price for more than 20 days prior to and including the 30 consecutive trading days ending December 31, 2007. As a result, the holders of our Convertible Notes have the right to convert their notes. As this conversion right is outside of our control, the Convertible Notes are now classified as short-term debt on our consolidated balance sheet. Upon conversion, a holder will receive: (i) cash equal to the lesser of the principal amount of the Convertible Notes or the conversion value; and (ii) to the extent the conversion value exceeds the principal amount of the Convertible Notes, shares of our common stock. In addition, upon a change in control, as defined in the indenture under which the Convertible Notes were issued, the bondholders may require us to purchase all or a portion of their Convertible Notes for 100% of the principal amount plus accrued and unpaid interest, if any, plus additional shares of our common stock. As of December 31, 2007, the fair market value of the $250.0 million Convertible Notes outstanding was approximately $460.8 million, based on their quoted market price.

For the years ended, December 31, 2007 and 2006, we incurred interest expense of approximately $2.8 million and $482,000, respectively. We capitalized interest of $689,000 for year ended December 31, 2007 related to the construction of our Research Triangle Park, North Carolina, facility which we began constructing in 2007.

10. Commitments and Contingencies

Laboratory Operating Lease

In June 2004, we entered into a synthetic operating lease and related agreements with Wachovia Development Corporation and its affiliates (Wachovia) to fund the construction of a laboratory facility in Silver Spring, Maryland. Under these agreements, Wachovia funded $32.0 million towards the construction of the laboratory facility on land owned by us. Construction commenced in 2004 and was completed in May 2006. Following construction, Wachovia leased the laboratory facility to us with a term ending in May 2011. Under the 99-year ground lease, Wachovia paid fair value rent to us for use of the land during the construction phase and will pay fair value rent after the laboratory lease is terminated. During the term of the laboratory lease, Wachovia will pay $1 per year to us for use of the land.

We pledged a portion of our marketable investments as collateral to secure our lease obligations. At December 31, 2007 and 2006, approximately $39.2 million and $39.0 million, respectively, of marketable investments and cash were pledged as collateral and are reported as restricted marketable investments and cash in our consolidated balance sheet.

10. Commitments and Contingencies (Continued)

Upon termination of the lease, we will have the option of renewing the lease (subject to approval of both parties), purchasing the laboratory at a price approximately equal to the funded construction cost, or selling the facility and repaying Wachovia the cost of its construction. We have guaranteed that if the laboratory is sold, Wachovia will receive at least 86% of the amount it funded toward construction. The maximum potential amount of this guarantee is approximately $27.5 million, equivalent to 86% of the total construction costs of $32.0 million. We have reported the estimated fair value of this guarantee as a non-current asset (prepaid rent) and non-current liability (other liability). At December 31, 2007, the liability and the corresponding asset are approximately $566,000, net of accumulated amortization.

The laboratory lease and other agreements require, among other things, that we maintain a consolidated net worth of at least $70.0 million. The agreements contain other covenants and conditions with which we must comply throughout the lease period and upon termination of the lease. If we are unable to comply with these covenants and conditions, if the noncompliance went uncured, and if the parties could not agree otherwise, the agreements could terminate. A termination of these agreements could result in the loss of our liquid collateral, among other consequences.

Wachovia receives monthly payments from us, generally based on applying the 30-day LIBOR rate plus approximately 55 basis points to the amount funded by Wachovia towards the construction of the laboratory. This monthly payment commenced when the laboratory construction was completed in May 2006 and will continue until the termination of the lease in May 2011. The monthly payment from May 2006 through December 2007 is recorded as rent expense.

Upon completion of our laboratory facility in May 2006, Wachovia advanced to us approximately $5.2 million, which constituted the remaining funds available for construction due to the lengthy process involved in finalizing construction costs. At December 31, 2007, there were no remaining construction advances.

Based on construction costs of approximately $32.0 million and the then current effective rate of approximately 5.2% (equivalent to the current 30-day LIBOR rate plus approximately 55 basis points at December 31, 2007), the monthly payments to be made to Wachovia are approximately $1.7 million annually. In addition, Wachovia paid us ground rent of approximately $307,000 in June 2004 covering the construction period through May 2006. This amount is being recognized as income ratably through May 2011.

We intend to enter into a construction agreement that generally obligates us to complete construction on a new combination laboratory and office building that will connect to our existing Silver Spring, Maryland, laboratory facility. Upon execution of an amendment to our leasing agreements with Wachovia permitting us to attach the new facility to the existing Silver Spring laboratory facility, the estimated fair value of the building and the corresponding financing obligation to Wachovia will be classified as a component of our Property, Plant and Equipment and as a lease obligation in our consolidated balance sheet. The existing Silver Spring laboratory facility will not be considered a standalone structure, which is a significant factor contributing to our current off balance sheet accounting of it. We will continue to make lease payments to Wachovia as specified in the agreement; however, those payments will be recorded as interest expense and a reduction to the lease obligation instead of as an operating lease payment.

10. Commitments and Contingencies (Continued)

Other Operating Leases

We lease various office and production space generally under non-cancelable agreements with terms expiring through 2013. We also lease automobiles for certain employees.

Approximate minimum annual rent payments to be paid under these non-cancelable operating leases are as follows (in thousands):

Years ending December 31,	
2008	$ 2,981
2009	2,785
2010	2,322
2011	914
2012	164

These minimum annual rent payments shown above include estimated amounts for the synthetic operating lease described above and are based on LIBOR rates in effect at December 31, 2007. Total rent expense was approximately $3.3 million, $2.7 million and $1.4 million for the years ended December 31, 2007, 2006 and 2005, respectively.

11. Comprehensive Income (Loss)

SFAS No. 130, *Reporting Comprehensive Income*, establishes standards for the reporting and display of comprehensive income (loss) and its components. SFAS No. 130 requires, among other things, that unrealized gains and losses on available-for-sale securities and foreign currency translation adjustments be included in other comprehensive income (loss). The following statement presents comprehensive income (loss) for the years ended December 31, 2007, 2006 and 2005 (in thousands):

	Years ended December 31,		
	2007	2006	2005
Net income	$ 19,859	$ 73,965	$ 65,016
Other comprehensive income:			
Foreign currency translation gain (loss) adjustments	285	336	(220)
Unrealized gain (loss) on available-for-sale securities	(214)	(2,453)	1,136
Realized (loss) on available-for-sale securities	(678)	—	—
Unrecognized prior period pension service cost, net of tax of $118	(587)	—	—
Unrecognized actuarial pension gain (loss), net of tax	35	—	—
Comprehensive income	$ 18,700	$ 71,848	$ 65,932

12. Marketable Investments

Held-to-maturity investments

At December 31, 2007 and 2006, a portion of our investments consisted of federally-sponsored and corporate debt securities that are classified as held-to-maturity investments. The market value of these

12. Marketable Investments (Continued)

investments fluctuates with changes in current market interest rates. In general, as rates increase, the market value of a debt investment would be expected to decrease. Likewise, as rates decrease, the market value of a debt investment would be expected to increase. To minimize such market risk, we hold such instruments to maturity at which time these instruments will be redeemed at their stated or face value. The amortized cost approximates fair value of these investments at December 31, 2007 and 2006. Certain of these marketable investments have been pledged as collateral to Wachovia Development Corporation under the laboratory lease described in Note 10 in the *Consolidated Financial Statements* , and are classified as restricted marketable investments and cash on the consolidated balance sheet.

Held-to-maturity marketable investments were as follows (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Government sponsored entities at December 31, 2007	$ 66,905	$ 103	$ (214)	$ 66,794
Corporate notes and bonds at December 31, 2007	74,082	38	(15)	74,105
Total	$ 140,987	$ 141	$ (229)	$ 140,899
Reported as				
Current marketable securities	$ 96,223			
Noncurrent marketable securities	44,764			
	$ 140,987			

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Government sponsored entities at December 31, 2006	$ 90,572	$ 1	$ (1,894)	$ 88,679
Corporate notes and bonds at December 31, 2006	71,508	—	(82)	71,426
Total	$ 162,080	$ 1	$ (1,976)	$ 160,105
Reported as				
Current marketable securities	$ 90,382			
Noncurrent marketable securities	71,698			
	$ 162,080			

12. Marketable Investments (Continued)

The following table summarizes our investments' gross unrealized losses, fair value and the length of time that individual securities have been in a continuous unrealized loss position as of December 31, 2007 and 2006 (in thousands):

	December 31,			
	2007		2006	
	Fair Value	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss
Government sponsored:				
Less than one year	$ —	$ —	$ 25,151	$ (46)
Greater than one year	35,765	(214)	63,028	(1,847)
	35,765	(214)	88,179	(1,893)
Corporate notes:				
Less than one year	17,197	(15)	70,425	$ (83)
Greater than one year	—	—	—	—
	17,197	(15)	70,425	(83)
Total	$ 52,962	$ (229)	$ 158,604	$ (1,976)

The unrealized losses at December 31, 2007 and 2006, on the corporate and federally-sponsored securities were caused by market interest rate fluctuations. We have the ability and intent to hold these investments until a recovery of fair value or maturity. As a result, we do not consider these investments to be other-than-temporarily impaired.

The following table summarizes maturities of our held-to-maturity marketable investment securities at December 31, 2007 and 2006 (in thousands):

	December 31, 2007		December 31, 2006	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Less than one year	$ 96,223	$ 96,209	$ 90,382	$ 90,275
Due in one to two years	24,830	24,747	28,305	27,994
Due in three to five years	19,934	19,943	33,393	32,324
Due after five years	—	—	10,000	9,512
Total	$ 140,987	$ 140,899	$ 162,080	$ 160,105

Our gross proceeds realized from maturities, realized gains and realized losses from marketable investments are as follows (in thousands):

	Years Ended December 31,		
	2007	2006	2005
Gross proceeds	$ 260,888	$ 32,360	$ 200
Realized gains	$ —	$ —	$ —
Realized losses	$ —	$ —	$ —

12. Marketable Investments (Continued)

Available-for-sale investments

At December 31, 2007, a portion of our investments consisted of auction rate debt securities issued by state and local government sponsored agencies. While these securities have long term maturities, their interest rates are reset approximately every 7-28 days through an auction process. As a result, the interest income from these securities is subject to market risk since the rate is adjusted to accommodate market conditions on each reset date. However, since the interest rates are reflective of current market conditions, the fair value of these securities typically does not fluctuate from par or cost.

At February 28, 2008, we held approximately $35.4 million of investments in municipal notes, classified as current assets, with an auction reset feature ("auction rate securities"). The underlying assets of these investments are generally student loans which are substantially backed by the federal government. In February 2008 auctions failed for $11.3 million of our auction rate securities and there is no assurance that currently successful auctions on the other auction rate securities in our investment portfolio will continue to succeed. As a result, our ability to liquidate and fully recover the carrying value of our investments in the near term may be limited. An auction failure means that the parties wishing to sell securities could not. All of our auction rate securities, including those subject to the failure, are currently rated AAA, the highest rating, by a rating agency. If the issuers are unable to successfully close future auctions and their credit ratings deteriorate, we may in the future be required to record an impairment charge on these investments. We believe we will be able to liquidate our investments without significant losses within the next year, and we currently believe these securities are not significantly impaired, primarily due to the government guarantee of the underlying securities, however, it could take until the final maturity of the underlying notes (up to 30 years) to realize our investments' recorded value. Based on our expected operating cash flows, and our other sources of cash, we do not anticipate the potential lack of liquidity of these investments to affect our ability to execute our current business plan or the carrying value of these investments.

Available-for-sale investments were as follows (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Municipal notes at December 31, 2007	$ 54,000	$ —	$ —	$ 54,000
Municipal notes at December 31, 2006	$ 46,300	$ —	$ —	$ 46,300

The following table summarizes maturities of our available-for-sale investment securities at December 31, 2007 and 2006 (in thousands):

	December 31, 2007		December 31, 2006	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Less than one year	$ —	$ —	$ —	$ —
Due in one to two years	—	—	—	—
Due in three to five years	—	—	—	—
Due after five years	54,000	54,000	46,300	46,300
Total	$ 54,000	$ 54,000	$ 46,300	$ 46,300

12. Marketable Investments (Continued)

Our gross proceeds realized from maturities, realized gains and realized losses from our available-for-sale investments are as follows (in thousands):

	Years Ended December 31,		
	2007	2006	2005
Gross proceeds	$ 58,050	$ 86,400	$ 12,700
Realized gains	$ —	$ —	$ —
Realized losses	$ —	$ —	$ —

Equity Holdings

Our equity holdings consist of our investment in ViRexx Medical Corp. (formerly AltaRex Medical Corp.) and Twin Butte Energy Ltd (Twin Butte). Both of these investments were acquired in connection with the licensing agreements for the rights to ViRexx's monoclonal antibody of which OvaRex was the principle antibody. Both companies are publicly traded and our investment is accounted for as an available-for-sale security. Available-for-sale securities are reported at their fair values, based on quoted market prices, in the balance sheet. Changes in their fair values are reported as other comprehensive income or loss. Declines in values that are considered other-than-temporary are reported as losses in the statement of revenue. We own approximately 7% of ViRexx and less than 1% of Twin Butte.

In December 2007, based on the announcement of the failure of the IMPACT I and II Phase III trials of OvaRex in advanced ovarian cancer, the stock price of ViRexx declined We considered this decline to be an other-than-temporary impairment of approximately $1.9 million. At December 31, 2007 and 2006, the investment in ViRexx's common stock was reported at its fair market value of approximately $505,000 and $3.1 million, respectively. The unrealized gain at December 31, 2007 and 2006, was approximately none and $678,000, respectively.

13. Investments in Affiliates

Northern Therapeutics, Inc.

In December 2000, Northern Therapeutics, Inc. (Northern), was formed in conjunction with the inventor of a new form of autologous (meaning gene transfer using materials derived from a patient's own body and not from foreign materials such as viruses) gene therapy for the treatment of pulmonary arterial hypertension and other diseases. The purpose of Northern was to develop the gene therapy and also to distribute Remodulin and other of our products in Canada. Lung Rx, Inc. (Lung Rx) received approximately 59% of the initial outstanding common stock of Northern in exchange for $5.0 million in cash. In January 2002, Northern purchased and retired shares of one of the initial founders. This increased Lung Rx's ownership of Northern to approximately 68%.

Northern is incorporated as a Canadian Controlled Private Corporation. Lung Rx may appoint only two of the company's seven board seats. Substantially all important decisions require unanimous board votes in favor of the proposal. The decisions requiring unanimous board votes include decisions related to personnel selection and compensation and establishment of operating and capital budgets. Therefore, the minority owners of Northern have substantive participating rights as discussed in EITF No. 96-16, *Investors' Accounting for an Investee when the Investor has a Majority of the Voting Interest but*

13. Investments in Affiliates (Continued)

the Minority Shareholder or Shareholders Have Certain Approval or Veto Rights . As a result of these substantive participating rights, Lung Rx does not control Northern and consolidation, therefore, is prohibited. The equity method of accounting is used to account for Lung Rx's investment in Northern. At December 31, 2007, Lung Rx's investment in Northern was reported at approximately $1.2 million, which is comprised of $5.0 million paid in cash, net of Lung Rx's share of Northern's losses since its formation. Lung Rx's equity in the underlying net assets was approximately $939,000 at December 31, 2007. The difference between Lung Rx's investment in Northern and its equity in the underlying net assets is accounted for as goodwill.

Summarized financial information for Northern is as follows (in thousands):

	As of and For the Years ended December 31,		
	2007	2006	2005
Total assets	$ 1,404	$ 1,576	$ 1,883
Total liabilities	$ 31	$ 111	$ 206
Total revenues	$ 485	$ 1,434	$ 1,497
Net loss	$ (469)	$ (718)	$ (1,102)

In October 2006, Northern agreed to grant a license to us to develop and commercialize its gene therapy technology for PAH in the United States. The license will require us to make incremental payments totaling $1.5 million to Northern upon achieving certain milestones in increments during and upon completion of the Phase I trial in March 2006. After successful completion of the Phase I trial, we will assume the development program and related costs for the United States. For the year ended December 31, 2007 and 2006, we have incurred approximately $150,000 and $500,000, respectively, in expense to Northern under the license agreement. In anticipation of this agreement, we and Northern terminated the Remodulin distribution agreement for Canada. We now distribute Remodulin directly in Canada through the management of our Canadian wholly-owned subsidiary, Unither Biotech Inc.

14. Employees' Retirement Plan

Effective January 1, 1999, we adopted the United Therapeutics Corporation Employees' Retirement Plan (the Plan), a salary reduction 401 (k) Plan. Employees employed on or after July 15, 1999 are eligible to participate in the Plan. The Plan provides for annual discretionary employer contributions. Employees may also contribute to the Plan at their discretion subject to statutory limitations. Beginning January 1, 2004, we began matching qualifying employee contributions at a rate of 20%, subject to certain limitations. For the years ended December 31, 2007, 2006 and 2005, we contributed and expensed $375,000, $295,000 and $223,000, respectively, to the plan as a result of this matching.

15. Supplemental Executive Retirement Plan

In May 2006, the Compensation Committee approved the United Therapeutics Corporation Supplemental Executive Retirement Plan (the SERP). The SERP is administered by the Compensation Committee. Only a member of a "select group of management or highly compensated employees" within the meaning of ERISA section 201(2) may be eligible to participate in the SERP. If a participant terminates employment with us for any reason prior to age 60, no benefit will be earned. Our Chief

15. Supplemental Executive Retirement Plan (Continued)

Executive Officer (CEO), three other executive officers and three other officers have been designated as eligible to participate in the SERP. Each of these participants, who may retire at the age of 60, is eligible to receive monthly payments equal to the monthly average of the total gross base salary received by the participant over his or her last 36 months of active employment (the Final Average Compensation), reduced by the participant's Social Security benefit (determined as provided under the SERP), for the remainder of the participant's life (the aggregate amount of such payments, the Normal Retirement Benefit), commencing on the first day of the sixth month after retirement. The participant may elect to receive a lump sum distribution equal to the present value of payments that he or she would be expected to receive upon retirement under the calculation noted.

Future SERP participants will become eligible upon recommendation by the CEO and confirmation by the Compensation Committee. Eligibility commences on the first day of the month following Compensation Committee approval. If Compensation Committee approval occurs on the first day of the month, eligibility commences immediately. Upon retirement after the age of 60, such participants will be eligible to receive a Normal Retirement Benefit, made in monthly payments equal to (1) the participant's Final Average Compensation, reduced by the participant's Social Security benefit (determined as provided under the SERP), multiplied by (2) a fraction (no greater than one), made up of a numerator equal to the participant's years of service at United Therapeutics and a denominator of 15. This benefit will run for the remainder of the participant's life (unless the participant elects to receive a lump sum payment), commencing on the first day of the sixth month of retirement. In the event that a participant's employment ceases due to disability or death prior to the age of 60 or retirement if older than 60, a participant or the participant's designated beneficiary will be entitled to a Disability Retirement Benefit. Such benefit would be equal to a percentage of the participant's anticipated Normal Retirement Benefit under the SERP. This benefit would still commence on the first day of the sixth month after cessation of employment due to death or disability. Should a SERP participant die after the program commences, his or her designated beneficiary will continue to receive a percentage of the SERP benefit for the remainder of what would have been the participant's years of eligibility. The Compensation Committee expects the number of participants to remain small during the life of this program.

In the event of a change in control of us, by acquisition, merger, hostile takeover or for any other reason whatsoever which also qualifies as a "change in the ownership or effective control of the corporation, or in the ownership of a substantial portion of the assets of the corporation" under Internal Revenue Code section 409A(a)(2)(A)(v) (Change in Control), a participant who is actively employed on the date of the Change in Control will be entitled to a lump sum payment equal to the actuarial equivalent present value of a monthly single life annuity equal to (1) the participant's Final Average Compensation, reduced by the participant's estimated future Social Security benefit (determined as provided under the SERP), multiplied by (2) a fraction (no greater than one) made up of a numerator equal to the participant's years of service at United Therapeutics and a denominator of 15, to be paid as soon as administratively practicable following the Change in Control. In the event that a participant is entitled to a Normal Retirement Benefit or Disability Retirement Benefit at the time of a Change in Control, all such payments (or any remaining payments, with respect to any participant who is receiving payments under the SERP at the time of the Change in Control) will be made in a lump sum as soon as administratively practicable following such Change in Control (without regard to whether the participant otherwise is in pay status at the time of the Change in Control).

15. Supplemental Executive Retirement Plan (Continued)

Participants in the SERP will be prohibited from competing with us or soliciting our employees for a period of twelve months following their termination of employment (or, if earlier, upon attainment of age 65). Violation of this covenant will result in the forfeiture of all benefits under the SERP.

Rabbi Trust

On December 28, 2007, the Compensation Committee of our Board of Directors (the Compensation Committee) adopted the United Therapeutics Corporation Supplemental Executive Retirement Plan Rabbi Trust Document (the Rabbi Trust Document), providing for the establishment of a trust (the Rabbi Trust), the assets of which will be contributed by us and used to pay benefits under the SERP, in order to provide more certainty around our obligation to pay benefits to SERP participants, including upon a change in control of the Company.

