

INSMED INC
Form 10-K
March 16, 2007
[Table of Contents](#)

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, 2006

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 0-30739

INSMED INCORPORATED

(Exact name of registrant as specified in its charter)

Virginia
(State or other jurisdiction of
incorporation or organization)

8720 Stony Point Parkway

54-1972729
(I.R.S. employer

identification no.)

(804) 565-3000

Edgar Filing: INSMED INC - Form 10-K

Richmond, Virginia 23235
(Address of principal executive offices)

(Registrant's telephone number)

(zip code)

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 \$0.01/share	Nasdaq Global Market

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

(Title of class)
Preferred Stock Purchase Rights

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 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 is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer (as defined in Exchange Act Rule 12b-2).

Large accelerated filer ☐ Accelerated filer ☒ Non-accelerated filer ☐

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant on June 30, 2006 was **\$160,366,245** (based on the closing price for shares of the registrant's Common Stock as reported on the Nasdaq Global Market on that date). In determining this figure, the registrant has assumed that all of its directors, officers and persons owning 10% or more of the outstanding Common Stock are affiliates. This assumption shall not be deemed conclusive for any other purpose.

On February 28, 2007, there were **101,328,118** shares of the registrant's common stock, \$.01 par value, outstanding.

Portions of the registrant's definitive Proxy Statement to be filed with the Securities and Exchange Commission no later than 120 days after the registrant's fiscal year ended December 31, 2006, and to be delivered to shareholders in connection with the 2007 Annual Meeting of Shareholders, are herein incorporated by reference in Part III.

Table of Contents

INSMED INCORPORATED
INDEX TO REPORT ON FORM 10-K

<u>PART I</u>		Page
	ITEM 1. <u>BUSINESS</u>	4
	ITEM 1A. <u>RISK FACTORS</u>	15
	ITEM 2. <u>PROPERTIES</u>	27
	ITEM 3. <u>LEGAL PROCEEDINGS</u>	28
	ITEM 4. <u>SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS</u>	28
<u>PART II</u>		28
	ITEM 5. <u>MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER REPURCHASES OF EQUITY SECURITIES</u>	28
	ITEM 6. <u>SELECTED FINANCIAL DATA</u>	29
	ITEM 7. <u>MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	31
	ITEM 7A. <u>QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	37
	ITEM 8. <u>FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA</u>	37
	ITEM 9. <u>CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE</u>	37
	ITEM 9A. <u>CONTROLS AND PROCEDURES</u>	37
	ITEM 9B. <u>OTHER INFORMATION</u>	38
<u>PART III</u>		38
<u>PART IV</u>		39
	ITEM 15. <u>EXHIBITS AND FINANCIAL STATEMENT SCHEDULES</u>	39
<u>SIGNATURES</u>		40

In this Form 10-K, we use the words the Company, Insmmed, Insmmed Incorporated, we, us and our refer to Insmmed Incorporated, a Virginia corporation. This Form 10-K also contains trademarks of third parties. Each trademark of another company appearing in this Form 10-K is the property of its owner.

Table of Contents

PART I

We may from time to time make written or oral forward-looking statements, including statements contained in our filings with the Securities and Exchange Commission (including this Annual Report on Form 10-K and the Exhibits hereto and thereto), in our reports to stockholders and in other communications. Such statements give our current expectations or forecasts of future events; they do not relate strictly to historical or current facts. One can identify these forward-looking statements by use of words such as may, could, should, would, believe, anticipate, estimate, expect, intend, plan, projects, outlook or similar expressions. In particular, these include statements relating to our beliefs, plans, objectives, goals, future actions, prospective products or product approvals, future performance or results of current and anticipated products, the outcome of contingencies, such as legal proceedings and financial results. These statements are based upon the current beliefs and expectations of management and are subject to significant risks and uncertainties. Our actual results may differ materially from those set forth in the forward-looking statements. Forward-looking statements involve certain risks and uncertainties that are subject to change based on various factors (many of which are beyond our control). Factors that could cause or contribute to differences in our actual results include those discussed in Item 1A under the section entitled Risk Factors, as well as those discussed in Item 7 under the section entitled Management's Discussion and Analysis of Financial Condition and Results of Operations and elsewhere throughout this Annual Report on Form 10-K and in any other documents incorporated by reference. We undertake no obligation to publicly update forward-looking statements, whether as a result of new information, future events or otherwise. You are advised, however, to consult any further disclosures we make on related subjects in our 10-Q and 8-K reports to the Securities and Exchange Commission.