The Rabbi Trust Document was entered into on December 28, 2007, between us and Wilmington Trust Company, which will serve as trustee of the Rabbi Trust. The Rabbi Trust is irrevocable, and SERP participants will have no preferred claim on, nor any beneficial ownership interest in, any assets of the Rabbi Trust. We made an initial investment to the Rabbi Trust of $5.0 million. This investment is classified as restricted marketable investments and cash on our *Consolidated Balance Sheet* as of December 31, 2007.

Generally, additional assets to the Rabbi Trust may be contributed by us at our sole discretion. However, pursuant to the terms of the Rabbi Trust Document, within five days following the occurrence of a Potential Change in Control (as defined below), or if earlier, at least five days prior to the occurrence of a Change in Control (as defined below), we will be obligated to make an irrevocable contribution to the Rabbi Trust in an amount sufficient to pay each SERP participant or beneficiary the benefits to which they would be entitled pursuant to the terms of the SERP on the date on which the Change in Control occurred.

For purposes of the Rabbi Trust Document, a "Potential Change in Control" will be deemed to have occurred if one of the following events has occurred: (A) we enter into an agreement, the consummation of which would result in the occurrence of a Change in Control (as defined below); (B) we or any person publicly announces an intention to take or to consider taking actions which, if consummated, would constitute a Change in Control; or (C) the Board of Directors adopts a resolution to the effect that, for purposes of the Rabbi Trust Document, a Potential Change in Control has occurred.

For the purpose of the Rabbi Trust Document, "Change in Control" means any transfer in control of the Company by acquisition, merger, hostile takeover or for any other reason whatsoever which also qualifies as a "change in the ownership or effective control of the corporation, or in the ownership of a substantial portion of the assets of the corporation" under Internal Revenue Code section 409A(a)(2)(A)(v).

The Rabbi Trust will not terminate until the date on which SERP participants or their beneficiaries are no longer entitled to benefits pursuant to the terms of the SERP.

We account for the SERP in accordance with SFAS No. 87, *Employers Accounting for Pensions* (SFAS 87) and SFAS 158, *Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans* (SFAS 158), and related standards and interpretations. In accordance with SFAS 87, a material change in the plan, such as adding a participant which occurred in August 2006, requires a remeasurement of the Plan. Expenses related to the SERP are reported in selling, general and

15. Supplemental Executive Retirement Plan (Continued)

administrative and research and development expenses in the accompanying consolidated statements of operations.

The table below summarizes the changes in projected benefit obligations for the years ended December 31, 2007 and 2006 (in thousands):

	Years ended December 31,	
	2007	2006
Projected benefit obligation at beginning of period	$ 2,598	$ —
Service cost	2,449	1,521
Interest cost	149	31
Assumption change	(327)	203
Plan amendment	—	792
Actuarial loss/ (Gain)	30	51
Projected benefit obligation at end of period	$ 4,899	$ 2,598

The following table provides the weighted average assumptions used:

Weighted-Average Assumptions		
Discount Rate	6.15%	5.7%
Salary Increases	5.00%	5.00%

The components of net periodic benefit expense for the years ended December 31, 2007 and 2006 were as follows (in thousands):

	Year Ended December 31,	
	2007	2006
Service cost	$ 2,449	$ 1,521
Interest cost	149	31
Net prior service cost amortization	59	20
Net periodic benefit expense	$ 2,657	$ 1,572

The following schedules present the changes in the components of the net prior service cost that compose the accumulated other comprehensive loss for the year ended December 31, 2007 which

15. Supplemental Executive Retirement Plan (Continued)

offsets the additional liability required to reflect the funded status of the defined benefit pension plan (in thousands):

	Year Ended December 31, 2007		
	Before-Tax Amounts	Tax (Expense) or Benefit	Net-of-Tax Amount
Net prior service cost at January 1, 2007	$ 772	$ (136)	$ 636
Amortization of prior service cost included as pension cost	(59)	(25)	(84)
Net prior service cost at December 31, 2007	$ 713	$ (161)	$ 552

As of December 31, 2007, approximately $587,000 and $35,000 of prior period service costs and acturial gains, respectively, were recorded in other comprehensive loss, net tax. Net tax benefits at December 31, 2007 of $118,000 are reflected as a deferred tax asset on our consolidated balance sheets.

The amount of accumulated other comprehensive loss consisting of net prior service cost that is expected to be recognized as pension cost in 2008 is approximately $60,000.

Projected benefit obligations are based on actuarial assumptions including future increases in compensation. Accumulated benefit obligations are based on actuarial assumptions but do not include possible future increases in compensation. The accumulated benefit obligation for the SERP was approximately $3.0 million and approximately $1.4 million at December 31, 2007 and 2006, respectively.

Since there are no plan assets, no interest on assets is assumed earned. With the addition of a participant unrecognized prior service cost of approximately is created which will be amortized over the next 12 years, the average expected future service period of all the plan participants. In addition, the unrealized loss of will be amortized as an expense only when the cumulative unrecognized losses exceed 10% of projected benefit obligations. Benefit payments are not expected to be paid over the next five years since no current participants will reach the age of 60 within this time period.

16. Relocation and Project Termination Costs

We have constructed a laboratory facility adjacent to our headquarters in Silver Spring, Maryland, to replace our former laboratory facility in Chicago, Illinois. Certain Chicago-based employees relocated to the new facility in 2006 and 2007. Approximately $289,000 and $221,000 were incurred during the twelve months ended December 31, 2007 and 2006, respectively, in connection with relocating these employees. Costs associated with these transfers were reported in the period in which the employees actually move and incur the relocation costs.

Additionally, we had agreed to pay bonuses to a small number of employees in Chicago to remain employed there until the laboratory closed in the middle of 2007. Such retention bonuses were accrued ratably over the period from the date agreement was reached with employees in October 2005 to the date of payment in May 2007. As of December 31, 2006, approximately $141,000 was accrued for these bonuses with a total of $179,000 paid in April 2007. All retention bonuses were classified in selling, general and administrative expenses. Project termination costs were classified as research and development and selling, general and administrative expense.

16. Relocation and Project Termination Costs (Continued)

In December 2007, we announced the completion of our IMPACT I and II trials of OvaRex. Analysis of the results demonstrated that the studies failed to reach statistical significance. As such, we decided to terminate our license agreement with AltaRex and to cease further development of the entire platform of antibodies licensed thereunder. When the project termination plans were finalized, we incurred expenses of approximately $533,000, primarily consisting of the employee severance costs, termination benefits and contract exit costs. The employee severance costs and termination benefits will be paid out starting in February 2008. Additional costs relating to the project termination will be expensed as incurred. All project termination costs are classified as research and development expense.

The following table provides a reconciliation of accrued termination benefits for the year ended December 31, 2007 (in thousands):

Balance at December 31, 2006	$ 141
Add:	
Severance benefits	562
Less:	
Payments	(179)
Balance at December 31, 2007	$ 524

17. Accrued Expenses

Accrued expenses consisted of the following (in thousands):

	December 31,	
	2007	2006
Professional fees	$ 362	$ 230
Research related	1,617	2,293
Payroll related	5,981	3,853
Royalties and rebates	8,481	6,382
Contracted services	192	305
Other	1,309	2,202
Total	$ 17,942	$ 15,265

18. Segment Information

We have two reportable business segments. The pharmaceutical segment includes all activities associated with the research, development, manufacture, and commercialization of therapeutic products. The telemedicine segment includes all activities associated with the research, design, and delivery of patient monitoring services. The telemedicine segment is managed separately because diagnostic services require different technology and marketing strategies.

18. Segment Information (Continued)

Segment information as of and for the year ended December 31, 2007, was as follows (in thousands):

	Pharmaceutical	Telemedicine	Consolidated Totals
Revenues from external customers	$ 203,218	$ 7,725	$ 210,943
Net income (losses)	16,540	43	16,583
Interest income	13,595	7	13,602
Interest expense	(2,165)	(10)	(2,175)
Depreciation and amortization	(3,037)	(390)	(3,427)
Equity loss in affiliate	(321)	—	(321)
Total investments in equity method investees	1,247	—	1,247
Expenditures for long-lived assets	(37,601)	(1,057)	(38,658)
Goodwill, net	1,287	6,178	7,465
Total assets	555,036	31,982	587,018

Segment information as of and for the year ended December 31, 2006, was as follows (in thousands):

	Pharmaceutical	Telemedicine	Consolidated Totals
Revenues from external customers	$ 153,035	$ 6,597	$ 159,632
Net income (losses)	74,438	(473)	73,965
Interest income	10,679	21	10,700
Interest expense	(482)	—	(482)
Income tax benefit	34,057	—	34,057
Depreciation and amortization	(2,273)	(440)	(2,713)
Equity loss in affiliate	(491)	—	(491)
Total investments in equity method investees	1,568	—	1,568
Expenditures for long-lived assets	(15,170)	(464)	(15,634)
Goodwill, net	1,287	6,178	7,465
Total assets	466,493	12,057	478,550

18. Segment Information (Continued)

Segment information as of and for the year ended December 31, 2005, was as follows (in thousands):

	Pharmaceutical	Telemedicine	Consolidated Totals
Revenues from external customers	$ 110,142	$ 5,773	$ 115,915
Net income (losses)	65,672	(656)	65,016
Interest income	5,344	15	5,359
Interest expense	(29)	—	(29)
Income tax benefit	17,494	—	17,494
Depreciation and amortization	(1,696)	(838)	(2,534)
Equity loss in affiliate	(754)	—	(754)
Total investments in equity method investees	2,059	—	2,059
Expenditures for long-lived assets	(5,294)	(823)	(6,117)
Goodwill, net	1,287	6,178	7,465
Total assets	281,613	9,800	291,413

The segment information shown above equals the consolidated totals when combined. These consolidated totals equal the amounts reported in the consolidated financial statements without further reconciliation for those categories which are reported in the consolidated financial statements.

The accounting policies of the segments are the same as those described in the summary of significant accounting policies in Note 2 in the *Notes to the Consolidated Financial Statements* . There are no inter-segment transactions.

19. Recent Accounting Pronouncements

Fair Value Option for Financial Assets and Liabilities

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities—Including an Amendment of FASB Statement No. 115* . SFAS No. 159 permits an entity to measure many financial instruments and certain other items at fair value that are not currently required to be measured at fair value. Entities that elect the fair value option will report unrealized gains and losses in earnings at each subsequent reporting date. SFAS No. 159 is effective for fiscal years beginning after November 15, 2007. We are currently evaluating the impact the adoption of this statement could have on our financial condition, results of operations and cash flows.

Fair Value Measurements

In September 2006, the FASB issued SFAS 157, *Fair Value Measurements* . SFAS 157 defines fair value, establishes a framework for measuring fair value under generally accepted accounting principles, and expands disclosures about fair value measurements. SFAS 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007, and interim periods within those fiscal years. We are currently evaluating the impact the adoption of this statement could have on our financial condition, results of operations or cash flows.

19. Recent Accounting Pronouncements (Continued)

Non-Refundable Advance Payments for Research and Development Activities

In June 2007, the FASB ratified EITF Issue No. 07-3, *Accounting for Non-Refundable Advance Payments for Goods or Services to Be Used in Future Research and Development Activities* (EITF 07-3), which provides that non-refundable advance payments for future research and development activities should be deferred and capitalized until the related goods are delivered or the related services are performed. EITF 07-3 will be for fiscal years beginning after December 15, 2007 and will be evaluated on a contract by contract basis. This standard is not expected to have a material impact on our consolidated financial statements.

Collaboration Arrangements

In December 2007, the FASB ratified EITF Issued No. 07-1, *Accounting for Collaboration Arrangements Related to the Development and Commercialization of Intellectual Property* (EITF 07-1), which provides guidance on how the parties to a collaborative agreement should account for costs incurred and revenue generated on sales to third parties, how sharing payments pursuant to a collaboration agreement should be presented in the income statement and certain related disclosure requirements. EITF 07-1 will be effective for the Company beginning January 2009 on a retrospective basis. We are currently evaluating the impact of the adoption of EITF 07-1 will have, if any, on our consolidated financial statements.

Non Controlling Interest in Consolidated Financials Statements

In December 2007, the FASB issued SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements—an amendment of ARB No. 51* . SFAS No. 160 requires all entities to report noncontrolling (minority) interests in subsidiaries as equity in the consolidated financial statements. Its intention is to eliminate the diversity in practice regarding the accounting for transactions between an entity and noncontrolling interests. This Statement is effective for fiscal years, and interim periods within those fiscal years, beginning on or after December 15, 2008. Earlier adoption is prohibited. We are currently evaluating the impact the adoption of this statement could have on our financial condition, results of operations and cash flows.

Business Combinations

In December 2007, the FASB issued SFAS No. 141(R), a revised version of SFAS No. 141, *Business Combinations* . The revision is intended to simplify existing guidance and converge rulemaking under U.S. generally accepted accounting principles (GAAP) with international accounting rules. This statement applies prospectively to business combinations where the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008, and may affect the release of our valuation allowance against prior acquisition intangibles. An entity may not apply it before that date. The new standard also converges financial reporting under U.S. GAAP with international accounting rules. We are currently evaluating the impact the adoption of this statement could have on our financial condition, results of operations and cash flows.

20. Quarterly Financial Information (Unaudited)

The following presents certain quarterly financial information for each of the years ended December 31, 2007 and 2006 (in thousands, except per share amounts):

	Quarters Ending During 2007			
	December 31, 2007	September 30, 2007	June 30, 2007	March 31, 2007
Net sales	$ 59,898	$ 59,045	$ 51,831	$ 40,169
Gross profit	52,714	52,213	45,822	35,773
Net income (loss)	1,986(1)	14,848	5,806	(2,781)
Income (loss) per share—basic	$ 0.09	$ 0.70	$ 0.28	$ (0.13)
Income (loss) per share—diluted	$ 0.08	$ 0.66	$ 0.26	$ (0.13)

	Quarters Ending During 2006			
	December 31, 2006	September 30, 2006	June 30, 2006	March 31, 2006
Net sales	$ 45,826	$ 40,397	$ 40,245	$ 33,164
Gross profit	41,073	36,243	36,001	29,287
Net income	55,508(2)	8,478	7,673	2,307
Income per share—basic	$ 2.54	$ 0.37	$ 0.33	$ 0.10
Income per share—diluted	$ 2.42	$ 0.34	$ 0.30	$ 0.09

(1) In the three month period ended December 31, 2007, we recognized approximately $20.3 million in stock option expense related to the year performance grant of stock options to our Chief Executive Officer in accordance with her employment contract.

(2) In the three month period ended December 31, 2006, we recognized approximately $47.7 million income tax benefit due to an approximately $45.7 million reduction in the valuation allowance of our deferred tax assets as of December 31, 2006.

United Therapeutics Corporation

Schedule II—Valuation and Qualifying Accounts

Years Ended December 31, 2007, 2006, and 2005

(in thousands)

	Allowance for Doubtful Accounts Receivable			
	Balance at Beginning of Year	Additions charged to expenses	Deductions	Balance at End of Year
Year ended December 31, 2007	$ 1	—	$ (1)	—
Year ended December 31, 2006	$ 15	$ 1	$ (15)	$ 1
Year ended December 31, 2005	$ 23	$ 9	$ (17)	$ 15

	Reserve for Inventory Obsolescence			
	Balance at Beginning of Year	Additions charged to expenses	Deductions	Balance at End of Year
Year ended December 31, 2007	$ 440	$ 570	$ (502)	$ 508
Year ended December 31, 2006	$ 570	$ 472	$ (602)	$ 440
Year ended December 31, 2005	$ 447	$ 315	$ (192)	$ 570

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

Our management, with participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as of December 31, 2007. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2007.

Management's Report on Internal Control Over Financial Reporting

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

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2007, based on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control—Integrated Framework* . Management's assessment included an evaluation of the design of our internal control over financial reporting and testing of the operational effectiveness of our internal control over financial reporting. Based on this assessment, our management concluded that, as of December 31, 2007, our internal control over financial reporting was effective.

Ernst & Young LLP, an independent registered public accounting firm, has issued an attestation report on our internal control over financial reporting. The report of Ernst & Young LLP is contained in Item 8 of this Annual Report on Form 10-K.

Attestation of Independent Registered Public Accounting Firm

The attestation report of our independent registered public accounting firm regarding internal control over financial reporting is set forth in Item 8 of this Annual Report on Form 10-K under the caption "Report of Independent Registered Public Accounting Firm" and incorporated herein by reference.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended December 31, 2007 that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information required by Item 10 regarding nominees and directors appearing under *Election of Directors* in our definitive proxy statement for our 2008 annual shareholders meeting (the 2008 Proxy Statement) is hereby incorporated herein by this reference. Information regarding our executive officers appears in Part I, Item I of this Form 10-K under the heading *Executive Officers of the Registrant* . Information regarding the Audit Committee and the Audit Committee's financial expert appearing under *Board Meetings and Committees—Audit Committee* in our 2008 Proxy Statement is hereby incorporated herein by this reference.

Information appearing under *Section 16(a) Beneficial Ownership Reporting Compliance* in the 2008 Proxy Statement is hereby incorporated herein by this reference.

We have a written Code of Conduct and Ethics that applies to our principal executive officer, principal financial officer and our principal accounting officer and every other director, officer and employee of United Therapeutics. The Code of Conduct and Ethics is available on our Internet website at *http://www.unither.com* . A copy of the Code of Conduct and Ethics will be provided free of charge by making a written request and mailing it to our corporate headquarters offices to the attention of Senior Vice President, Investor Relations. If any amendment to, or a waiver from, a provision of the Code of Conduct and Ethics that applies to the principal executive officer, principal financial officer and principal accounting officer is made, such information will be posted on our Internet website at *www.unither.com* .

ITEM 11. EXECUTIVE COMPENSATION

Information concerning executive compensation required by Item 11 appears under *Compensation Disclosure and Analysis* in our 2008 Proxy Statement and is hereby incorporated herein by this reference.

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

The information regarding beneficial ownership of our capital stock required by Item 12 appears under *Security Ownership of Certain Beneficial Owners and Management* in 2008 Proxy Statement and is hereby incorporated herein by this reference.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table presents information as of December 31, 2007, regarding our securities authorized for issuance under equity compensation plans:

Plan category	Number of securities to be issued upon exercise of outstanding options (a)	Weighted average exercise price of outstanding options (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a) (c)
Equity compensation plan approved by security holders	5,457,815	$ 59.24	6,110,939
Equity compensation plans not approved by security holders	358,064	$ 20.66	None
Total	5,815,879	$ 56.86	6,110,939

We have one equity incentive plan approved by security holders in 1997. In addition, prior to 2005, we granted options to employees and consultants outside of the plan approved by security holders (non-plan options). Information regarding the security holder approved plan and the non-plan options is contained in Note 7 in the *Notes to the Consolidated Financial Statements* in this Annual Report. We do not have any warrants or rights that are outstanding or available for issuance as described in Regulation S-K Item 201(d). Securities issued pursuant to the non-plan awards were made under standard agreements generally consistent with the form contained in Exhibits 10.22 and 10.38.

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

Information concerning related party transactions and director independence required by Item 13 appears under *Certain Relationships and Related Transactions Director Independence and Board Committees* in our 2008 Proxy Statement and is hereby incorporated herein by this reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Information required by this item, concerning the principal accounting fees paid by the Registrant and the Audit Committee's pre-approval policies and procedures, is incorporated by reference to the information under *Independent Auditors* in our 2008 Proxy Statement and is hereby incorporated by reference.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a)(1) Our financial statements filed as part of this report on Form 10-K are set forth in the Index to Consolidated Financial Statements under Part II, Item 8 of this Form 10-K.

(a)(2) The Schedule II—Valuation and Qualifying Accounts is filed as part of this Form 10-K. All other schedules are omitted because they are not applicable or not required, or because the required information is included in the consolidated statements or notes thereto.