ITEM 1. BUSINESS

BUSINESS OVERVIEW

IPLEX and Short-Stature Market

We are a biopharmaceutical company focused on the development and commercialization of drugs to treat metabolic diseases, endocrine disorders and oncology within niche markets that have unmet medical needs. Our development activities involve drugs that modulate Insulin-like Growth Factor-1 (IGF-1) activity in the human body. In the past, we were focused on development and commercialization of IPLEX (mecasermin rinfabate, recombinant DNA origin, injection), a once-daily IGF-1 replacement therapy, for the treatment of growth failure in children with severe primary IGF-1 deficiency. IPLEX is a complex of recombinant human IGF-I and its binding protein IGFBP-3 (rhIGF-I/rhIGFBP-3). IPLEX was approved by the FDA for treatment of severe primary IGF-1 deficiency, in December 2005 and was commercially launched in the second quarter of 2006. As a result of our recent settlement agreement with Tercica, Inc. and Genentech, Inc., discussed below, we have withdrawn IPLEX from the severe primary IGF-D market.

Settlement of Litigation with Tercica and Genentech

In December 2004, Tercica and Genentech filed patent infringement suits against us in the United States District Court for the Northern District of California and in the United Kingdom at the High Court of Justice, Chancery Division, Patents Court. In these cases, Tercica and Genentech alleged that production and use of IPLEX willfully infringed claims in certain United States and European Patents, owned by Genentech and Tercica, directed to methods of using rhIGF-I/rhIGFBP-3 and methods of producing rhIGF-I and IGFBP-3. In June 2006, Tercica also filed an unfair competition suit against us in the United States District Court for the Eastern District of Virginia, claiming that we disseminated misleading statements to the market in connection with our marketing of IPLEX.

On December 6, 2006, a jury in the United States District Court for the Northern District of California found that we infringed patents held by Tercica and Genentech and awarded damages of \$7.5 million as an upfront payment and a royalty of 15% on sales of IPLEX below \$100 million and 20% on sales above \$100 million.

Table of Contents

On March 5, 2007, we reached a settlement agreement ending all litigation with Tercica and Genentech. Pursuant to the agreement, we agreed to cease sales and marketing of IPLEX in the United States and agreed to withdraw our European Marketing Authorization Application for IPLEX. We will continue to provide IPLEX to named patients with Amyotrophic Lateral Sclerosis in Italy under our Expanded Access Program. The agreement also gives us the right, through a worldwide development partnership with Tercica and Genentech, to market IPLEX for conditions not related to short stature. These indications include myotonic muscular dystrophy (MMD) and HIV-associated adipose redistribution syndrome (HARS), among others. The development partnership includes provisions that give us a 50% share of profits and reimbursement for 50% of development costs if either Tercica or Genentech exercises opt-in rights for marketing of IPLEX in any of these new indications that we develop. In addition, as part of the settlement agreement, Tercica and Genentech waived the damages awarded by the jury in the patent infringement suit from the District Court for the Northern District of California.

Current Direction

As a result of our settlement agreement with Tercica and Genentech, we decided to restructure our business and refocus our development efforts. As part of our restructuring plan, our commercial operations unit will be eliminated and production at our manufacturing facility in Boulder, Colorado, will be scaled back, to reflect the reduced production requirement. In connection with this restructuring, our workforce was reduced by approximately 34%.

We intend to refocus our business to capitalize on the therapeutic opportunities presented by our current product candidates by developing them for the treatment of metabolic diseases and endocrine disorders and oncology. Key elements of our strategy moving forward include:

Develop IPLEX in additional non-growth disorder indications. We have initiated clinical studies of IPLEX in the United States in additional indications where existing preclinical or clinical data suggest IPLEX may be an effective treatment. We have initiated studies in MMD (estimated United States patient population is 40,000), HARS (estimated United States patient population is 80,000) and retinopathy of prematurity (ROP), estimated to affect to some degree between 14,000 and 16,000 infants in the United States each year.

Develop Oncology Portfolio. We will continue to conduct clinical studies of rhIGFBP-3 and INSM-18 for the treatment of cancer. Based on the results of these studies, we will evaluate opportunities to initiate Phase II clinical studies in one or more of the following cancer types: breast, colorectal, lung or prostate. We will either conduct additional studies independently or enter into development or licensing agreements with companies with greater expertise in the development of cancer therapies.