(a)(3) Exhibits filed as a part of this Form 10-K:

Exhibit No.	Description
3.1	Amended and Restated Certificate of Incorporation of the Registrant, incorporated by reference to Exhibit 3.1 of the Registrant's Registration Statement on Form S-1 (Registration No. 333-76409).
3.2	Amended and Restated Bylaws of the Registrant, incorporated by reference to Exhibit 3.2 of the Registrant's Registration Statement on Form S-1 (Registration No. 333-76409).
3.3	Certificate of Designations, Preferences and Rights of Series A Junior Participating Preferred Stock, incorporated by reference to Exhibit A to Exhibit 4 to the Registrant's Current Report on Form 8-K, filed December 18, 2000.
4.1	Reference is made to Exhibits 3.1 and 3.2.
4.2	Form of Purchase Agreement dated as of December 22, 1999, incorporated by reference to Exhibit 4.6 of the Registrant's Registration Statement on form S-1 (Registration No. 333-93853).
4.3	Registration Rights Agreement, dated as of June 27, 2000 by and between the Registrant and Toray Industries, Inc., incorporated by reference to Exhibit 4.7 of the Registrant's Registration Statement on Form S-3 (Registration No. 333-40598).
4.5	Form of Stock Purchase Agreement dated July 13, 2000 incorporated by reference to Exhibit 99.2 of the Registrant's Current Report on Form 8-K filed July 14, 2000.
4.6	Rights Agreement, dated as of December 17, 2000 between Registrant and The Bank of New York, as Rights Agent, incorporated by reference to Exhibit 4 of Registrant's Form 8-K dated December 18, 2000.
4.7	Indenture, dated October 30, 2006, between Registrant and The Bank of New York, as trustee (including form of 0.50% Convertible Senior Note due October 15, 2011), incorporated by reference to Exhibit 4.1 of Registrant's Current Report on Form 8-K filed October 30, 2006.
4.8	Resale Registration Rights Agreement, dated October 30, 2006, between Registrant and Deutsche Bank Securities Inc., as the initial purchaser, incorporated by reference to Exhibit 4.2 of Registrant's Current Report on Form 8-K filed October 30, 2006.
10.1**	Amended and Restated Equity Incentive Plan, incorporated by reference to Exhibit 10.1 of the Registrant's Registration Statement on Form S-1 (Registration No. 333-76409).
10.2**	Executive Employment Agreement (as amended) dated as of April 2, 1999, between the Registrant and Martine A. Rothblatt, incorporated by reference to Exhibit 10.3 of the Registrant's Registration Statement on Form S-1 (Registration No. 333-76409).
10.3**	Amendment dated December 21, 2000 to the Employment Agreement between the Registrant and Martine A. Rothblatt, which appears as Exhibit 10.5 to Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2002, which exhibit is incorporated herein by reference.

10.4**	Employment Agreement dated June 16, 2001 between the Registrant and Paul A. Mahon, which appears as Exhibit 10.4 to Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2002, which exhibit is incorporated herein by reference.
10.5*	Exclusive License Agreement dated as of December 3, 1996, between the Registrant and an affiliate of Pharmacia & Upjohn Company, incorporated by reference to Exhibit 10.8 of the Registrant's Registration Statement on Form S-1 (Registration No. 333-76409).
10.6*	Assignment Agreement dated as of January 31, 1997, between the Registrant and affiliates of Glaxo Wellcome Inc., incorporated by reference to Exhibit 10.9 of the Registrant's Registration Statement on Form S-1 (Registration No. 333-76409).
10.7*	Cooperation and Strategic Alliance Agreement dated as of September 3, 1997, between Registrant and MiniMed Inc., incorporated by reference to Exhibit 10.10 of the Registrant's Registration Statement on Form S-1 (Registration No. 333-76409).
10.8*	Exclusive License Agreement dated as of September 24, 1998, between the Registrant and Toray Industries, Inc., incorporated by reference to Exhibit 10.11 of the Registrant's Registration Statement on Form S-1 (Registration No. 333-76409).

10.9*	Exclusive License Agreement dated as of March 15, 1999, between the Registrant and Toray Industries, Inc., incorporated by reference to Exhibit 10.14 of the Registrant's Registration Statement on Form S-1 (Registration No. 333-76409).
10.10**	Employment Agreement dated November 29, 2000 between the Registrant and Roger Jeffs, which appears as Exhibit 10.9 to Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2002, which exhibit is incorporated herein by reference.
10.11	Form of Indemnification Agreement between the Registrant and each of its Directors, incorporated by reference to Exhibit 10.19 of the Registrant's Registration Statement on Form S-1 (Registration No. 333-76409).
10.12*	Guidelines to Govern the Strategic Activities, Co-Development and Related Activities of the Parties dated as of November 1, 1999, between the Registrant and MiniMed, Inc., incorporated by reference to Exhibit 10.20 of the Registrant's Amended Registration Statement on Form S-1/A (Registration No. 333-93853).
10.13	Exclusive License Agreement dated as of June 23, 2000 between the Registrant and Toray Industries, Inc., incorporated by reference to Exhibit 10.1 of the Registrant's Registration Statement on Form S-3 (Registration No. 333-40598).
10.14	Asset Purchase Agreement dated as of December 15, 2000 among the Registrant, UP Subsidiary Corporation, and Cooke Pharma, Inc., incorporated by reference to Exhibit 2.1 of the Registrant's Form 8-K/A dated February 1, 2001.
10.15	Amendment No. 1 to Exclusive License Agreement, effective as of December 3, 1996, made as of October 1, 2002 by and between Pharmacia & Upjohn Company and the Registrant, which appears as Exhibit 10.25 to Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2002, which exhibit is incorporated herein by reference.
10.16	Technical Services Agreement dated August 27, 2002 between the Registrant and Kurzweil Technologies, Inc., which appears as Exhibit 10.26 to Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2002, which exhibit is incorporated herein by reference.
10.17***	Exclusive License Agreement dated April 17, 2002 between AltaRex Corp. and Unither Pharmaceuticals, a subsidiary of the Registrant, which appears as Exhibit 10.12 to Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2002, which exhibit is incorporated herein by reference.
10.18**	Standard Non-plan Option Award Agreement used by Registrant, incorporated by reference to Exhibit 10.39 to Registrant's Form 10-K for the year ended December 31, 2002.

10.19**	Amendment to Employment Agreement dated December 11, 2002 between the Registrant and Roger Jeffs, incorporated by reference to Exhibit 10.31 to the Registrant's Form 10-K for the year ended December 31, 2002.
10.20**	Amendment to Employment Agreement dated December 11, 2002 between the Registrant and Paul Mahon, incorporated by reference to Exhibit 10.33 to the Registrant's Form 10-K for the year ended December 31, 2002.
10.21	Real Estate Purchase Agreement dated October 31, 2003 by and between Unither Pharmaceuticals, Inc. and Montgomery County, incorporated by reference to Exhibit 10.34 to the Registrant's Form 10-K for the year ended December 31, 2003.
10.22**	United Therapeutics Corporation Amended and Restated Equity Incentive Plan, as amended effective as of September 24, 2004 incorporated by reference to Exhibit 10.1 to the Registrant's Form 10-Q for the quarter ended September 30, 2004.
10.23	Lease Agreement dated as of June 28, 2004, by and among United Therapeutics Corporation and Wachovia Development Corporation, incorporated by reference to Exhibit 99.1 of the Registrant's Form 8-K filed on July 6, 2004.
10.24	Assignment of Liquid Collateral Account dated June 28, 2004, by and among United Therapeutics Corporation and Wachovia Development Corporation, incorporated by reference to Exhibit 99.2 of the Registrant's Form 8-K filed on July 6, 2004.
10.25	Ground Lease dated June 28, 2004, by and among United Therapeutics Corporation and Wachovia Development Corporation, incorporated by reference to Exhibit 99.3 of the Registrant's Form 8-K filed on July 6, 2004.
10.26	Participation Agreement dated June 28, 2004, by and among United Therapeutics Corporation, Wachovia Development Corporation, Various Other Banks and Financial Institutions and Wachovia Bank, NA, incorporated by reference to Exhibit 99.4 of the Registrant's Form 8-K filed on July 6, 2004.
10.27	Agency Agreement dated June 28, 2004, by and among United Therapeutics Corporation and Wachovia Development Corporation, incorporated by reference to Exhibit 99.5 of the Registrant's Form 8-K filed on July 6, 2004.
10.28**	Amendment to Executive Employment Agreement between Martine A. Rothblatt and United Therapeutics Corporation, dated April 2, 1999, as previously amended, incorporated by reference to Exhibit 10.1 of the Registrar's Form 8-K filed on December 29, 2004.
10.29**	Amendment to Employment Agreement between Roger Jeffs, Ph.D. and United Therapeutics Corporation dated November 29, 2000, as previously amended, incorporated by reference to Exhibit 10.2 of the Registrar's Form 8-K filed on December 29, 2004.
10.30**	Amendment to Employment Agreement between Paul A. Mahon and United Therapeutics Corporation dated June 16, 2001, as previously amended, incorporated by reference to Exhibit 10.4 of the Registrar's Form 8-K filed on December 29, 2004.
10.31**	Form of Employee Stock Option Award Agreement, incorporated by reference to Exhibit 10.1 of the Registrar's Form 8-K filed on December 17, 2004.
10.32**	Form of Non-Employee Stock Option Award Agreement, incorporated by reference to Exhibit 10.2 of the Registrar's Form 8-K filed on December 17, 2004.
10.33	Turner Construction Contract, incorporated by reference to Exhibits 99.1 and 99.2 of Registrant's Current Report on Form 8-K filed March 17, 2005.
10.34**	United Therapeutics Corporation Supplemental Executive Retirement Plan, incorporated by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed May 4, 2006.
10.35	Stock Purchase Agreement, dated as of July 27, 2006, between Registrant and Toray Industries, Inc., incorporated by

reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed July 27, 2006.

10.36**	Employment Agreement, dated August 2, 2006, between John Ferrari and Registrant, incorporated by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed August 4, 2006.
10.37**	Amendment, dated July 31, 2006, to amended Employment Agreement, dated November 29, 2000, between Roger Jeffs, Ph.D. and Registrant, incorporated by reference to Exhibit 10.2 of Registrant's Current Report on Form 8-K filed August 4, 2006.
10.38**	Amendment, dated July 31, 2006, to amended Employment Agreement, dated June 16, 2001, between Paul A. Mahon and Registrant, incorporated by reference to Exhibit 10.3 of Registrant's Current Report on Form 8-K filed August 4, 2006.
10.39	First Amendment to Certain Operative Agreements, dated May 16, 2006, between Wachovia Development Corporation and Registrant, incorporated by reference to Exhibit 10.1 of Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2006.
10.40	Confirmation, dated October 24, 2006, between Deutsche Bank AG London and Registrant, incorporated by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed October 30, 2006.
10.41	Confirmation, dated October 24, 2006, between Deutsche Bank AG London and Registrant, incorporated by reference to Exhibit 10.2 of Registrant's Current Report on Form 8-K filed October 30, 2006.
10.42**	Amendment, dated December 28, 2006, to Employment Agreement, dated August 2, 2006, between John Ferrari and Registrant, incorporated by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed on December 29, 2006.
10.43	United Therapeutics Corporation Supplemental Executive Retirement Plan Rabbi Trust Document entered into December 28, 2007, by and between the Registrant and Wilmington Trust Company, as trustee, incorporated by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed on December 28, 2007.
10.44	Standard form of agreement between the Registrant and DPR Construction, Inc., dated March 9, 2007, as amended by Amendment No. 1, dated April 19, 2007, incorporated by reference to Exhibit 10.1 of Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2007.
10.45****	Distribution Agreement dated March 20, 2000, between Registrant and Accredo Therapeutics, Inc., as amended.
12.1	Computation of Earnings to Fixed Charges.
21	Subsidiaries of the Registrant.
23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934.
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934.
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

* Confidential treatment has been granted with respect to certain portions of this exhibit pursuant to Rule 406 of the Securities Act of 1933, as amended.

** Designates management contracts and compensation plans.

*** Confidential treatment has been granted with respect to certain portions of this exhibit pursuant to Rule 24b-2 of the Securities Act of 1934.

**** Confidential treatment has been requested for portions of this document. The omitted portions of this document have been filed with the Securities and Exchange Commission.

SIGNATURES

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

UNITED THERAPEUTICS CORPORATION

February 28, 2008 By: /s/ MARTINE A. ROTHBLATT

Martine A. Rothblatt, Ph.D.
Chairman of the Board 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.

Signatures	Title	Date
/s/ MARTINE A ROTHBLATT Martine A Rothblatt	Chairman of the Board and Chief Executive Officer	February 28, 2008
/s/ ROGER A. JEFFS Roger A. Jeffs	President, Chief Operating Officer and Director	February 28, 2008
/s/ JOHN M. FERRARI John M. Ferrari	Chief Financial Officer and Treasurer	February 28, 2008
/s/ CHRISTOPHER CAUSEY Christopher Causey	Director	February 28, 2008
/s/ RAYMOND DWEK Raymond Dwek	Director	February 28, 2008
/s/ R. PAUL GRAY R. Paul Gray	Director	February 28, 2008
/s/ RAYMOND KURZWEIL Raymond Kurzweil	Director	February 28, 2008
/s/ CHRISTOPHER PATUSKY Christopher Patusky	Director	February 28, 2008
/s/ LOUIS W. SULLIVAN Louis W. Sullivan	Director	February 28, 2008

QuickLinks

SIGNATURES

Exhibit 10.45

Pursuant to 17 C.F.R §240.24b-2, confidential information (indicated as [***]) has been omitted and has been filed separately with the Securities and Exchange Commission pursuant to a Confidential Treatment Application filed with the Commission.

Distribution Agreement

THIS AGREEMENT is made as of March 20, 2000 (the "Effective Date"), by and between United Therapeutics Corporation ("UT"), a Delaware corporation, 1110 Spring Street, Silver Spring, Maryland and Olsten Health Services (Quantum) Corp., doing business as Olsten Health Services or Gentiva Health Services ("DISTRIBUTOR"), a Delaware corporation, 175 Broad Hollow Road, Melville, NY 11747.

Recitals

A. WHEREAS, UT has developed triprostenol, a pharmaceutical product for the treatment of pulmonary hypertension to be marketed worldwide under the brand name UNIPROST ™ (the "UT Product");

B. WHEREAS, UT has entered into an agreement with MiniMed, Inc., a Delaware corporation, pursuant to which UT will purchase from MiniMed, Inc. infusion pumps and consumable products, supplies or other goods which are used in connection with infusion pumps for the delivery of UNIPROST ™ , which supplies include, without limitation infusion sets with catheters and medication reservoirs (the "MiniMed Product");

C. WHEREAS, DISTRIBUTOR has represented that it possesses the necessary expertise, financial resources and marketing organization to promote and sell the UT Product and the MiniMed Product (together, the UT Product and the MiniMed Product shall be referred to herein as the "Products") and desires to acquire from UT the right to sell, market, distribute and maintain the Products in the Territory (as hereinafter defined);

D. WHEREAS, UT is willing to appoint DISTRIBUTOR and DISTRIBUTOR is willing to accept appointment, as a distributor of the Products in the Territory; and

E. WHEREAS, the parties hereto believe that the business relationship regarding the Products and related support will be of mutual advantage.

NOW, THEREFORE, in consideration of the mutual promises and covenants hereinafter set forth, the parties agree as follows:

Article 1.0 INTRODUCTORY PROVISIONS

1.1 Defined Terms . The following terms, when used in capitalized form in this Agreement, shall have the meanings set forth below:

(a) "Agreement" shall mean this Distribution Agreement entered into by and between UT and DISTRIBUTOR as of the Effective Date.

(b) "Affiliate" when used with reference to either Party shall mean any corporation controlling, controlled by or under common control with the said Party and any officer, director or employee of such corporation, as the case may be. For purposes hereof, "control" shall mean ownership, directly or indirectly, of more than fifty percent (50%) of the securities having the right to vote for the election of directors, in the case of a corporation, and more than fifty percent (50%) of the beneficial interest in the capital, in the case of a business entity other than a corporation.

(c) "Best Efforts" shall mean those efforts that would be made by a reasonably prudent business person acting in good faith and in the exercise of reasonable commercial judgment.

(d) "Clinical Trial Patients" shall mean Included Patients who are enrolled in clinical trials relating to UT Product prior to Commercial Launch.

(e) "Commercial Launch" shall mean the date on which UT first makes all Products available for commercial sale, after the receipt of all applicable government and regulatory approvals required to be obtained by UT or its suppliers prior to commercial sale of the Products.

(f) "Confidential Information" shall mean all information disclosed by either party ("disclosing party") to the other party ("receiving party"), regardless of the form in which it is disclosed, including information relating to the disclosing party's markets, product specific payer policies, databases, customers, products, patents, inventions, procedures, methods, designs, strategies, plans, assets, liabilities, prices, costs, revenues, profits, organization, employees, agents, resellers or business in general, and with respect to UT as disclosing party, information embodied in the Products. The following shall not be considered Confidential Information:

(i) Information which is or becomes in the public domain through no fault or act of the receiving party;

(ii) Information which was independently developed by the receiving party without the use of or reliance on Confidential Information;

(iii) Information which was provided to the receiving party by a third party under no duty of confidentiality to the disclosing party; or

(iv) Information which is required to be disclosed by law, rule, regulation or governmental agency, provided, however, prompt prior notice thereof shall be given to the disclosing party.

(g) "Effective Date" shall mean the date first above written.

(h) "Force Majeure" shall mean any event, not existing as of the Effective Date and not reasonably within the control of the Parties as of such date, which, in whole or in material part, prevents or makes commercially unreasonable one Party's performance of its obligations under this Agreement. Force Majeure shall include, without limitation: fire, storm, earthquake, flood, acts of State or other governmental action, war or civil unrest, labor dispute, inability to obtain labor or materials, and prolonged shortage of energy or any other supplies.

(i) "Included Patients" shall mean those individuals diagnosed with pulmonary hypertension (or any other condition which shall have been approved by the United States Food and Drug Administration as an approved indication for UT Product), and whom DISTRIBUTOR shall have accepted (at its sole discretion) on to its service as its patient.

(j) "NCIP Patient" (Non-collecting Included Patient) shall mean any Included Patient who has no source of third party payment or reimbursement either for UT Product or for MiniMed Product and who is not a Patient Assistance Program Patient, and who fails to pay for Products at DISTRIBUTOR's usual and customary charge for Products after DISTRIBUTOR uses its customary Best Efforts to collect such payment from such patient for at least a 90 day period.

(k) "PAP Patient" (Patient Assistance Program Patient) shall mean any Included Patient who is enrolled in the Patient Assistance Program as established by UT from time to time. The currently anticipated criteria for this program are described on Attachment C.

(1) "Price" shall mean the respective price for the respective Product as set forth on Attachment A hereto, subject to the terms and conditions reflected on Attachment A.

(m) "MiniMed Product" shall mean infusion pumps and consumable products, supplies or other goods developed by MiniMed, Inc. which are medically necessary and used in connection with infusion pumps for the delivery of UNIPROST ™, which supplies include, without limitation infusion sets with catheters and medication reservoirs.

(n) "UT Trademark" shall mean any of the UT trademarks, logotypes and trade names listed on Attachment B hereto, as such Attachment may be modified from time to time by UT and communicated in writing by UT to DISTRIBUTOR during the term of this Agreement.

(o) "Party" shall mean either of the two parties to this Agreement.

(p) "Products" shall mean both the UT Product and the MiniMed Product.

(q) "Territory" shall mean the fifty states, territories and possessions of the United States only, unless otherwise expressly agreed in writing by the Parties.

(r) "UT Product" shall mean triprostenol, a pharmaceutical product for the treatment of pulmonary hypertension to be marketed in the Territory under the brand name UNIPROST ™.

1.2 Other Rules of Interpretation. Unless the context clearly indicates otherwise, the following rules shall govern the interpretation of this Agreement:

(a) The definitions of all terms defined herein shall apply equally to the singular, plural, and possessive forms of such terms;

(b) All references herein to "days" shall mean calendar days; and

(c) All references to "Sections" shall mean the corresponding Sections of this Agreement.

Article 2.0 REPRESENTATIONS AND WARRANTIES

2.1 Authority. Each Party represents and warrants that it possesses all corporate power and authority necessary to enter into this Agreement and to perform its obligations under this Agreement. All corporate acts and other proceedings required to be taken by or on the part of each Party to authorize it to perform its obligations under this Agreement have been duly and properly taken. This Agreement has been duly executed and delivered by each Party and constitutes legal, valid and binding obligations of each Party enforceable in accordance with its terms, subject to the application of general principles of equity.

2.2 No Conflicts. Each Party represents and warrants that the execution and performance of this Agreement by each Party will not conflict with or violate any other agreement or obligation binding on it.

2.3 Approvals. Except as expressly provided herein, each Party represents and warrants that no approval, authorization, consent or other order or action of or filing with any court, administrative agency or other governmental authority is required for the execution and delivery by such Party of this Agreement or its consummation of the transactions contemplated by this Agreement.

2.4 Debarment Certification Requirements. Each Party certifies that it has not been debarred under the provisions of the Generic Drug Enforcement Act of 1992, 21 U.S.C. § 335(a) and (b). In the event that during the term of this Agreement, either Party (i) becomes debarred or (ii) receives notice of an action or threat of an

action with respect to its debarment, such Party shall notify the other Party immediately. Each Party hereby certifies that it has not and will not use in any capacity the services of any individual, corporation, partnership or association which has been debarred under 21 U.S.C. § 335(a) and (b). In the event that either Party becomes aware of the debarment or threatened debarment of any individual, corporation, partnership or association providing services to the other Party which directly or indirectly relate to activities under this Agreement, the other Party shall be immediately notified.

Article 3.0 APPOINTMENT

3.1 Scope; Non-exclusive . UT hereby appoints DISTRIBUTOR, and DISTRIBUTOR hereby accepts such appointment, as a distributor of the Products during the term of this Agreement, subject to the terms and conditions of this Agreement. This appointment is non-exclusive, and UT reserves the right to appoint additional distributors in the Territory and to distribute the Products in the Territory itself.

3.2 Subdistributors . DISTRIBUTOR shall not, without the prior written approval of UT, appoint any distributors or agents to act on behalf of DISTRIBUTOR (collectively, "Subdistributors") to promote and/or distribute the Products within the Territory, other than any of its Affiliates. DISTRIBUTOR shall at all times remain fully liable for the performance of any approved subdistributors and DISTRIBUTOR shall provide UT with a written acknowledgement executed by each Subdistributor that it has read this Agreement and agrees to be bound by its terms and conditions, including those contained in the attachments hereto.

3.3 Sales Outside the Territory . DISTRIBUTOR shall not distribute, sell or otherwise provide the Products outside of the Territory and shall not advertise, promote or solicit customers for the Products outside the Territory.

Article 4.0 OBLIGATIONS OF DISTRIBUTOR

4.1 Distribution Promotion . DISTRIBUTOR shall use its Best Efforts to fund and support ongoing promotion of its distribution of the Products, consistent with DISTRIBUTOR's normal funding and support for its overall distribution activities; provided, however, UT shall approve in advance any marketing material used by DISTRIBUTOR other than the UT marketing material provided by UT to DISTRIBUTOR pursuant to Section 5.3. Such Best Efforts shall include, but not be limited to:

(a) Maintaining throughout the Territory adequate marketing, sales and order-fulfillment staffs who are adequately trained. The Parties acknowledge that this obligation requires DISTRIBUTOR to have the capability to provide the foregoing services throughout the Territory, but does not require DISTRIBUTOR to have a physical office within each jurisdiction within the Territory;

(b) Promptly responding to all inquiries from customers, including responding to complaints, processing all orders and effecting all shipments of the Products for Included Patients;

(c) Providing the Products to Included Patients following discharge from hospitals upon receipt of written notice from the hospital and pursuant to physician orders;

(d) Attending and exhibiting at appropriate trade shows involving patients and/or physicians specialties that have a high propensity or likelihood to diagnose and treat patients suffering from pulmonary hypertension. DISTRIBUTOR will develop in conjunction with UT, sales sheets which detail the available therapy and support services from DISTRIBUTOR for patients on Product. At a minimum, DISTRIBUTOR will attend the following trade shows or national conferences of the following organizations:

(i) Pulmonary Hypertension Association;
(ii) American Heart Association;
(iii) American Lung Association;
(iv) American Thoracic Association;
(v) American College of Cardiology;
(vi) American Rheumatology Association;
(vii) Scleroderma Foundation; and

(e) Diligently investigating and pursuing all leads and inquiries of potential customers referred to DISTRIBUTOR by UT and to report promptly on the status of such leads and inquiries. Notwithstanding the foregoing, nothing in this Agreement shall be construed as requiring DISTRIBUTOR to admit to its service, or provide Products to, any particular individual(s) or types of individual(s). The determination of which individuals shall become Included Patients is in DISTRIBUTOR's sole discretion.

4.2 Appropriate Products . Notwithstanding anything in this Agreement or attachments hereto to the contrary, DISTRIBUTOR's obligations to provide MiniMed Product with UT Product shall be subject to (i) patient choice and physician and payor preference provided, however, that any pumps and supplies other than the MiniMed Products are considered therapeutically equivalent substitutes in accordance with prevailing medical judgment, and (ii) UT's ability to supply MiniMed Product. DISTRIBUTOR will not promote the use or sale of any pump and supplies other than the MiniMed Product. In addition, DISTRIBUTOR shall not be obligated to provide MiniMed Product with UT Product to the extent that DISTRIBUTOR determines in its sole commercially reasonable discretion that it has received a significant number of significant patient, physician or payor complaints regarding the MiniMed Product and DISTRIBUTOR shall provide prompt notice to UT upon such determination.

4.3 Policies and Procedures . DISTRIBUTOR shall comply with UT's DISTRIBUTOR Policies and Procedures, including, but not limited to, third party payer policies and procedures and policies and procedures relating to the MiniMed Product, a copy of which is attached hereto as Attachment E. UT reserves the right to change such Policies and Procedures upon notice to DISTRIBUTOR, provided however, that to the extent that any such change shall impose any greater restrictions or costs on DISTRIBUTOR, DISTRIBUTOR's prior consent to such changes shall be required, such consent not to be unreasonably withheld or delayed.

4.4 Written Assurance . DISTRIBUTOR hereby assures UT that DISTRIBUTOR shall not export the Products from the Territory to any destination to which re-export requires a license under the United States Export Administration Regulations unless and until DISTRIBUTOR shall have applied for and obtained, at the request and expense of DISTRIBUTOR, a license from the Office of Export Administration, United States Department of Commerce for such report.

4.5 Alteration of Products . DISTRIBUTOR shall not alter the Products except with prior written consent of UT.

4.6 Product Claims . DISTRIBUTOR shall make no claims concerning the Products except as authorized by UT in writing or as are contained in UT's marketing materials provided to DISTRIBUTOR for use in the Territory.

4.7 Complaints . DISTRIBUTOR shall promptly submit to UT's Vice President of Operations or MiniMed, Inc.'s Technical Service Department detailed information regarding complaints from customers in the Territory, including complaints of defective or substandard UT Products or MiniMed Products, respectively.

4.8 Inventory . DISTRIBUTOR will maintain an inventory adequate to fill two (2) months of anticipated orders of the UT Products, with the intention of maintaining sufficient inventory to ensure availability;

4.9 Temperature Protection . DISTRIBUTOR shall ensure that during the entire time the Products are under DISTRIBUTOR's control, that the Products are stored at the temperature specified by UT and/or MiniMed, Inc. for such Product.

4.10 Distributor Expenses . DISTRIBUTOR shall bear all of its own costs and expenses incurred in carrying out its obligations under this Agreement, including, but not limited to, all rents, salaries, commissions, demonstration, travel and accommodation.

Article 5.0 OBLIGATIONS OF UT

5.1 Training . UT will provide training to DISTRIBUTOR for Products at a time to be mutually agreed upon by the parties, but no less frequently than semi-annually. The duration, content and location of such training shall be as agreed upon by the

parties. DISTRIBUTOR shall bear all costs of travel and living expenses for its personnel to attend such training. If training is provided at DISTRIBUTOR's location, DISTRIBUTOR shall provide appropriate facilities, without expense to UT. UT shall bear all costs relating to its personnel and their travel and living expenses, materials and facilities utilized for training, together with any other related costs it incurs.

5.2 Samples . UT will provide a reasonable quantity of sample Products to DISTRIBUTOR for the sole purpose of marketing the Products to prospective customers in the Territory, subject to applicable legal requirements. All sample Products remain the property of UT and DISTRIBUTOR shall promptly return all samples to UT upon request. Samples shall be labeled clearly by UT as "SAMPLES-NOT FOR RESALE/NOT FOR PATIENT CONSUMPTION".

5.3 Sales Material . UT will provide to DISTRIBUTOR reasonable quantities of such sales materials, reprints, brochures, package inserts, peer review articles and other scientific and medical information regarding the Products, informational material and other marketing literature for use by DISTRIBUTOR and its sales force when marketing the Products.

5.4 Marketing Support . UT will provide DISTRIBUTOR with such marketing support as the parties may mutually agree.

5.5 UT Expenses . UT shall bear all of its own costs and expenses incurred in carrying out its obligations under this Agreement, including but not limited to, all rents, salaries, commissions, advertising, demonstration, travel and accommodation.

Article 6.0 ORDERS FOR PRODUCTS

6.1 Purchase Orders . DISTRIBUTOR shall submit written purchase orders for Products to UT by mail, courier delivery or facsimile. Each such order shall set forth (a) the Products ordered, including item numbers; (b) quantities of each; (c) requested delivery dates; and (d) any specific shipping instructions. Except as otherwise agreed by UT, DISTRIBUTOR shall submit such purchase orders at least sixty (60) days prior to the requested delivery dates.

6.2 Acceptance of Orders . All DISTRIBUTOR purchase orders are subject to acceptance in writing by UT, which acceptance shall be delivered by mail, courier or facsimile, or deemed to have occurred if DISTRIBUTOR shall not have received an acceptance or rejection of the order within five business days of UT's receipt of the order. Each purchase order shall be deemed to be an offer by DISTRIBUTOR to purchase the Products pursuant to the terms of this Agreement and, if and when accepted by UT as hereinabove provided, shall give rise to a contract between DISTRIBUTOR and UT on the terms and conditions set forth herein to the exclusion of any additional or contrary terms set forth in the DISTRIBUTOR purchase order or which otherwise conflicts with this

Agreement. UT shall use its Best Efforts, consistent with the other requirements of its business as determined by UT, to accept all purchase orders placed by DISTRIBUTOR in accordance with the terms and conditions of this Agreement.

6.3 Delivery Terms . Unless otherwise agreed to in writing by UT and DISTRIBUTOR, all deliveries of the Products shall be F.O.B. DISTRIBUTOR's facility. UT shall insure each shipment of such Products with a reputable insurer for the full invoice price of each shipment. Risk of loss and title to the Products shall pass upon delivery to DISTRIBUTOR at its facility.

6.4 Modification of Orders . No accepted purchase order shall be modified or canceled except upon the written agreement of both parties.

6.5 Change Order Charges . If DISTRIBUTOR requests modifications in an accepted order prior to the scheduled delivery date provided in such order, in consideration for accepting such change order, UT may require DISTRIBUTOR to extend the scheduled delivery date and/or to pay a change order charge equal to the sum of the actual documented non-recoverable costs incurred by UT by reason of such change order.

6.6 Product Changes . Subject to applicable regulatory approval, UT reserves the right, in its sole discretion and without incurring any liability to DISTRIBUTOR except as otherwise provided in this Agreement, to (a) alter any Product; (b) discontinue the manufacture of any Product; or (c) commence the manufacture and sale of new products having features which make any Product wholly or partially obsolete, provided however, that if such new Product may be used as a substitute for Product, UT shall negotiate in good faith with DISTRIBUTOR to reach an agreement on terms whereby DISTRIBUTOR may purchase such new products. Notwithstanding the foregoing, UT shall use its Best Efforts to provide DISTRIBUTOR with at least sixty (60) days prior written notice of any such change. UT also reserves the right, in its sole discretion and without incurring any liability to DISTRIBUTOR except as otherwise provided in this Agreement, immediately to alter the specifications or the manufacturing process for any Product for reasons of health or safety. UT shall fill all accepted purchase orders from DISTRIBUTOR for any altered or discontinued Products for which manufacturing and commercial deliveries have commenced prior to the effective date of such a change but otherwise shall have no obligation to do so unless the delivery date requested in the relevant purchase order was prior to the effective date of such a change.

6.7 Rolling Forecasts . DISTRIBUTOR and UT shall mutually develop and agree upon a non-binding twelve (12) month forecast indicating DISTRIBUTOR' s intended purchases of Products, as well as such other information as UT may reasonably request. Such forecasts shall be updated by DISTRIBUTOR on a rolling basis each calendar quarter, and each updated forecast must be received by UT no later than thirty (30) days after the end of each calendar quarter.

Article 7.0 PRICES AND PAYMENTS

7.1 Prices . DISTRIBUTOR shall pay the Prices for the Products purchased under this Agreement which are in effect at the time of acceptance of the relevant purchase order submitted by DISTRIBUTOR, except as provided in Section 7.2. All costs relating to shipping, insuring, packing, handling and delivering the Products to DISTRIBUTOR'S facility shall be at the sole expense of UT.

7.2 Price Changes . At any time during the term of this Agreement, UT may increase its Prices for the Products upon at least sixty (60) days prior written notice to DISTRIBUTOR, but only as long as the respective Price for Product is at all times at least [***] percent ([***]%) less than the then current published "Average Wholesale Price" (AWP) for the respective Product. Increased prices shall not apply to purchase orders accepted prior to the effective date of the price increase unless such orders provide for delivery, and delivery is in fact made, more than ninety (90) days after the date of acceptance of the order. Price decreases with respect to all Products shall be effective immediately upon written notice to DISTRIBUTOR on all such Products not yet delivered. UT agrees that it will not sell the Products during the term of this Agreement to another distributor in the Territory at a price (including payment terms) lower than what it is charging DISTRIBUTOR.

7.3 Payment Terms; Invoices . DISTRIBUTOR shall make payments for the Products within 60 days of its receipt of the respective invoice. Terms of purchase shall be two percent (2%) prompt pay discount if paid within thirty (30) days of invoice receipt. UT shall ensure that all invoices for Products accurately reflect the actual charge to DISTRIBUTOR for the Products, including to the extent applicable any and all discounts, free goods or other reductions in price of the Products to DISTRIBUTOR. All payments shall be made in United States Dollars.

7.4 Overdue Payments . If and for so long as any payment from DISTRIBUTOR to UT under this Agreement shall be overdue:

(a) Interest in the applicable currency of payment shall be due and payable at the rate of interest of twelve percent (12%) per annum, or such lower rate as may be the maximum legally permissible rate of interest, on all balances outstanding from the first date such payment is due until fully paid; and

(b) UT shall have the right to recover its collection costs and expenses (including reasonable attorneys' fees) for late payments. UT reserves the right to revoke any credit terms it may offer DISTRIBUTOR if there is any unsettled or outstanding balance owed by DISTRIBUTOR to UT.

7.5 Tax Payments . Each Party shall pay all taxes, duties, import deposits, assessments and other governmental charges, however designated, that are now or

hereafter imposed upon such Party by any governmental authority or agency in connection with the performance of its obligations under this Agreement.

7.6 Resale Prices . DISTRIBUTOR may offer the Products in the Territory at such prices or discounts as DISTRIBUTOR, in its sole discretion, may determine.

Article 8.0 ACCEPTANCE, WARRANTY AND PRODUCTS SUPPORT

8.1 Acceptance of Products . DISTRIBUTOR shall promptly inspect each shipment of the Products. In the event of any shortage, damage, expiration or discrepancy in a shipment of Products which is patently obvious, DISTRIBUTOR shall promptly report the same to UT and furnish such written evidence or other documentation as UT may reasonably request. DISTRIBUTOR shall be deemed to have accepted a shipment and UT shall not be liable for any such shortage, damage, expiration or discrepancy in such shipment unless DISTRIBUTOR provides UT with such notice and substantiating evidence within forty-five (45) days of arrival of the Products at DISTRIBUTOR's shipping address in the Territory. Upon receipt of the reasonable substantiating evidence of such shortage, damage or discrepancy, UT shall refund any payments made for the Product or UT shall promptly provide additional or substitute Products to DISTRIBUTOR, and UT shall promptly reimburse (or, at DISTRIBUTOR's option, DISTRIBUTOR may deduct such amounts from payments due to UT hereunder) for any actual costs, expenses or damages incurred by DISTRIBUTOR, directly or indirectly, as a result of such shortage, damage or discrepancy in or to a shipment.

8.2 Product Warranty . UT hereby authorizes DISTRIBUTOR to pass on the UT standard warranty and the MiniMed, Inc. standard warranty each set forth in Attachment D for the UT Product and MiniMed Product, respectively, to DISTRIBUTOR's customers in the Territory, which may be revised by UT upon notice to DISTRIBUTOR. DISTRIBUTOR shall not offer its customers any warranties different from or in addition to those given by UT hereunder.

8.3 Excluded Claims . UT shall not have any additional warranty obligations to DISTRIBUTOR or DISTRIBUTOR's customers under Section 8.2 above or otherwise to the extent that DISTRIBUTOR has made any warranties, oral or written, beyond those expressly set

forth in the standard UT warranty, Attachment D hereto.

8.4 Limited Warranty . THE WARRANTIES SET FORTH IN THE UT WARRANTY, ATTACHMENT D HERETO, AND THE OTHER TERMS AND CONDITIONS OF THIS AGREEMENT, ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, WHICH ARE HEREBY DISCLAIMED AND EXCLUDED BY UT, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE. THE SOLE AND EXCLUSIVE REMEDIES FOR BREACH OF UT'S STANDARD WARRANTIES SHALL

BE LIMITED TO THE REMEDIES PROVIDED IN UT'S STANDARD WARRANTIES SET FORTH ON ATTACHMENT D, ATTACHED HERETO, AND AS OTHERWISE PROVIDED IN THIS AGREEMENT.

8.5 Limited Remedy . UT SHALL NOT BE LIABLE TO DISTRIBUTOR OR ANY OF THEIR CUSTOMERS FOR LOSS OR DAMAGE CAUSED BY DELAY IN FURNISHING THE PRODUCTS UNDER THIS AGREEMENT. UT SHALL NOT BE LIABLE TO DISTRIBUTOR OR ANY THIRD PARTY FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL LOSSES OR DAMAGES, EVEN IF UT SHALL HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH POTENTIAL LOSS OR DAMAGE BY DISTRIBUTOR OR ANY THIRD PARTY. IN NO EVENT, SHALL UT BE LIABLE FOR ANY DAMAGES IN EXCESS OF THE LESSER OF THE COST OF REPLACEMENT OR REFUND OF THE NET PURCHASE PRICE PAID BY DISTRIBUTOR FOR ANY DEFECTIVE OR DAMAGED PRODUCT. NOTWITHSTANDING THE FOREGOING, IN CASE OF ANY CONFLICT BETWEEN THE PROVISIONS OF THIS SECTION AND SECTION 12.3, SECTION 12.3 SHALL CONTROL.

Article 9.0 REGULATORY APPROVALS, COMPLIANCE AND AUDITS

9.1 FDA Approval . UT represents and warrants that as of the Effective Date with respect to clinical trials, and prior to Commercial Launch with respect to commercial sale, the Products have received or shall have received, as the case may be, (a) clearance from the FDA to in the Territory for the approved indications, and (b) all federal and state approvals and permits required for the manufacture, importation, design, testing, inspection, labeling, warning, instructions for use, marketing, sale and distribution of the Product in the Territory. UT shall promptly notify DISTRIBUTOR in writing upon receiving applicable FDA approvals, and such notice shall include the effective date of such approval, as well as the significant terms, conditions and limitations of such approval (including applicable indications), and UT shall also notify DISTRIBUTOR in writing of the effective date of Commercial Launch.

9.2 Compliance with Laws . UT shall be solely responsible for, and comply with, all applicable federal and state laws, regulations and orders governing the regulation of the manufacture, importation, design, testing, inspection, labeling, sale, warning and instructions for use of all Product in the Territory, or otherwise applicable to the performance of its obligations under this Agreement. DISTRIBUTOR shall comply with all applicable federal and state laws, regulations and orders governing its distribution and sale of Products in the Territory, or otherwise applicable to the performance of its obligations hereunder. Each Party shall conduct its activities hereunder in and ethical and professional manner.

9.3 Inspection . Each Party shall notify the other Party promptly of any inspection by any federal, state, or local regulatory representative concerning any Product and

shall provide the other Party with a summary of the results of such inspection and such actions, if any, taken to remedy conditions cited in such inspections. Each Party agrees to cooperate with any inspection of a Product shipment conducted by a governmental agency.

9.4 Adverse Event Reporting . Each Party agrees to inform the other Party promptly (but in no event no later than forty-eight (48) hours after becoming aware of same) of any complaint, or labeling or package insert issues, involving a Product or adverse drug experience (as defined in 21 C.F.R. 314.80), injury, toxicity, or sensitivity reaction associated with the clinical use of the Product, whether or not considered related to the Products.

(a) If the adverse drug experience is serious, as defined in 21 C.F.R. 314.80 (including any adverse drug reaction that is fatal or life-threatening, is permanently disabling, requires inpatient hospitalization, or is a congenital anomaly, cancer or overdose), then each Party shall notify the other Party within twenty-four (24) hours;

(b) All notifications to UT shall be by facsimile and on UT's designated adverse event forms.

(c) To the extent of any conflict between the provisions of this Section and Attachment E to this Agreement, the provisions of this Section shall control.

9.5 Withdrawal of Product . If there is a recall of withdrawal of a Product, then UT shall immediately contact DISTRIBUTOR's corporate purchasing department in accordance with DISTRIBUTOR's policies and procedures made available to UT, and DISTRIBUTOR agrees to stop shipping recalled lots immediately, and in no event later than twenty-four (24) hours after DISTRIBUTOR receives written notification of such recalls. DISTRIBUTOR shall cooperate fully in any such recall, including any customer notice, restriction, change, corrective act or market action or any Product change requested or ordered by any governmental agency having jurisdiction in the Territory. UT agrees to reimburse DISTRIBUTOR for any reasonable cost or expenses (including reasonable attorneys' fees) DISTRIBUTOR may incur due to recalls, withdrawals, replacements or government inspections of any Product. DISTRIBUTOR shall prepare an invoice of such costs which invoice shall be paid by UT within thirty (30) days of receipt of such invoice. Each party shall promptly provide the other party with copies of correspondence to or from governmental authorities relating to corrective action in the Territory concerning the Products.

9.6 Visits by Parties . Each Party shall permit the other Party to visit its place of business and inspect its records, inventories and other relevant materials relating solely to its performance of this Agreement, upon reasonable advance notice and during normal business hours.