IPLEX

We intend to investigate IPLEX for various other indications with unmet medical needs, including MMD, HARS and ROP. At the request of the Italian Ministry of Health, we established an Expanded Access Program in Italy to provide IPLEX to physicians for their patients with Amyotrophic Lateral Sclerosis (ALS), also known as Lou Gehrig's Disease. Pursuant to our settlement agreement with Tercica and Genentech, discussed above, we will continue to supply IPLEX on a named-patient basis to individuals in Italy.

IPLEX is typically administered as a once-daily subcutaneous injection, which can restore and maintain IGF-1 at physiologically relevant levels. The binding protein, rhIGFBP-3, extends the residence time of IGF-1 in the blood. In the bound state, we believe IGF-1 is inactive and remains so until delivered to target tissues in the body where it is released and becomes biologically active.

Development of IPLEX in MMD

MMD is the most common type of adult muscular dystrophy and affects approximately 1 in 8,000 individuals. MMD causes progressive muscle wasting and weakness in the hands, forearms, legs, neck and face. It often involves many other systemic effects, including endocrine abnormalities, neurological changes, cataracts, gastrointestinal problems; and cardiac rhythm abnormalities. In extreme cases, these patients can eventually become

Table of Contents

totally disabled, dying usually from respiratory or cardiac failure. At present, there is no treatment to reverse most of these symptoms. Previous preclinical and human studies have demonstrated that IGF-1 therapy may be an effective treatment for MMD.

Based on information published by the Muscular Dystrophy Association, we believe that there are approximately 40,000 patients that suffer from MMD in the United States. At present, there is no treatment approved for the treatment of MMD. Previous preclinical and human studies have demonstrated that IGF-1 therapy may be an effective treatment for MMD.

Ongoing Clinical Study

A Phase II clinical study program investigating IPLEX as a treatment for MMD has been initiated by the University of Rochester School of Medicine, with funding provided by the Muscular Dystrophy Association and the National Institutes of Health (NIH). This Phase II program is designed to investigate the safety and tolerability of once-daily subcutaneous injections of IPLEX in patients with MMD using two sequential studies each involving 15 patients. The first study is a 24-week, dose-escalation study of IPLEX intended to identify the maximum tolerated dose for use in the subsequent 24-week, fixed-dose safety and efficacy study. Both studies will evaluate a number of safety parameters in a prospective manner, as well as several key efficacy measures such as muscle mass and strength.

The University of Rochester has been designated by the National Institutes of Health (NIH) as one of several centers of excellence for muscular dystrophy research. As such, the University of Rochester is eligible to receive funding from the NIH. A portion of this funding is being used to substantially fund this clinical study.

Development of IPLEX for HARS

HARS, is characterized by fat maldistribution in HIV-infected patients. Patients with HARS experience abnormal, pathological accumulation of adipose tissue in the trunk, primarily in the form of visceral adipose tissue located deep within the abdomen, underneath the abdominal muscle wall. This fat accumulation may be present with or without fat depletion, lipoatrophy, and metabolic abnormalities. In general, HARS patients accumulate excess visceral adipose tissue in the abdomen or may develop a fat pad on the upper back commonly known as a buffalo hump. This condition is sometimes referred to as HIV Lipodystrophy.

Since the advent of highly active antiretroviral therapy (HAART), there has been a marked increase in adverse metabolic effects in HIV patients on antiretroviral treatments. These adverse effects include insulin resistance, hyperglycemia, dyslipidemia and changes in body fat distribution that include syndromes of both central fat accumulation (visceral adiposity and buffalo hump) and fat loss in the limbs. Recent studies performed in subjects on HAART suggest that nearly 50% of individuals develop the morphologic features of this syndrome. With the similarity of HARS to metabolic syndrome X, which has been associated with increased risk of cardiovascular disease, it is now feared that these HAART side effects may impact the long-term prognosis in patients whose life expectancies have been significantly extended due to effective viral suppression by HAART. At present, there is no approved treatment for this condition. We believe that there are approximately 80,000 patients who suffer from HARS in the United States.