Article 10.0 PROPERTY OWNERSHIP; CONFIDENTIALITY

All Confidential Information and other proprietary material, documents, information, databases, complete and incomplete case report forms and all data that either Party ("disclosing party") supplies to the other Party ("receiving party") shall be the sole and exclusive property of the disclosing party ("Disclosing Party Property"). All Confidential Information shall be deemed confidential and proprietary to the disclosing party. The receiving party (a) may use the Confidential Information during the term of this Agreement only as permitted or required for its performance hereunder, (b) shall not disclose or provide any Confidential Information to any third party, and (c) shall take reasonable measures to prevent any unauthorized disclosure by its employees, agents, contractors or consultants during the term hereof including advising such individuals of applicable confidentiality obligations. The foregoing duty shall survive any termination or expiration of this Agreement for a period of five (5) years. Upon termination of this Agreement, the receiving party shall return to the disclosing party, at the disclosing party's expense all unused Disclosing Party Property.

Article 11.0 TRADEMARK

11.1 Trademark License Grant . UT hereby grants to DISTRIBUTOR, and DISTRIBUTOR hereby accepts from UT, a nonexclusive, nontransferable, and royalty-free right and license, during the term of this Agreement, to reproduce and use the UT Trademarks in connection with the distribution, marketing, promotion and sale or other distribution of the Products in the Territory and in accordance with UT's standards and instructions and for no other purpose. DISTRIBUTOR shall not use any other marks or trade names in connection with the marketing and distribution of the Products, except that DISTRIBUTOR may use its marks or trade names in a manner consistent with its normal course of business, such as adding a label on the packaging identifying DISTRIBUTOR as a distributor of Products, such label to be approved by UT in advance in writing as to size and content, such approval not to be unreasonably withheld or delayed, and such use shall not confer on UT any rights or license in DISTRIBUTOR's marks or trade names. UT may inspect and monitor DISTRIBUTOR's use of the UT Trademarks. DISTRIBUTOR shall not remove or alter any UT trade names, trademarks, copyright notices, serial numbers, labels, tags or other identifying marks, symbols or legends affixed to any Products, documentation or containers or packages.

11.2 Registration . In its sole discretion, UT may register the UT Trademarks in the Territory if UT determines that registration is necessary or useful to the successful distribution of the Products. In addition, if UT believes that it is advisable to effect any filing or obtain any governmental approval or sanction for the use by DISTRIBUTOR of any of UT Trademarks pursuant to this Agreement, the Parties shall cooperate to do so. All expenses relating to the registration of the UT Trademarks in the Territory as well as the making of any filing or obtaining any governmental approvals for the use by DISTRIBUTOR of the Trademarks shall be borne by UT.

11.3 Termination of Use . Immediately upon termination of this Agreement, DISTRIBUTOR shall cease and desist from use of any UT Trademark in any manner, other than to liquidate its then-existing inventory of the Products within six months of such termination. DISTRIBUTOR hereby grants to UT or its designee, in the event of such termination, full power of attorney, with the right of substitution, to cancel, revoke or withdraw any governmental registration or authorization permitting DISTRIBUTOR to use any UT Trademark in the Territory, and DISTRIBUTOR shall provide such further documentation and assistance as UT may reasonably request in connection therewith.

11.4 Reservation of Rights . DISTRIBUTOR acknowledges UT's proprietary rights in and to any UT Trademark, subject to the license and right granted in Section 11.1. DISTRIBUTOR shall not adopt, use or register any words, phrases or symbols which are identical to or confusingly similar to any UT Trademark and shall not use any UT Trademark as part of DISTRIBUTOR's corporate or trade name or permit any third party to do so.

11.5 Infringements . DISTRIBUTOR shall promptly notify UT if it becomes aware of any use in the Territory by any third party of any UT Trademark or of any similar mark which may constitute an infringement of a UT Trademark. Subject to the provisions of this Section, UT shall have the exclusive right, in its sole discretion, to institute proceedings against third-party infringers in respect of infringements occurring in the Territory. If UT elects not to institute such proceedings within a period of thirty (30) days after notification of the alleged infringement, DISTRIBUTOR shall have the option to do so, and UT shall thereafter refrain from doing so. UT shall have the exclusive right in its sole discretion to institute proceedings against third-party infringers in respect of infringements occurring outside the Territory. Each Party shall cooperate fully with the other Party in connection with any such proceedings against third-party infringers, provided that all expenses of such proceedings shall be borne by the Party instituting same and all damages which may be awarded or agreed upon in settlement of such action shall accrue to such Party.

Article 12.0 INSURANCE AND INDEMNIFICATION

12.1 Insurance . Each Party shall maintain in effect during the term of this Agreement a comprehensive general liability policy (which may be in the form of primary or excess coverage) in an amount not less than Two Million Dollars ($2,000,000) per occurrence and Three Million Dollars ($3,000,000) in the aggregate and shall promptly after the execution of this Agreement designate the other party as an additional named insured on such policies. The deductible for such policy shall be no more than One Hundred Thousand Dollars ($100,000) and shall provide for ten (10) days' notice to the other party by the insurer by registered or certified mail, return receipt requested, in the event of any modifications, cancellations or terminations thereof. Each Party agrees to provide the other Party with a certificate of insurance evidencing compliance with this section within ten (10) days of execution of this Agreement.

12.2 DISTRIBUTOR Indemnification of UT . Except as provided in Section 12.3, DISTRIBUTOR shall indemnify, defend and hold harmless UT and its Affiliates, and their respective officers, directors, employees, agents and successors and assigns from and against, any Claim to the extent such claim relates to or is based on (a) property damage, personal injury or death resulting from DISTRIBUTOR's negligent or reckless provision or maintenance of the Products (except to the extent the same results from any wrongful act or omission of UT), (b) DISTRIBUTOR's violation of any applicable law or governmental regulation or (c) any breach by DISTRIBUTOR of any of its representations, warranties, covenants or agreements in this Agreement. For the purpose of this Section and Section 12.3, a "Claim" shall be any liabilities, damages, costs or expenses, including, without limitation, reasonable attorneys' fees which arise from any claim, lawsuit, demand or other action by any Party other than one of the Parties or an Affiliate of one of the Parties.

12.3 UT Indemnification of DISTRIBUTOR for UT Products . Except as provided in Section 12.2, UT shall indemnify, defend and hold harmless DISTRIBUTOR and its Affiliates, and their respective officers, directors, employees, agents and successors and assigns from and against any Claim to the extent such Claim relates to or is based on (a) UT's design, manufacture or supply of the Products, (b) property damage, personal injury or death resulting from use of the Product (except to the extent the same results from any wrongful action or omission of DISTRIBUTOR), (c) UT's violation of any applicable law or governmental regulation, (d) any breach by UT of any of its representations, warranties, covenants or agreements in this Agreement, (e) any inability of DISTRIBUTOR to supply Products to an Included Patient as a result of a shortage of product or other failure of UT to deliver Product (except to the extent the same results from any wrongful action or omission of DISTRIBUTOR), (f) any recall or withdrawal of Product, or return of damaged, defective, shortdated or outdated Product, or (g) any claim that DISTRIBUTOR'S distribution and sale of Products infringes on the patent, trade mark, copyright, or other proprietary rights of any third party. To the extent of any conflict between the provisions of this Section and the provisions of Attachment E to this Agreement, this Section shall control.

12.4 UT Indemnification of DISTRIBUTOR for MiniMed Products . UT shall indemnify, defend and hold DISTRIBUTOR harmless from and against any and all Claims relating to product liability claims with respect to MiniMed Products which are designed, developed and manufactured solely and independently by MiniMed, Inc.

12.4 Indemnification Procedure . A Party seeking indemnification under this Article 12.0 ("Indemnified Party") shall give prompt written notice to the indemnifying party ("Indemnifying Party") of any Claim covered by the indemnification obligations hereunder; provided, however, that a delay in such notice shall not terminate the Indemnifying Party's indemnification obligations hereunder, unless such delay shall have materially impaired the defense of such Claim. Such Indemnifying Party shall have sole and exclusive control of the defense of any

such Claim, including the choice and direction of any legal counsel, provided, however, if a single legal counsel would be subject to a material conflict of interest under the applicable rules of professional conduct governing such counsel, the Indemnified Party shall not be obligated to waive such conflict and may request separate legal counsel at the Indemnifying Party's expense. The Indemnifying Party may not settle or compromise any such Claim without the written consent of the Indemnified Party, which consent shall not be unreasonably withheld.

12.5 Litigation Support . In the event and for so long as an Indemnifying Party actively is contesting or defending against any Claim in connection with this Article 12.0, the Indemnified Party shall cooperate with the Indemnifying Party and its counsel in the contest or defense, make available its personnel, and provide such testimony and access to its books and records as shall be reasonably necessary in connection with the contest or defense, all at the sole cost and expense of the Indemnifying Party.

12.6 Subrogation . The Indemnifying Party shall be subrogated to the rights of the Indemnified Party against any third party, and such Indemnified Party hereby assigns to the Indemnifying Party all claims, causes of action and other rights which the Indemnified Party may then have against any third party. Conversely, and without in any way limiting the obligation of either Party to indemnify the other Party as herein provided, to the extent that an Indemnifying Party fails to perform its indemnification obligations under Section 12.2 or Section 12.3 above, the Indemnifying Party hereby assigns to the Indemnified Party all claims, cause of action and other rights which the Indemnifying Party may then have against any third party with respect to any Claim for which indemnification is provided hereunder.

Article 13.0 NON-SOLICITATION

13.0 Each Party agrees that during the term of this Agreement, and for a period of one year after the effective termination date, it shall not, without the other Party's written consent, employ or retain on an independent contracting basis any person who was, at any time during the immediately preceding twelve (12) month period, employed by the other Party or any of its Affiliates.

Article 14.0 JOINT PUBLICITY

14.1 Public Disclosure . If either Party wishes to make a public disclosure concerning this Agreement or the relationship established hereunder and such disclosure mentions the other Party by name or description, such other Party shall be provided with an advance copy of the disclosure and shall have two (2) business days within which to approve or disapprove such use or its name of description (including mention of the name of the Product) provided, however:

(a) Approval shall not be unreasonably withheld by either Party. Failure to respond within two (2) business days shall be deemed approval.

(b) Absent approval, no disclosure shall use the name of or otherwise describe such Party except to the extent required by law, or the extent that the description of the other Party is limited to public information about the availability of the Product.

14.2 Filings with SEC . Notwithstanding the foregoing, each Party acknowledges that both parties are or are affiliates of a publicly traded company and each Party hereby consents to the disclosure of this Agreement and the relationship between the Parties in their respective filings with the Securities and Exchange Commission and their disclosures to its stockholders; provided, however, that each Party shall use its commercially reasonable efforts not to disclose the specific financial terms and conditions of this Agreement except when such disclosure is required by law.

Article 15.0 FORCE MAJEURE

15.1 Notice . A Party affected by an event of Force Majeure shall promptly provide the other Party with written notice describing the event, its cause and foreseeable duration, and its possible consequences upon performance under this Agreement.

15.2 Suspension of Performance . After an affected Party has given notice under Section 15.1, that Party shall be relieved of any performance obligation under this Agreement for obligations which the Force Majeure event prevents, but only to the extent and only for so long as the Force Majeure prevents performance. The other Party may likewise suspend the performance of all or part of its obligations, except for the obligation to pay any amounts due and owing, and confidentiality, indemnification, record-keeping and audit, and dispute resolution obligations of this Agreement, to the extent that such suspension is commercially reasonable.

15.3 Termination . If the period of Force Majeure continues for more than sixty (60) days, either Party may terminate this Agreement upon giving notice to the other Party without incurring liability other than the obligation to make payments due to such date.

Article 16.0 TERM AND TERMINATION

16.1 Term . The initial term of this Agreement shall begin on the Effective Date and shall continue in force through three (3) years from the Commercial Launch date (the "Initial Term"). Thereafter, this Agreement shall automatically renew for additional periods of one (1) year each, unless either of the Parties shall have given the other Party written notice of its non-renewal of this Agreement no later than ninety (90) days prior to the end of the initial or any renewal term hereof.

16.2 Termination . This Agreement may be terminated prior to the expiration of the then current term as follows:

(a) Either Party may terminate this Agreement immediately upon notice if the other Party files a petition of any type as to its bankruptcy, is declared bankrupt, becomes insolvent, makes an assignment for the benefit of creditors, goes into liquidation or receivership, a proceeding is commenced against it which will substantially impair its ability to perform hereunder or such Party otherwise loses legal control of its business;

(b) Either Party may terminate this Agreement upon the material breach of the other Party (including, but not limited to, DISTRIBUTOR' s failure to pay promptly sums owing to UT) which breach has not been cured within thirty (30) days of receiving prior written notice of such breach from the non-breaching Party;

(c) Either Party may terminate this Agreement upon notice if an event of Force Majeure continues for more than sixty (60) days as provided in Section 15.3;

(d) The Parties may agree in writing to terminate this Agreement for their mutual convenience at any time and for any reason, subject to such terms and conditions as they may adopt;

(e) DISTRIBUTOR may terminate this Agreement immediately if the required FDA approvals shall not have been obtained by UT on or prior to September 30, 2001;

(f) UT may terminate this Agreement immediately upon written notice to DISTRIBUTOR if:

(i) an act or omission of DISTRIBUTOR or DISTRIBUTOR's employees, officers, subdistributors or agents has caused material harm to the Products, UT Trademarks or the goodwill attached thereto; or

(ii) There is a material change in the management or operation of DISTRIBUTOR's business which has a material adverse effect on DISTRIBUTOR's ability to perform its obligations under this Agreement;

(g) Either Party may terminate this Agreement at any time with or without cause by giving notice in writing to the other Party, which shall be effective one hundred and eighty days (180) days after its date; and

(h) If at any time in the future, a change of legal requirements would (a) require the parties to renegotiate or alter the terms of this Agreement, or (b) result in a substantial adverse change in the respective financial benefits or burdens accruing to any Party under the terms of this Agreement, then upon written request by either party in the case of (a), or the affected Party in the case of (b), the Parties shall endeavor in good

faith to renegotiate and modify the terms of this Agreement to comply with such new requirements or avoid such substantial adverse change. If the Parties are unable to agree to such modifications within 90 days of receipt of the written request, then either Party (in the case of (a)), or the adversely affected Party (in the case of (b)) may terminate this Agreement immediately upon expiration of the 90 day period.

16.3 Partial Termination . In the event that UT shall have the right pursuant to the provisions of Section 16.2 to terminate this Agreement in its entirety, UT may elect, in its sole discretion, to terminate this Agreement solely as it applies to any portion of the Territory, or, if applicable, any category of customer.

16.4 Rights and Obligations on Termination . If this Agreement is terminated for any reason, the Parties shall have the following rights and obligations:

(a) Termination of this Agreement shall not release either Party from the obligation to make payment of all amounts then or thereafter due and payable, and shall not release UT from its obligations to provide Products to DISTRIBUTOR at DISTRIBUTOR' s request to service its existing patients as of the effective termination date and until such existing patients are transitioned to another distributor, which DISTRIBUTOR will use its Best Efforts to achieve as expeditiously as possible after the effective termination date;

(b) Each Party's respective obligations of confidentiality under Article 13.0, and record retention under Article 18.0, shall survive as provided in such articles;

(c) Each Party's respective obligations of indemnification under Article 12.0 and to settle all disputes, controversies or claims under Article 17.0 shall survive such termination of this Agreement;

(d) UT shall cause other entities to undertake, or shall otherwise relieve DISTRIBUTOR of its obligations and all costs relating to all PAP Patients and NCIP Patients, and shall complete such transition or relief with respect to such patients no later than 180 days from the termination date. DISTRIBUTOR agrees to use its Best Efforts to cooperate with such transfer; and

(e) Each Party shall, within ninety (90) days of the date of the termination of this Agreement, return any documentation and all copies of documentation (in any media) in its possession, custody or control that contain the other Party's Confidential Information and shall certify in writing that it has done so after a reasonable examination of all its files where such documentation has been maintained.

16.5 Sell-Off Period . Notwithstanding the foregoing, upon expiration of this Agreement or upon any termination of this Agreement, DISTRIBUTOR shall have the right to continue to distribute the Products for a period of six (6) months after the effective date of expiration or termination, and shall have the option to return to UT for full reimbursement by UT to DISTRIBUTOR at the most recent Prices in effect, any and all unsold remaining inventory of Products.

Article 17.0 DISPUTE RESOLUTION

17.1 Negotiation . The Parties agree to consult and negotiate in good faith to try to resolve any dispute, controversy or claim that arises out of or relates to this Agreement. Except as provided in Section 17.2, no formal dispute resolution shall be used by either Party unless and until senior executive officers of each Party shall have attempted to meet in person to achieve such an amicable resolution.

17.2 Reservation for Litigation . Notwithstanding Section 17.3 below, each Party expressly reserves the right to seek judicial relief from a court of competent jurisdiction if the other Party is or appears to be in violation of such other Party's obligations of non-use and non-disclosure under Article 10.0 above, including, without limitation, any injunction or other preliminary relief.

17.3 Arbitration . Subject to the reservation of the Parties under Section 17.2 above, any dispute, controversy or claim that arises out of or relates to this Agreement that is not resolved under Section 17.1 shall be settled by final and binding arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("AAA") in effect on the Effective Date, as modified by Section 17.4 below. Judgment upon the award rendered by the arbitrators may be entered in any court of competent jurisdiction. The place of arbitration shall New York, New York, U.S.A. The arbitration shall be conducted in the English language by three (3) neutral arbitrators selected by mutual agreement of the Parties or, if that is not possible within thirty (30) days of the initial demand for such arbitration, by the AAA.

17.4 Special Rules . Notwithstanding any provision to the contrary in the AAA's rules, the Parties hereby stipulate that any arbitration hereunder shall be subject to the following special rules:

(a) Each Party shall have the right to request from the arbitrators, and the arbitrators shall order upon good cause shown, reasonable and limited pre-hearing discovery, including (i) exchange of witness lists, (ii) depositions under oath of named witnesses, (iii) written interrogatories, and (iv) document requests;

(b) Upon conclusion of the pre-hearing discovery, the arbitrators shall promptly hold a hearing upon the evidence to be presented by

the Parties and shall promptly render a written opinion and award;

(c) The arbitrators may not award or assess punitive damages against either Party; and

(d) Each Party shall bear its own costs and expenses of the arbitration and one-half (1/2) of the fees and costs of the arbitrators, subject to the power of the arbitrators, in their sole discretion, to award all such reasonable costs, expenses and fees to the prevailing Party.

Article 18.0 RECORDS

During the term hereof and for three (3) years thereafter, or such longer period as may be required by law, each Party shall maintain accurate records as required to meet applicable local, state and federal laws and regulations. Except as otherwise required by any such laws or regulations, each Party shall provide the other access to any reasonably requested documentation related solely to this Agreement during reasonable business hours. Each Party shall give to the other seven (7) days' prior written notice of such examinations, which will not occur more than twice annually, and such examination will be undertaken only to such extent necessary to verify that the other Party has complied with the terms of this Agreement.

Article 19.0 GENERAL PROVISIONS

19.1 Entire Agreement . This Agreement constitutes the entire agreement of the Parties with respect to the subject matter hereof and supersedes all the Parties' previous or contemporaneous correspondence, term sheets, understandings, agreements and representations, oral or written between the Parties.

19.2 Assignment . Neither Party shall assign or otherwise transfer its rights or obligations under this Agreement except with the prior written consent of the other Party (which shall not be unreasonably withheld or delayed); provided that no such consent for a transfer to an entity shall be required and all rights and obligations arising hereunder shall inure to the benefit of that entity if it is (a) an Affiliate of the assigning Party, (b) the successor in interest of the assigning Party by reason of sale, merger or operation of law, or (c) has acquired all or substantially all of the assets and business of the assigning Party. Any unauthorized attempted assignment or delegation shall be null and void and of no force or effect.

19.3 Amendment . This Agreement may not be modified or amended, in whole or in part, except by a written agreement signed by both Parties, and specifically stating that it modifies or amends this Agreement.

19.4 Severability . If one or more of the provisions of this Agreement is subsequently declared invalid or unenforceable, this Agreement shall be treated as though that provision were not in this Agreement, and this shall not affect the validity or enforceability of the remaining provisions of this Agreement (unless those provisions that are invalidated or unenforceable are clearly material and inseparable from the other provisions). The Agreement as modified shall be

applied and construed to reflect substantially the good faith intent of the Parties and to achieve the economic effects originally intended by the terms hereof.