Ongoing Clinical Study

A Phase II clinical study investigating IPLEX as a treatment for HARS has been initiated by the University of California, San Francisco. This Phase II open-label study is designed to evaluate the safety and efficacy of 12 weeks of IPLEX treatment in 12 subjects with HARS. The primary goal of the study is to determine the effects of IPLEX on visceral fat and glucose and lipid metabolism.

Table of Contents

Development of IPLEX for ROP

ROP is a disease in which the small blood vessels in the back of the eye, the retina grow abnormally. This disorder primarily affects premature infants weighing about 2³/₄ pounds, or 1250 grams, or less that are born before 31 weeks of gestation (a full-term pregnancy has a gestation of 38-42 weeks). The smaller a baby is at birth, the more likely that baby is to develop ROP. This disorder, which usually develops in both eyes, is one of the most common causes of visual loss in childhood and can lead to lifelong vision impairment and blindness.

Today, with advances in neonatal care, smaller and more premature infants are being saved. There are approximately 3.9 million infants born in the U.S. each year; of those, about 28,000 weigh 2³/₄ pounds or less. It is estimated that 14,000-16,000 of these infants are affected by some degree of ROP. Of these, 1,100-1,500 infants annually develop ROP that is severe enough to require medical treatment and 400-600 infants each year in the US become legally blind from ROP.

The most effective proven treatments for ROP are laser therapy or cryotherapy. Laser therapy "burns away" the periphery of the retina, which has no normal blood vessels. With cryotherapy, physicians use an instrument that generates freezing temperatures to briefly touch spots on the surface of the eye that overlie the periphery of the retina. Both laser treatment and cryotherapy destroy the peripheral areas of the retina, slowing or reversing the abnormal growth of blood vessels but destroying some side vision. Both laser treatments and cryotherapy are performed only on infants with advanced ROP and both treatments are considered invasive surgeries on the eye, and doctors don't know the long-term side effects of each.

In the later stages of ROP, other treatment options include the placement of a scleral buckle and vitrectomy. The first involves placing a silicone band around the eye and tightening it. This keeps the vitreous gel from pulling on the scar tissue and allows the retina to flatten back down onto the wall of the eye. Infants who have had a sclera buckle need to have the band removed months or years later, since the eye continues to grow; otherwise they will become nearsighted. Vitrectomy involves removing the vitreous and replacing it with a saline solution. After the vitreous has been removed, the scar tissue on the retina can be peeled back or cut away, allowing the retina to relax and lay back down against the eye wall.

In a recent clinical study of 84 gestational age matched premature infants with or without ROP, the mean serum IGF-I was significantly lower in those with ROP than without ROP, and a relationship was found with the severity of ROP. This finding that the development of ROP is associated with low levels of IGF-I after premature birth suggests the replacement of IGF-I to physiological levels found in utero might prevent the disease by allowing normal vascular development.

Ongoing Clinical Study

A Phase I clinical study investigating IPLEX as a treatment for ROP has been initiated by investigators at Göteborg University in Sweden in collaboration with scientists at Harvard Medical School. Ten patients are being enrolled sequentially with each subsequent patient receiving a higher dose of IPLEX. The objective of the study is to determine the dose of IPLEX required to increase serum IGF-I into the normal physiological range.

Expanded Access Program for Patients in Italy with ALS

ALS is a progressive neurodegenerative disease that affects nerve cells in the brain and the spinal cord. Motor neurons reach from the brain to the spinal cord and from the spinal cord to the muscles throughout the body. The progressive degeneration of the motor neurons in ALS eventually leads to their death. When the motor neurons die, the ability of the brain to initiate and control muscle movement is lost. With voluntary muscle action progressively affected, patients in the later stages of the disease may become totally paralyzed. Yet, through it all, for the vast majority of people, their minds remain unaffected.

At the request of the Italian Ministry of Health, we have established an Expanded Access Program in Italy to provide IPLEX to physicians for their patients with ALS. The request came as a result of several Italian Court rulings ordering the Italian National Health System to provide the drug to specific ALS patients who have petitioned the Court. Through an agreement with Cephalon, which holds patent rights in the European Union (EU) to IGF-1 as

Table of Contents

it relates to the treatment of ALS, we will be able to provide IPLEX to physicians in Italy. We are receiving payment for drug from the Italian Health Authorities. There are an estimated 1,000 new cases of ALS per year in Italy.