19.5 Notices; Language . Except as may be otherwise provided in this Agreement, any notice, demand or request given, made or required to be made shall be in writing and shall be effective, unless otherwise provided herein, either (a) when delivered in person to the other Party, or (b) on the same business day that it is transmitted by facsimile to the facsimile number (s) set forth below, with electronic confirmation of receipt, if transmitted prior to 5:00 p.m. Eastern time on such business day, or on the first business day following such transmission if transmitted after 5:00 p.m. Eastern Time or if transmitted on a day other than a business day; provided a hard copy is deposited within one (1) day after such transmissions in the U.S. mail, postage prepaid, and addressed as set forth below for notices by U.S. mail; or (c) on the third business day following its deposit in the U.S. mail, postage and addressed as follows:

If to UT:
United Therapeutics Corporation
1110 Spring Street
Silver Spring, Maryland 20910
Attention: Paul Mahon, General Counsel
Telefax: 301-608-9291

If to DISTRIBUTOR:
Gentiva Health Services
175 Broad Hollow Road
Melville, NY 11747
Attention: Executive Vice President
President, Specialty
Pharmaceuticals Division
Telefax: (631) 844-7940

With copies to: Law Department
Telefax: (631) 844-7414

And: Corporate Purchasing Department
Telefax: (913) 814-4866

19.6 Waiver . Either Party's failure or delay in exercising any remedy for default shall not be deemed a waiver of that or any subsequent default of that provision or of any other provision hereof. No waiver shall be effective unless made in writing with specific reference to the relevant provision(s) of this Agreement and signed by a duly authorized representative of the Party granting the waiver.

19.7 Counterparts . This Agreement shall be executed in two (2) or more counterparts in the English language, each of which shall be deemed an original, which taken together shall constitute one and the same instrument.

19.8. Governing Law . Except as provided by federal law, this Agreement shall be governed by, and interpreted and construed in accordance with, the laws of the

State of New York, excluding (a) any conflict-of-laws rule or principle therein contained under which any other law would be made applicable.

19.9 Relationship . This Agreement does not make either Party the employee, agent or legal representative of the other Party for any purpose whatsoever. Neither Party is granted any right or authority to assume or to create any obligation or responsibility, express or implied, on behalf of or in the name of the other Party. In fulfilling its obligations pursuant to this Agreement each Party shall be acting as an independent contractor and shall not be deemed to have formed any partnership, joint venture or other relationship.

19.10 Headings . The headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

19.11 Signature Authority . Each signatory to this Agreement has signature authority and, is empowered on behalf of his or her respective Party to execute this Agreement.

19.12 Cumulative Remedies . Except as expressly provided in this Agreement, and to the extent permitted by law, any remedies described in this Agreement are cumulative and not alternative to any other remedies available at law or equity.

[Page intentionally left blank.]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized representatives as of the Effective Date.

UNITED THERAPEUTICS CORPORATION	**OLSTEN HEALTH SERVICES (QUANTUM) CORP. (DBA GENTIVA HEALTH SERVICES)**
By: /s/ Martine Rothblatt	By: /s/ Robert U. Nixon
Martine Rothblatt	Robert Nixon
Chief Executive Officer	Executive Vice President
	President, Specialty Pharmaceuticals Division

Attachment A

Prices

UT Product

1. On and after Commercial Launch, DISTRIBUTOR shall pay UT [***]% of Average Wholesale Price ("AWP").

2. Prior to Commercial Launch , UT shall provide DISTRIBUTOR with UT Product without charge; provided, however, DISTRIBUTOR shall pay UT [***]% of AWP for any inventory that DISTRIBUTOR has in its possession as of the date of Commercial Launch which has not been distributed.

3. UT shall immediately notify DISTRIBUTOR in writing of any change (and the amount of such change) in the AWP of any respective UT Product during the term of the Agreement.

MiniMed Product

DISTRIBUTOR shall purchase MiniMed Products at the cost that MiniMed charges UT for such MiniMed Products, pursuant to the following pricing terms and conditions agreed to by MiniMed and UT; provided, however, that if at any time during the term of this Agreement, DISTRIBUTOR notifies UT that DISTRIBUTOR's aggregate reasonable and direct costs for purchasing and distributing MiniMed Products exceeds DISTRIBUTOR's aggregate net revenues (gross revenues minus reasonable and customary contractual allowances and trade discounts) for MiniMed Products, then the Parties shall use their Best Efforts to renegotiate the terms of this Agreement so that such costs shall not exceed such net revenues:

Pricing Terms and Conditions of MiniMed Product to UT

As UT and DISTRIBUTOR intend that DISTRIBUTOR is to receive the benefit of any terms hereunder granted by MiniMed to UT, where MiniMed's obligations to UT are described herein, the same shall be obligations of UT to DISTRIBUTOR. Pursuant to the Guidelines agreed to by MiniMed and UT effective as of November 1, 1999, MiniMed's prices and pricing terms and conditions to UT of MiniMed Product is as follows:

1. Definitions .

As used herein, the terms below shall have the following meanings, and other capitalized terms shall have the respective meanings given to such terms in the Distribution Agreement between UT and DISTRIBUTOR:

"Active Clinical Site" means a physical clinic location which has at least ten (10) patients regularly receiving UT-15 Therapy using MiniMed's pumps and Disposable Supplies.

"Disposable Supplies" mean such consumable products, supplies or other goods which are used in connection with infusion pumps for the delivery of the UT-15 Therapy, which

Disposable Supplies include without limitation infusion sets with catheters and medication reservoirs.

"List Price" means the price generally published from time to time for a product offered for sale in a particular market and in particular quantities to third parties unrelated to MiniMed who are not sales agents, sales representatives, dealers or distributors, but instead utilize the product for themselves or in providing medical care to unrelated persons. For purposes of reference, MiniMed's current List Prices for products subject to this Agreement are set forth in Exhibit A hereto.

"MiniMed's Cost" shall mean MiniMed's direct costs associated with such referenced activity, which shall be determined on the basis of direct materials and supplies, labor, quality control/quality assurance activities and overhead and attributable general administrative costs and facilities which are calculated in accordance with generally accepted accounting principles.

"Pivotal Clinical Trial" means that certain clinical trial designated as P01:03/04/05/06 being conducted as of the effective date of these Guidelines for the purpose of gathering sufficient data to obtain FDA approval for UT-15 in the treatment of pulmonary hypertension.

"UT-15 Therapy" means any health care therapy which utilizes UT-15 subcutaneously or intravenously for the treatment of any medical condition.

2. Supply of Pumps and Disposable Supplies .

(a) MiniMed shall provide Disposable Supplies, at no charge, to each patient who is enrolled in the Pivotal Clinical Trial as of the Effective Date for the balance of the Pivotal Clinical Trial (but for a period terminating no later than June 30, 2001), so long as such patient does not require more than ten (10) sets of such Disposable Supplies per month. In the event that a patient requires more than ten (10) sets of Disposable Supplies in any given month, UT shall purchase such Disposable Supplies at MiniMed's List Price less a discount equal to thirty percent (30%) of such List Price. MiniMed's current List Prices are set forth in Exhibit A , attached hereto.

(b) MiniMed Product List Prices may be modified by MiniMed at any time upon at least sixty (60) days prior written notice to UT, but may not increase in price by more than any corresponding increase in the consumer price index as computed on a cumulative basis.

(c) For any patient who enrolls in the Pivotal Clinical Trial on or after Effective Date, or in any other clinical trial involving UT-15 which is initiated after the Effective Date, MiniMed shall be paid a monthly fee for the provision of infusion pumps and Disposable Supplies. The amount of the monthly fee and a description of the materials and supplies to be provided by MiniMed as contemplated by this subsection are set forth in Exhibit B , attached hereto, expressed as bi-monthly amounts.

(d) UT shall be responsible for and shall bear all costs (including reimbursing DISTRIBUTOR for any reasonable costs it may actually incur) relating to the repair or replacement of any infusion pumps provided to Clinical Trial Patients enrolled prior to the Effective Date.

3. Purchase of Pumps Upon FDA Approval .

(a) Upon the earlier of (i) sixty (60) days following FDA approval of UT-15 or (ii) June 30, 2001, UT shall purchase all MiniMed model 407C infusion pumps previously distributed by MiniMed and rented by UT as contemplated by subsection 2(c). The purchase price of such 407C infusion pumps shall be MiniMed's List Price for the 407C pumps, less a discount equal to twenty-five percent (25%) of such List Price. For reference purposes, included in Exhibit A hereto is MiniMed's current published List Price for the model 407C infusion pump. In addition to the twenty-five percent (25%) discount set forth herein, UT shall also be entitled to an amortization allowance to be credited against the purchase price for such 407C infusion pumps, which shall be based on a four (4) year amortization schedule for the 407C pumps, attached hereto as Exhibit C . Payment for 407C infusion pumps purchased pursuant to this section 3(a) shall be made within sixty (60) days of invoice.

(b) Upon the FDA approval of UT-15, all patients enrolled in the Pivotal Clinical Trial who are then using MiniMed model 506 infusion pumps shall be converted to MiniMed model 407C infusion pumps. The purchase price for 407C infusion pumps to be used in place of MiniMed's 506 infusion pumps shall be MiniMed's List Price for the 407C pumps less a discount equal to twenty-five percent (25%) of such List Price; an additional discount of ten percent (10%) (bringing the total discount to thirty-five percent (35%)) shall be applied to the extent a MiniMed model 506 infusion pump is returned to MiniMed in connection with the distribution of the MiniMed model 407C pump. Payment for 407C infusion pumps purchased pursuant to this section 3(b) shall be made within sixty (60) days of invoice.

(c) Following FDA approval of UT-15, UT shall purchase infusion pumps and Disposable Supplies from MiniMed for UT-15 Therapy at the following prices:

(i) 407C infusion pumps (or successor models thereto) at MiniMed's List Price less a discount equal to twenty-five percent (25%) of such List Price; and

(ii) Disposable Supplies at MiniMed's List Price for such Disposable Supplies less a discount equal to twenty percent (20%) of such List Price.

UT shall pay for the items purchased pursuant to this Section 3(c) within sixty (60) days of invoice. The provisions of this Section 3 (c) shall not apply to MiniMed infusion pumps purchased pursuant to Section 3(a) and 3(b) of these Pricing Terms and Conditions.

4. Therapy Package

Commencing as of the effective date of these Guidelines and to the extent reasonably requested by UTHR, MiniMed, through its wholly owned subsidiary Pharmax, Inc., a Florida Corporation ("Pharmax"), shall provide therapy packages to UTHR at a purchase price equal to MiniMed's Cost of such therapy package plus twenty-five percent (25%) of such cost. For the purposes of this Section, therapy packages may include drugs, devices, or disposable supplies, however, therapy packages shall not include infusion pumps, Disposable Supplies and those other items listed on Exhibit A. MiniMed's obligation to provide therapy packages under this Section shall cease immediately in the event that: (i) MiniMed sells the stock or substantially all

of the assets of Pharmax; or (ii) there is more than a fifty percent (50%) change in ownership of Pharmax. The sale of stock or assets of Pharmax shall not require the consent of UTHR, provided, however, that MiniMed shall use commercially reasonable efforts to give UTHR at least sixty (60) days' prior written notice of such event.

EXHIBIT A
TO ATTACHMENT A

CURRENT PRICE LIST FOR INFUSION PUMPS AND DISPOSABLE SUPPLIES

MiniMed ® 1999 Price List

PRODUCT	MODEL	DESCRIPTION	PRICE ($US)
MiniMed 407C Infusion Pump	MMT-407CUC	MiniMed Infusion Pump Model 407C with 1 warranty and starter kit	$ 6,500

Associated disposables and accessories, see price list for insulin pumps

MiniMed ® 1999 Price List

PRODUCT	MODEL	DESCRIPTION	PRICE ($US)
MiniMed 508 Insulin Pump		MiniMed Infusion Insulin Pump Model 508 with 4 year warranty starter kit and remote programmer	$ 5,495
	MMT — 508UB MMT — 508UC MMT — 508UT MMT — 508UW	Blue Charcoal Teal (Green) White* pump only available with prescription from doctor	
Remote Programmer	MMT — 500RU	508 Pump Remote Programmer	$ 99
Reservoirs (24/box)	MMT — 103	3.0 ml MiniMed Reservoir	$ 70
Sof-Set Micro QR ® (12/box)	MMT — 320 MMT — 321	42" Quick Release Soft Plastic Cannula (6mm catheter) 24" Quick Release Soft Plastic Cannula (6mm catheter)	$ 120 $120
Sof-Set Ultimate QR ® (12/box)	MMT — 315	42" Quick Release Soft Plastic Cannula Set $120 MMT — 316 24" Quick Release Soft Plastic Cannula Set $120 Sof-Set® (24/box) MMT — 111 42" Soft Plastic Cannula Set $185 MMT — 112 24" Soft Plastic Cannula Set $185 Silhouette ™ (10/box) MMT - 371 43" Full Set (10) complete sets)	$ 97
	MMT — 372	43" Combo Set (10 sites/5 tubing sets)	$ 80
	MMT — 373	23" Full Set (10 complete sets)	$ 97
	MMT — 374	23" Combo Set (10 sites/5 tubing sets)	$ 80
Polyfin QR ® (24/box)	MMT — 106	42" Bent Needle Infusion Set	$ 98
	MMT — 165	42" Quick Release Bent Needle Infusion Set	$ 150
	MMT — 306	24" Bent Needle Infusion Set with wings	$ 98
	MMT — 307	42" Bent Needle Infusion Set with wings	$ 98
	MMT — 365	42" Quick Release Bent Needle Infusion Set w/wings	
		24" Quick Release Bent Needle	$ 150

Polyfin ® (24/box)	MMT — 106	42” Bent Needle Infusion Set	$	98
Sof-Serter ™	MMT — 300	Automatic Sof-Set Insertion Device	$	49
Polyskin ® (50/box)	MMT — 134	Transparent Dressing (5cm x 7cm)	$	34
I.V. 3000 (100/box)	MMT — 174	Transparent Dressing (6cm x 7cm)	$	49
I.V. Prep (50/box)	MMT — 173	Antiseptic Skin Prepping Pads	$	12
Disposable Power Kit (3 sets)	MMT — 104	Nine (9) 1.5 Volt Batteries Rayovac Model G #675	$	26
Shower-Pak (30/pk)	MMT — 117	Plastic Shower Bags to hold pump	$	19
BOOKS				
	ACC 110	*The Insulin Pump Therapy Book*	$	19.00
	ACC 111	*Counting Carbohydrates*	$	6.00
	ACC 112	*Deliciously Healthy Favorite Foods Cookbook*	$	19.95
	ACC 113	*Teens Pumping it Up!*	$	12.95
MISCELLANEOUS				
MediBand	ACC 118	MediBand, emergency medical ID, notifies person as having diabetes and on an insulin pump	$	6.95
Max the MiniMed Moose	ACC 119	Max the Moose, popular bean bag animal	$	6.95

Prices subject to change without notification
Sof-Set, QR, Sof-Serter and Silhouette are all trademarks of MiniMed Inc.
Polyskin is a registered trademark of Kendall Healthcare Products Company

To order call: 800-843-6687 or FAX 800-635-5702

MiniMed ®
12742 San Fernando Road
Sylmar, CA 91340
800-993-3322 818-362-5956
Web Site http://www.minimed.com

EXHIBIT B
TO ATTACHMENT A

THERAPY KITS AND MONTHLY FEE SCHEDULE

Kit One

Item	Code	Unit	Note	Qty	Price	Extended
Infusion Sets	MMT111/112	Box	24 pieces	1	$ 185.00	$ 185.00
Syringes/Resv	MMT 103	Box	24 pieces	1	$ 70.00	$ 70.00
Batteries	MMT 104	Pack	9 pieces	1	$ 26.00	$ 26.00
IV3000Tape	MMT 174	Box	lasts 6 mos.	1	$ 49.00	$ 49.00
IV Prep Pad	MMT 173	Box	lasts 3 mos.	1	$ 12.00	$ 12.00
Shower Pack	MMT 117	Box	lasts 2 mos.	1	$ 19.00	$ 19.00

Alcohol Prep	HMS32689	Box	lasts 2 mos.	1	$ 12.00	$ 12.00
Total Disposable Price						$ 373.00
Less: 30% Clinical Trial Discount						$ (111.90)
Net Disposable Price						$ 261.10
Monthly Pump Rent (per pair of pumps)						$ 252.64
Total Bi-Monthly Fee (Net Disposable + 2 times Monthly Pump Rent)						$ 766.38

Start-Up Kit One

Additional Items:

Sof-Serter	MMT 300	Ea	Only Need 1	1	$ 49.00	$ 49.00
Pump Case	ACC 108	Ea	Only Need 1	1	$ 24.95	$ 24.95
Belt Clip	MMT 131C	Ea	Only Need 1	1	$ 8.00	$ 8.00
Total One-Time Items						$ 81.95
Less 30% Clinical Trial Discount						$ (24.59)
One-Time Items						$ 57.36
Kit One Bi-Monthly Fee from Above						$ 766.38
Start-up Kit One Total Cost to UT						$ 823.74

EXHIBIT C
TO ATTACHMENT A

PURCHASE PRICE AND AMORTIZATION
SCHEDULE FOR 407C PUMPS

List Price per Pump (1 pump only)	$	6,500.00
Less: 25% Discount	$	(1,625.00)
Net Price	$	4,875.00
Monthly Amortization (assume 4 year life)	$	101.56
Purchase Price to MiniMed at end of 1 yr.	$	3,656.25
Purchase Price to MiniMed at end of 2 yrs.	$	2,437.50
Purchase Price to MiniMed at end of 3 yrs.	$	1,218.75
Purchase Price to MiniMed at end of 4 yrs.	$	—

Note: In the event that UTHR decided to purchase the pumps at some interim point in time, the $4,875 net price will be reduced by the amount of $101.56 per month for the number of months that that the pump has been in service to UTHR.

Attachment B

UT Trademarks Logotypes and Trade Names

UNITED THERAPEUTICS

UNITED THERAPEUTICS CORPORATION LOGO

UNIPROST

MEDICINES FOR LIFE

UNITHER

Attachment C

Patient Assistance Program Criteria

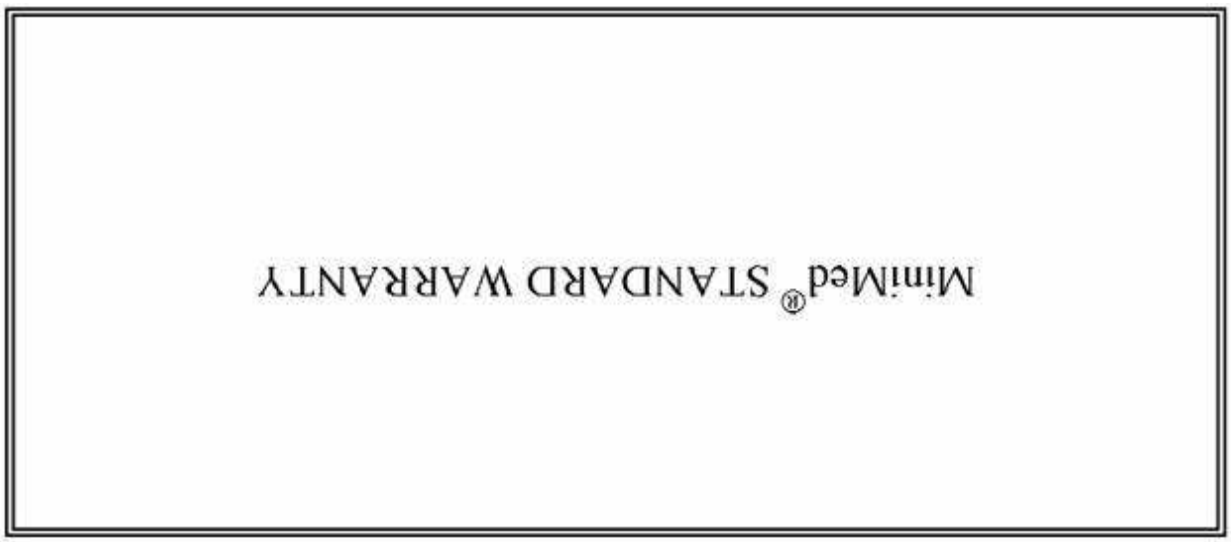
In order to be eligible as a Patient Assistance Program Patient, the patient must meet the criteria set forth below:

1. Total monthly household income of patient must be less than or equal to 200% of U.S. Federal poverty guidelines (calculated on a monthly basis) adjusted for household size. (A copy of the U.S. Federal Poverty Guidelines is attached. UT shall provide DISTRIBUTOR with a copy of the U.S. Federal Poverty Guidelines each year.)

2. Patients must have no sources of alternative drug reimbursement including but not limited to Medicaid, Medicare, Veterans Administration, and private insurance.

3. Patients must be legal residents of the United States, and receive healthcare services via the United States healthcare system.

Patients who meet the residency requirements of Paragraph 3 above will qualify for the program for the period, that such patient is unable to obtain reimbursement due to pre-existing condition provisions of his or her insurance carrier or due to clearance or prior authorization waiting periods for insurance coverage. Once such patient is able to obtain reimbursement, however, he or she shall not remain eligible for the program.



MiniMed ®

USA:
Sylmar, CA
818-362-5958 • 800-826-2099 (24-hour Help Line within U.S. & Canada)
To order supplies:
800-843-6687 • FAX: 888-268-0200 (within U.S. & Canada)
FAX: 818-362-3788 (outside U.S.)

WARRANTY

MINIMED INC. (“MINIMED”) WARRANTS THE MINIMED INFUSION PUMP AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF 1 YEAR FROM THE DATE OF PURCHASE.

THIS WARRANTY IS VALID ONLY UPON THE RECEIPT BY MINIMED OF A COMPLETED WARRANTY REGISTRATION CARD. DURING THE WARRANTY PERIOD, MINIMED WILL REPAIR OR REPLACE, AT ITS DISCRETION, ANY DEFECTIVE PUMP OR SOLENOID MOTOR, SUBJECT TO THE CONDITIONS AND EXCLUSIONS STATED HEREIN. THIS WARRANTY APPLIES ONLY TO NEW DEVICES. IN THE EVENT A PUMP IS REPAIRED OR REPLACED, THE WARRANTY PERIOD WILL NOT BE EXTENDED.

THIS WARRANTY IS VALID ONLY IF THE MINIMED INFUSION PUMP IS USED IN ACCORDANCE WITH THE MANUFACTURER’S INSTRUCTIONS. THIS WARRANTY WILL NOT APPLY:

- IF DAMAGE RESULTS FROM CHANGES OR MODIFICATIONS MADE TO THE PUMP BY THE USER OR THIRD PERSONS AFTER THE DATE OF MANUFACTURE;
- IF DAMAGE RESULTS FROM SERVICE OR REPAIRS PERFORMED BY ANY PERSON OR ENTITY OTHER THAN THE MANUFACTURER;
- IF DAMAGE RESULTS FORM A *FORCE MAJEURE* OR OTHER EVENT BEYOND THE CONTROL OF THE MANUFACTURER; OR:
- IF DAMAGE RESULTS FROM NEGLIGENCE OR IMPROPER USE, INCLUDING BUT NOT LIMITED TO IMPROPER STORAGE, DELIBERATE SUBMERSION IN WATER, PHYSICAL ABUSE SUCH AS DROPPING OR OTHERWISE.

THIS WARRANTY DOES NOT APPLY TO BATTERIES, INFUSION SETS, RESERVOIRS, AND OTHER ACCESSORIES.

THIS WARRANTY SHALL BE PERSONAL TO THE ORIGINAL USER. ANY SALE, OR OTHER TRANSFER OR USE OF THE PRODUCT COVERED BY THIS WARRANTY TO OR BY A USER OTHER THAN THE ORIGINAL USER SHALL CAUSE THIS WARRANTY TO IMMEDIATELY TERMINATE.

THE REMEDIES PROVIDED FOR IN THIS WARRANTY ARE THE EXCLUSIVE REMEDIES AVAILABLE FOR ANY BREACH HEREOF. NEITHER MINIMED NOR ITS SUPPLIERS OR DISTRIBUTORS SHALL BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGE OF ANY NATURE OR KIND CAUSED BY OR ARISING OUT OF A DEFECT IN THE PRODUCT.

ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE EXCLUDED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

FEDERAL RESERVE SYSTEM

Sunshine Act Meeting

TIME AND DATE: Approximately 11:15 a.m., Tuesday, March 23, 1999, following a recess at the conclusion of the open meeting.

PLACE: Marriner S. Eccles Federal Reserve Board Building, 20th and C Streets, NW., Washington, DC 20551.

STATUS: Closed.

MATTERS TO BE CONSIDERED:

1. Personnel actions (appointments, promotions, assignments, reassignments, and salary actions) involving individual Federal Reserve System employees.

2. Any matters carried forward from a previously announced meeting.

CONTACT PERSON FOR MORE INFORMATION:

Lynn S. Fox, Assistant to the Board;
(202) 452-3204.

SUPPLEMENTARY INFORMATION: You may call (202) 452-3206 beginning at approximately 5 p.m. two business days before the meeting for a recorded announcement of bank and bank holding company applications scheduled for the meeting; or you may contact the Board's Web site at http:// www.federalreserve.gov for an electronic announcement that not only lists applications, but also indicates procedural and other information about the meeting.

Dated: March 16, 1999.

Robert deV. Frierson ,
Associate Secretary of the Board.

[FR Doc. 99-6806 Filed 3-16-99; 3:55 pm]

BILLING CODE 6210-01-M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of the Secretary

Annual Update of the HHS Poverty Guidelines

AGENCY: Department of Health and Human Services.

ACTION: Notice.

SUMMARY: This notice provides an update of the HHS poverty guidelines to account for last (calendar) year's increase in prices as measured by the Consumer Price Index.

EFFECTIVE DATE: These guidelines go into effect on the day they are published (unless an office administering a program using the guidelines specifies a different effective date for that particular program.)

ADDRESSES: Office of the Assistant Secretary for Planning and Evaluation,

Room 404E, Humphrey Building,
Department of Health and Human
Services (HHS), Washington, DC 20201.

FOR FURTHER INFORMATION CONTACT: *For information about how the poverty guidelines are used in a particular program,* contact the Federal (or other) office which is responsible for that program.

For general information about the poverty guidelines (but NOT for information about a particular program—such as the Hill-Burton Uncompensated Services Program—that uses the poverty guidelines), contact Gordon Fisher, Office of the Assistant Secretary for Planning and Evaluation, Room 404E, Humphrey Building, Department of Health and Human Services, Washington, DC 20201—telephone: (202) 690-5880; persons with internet access may visit the poverty guidelines internet site at <http:// aspe.os.dhhs.gov/poverty/poverty.htm>.

For information about the Hill-Burton Uncompensated Services Program (no-fee or reduced-fee health care services at certain hospitals and other health care facilities for certain persons unable to pay for such care), contact the Office of the Director, Division of Facilities Compliance and Recovery, HRSA, HHS, Twinbrook Metro Plaza, 12300 Twinbrook Parkway, Suite 520, Rockville, Maryland 20857—telephone: (301) 443-5656 or 1-800-638-0742 (for callers outside Maryland) or 1-800-492-0359 (for callers in Maryland); persons with internet access may visit the Division of Facilities Compliance and Recovery internet home page site at <http://www.hrsa.gov/osp/dfcr>. The Division of Facilities Compliance and Recovery notes that as set by 42 CFR 124.505(b), the effective date of this update of the poverty guidelines for facilities obligated under the Hill-Burton Uncompensated Services Program is sixty days from the date of this publication.

For information about the percentage multiple of the poverty guidelines to be used on immigration forms such as INS Form 1-864, Affidavit of Support, contact the U.S. Immigration and Naturalization Service. To get a copy of the most recent poverty guidelines published by the Immigration and Naturalization Service, call 1-800-870-3676 and ask for Form I-864. To obtain information on the most recent poverty guidelines call (202) 514-2607. Persons with internet access may obtain the information from the Immigration and Naturalization Service internet site at <http://www.ins.usdoj.gov>, and may download the affidavit of support forms and poverty guidelines from <http://www.ins.usdoj.gov/forms/download/i-864pkg.htm>.

Under an amendment to the Older Americans Act, the figures in this notice are the figures that state and area agencies on aging should use to determine "greatest economic need" for Older Americans Act programs. *For information about Older Americans Act programs* , contact Carol Crecy, Administration on Aging, HHS—telephone: (202) 619-0011.

For information about the Department of Labor's Lower Living Standard Income Level (an alternative eligibility criterion with the poverty guidelines for certain Job Training Partnership Act programs), contact Ronald E. Putz, Director, Office of Employment and Training Programs, U.S. Department of Labor—telephone: (202) 219-5229, voicemail 173; persons with internet access may visit the Employment and Training Administration's Lower Living Standard Income Level internet site at <http://www.wdsc.org/techcouncil/ prototypes/llsil/llsil.htm>.

For information about the number of people in poverty (since 1959) or about the Census Bureau (statistical) poverty thresholds, contact the HHES Division, Room 1462, Federal Office Building #3, U.S. Bureau of the Census, Washington, DC 20233—telephone: (301) 457-3242; persons with internet access may visit the Poverty section of the Census Bureau's World Wide Web site at <http:/ /www.census.gov/hhes/www/ poverty.html>.

1999 POVERTY GUIDELINES FOR THE
48 CONTIGUOUS STATES AND THE
DISTRICT OF COLUMBIA

Size of family unit	Poverty guide-line
1	$ 8,240
2	11,060
3	13,880
4	16,700
5	19,520
6	22,340
7	25,160
8	27,980

For family units with more than 8 members, add $2,820 for each additional member. (The same increment applies to smaller family sizes also, as can be seen in the figures above.)

1999 POVERTY GUIDELINES FOR
ALASKA

Size of family unit	Poverty guide-line
1	$ 10,320

1999 POVERTY GUIDELINES FOR
ALASKA—Continued

Size of family unit	Poverty guideline
2	13,840
3	17,360
4	20,880
5	24,400
6	27,920
7	31,440
8	34,960

For family units with more than 8 members, add $3,520 for each additional member. (The same increment applies to smaller family sizes also, as can be seen in the figures above.)

1999 POVERTY GUIDELINES FOR
HAWAII

Size of family unit	Poverty guideline
1	$ 9,490
2	12,730
3	15,970
4	19,210
5	22,450
6	25,690
7	28,930
8	32,170

For family units with more than 8 members, add $3,240 for each additional member. (The same increment applies to smaller family sizes also, as can be seen in the figures above.)

(Separate poverty guideline figures for Alaska and Hawaii reflect Office of Economic Opportunity administrative practice beginning in the 1966-1970 period. Note that the Census Bureau poverty thresholds—the primary version of the poverty measure—have never had separate figures for Alaska and Hawaii. The poverty guidelines are not defined for Puerto Rico, the U.S. Virgin Islands, American Samoa. Guam, the Republic of the Marshall Islands, the Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, and Palau. In cases in which a Federal program using the poverty guidelines serves any of those jurisdictions, the Federal office which administers the program is responsible for deciding whether to use the contiguous-states-and-DC guidelines for those jurisdictions or to follow some other procedure.)

The preceding figures are the 1999 update of the poverty guidelines required by section 673(2) of the Omnibus Budget Reconciliation Act (OBRA) of 1981 (Pub.L. 97-35.) As required by law, this update reflects last year's change in the Consumer Price Index (CPI-U); it was done using the same procedure used in previous years.

Section 673(2) of OBRA-1981 (42 U.S.C. 9902(2)) requires the use of the poverty guidelines as an eligibility criterion for the Community Services Block Grant program. The poverty guidelines are also used as an eligibility criterion by a number of other Federal programs (both HHS and non-HHS.) Due to confusing legislative language dating back to 1972, the poverty guidelines have sometimes been mistakenly referred to as the "OMB" (Office of Management and Budget) poverty guidelines or poverty line. In fact, OMB has never issued the guidelines; the guidelines are issued each year by the Department of Health and Human Services (formerly by the Office of Economic Opportunity/Community Services Administration). The poverty guidelines may be formally referenced as "the poverty guidelines updated annually in the Federal Register by the U.S. Department of Health and Human Services under authority of 42 U.S.C. 9902(2)."

The poverty guidelines are a simplified version of the Federal Government's statistical poverty thresholds used by the Bureau of the Census to prepare its statistical estimates of the number of persons and families in poverty. The poverty guidelines issued by the Department of Health and Human Services are used for administrative purposes—for instance, for determining whether a person or family is financially eligible for assistance or services under a particular Federal program. The poverty thresholds are used primarily for statistical purposes. Since the poverty guidelines in this notice—the 1999 guidelines—reflect price changes through calendar year 1998, they are approximately equal to the poverty thresholds for calendar year 1998 which the Census Bureau will issue in late summer or autumn 1999. (A preliminary version of the 1998 thresholds is now available from the Census Bureau.)

In certain cases, as noted in the relevant authorizing legislation or program regulations, a program uses the poverty guidelines as only one of several eligibility criteria, or uses a percentage multiple of the guidelines (for example, 125 percent or 185 percent of the guidelines.) Non-Federal organizations which use the poverty guidelines under their own authority in non-Federally-funded activities also have the option of choosing to use a percentage multiple of the guidelines such as 125 percent or 185 percent.

While many programs use the guidelines to classify persons or families as either eligible or ineligible, some other programs use the guidelines for the purpose of giving priority to lower-income persons or families in the provision of assistance or services.

In some cases, these poverty guidelines may not become effective for a particular program until a regulation or notice specifically applying to the program in question has been issued.

The poverty guidelines given above should be used for both farm and non-farm families. Similarly, these guidelines should be used for both aged and non-aged units. The poverty guidelines have never had an aged/non-aged distinction; only the Census Bureau (statistical) poverty thresholds have separate figures for aged and non-aged one-person and two-person units.

Definitions

There is no universal administrative definition of “family,” “family unit,” or “household” that is valid for all programs that use the poverty guidelines. Federal programs in some cases use administrative definitions that differ somewhat from the statistical definitions given below; the Federal office which administers a program has the responsibility for making decisions about administrative definitions. Similarly, non-Federal organizations which use the poverty guidelines in non-Federally-funded activities may use administrative definitions that differ from the statistical definitions given below. In either case, to find out the precise definitions used by a particular program, one must consult the office or organization administering the program in question.

The following statistical definitions (derived for the most part from language used in U.S. Bureau of the Census. Current Population Reports, Series P60-185 and earlier reports in the same series) are made available for illustrative purposes only; in other words, these statistical definitions are not binding for administrative purposes.

(a) Family. A family is a group of two or more persons related by birth, marriage, or adoption who live together; all such related persons are considered as members of one family. For instance, if an older married couple, their daughter and her husband and two children, and the older couple’s nephew all lived in the same house or apartment, they would all be considered members of a single family.

(b) Unrelated individual. An unrelated individual is a person 15 years old or over (other than an inmate of an institution) who is not living with

any relatives. An unrelated individual may be the only person living in a house or apartment, or may be living in a house or apartment (or in group quarters such as a rooming house) in which one or more persons also live who are not related to the individual in question by birth, marriage, or adoption. Examples of unrelated individuals residing with others include a lodger, a foster child, a ward, or an employee.

(c) Household. As defined by the Bureau of the Census for statistical purposes, a household consists of all the persons who occupy a housing unit (house or apartment), whether they are related to each other or not. If a family and an unrelated individual, or two unrelated individuals, are living in the same housing unit, they would constitute two family units (see next item), but only one household. Some programs, such as the Food Stamp Program and the Low-Income Home Energy Assistance Program, employ administrative variations of the "household" concept in determining income eligibility. A number of other programs use administrative variations of the "family" concept in determining income eligibility. Depending on the precise program definition used, programs using a "family" concept would generally apply the poverty guidelines separately to each family and/or unrelated individual within a household if the household includes more than one family and/or unrelated individual.

(d) Family unit. "Family unit" is not an official U.S. Bureau of the Census term, although it has been used in the poverty guidelines Federal Register notice since 1978. As used here, either an unrelated individual or a family (as defined above) constitutes a family unit. In other words, a family unit of size one is an unrelated individual, while a family unit of two/three/etc. is the same as a family of two/three/etc.

Note that this notice no longer provides a definition of "income." This is for two reasons. First, there is no universal administrative definition of "income" that is valid for all programs that use the poverty guidelines. Second, in the past there has been confusion regarding important differences between the statistical definition of income and various administrative definitions of "income" or "countable income." The precise definition of "income" for a particular program is very sensitive to the specific needs and purposes of that program. To determine, for example, whether or not taxes, collegescholarships, or other particular types of income should be counted as "income" in determining eligibility for a specific

program, one must consult the office or organization administering the program in question; that office or organization has the responsibility for making decisions about the definition of "income" used by the program (to the extent that the definition is not already contained in legislation or regulations.)

Persons seeking the statistical definition of income that is used to determine official income and poverty statistics may consult U.S. Bureau of the Census, Current Population Reports, Series P60-201, Poverty in the United States: 1997, Washington, D.C., U.S. Government Printing Office, September 1998, pp. A-1 and A-2.

Dated: March 8, 1999.

Donna E. Shalala,

Secretary of Health and Human Services.
[FR Doc. 99-6538 Filed 3-17-99; 8:45 am]
BILLING CODE 4150-04-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. 98N-0363]

Agency Information Collection Activities; Announcement of OMB Approval; New Animal Drugs for Investigational Use

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing that a collection of information entitled "New Animal Drugs for Investigational Use" has been approved by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995.

FOR FURTHER INFORMATION CONTACT:

Denver Presley, Office of Information Resources Management (HFA-250), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301-827-1472.

SUPPLEMENTARY INFORMATION: In the

Federal Register of December 2, 1998 (63 FR 66548), the agency announced that the proposed information collection had been submitted to OMB for review and clearance under 44 U.S.C. 3507. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. OMB has now approved the information collection and has assigned OMB control number 0910-0117. The approval expires on January 31, 2002. A copy of the supporting statement for this information collection is available on the Internet at "http://www.fda.gov/ ohrms/dockets".

Dated: March 11, 1999.

William K. Hubbard,

Acting Deputy Commissioner for Policy.
[FR Doc. 99-6529 Filed 3-17-99; 8:45 am]

BILLING CODE 4160-01-F

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. 99F-0460]

Akzo Nobel Chemicals, Inc.; Filing of Food Additive Petition

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing that Akzo Nobel Chemicals, Inc., has filed a petition proposing that the food additive regulations be amended to provide for the safe use of 3,6,9-triethyl- 3,6,9-trimethyl-1,4,7-triperoxynonane as a modifier in the production of olefin polymers used as components of food-contact articles.

FOR FURTHER INFORMATION CONTACT: Vir D. Anand, Center for Food Safety and Applied Nutrition (HFS-215), Food and Drug Administration, 200 C St. SW., Washington, DC 20204, 202-418-3081.

SUPPLEMENTARY INFORMATION: Under the Federal Food, Drug, and Cosmetic Act (sec. 409(b) (5) (21 U.S.C. 348(b)(5))), notice is given that a food additive petition (FAP 9B4646) has been filed by Akzo Nobel Chemicals, Inc., c/o Keller and Heckman LLP, 1001 G St. NW., suite 500 West, Washington, DC 20001. The petition proposes to amend the food additive regulations in § 177.1520 *Olefin polymers* (21 CFR 177.1520) and in § 177.2600 *Rubber articles intended for repeated use* (21 CFR 177.2600) to provide for the safe use of 3,6,9-triethyl- 3,6,9-trimethyl-1.4,7-triperoxynonane as a modifier in the production of olefin polymers used as components of food-contact articles.

The agency has determined under 21 CFR 25.32(i) that this action is of a type that does not individually or cumulatively have a significant effect on the human environment. Therefore, neither an environmental assessment nor an environmental impact statement is required.

Attachment D

UT Standard Warranty

UT warrants that all of its Product shall: (i) be free from defects in design, material and workmanship; (ii) be in compliance with all applicable law and regulation, including without limitation all regulatory requirements of the FDA, including those related to the adulteration or misbranding of Product within the meaning of Section 501 and 502 of the Food Drug and Cosmetics Act; (iii) not be articles which may not be introduced into interstate commerce pursuant to the requirements of Sections 505, 514, 515, 516 or 520 thereof; and (iv) be manufactured in accordance with current FDA Good Manufacturing Practice as required by 21 C.F.R. 210 and 820.

MiniMed Standard Warranty

Attached

Attachment E
Policies and Procedures relating to the MiniMed Product

A. Return of Products . No Products may be returned to UT by DISTRIBUTOR without the prior written authorization of UT; any such return may result in a commercially reasonable fee being charged to DISTRIBUTOR's account, the amount of such restocking fee to be agreed to by DISTRIBUTOR.

B. DISTRIBUTOR's Status . DISTRIBUTOR shall buy the Products from UT (in such amounts as DISTRIBUTOR shall in its sole discretion determine) and distribute and sell them in its own name, for its own account and at its own risk. These Policies and Procedures do not and shall not be construed to create the relationship of agent, employee, partnership, joint venture or association between the parties, but is an agreement between independent contractors. DISTRIBUTOR expressly acknowledges and agrees that it is not an agent or representative of UT and may not at any time hold itself out as such to any third party or act in the name of or on behalf of UT or bind UT or create any obligations between UT and third parties without UT's prior written consent.

C. DISTRIBUTOR's Obligations . The obligations of DISTRIBUTOR include the following undertakings:

(i) Inventory . DISTRIBUTOR agrees to maintain at all times during the term of this Agreement an inventory of the Products in good and saleable condition at a level sufficient to satisfy patient requirements for sixty (60) days and subject to MiniMed's timely acceptance and fulfillment of DISTRIBUTOR' s orders as placed by UT.

(ii) Inspection . DISTRIBUTOR shall allow representatives of UT and MiniMed access to DISTRIBUTOR's business premises at any time upon reasonable advance notice and during normal business hours for the purpose of, among other things, monitoring compliance with these Policies and Procedures.