ONCOLOGY PROGRAMS INSM-18 AND RHIGFBP-3

INSM-18 and rhIGFBP-3 are in early clinical development and are primarily being investigated for the treatment of cancer. We believe both INSM-18 and rhIGFBP-3, are promising potential novel treatments for a variety of cancer types. Preclinical models demonstrate that both treatments interact with the IGF system to reduce tumor growth.

INSM-18

INSM-18 is an orally available small molecule tyrosine kinase inhibitor that has demonstrated selective inhibition of IGF-1 and human epidermal growth factor receptor (Her2/Neu). It has demonstrated anti-tumor activity in preclinical studies of breast, lung, pancreatic and prostate tumors. Two single dose Phase I clinical studies in healthy volunteers have been previously completed with INSM-18. In both studies, INSM-18 was safe and well tolerated.

The American Cancer Society estimated that 232,000 new cases of prostate cancer occurred in the United States in 2005. It also estimated that 30,000 deaths occurred as a result of prostate cancer, making it the second leading cause of cancer death in men.

Completed Clinical Study

The University of California, San Francisco, has completed a dose-escalating Phase I/II clinical study designed to define the maximum tolerated dose of INSM-18 in patients with relapsed prostate cancer. The study consisted of a 28-day treatment period at each dose level to investigate the effect of INSM-18 on prostate-specific antigen levels. An analysis of the data collected from the study is currently being conducted. The results from this study will be used to design a planned Phase II clinical study.

rhIGFBP-3

Although IGF-1 is critical for normal growth and metabolism, aberrant signaling through this pathway is closely linked to the abnormal and unregulated growth of a variety of tumors. Blocking tumor-associated IGF signaling has proven to prevent tumor growth in a variety of preclinical models. rhIGFBP-3 has demonstrated preclinical efficacy in numerous cancer indications, including breast, prostate, liver, ovarian and colon. Additionally, several lines of recent evidence, from various cell systems, have suggested that rhIGFBP-3 may play a more active, IGF-1-independent role in growth regulation of cancer cells, binding specifically with high affinity to the surface of various cell types and directly inhibiting monolayer growth of these cells in an IGF-1-independent manner. Recent independent studies have demonstrated that when IGFBP-3 is used in combination with other cancer therapies it can accentuate and even synergize the efficacy of standard cancer therapies. Paclitaxel-induced apoptosis is accentuated by rhIGFBP-3, which has been shown to sensitize cells to apoptotic signals such as irradiation and ceramides.

Ongoing Clinical Study

We have initiated a Phase I clinical study with rhIGFBP-3. The Phase I clinical study is an open-label, dose-escalation study designed to evaluate the safety, tolerability and pharmacokinetics of a single intravenous dose of rhIGFBP-3. The primary goal of this 30-patient study is to identify the appropriate dose of rhIGFBP-3 for a planned Phase II clinical trial in breast cancer patients.

Table of Contents

RESEARCH AND DEVELOPMENT

Since we began operations in late 1999, we have devoted substantially all of our resources to the research and development of a number of product candidates for metabolic and endocrine diseases. Our research and development efforts are now principally focused on conducting additional clinical studies and expanding the label for IPLEX into indications, other than short stature indications. We conduct very little of our own preclinical laboratory research. We have outsourced several Phase II clinical studies with IPLEX and our other anti-cancer product candidates, INSM-18 and rhIGFBP-3, and plan on conducting additional clinical studies with these product candidates in the future.

Research and development expenses primarily include expenses incurred in preparing and obtaining necessary approvals from regulatory bodies, certain expenses involving the development of manufacturing processes and clinical studies. Our research and development expenses were approximately \$23.3 million for the year ended December 31, 2004, \$21.8 million for the year ended December 31, 2005 and \$21.1 million for the year ended December 31, 2006.

MANUFACTURING

We currently manufacture our own supply of IPLEX and rhIGFBP-3 at our Boulder, Colorado manufacturing facility, which has been approved by the FDA. The manufacturing process requires compliance with current good manufacturing practices, or cGMP, and other similar regulations. IPLEX, a complex of two proteins, rhIGF-1 and its binding protein rhIGFBP-3, is manufactured using recombinant DNA technology. This manufacturing process is complicated and involves expression of the two proteins by bacterial fermentation followed by purification and combination of the two proteins. During the manufacturing process, rhIGF-1 and rhIGFBP-3 are produced separately and then combined to make IPLEX. We currently outsource to third party contract manufacturers some of the analytical testing and the final fill, finish and labeling of IPLEX.