(iii) Device Tracking . DISTRIBUTOR shall provide UT and MiniMed with a written inventory and delivery report monthly within five (5) business days of each MiniMed's fiscal month end in a form acceptable to MiniMed. Such report shall be delivered to UT and MiniMed either by electronic mail or on a computer disk compatible with MiniMed's information systems. Such report shall include (i) the quantities of the MiniMed Products delivered by DISTRIBUTOR to patients during such period and (ii) any documents or other information relating to the delivery of the MiniMed Products to patients which UT or MiniMed may reasonably require, including, without limitation, a schedule of infusion pumps delivered by reference to patient name and address or patient number, pump serial number, prescribing physician name, and prescribing physician zip code and a schedule of Disposable Supplies delivered to patients by reference to patient name and address or patient number. All such obligations are conditioned on and subject to any applicable legal requirements including without limitation those

relating to patient confidentiality and data security. A breach of this covenant shall constitute a material breach of these Policies and Procedures.

(iv) Labels . DISTRIBUTOR shall not change or remove the labels affixed to the Products, nor shall DISTRIBUTOR add anything to the exterior of the Products or packaging without the prior written authorization of UT and MiniMed.

(v) Direct Delivery . DISTRIBUTOR shall purchase the Products from UT only and shall deliver such the Products only to end users or clinics or hospitals in connection with Uniprost therapy and not to other agents, distributors, sub-distributors, dealers or the like without the prior written consent of UT.

(vi) Insurance . DISTRIBUTOR shall maintain in full force and effect policies of insurance with reputable carriers in such amounts and insuring against such risks as are reasonably customary for the business of DISTRIBUTOR. Notwithstanding the foregoing, in no event shall DISTRIBUTOR fail to maintain liability insurance in a minimum amount of $2,000,000 per occurrence or property insurance in an amount sufficient to cover the value of the Products.

D. Compliance with Laws and Regulations/ Records and Reporting .

(i) DISTRIBUTOR agrees that no Products will be willfully or knowingly or negligently distributed by DISTRIBUTOR or its agents in violation of applicable laws or regulations, including, without limitation laws and regulations governing the distribution of medical devices.

(ii) DISTRIBUTOR shall maintain complete and accurate records, in tangible form or electronic database, of all sales and deliveries of Products to end users. The report must enable UT and MiniMed to identify the end user of the MiniMed Products distributed within four (4) working days and must contain the following information: (a) for infusion pumps: model number; serial number; the date of shipment by MiniMed to DISTRIBUTOR; the name, address, telephone number and social security number (if available) or other unique identifying code of the user (patient) receiving MiniMed Products, the date the user received the MiniMed Products, and the name, mailing address, and telephone number of the prescribing physician; (b) for infusion sets: model number, lot number, the name and address or patient number of the user (patient), and the name, mailing address and telephone number of the prescribing physician; and (c) for UT Products, the name, address, telephone number and social security number (if available) or other unique identifying code of the user (patient) receiving UT Products, the date the user received the UT Products, and the name, mailing address, and telephone number of the prescribing physician. DISTRIBUTOR shall be solely responsible for complying with privacy and data protection laws and regulations. All such obligations are conditioned on and subject to any applicable legal requirements including without limitation those relating to patient confidentiality and data security

(iii) DISTRIBUTOR shall provide UT and MiniMed with the following information if any Products are returned to UT, MiniMed or DISTRIBUTOR: model number; serial number; the date the Products were initially shipped by UT or MiniMed to DISTRIBUTOR; and the means (carrier) used to return the Products. DISTRIBUTOR will provide UT and MiniMed with the following information if any Products are permanently disposed of: model number; serial number; the date the Products were initially shipped by UT or MiniMed to DISTRIBUTOR; the date the Products were permanently disposed of; and the mechanism of permanent disposition of the Products. DISTRIBUTOR shall provide the same information to the FDA within ten (10) days of a request therefor.

(iv) DISTRIBUTOR shall make all of its records relating solely to the Products available at its premises for audit by representatives of UT or MiniMed at any time during normal business hours with reasonable advance notice to ensure compliance with the terms of these Policies and Procedures, and shall, upon UT's or MiniMed's request, send a copy of such records (or any portion thereof) to UT or MiniMed for review. DISTRIBUTOR further agrees to maintain all additional records reasonably required by UT or MiniMed in order to ensure traceability of the Products sold or delivered hereunder by DISTRIBUTOR. DISTRIBUTOR further agrees to assume responsibility and guarantee performance of all reporting and record keeping required by the FDA and any other applicable governing body and regulator, but only to the extent DISTRIBUTOR is notified by UT in writing in advance of such requirements. DISTRIBUTOR agrees to deliver to UT and MiniMed all records and customer lists in its possession relating to the Products within 30 days following the expiration or termination of the Agreement by either party, retaining only those documents required for compliance with applicable regulations, and providing UT and MiniMed copies of all such retained documents. All such obligations are conditioned on and subject to any applicable legal requirements including without limitation those relating to patient confidentiality and data security

(v) DISTRIBUTOR will inform UT, MiniMed and the FDA if DISTRIBUTOR becomes aware of any "significant event." A "significant event" includes any report from a health care professional, user of any of the Products or other competent person that reasonably suggests any of the Products caused or contributed to a death or injury, or, in the case of the MiniMed Products, has malfunctioned in such a way that a reoccurrence of the malfunction or failure would be likely to cause or contribute to death or injury. Without limiting the generality of the foregoing, DISTRIBUTOR shall report to UT, MiniMed and the FDA any event, occasion or circumstance in which DISTRIBUTOR becomes aware there has been a deterioration in the characteristics or performance of any of the MiniMed Products, or any inaccuracies in any written material provided with or to users of any of the MiniMed Products which is intended to accompany such MiniMed Products, which might lead to death of a patient who uses such MiniMed Products or might lead to the significant deterioration of such patient's state of health. DISTRIBUTOR agrees to cooperate fully with UT, MiniMed,

and, at UT's or MiniMed's request, participate in any investigation undertaken by UT or MiniMed in connection with any such event. Such report shall be made and delivered to UT and MiniMed within five (5) working days after DISTRIBUTOR becomes aware of such significant event and to the FDA within ten (10) business days thereof.

E. Delivery Time . UT and MiniMed shall use reasonable efforts to deliver the Products pursuant to requests contained in UT's purchase orders. Notwithstanding the foregoing, UT and MiniMed shall not be responsible for delays in delivery, and such delivery delays shall not give rise to a claim for damages.

F. No Supply Obligation . UT and MiniMed shall not be obligated to fill orders for Products (i) for which production has ceased or for which it no longer has the right to manufacture or sell, or (ii) for which delivery has become unreasonably onerous as a result of any change in legal requirements or regulations. In the event that: (i) UT or MiniMed does not fulfill DISTRIBUTOR's purchase orders for the reasons set forth in this Section F; and (ii) UT and MiniMed are unable to manufacture, sell, market and distribute other infusion pumps which are equally suitable for Uniprost therapy as infusion pumps manufactured by as of the effective date of the Agreement, then DISTRIBUTOR's obligations to exclusively use MiniMed Products (subject to the provisions of the Distribution Agreement between DISTRIBUTOR and UT) shall cease until such time that MiniMed is able to offer DISTRIBUTOR infusion pumps which are as suitable for Uniprost therapy as infusion pumps manufactured by MiniMed as of the effective date of this Agreement.

G. MiniMed Industrial and Intellectual Property . DISTRIBUTOR acknowledges that MiniMed has granted to UT a non-exclusive, royalty-free right to use the trademarks affixed by MiniMed to the MiniMed Products and packaging. Such grant shall terminate upon the expiration or termination of UT's agreement with MiniMed. DISTRIBUTOR acknowledges that UT has represented to DISTRIBUTOR that MiniMed and/or its affiliates possess all necessary right, title and interest in and to all patents, packaging, designs, trademarks, trade names and logos used on or in connection with the MiniMed Products. DISTRIBUTOR shall only use such trademarks, trade names and logos in compliance with standards and policies which MiniMed may from time to time determine and MiniMed shall have the right of prior approval of any such trademarks, trade names and logos on the advertising materials and brochures utilized by DISTRIBUTOR. DISTRIBUTOR agrees that during the term of the Agreement and after its expiration or termination it will not knowingly use or register, directly or indirectly, any patents, packaging, designs, trademarks or trade names which may infringe or be confusingly similar with those owned by MiniMed and/or its affiliates, and shall use trademarks and trade names of MiniMed pursuant to the license granted hereunder on marketing literature of DISTRIBUTOR.

H. MiniMed Documents . Except as otherwise expressly provided for in these Policies and Procedures, MiniMed may furnish UT or DISTRIBUTOR with commercial, technical and other documents and materials relating to the Products as it deems appropriate, for which MiniMed may charge a fee to UT or DISTRIBUTOR. Such documents and materials are and shall remain the sole property of MiniMed. Following the expiration or termination of the Agreement, upon UT's request, DISTRIBUTOR shall return to UT or MiniMed all such documents and materials furnished to it by UT or MiniMed. In the event that DISTRIBUTOR

prepares documents or materials relating to the delivery of the Products to patients and clinics which offer Uniprost™ therapy, such documents and materials, and any copyrights relating thereto, shall be the sole property of UT or MiniMed, except to the extent that such materials may reflect the name, trade mark or other proprietary property of DISTRIBUTOR. DISTRIBUTOR shall submit for review and approval such documents and materials and provide UT and MiniMed with sufficient prior notice to evaluate such documents and materials.

AMENDMENT TO DISTRIBUTION AGREEMENT

This Amendment to Distribution Agreement is made as of this day of August 2002 (the "Effective Date"), by and between United Therapeutics Corporation ("UT"), a Delaware corporation, 1110 Spring Street, Silver Spring, Maryland 20910, and Accredo Therapeutics, Incorporated ("DISTRIBUTOR"), a Delaware corporation, 1640 Century Center Parkway, Suite 105, Memphis, Tennessee 38134.

A. WHEREAS, UT and Olsten Health Services (Quantum) Corp. entered into a Distribution Agreement on March 20, 2000, concerning non-exclusive U.S. distribution of the drug product REMODULIN (formerly Uniprost);

B. WHEREAS, Olsten Health Services (Quantum) Corp. changed its name to Gentiva Health Services (Quantum) Corp. and subsequently to Accredo Therapeutics, Inc.; and

C. WHEREAS, it is desirable to revise certain obligations between the parties following FDA approval and the commercial launch of the UT Product in order to reflect DISTRIBUTOR's role as a provider of health care services including pharmacy services that are separate and distinct from DISTRIBUTOR's obligations to market, promote and sell the UT Product and the MiniMed Product.

NOW, THEREFORE, in consideration of mutual promises and covenants hereinafter set forth, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

I

In subsection 1.1(r), the word "UNIPROST" is replaced with the word "REMODULIN";

II

The introductory paragraph in Section 4.1 is hereby replaced in its entirety with the following:

4.1 Marketing . DISTRIBUTOR shall use its Best Efforts to fund and support ongoing promotion of its distribution of the Products, consistent with DISTRIBUTOR' s normal funding and support for its overall distribution activities. In addition, DISTRIBUTOR shall use its Best Efforts to fund and support ongoing promotion, marketing and sale of its distribution services to physicians, pharmacies, payers, hospitals, and other healthcare entities as appropriate, and public and private clinical, health and industrial laboratories; provided, however, DISTRIBUTOR shall submit to UT for review and approval any marketing material relating to the UT Product, other than the UT marketing material provided by UT to DISTRIBUTOR pursuant to Section 5.3, and shall

refrain from using such material until DISTRIBUTOR receives written approval of such materials from UT. Such Best Efforts shall include, but not be limited to:

The introductory paragraph of subsection 4.I(d) shall be replaced in its entirety with the following:

4.1(d) Attending and promoting the availability of the Products and distribution services at appropriate trade shows involving patients and/or physicians specialties that have a high propensity or likelihood to diagnose and treat patients suffering from pulmonary hypertension. At a minimum, DISTRIBUTOR will attend the following trade shows or national conferences of the following organizations in order to evaluate the appropriateness of exhibiting at these shows:

III

Section 4.5 is hereby replaced in its entirety with the following:

4.5 Product Specifications . DISTRIBUTOR shall maintain the Products in accordance with all directions accompanying the Products in order to maintain Product within FDA approved specifications. DISTRIBUTOR shall dispense Products as prescribed, in accordance with all applicable pharmacy requirements. The parties acknowledge that UT shall not have any rights, obligations, responsibilities, oversight or role of any kind or nature concerning DISTRIBUTOR's practice of pharmacy in compliance with all applicable state pharmacy regulations and consistent with DISTRIBUTOR' s then current practices.

IV

Section 4.6 is hereby replaced in its entirety with the following:

4.6 Pharmacy and Home Health Care Services . DISTRIBUTOR may create its own patient educational materials concerning the Products ("Educational Materials") for distribution by DISTRIBUTOR in accordance with this Agreement and DISTRIBUTOR's obligations as a health care provider and pharmacy; provided, however, that all such Educational Materials (i) shall be consistent with the content of the UT Product package insert approved by the FDA, (ii) shall comply with the conditions and requirements of all applicable state pharmacy regulations mandating the provision of patient educational materials on prescription drugs and their administration, and (iii) shall not be used by DISTRIBUTOR to promote, market or sell the Products. The parties acknowledge that UT shall not have any rights, obligations, responsibilities, oversight or role of any kind or nature concerning DISTRIBUTOR' s practice of pharmacy in compliance with

all applicable state pharmacy regulations and consistent with DISTRIBUTOR' s then current practices.

V

Section 5.3 is hereby replaced in its entirety with the following:

5.3 UT Promotional Materials . UT will provide DISTRIBUTOR with reasonable quantities of promotional materials when developed by UT, including but not limited to reprints, brochures, package inserts, peer review articles and other scientific and medical information regarding the Products, informational material and other marketing literature, all of the foregoing created by UT, for use and distribution by DISTRIBUTOR in accordance with this Agreement. DISTRIBUTOR shall not revise, alter or change in any manner the foregoing materials and their content as provided by UT without UT's advance written permission. Nothing in this provision requires UT to create any specific promotional materials.

VI

Other than as provided in this Amendment to Distribution Agreement, the terms and provisions of the Distribution Agreement, as amended, shall continue in full force and effect. All defined terms in this Amendment shall have those meanings as defined in the Distribution Agreement.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized representatives.

UNITED THERAPEUTICS CORPORATION

By: /s/ Paul A. Mahon
Paul A. Mahon, General Counsel

ACCREDO THERAPEUTICS, INC.

By: /s/ Thomas W. Bell, Jr. VP
Printed: Thomas W. Bell, Jr.

Exhibit 12.1

United Therapeutics Corporation
Ratio of Earnings to Fixed Charges
(Unaudited)

	Years Ended December 31,				
	2007	2006	2005	2004	2003
	(in thousands, except ratio)				
Earnings (losses) from continuing operations before fixed charges	$ 19,859	$ 28,982	$ 42,893	$ 13,209	$ (11,526)
Fixed charges					
Interest expenses, net of capitalized interest	$ 2,175	$ 482	$ 29	$ 3	$ 112
Capitalized interest	689	—	—	—	—
Portion of rentals representative of interest factor	1,885	1,172	—	—	—
Total fixed charges	4,749	1,654	29	3	112
Ratio of earnings to fixed charges	4.18	17.52	1,479.07	4,403.00	—
Excess fixed charges over earnings	$ —	$ —	$ —	—	$ 11,638

NOTE: The Ratio of Earnings to Fixed Charges should be read in conjunction with the Consolidated Financial Statements and related Notes and Management's Discussion and Analysis of Financial Condition and Results of Operations in United Therapeutics Corporation's Annual Report on Form 10-K for the year ended December 31, 2007.

QuickLinks

Exhibit 21

SUBSIDIARIES OF THE REGISTRANT

Lung Rx, Inc., a Delaware Corporation

Unither Telmed, Ltd, a Delaware Corporation

Unither Pharmaceuticals, Inc., a Delaware Corporation

United Therapeutics Europe, Ltd., a United Kingdom Company

Unither Pharma, Inc., a Delaware Corporation

Medicomp, Inc., a Delaware Corporation

Unither Neurosciences, Inc., a Delaware Corporation

Unither.com, Inc., a Delaware Corporation

LungRx Limited, a United Kingdom Company

Unither Biotech Inc., a Canadian Company

Unither Virology, LLC, a Delaware Corporation

QuickLinks

Exhibit 21

SUBSIDIARIES OF THE REGISTRANT

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statement (Form S-3 No. 333-118699) of United Therapeutics Corporation,

(2) Registration Statement (Form S-8 No. 333-108169) pertaining to the United Therapeutics Corporation's Equity Incentive Plan,

(3) Registration Statement (Form S-8 No. 333-56922) pertaining to the United Therapeutics Corporation's Equity Incentive Plan;

(4) Registration Statement (Form S-8 No. 333-95419) pertaining to the United Therapeutics Corporation's Equity Incentive Plan; and

(5) Registration Statement (Form S-3 No. 333-139631) of United Therapeutics Corporation.

of our reports dated February 28, 2008, with respect to the consolidated financial statements and schedule of United Therapeutics Corporation, and the effectiveness of United Therapeutics Corporation internal control over financial reporting included in this Annual Report (Form 10-K) for the year ended December 31, 2007.

/s/ Ernst & Young LLP

McLean, Virginia
February 28, 2008

QuickLinks

Exhibit 31.1

CERTIFICATION PURSUANT TO RULE 13a-14 (a)
OF THE SECURITIES EXCHANGE ACT OF 1934

I, Martine A. Rothblatt, certify that:

1. I have reviewed this annual report on Form 10-K of United Therapeutics Corporation;

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

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

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

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

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

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

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

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

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

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

Date: February 28, 2008

/s/ MARTINE A. ROTHBLATT

By: Martine A. Rothblatt, Ph.D.
Title: *Chairman and Chief Executive Officer*

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CERTIFICATION PURSUANT TO RULE 13a-14 (a) OF THE SECURITIES EXCHANGE ACT OF 1934

Exhibit 31.2

CERTIFICATION PURSUANT TO RULE 13a-14 (a)
OF THE SECURITIES EXCHANGE ACT OF 1934

I, John M. Ferrari, certify that:

1. I have reviewed this annual report on Form 10-K of United Therapeutics Corporation:

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

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

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

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

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

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

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

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

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

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

Date: February 28, 2008

/s/ JOHN M. FERRARI

By: John M. Ferrari
Title: *Chief Financial Officer and Treasurer*

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CERTIFICATION PURSUANT TO RULE 13a-14 (a) OF THE SECURITIES EXCHANGE ACT OF 1934

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Exhibit 32.1

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

In connection with the annual report of United Therapeutics Corporation (the "Company") on Form 10-K for the period ended December 31, 2007 as filed with the Securities and Exchange Commission (the "Report"), I, Martine A. Rothblatt, Chief Executive Officer of the Company, certify, to the best of my knowledge, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

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

/s/ MARTINE A. ROTHBLATT

Martine A. Rothblatt
Chairman and Chief Executive Officer United Therapeutics Corporation
February 28, 2008

THE FOREGOING CERTIFICATION IS BEING FURNISHED SOLELY PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002 AND IS NOT BEING FILED AS PART OF THE FORM 10-K OR AS A SEPARATE DISCLOSURE DOCUMENT.

A SIGNED ORIGINAL OF THIS WRITTEN STATEMENT REQUIRED BY SECTION 906, OR OTHER DOCUMENT AUTHENTICATING, ACKNOWLEDGING, OR OTHERWISE ADOPTING THE SIGNATURE THAT APPEARS IN TYPED FORM WITHIN THE ELECTRONIC VERSION OF THIS WRITTEN STATEMENT REQUIRED BY SECTION 906, HAS BEEN PROVIDED TO UNITED THERAPEUTICS CORPORATION AND WILL BE RETAINED BY UNITED THERAPEUTICS CORPORATION AND FURNISHED TO THE SECURITIES AND EXCHANGE COMMISSION OR ITS STAFF UPON REQUEST.

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

Exhibit 32.2

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

In connection with the annual report of United Therapeutics Corporation (the "Company") on Form 10-K for the period ended December 31, 2007 as filed with the Securities and Exchange Commission (the "Report"), I, John M. Ferrari, Chief Financial Officer of the Company, certify, to the best of my knowledge, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

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

/s/ JOHN M. FERRARI

John M. Ferrari
Chief Financial Officer and Treasurer
United Therapeutics Corporation
February 28, 2008

THE FOREGOING CERTIFICATION IS BEING FURNISHED SOLELY PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002 AND IS NOT BEING FILED AS PART OF THE FORM 10-K OR AS A SEPARATE DISCLOSURE DOCUMENT.

A SIGNED ORIGINAL OF THIS WRITTEN STATEMENT REQUIRED BY SECTION 906, OR OTHER DOCUMENT AUTHENTICATING, ACKNOWLEDGING, OR OTHERWISE ADOPTING THE SIGNATURE THAT APPEARS IN TYPED FORM WITHIN THE ELECTRONIC VERSION OF THIS WRITTEN STATEMENT REQUIRED BY SECTION 906, HAS BEEN PROVIDED TO UNITED THERAPEUTICS CORPORATION AND WILL BE RETAINED BY UNITED THERAPEUTICS CORPORATION AND FURNISHED TO THE SECURITIES AND EXCHANGE COMMISSION OR ITS STAFF UPON REQUEST.

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Exhibit 32.2

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