As part of ongoing regulatory compliance, it is likely that the FDA will inspect our manufacturing facilities and our contract manufacturers facilities from time to time to ensure compliance with cGMP. If these facilities are not in compliance with cGMP, the FDA will likely require us to halt manufacturing until we bring the facilities into compliance. This could take a substantial period of time and could adversely affect the development and timing of our clinical studies and Expanded Access Program. If for any other reason we are unable to manufacture sufficient quantities of our product candidates and their components to meet our planned time and cost parameters, the development and timing of our clinical studies for additional indications may be adversely affected.

We believe this facility will meet our clinical study and Expanded Access Program needs.

PATENTS AND PROPRIETARY RIGHTS

Insmmed Patent Portfolio

Proprietary protection is important to our business, and our policy is to protect our technology by filing patent applications for technology that we consider important. We directly hold 27 United States patents relating to the composition, production, antibodies and methods of use for IPLEX and rhIGFBP-3. In addition, foreign counterparts to the above-referenced United States patents have issued or are pending issue in the major pharmaceutical markets, such as the EU, Canada and Japan. The various issued patents related to IPLEX and rhIGFBP-3 compositions, methods of production and methods of treatment expire at various times during the years 2010 through 2019.

As part of the ongoing development of IPLEX, INSM-18 and rhIGFBP-3 we have filed or intend to file patent applications related to new production methods, improved formulations, new medical uses and new dosing regimens in the United States and in many of the major international pharmaceutical markets. As with any pending patent application, there can be no assurance that any of these applications will issue in the United States, the EU, Canada, Japan or in any other country where we decide to file for protection. There also can be no assurance that a subsequent United States or foreign patent will later be held valid and enforceable.

Table of Contents

As part of our business strategy, we plan to license intellectual property that we feel may be important to the development and commercialization of our products. The agreements that we have entered into are subject to termination upon material breach by us. Our ability to maintain licensure under these agreements is dependent on our ability to meet the obligations defined in these agreements and although we take steps to ensure compliance with the provisions of these agreements, we cannot assure that the licensors will not take dispute with our actions and will seek to terminate the agreements. We currently have the following licensing arrangements in place:

In March 2007, we were granted a license or sublicense as applicable to patents held by Tercica and Genentech to develop IPLEX in certain medical indications in the United States and foreign territories, as discussed earlier in this section;

In April 2005, we were granted a non-exclusive license to certain proprietary manufacturing technology from Avecia Limited;

In January 2004, we were granted a non-exclusive license to patent rights pertaining to the use of IGF-1 therapy for the treatment of extreme or severe insulin resistant diabetes from Fujisawa Pharmaceutical Co., Ltd.; and

In November 1998, we were granted a non-exclusive license to certain proprietary manufacturing technology from Brookhaven Science Associates, LLC.

Reflecting our commitment to safeguarding proprietary information, we require our employees and consultants to sign confidentiality agreements. Furthermore, we enter into research agreements in which we exchange proprietary materials and information with collaborators including material transfer agreements, research agreements, development agreements and clinical trial agreements. These agreements prohibit unauthorized disclosure of our proprietary information. Despite our efforts to protect our proprietary information, unauthorized parties may attempt to obtain and use our proprietary information. Policing unauthorized use of our proprietary information is difficult and the steps we have taken might not prevent misappropriation, particularly in foreign countries where the laws may not protect our proprietary rights as fully as do the laws of the United States.

We note that there has been increasing litigation in the biopharmaceutical industry with respect to the manufacture and sale of new therapeutic compounds. The validity and breadth of claims in biotechnology patents may involve complex factual and legal issues, for which no consistent policy exists. In particular, the patent protection available for protein-based drugs, such as IPLEX and rhIGFBP-3, is highly uncertain and involves issues relating to the scope of protection of claims to gene sequences and the production of their corresponding proteins.

In some cases, litigation or other proceedings may be necessary to enforce our patents or protect our know-how or other intellectual property rights. Any additional potential litigation is likely to result in a substantial cost to us and a diversion of our resources. We cannot be sure that any of our patents will ultimately be held valid. An adverse outcome in any litigation or proceeding could subject us to significant liability.

Third Party Patents

Third parties hold United States and foreign patents possibly directed to the composition, production and use of rhIGF-1, rhIGFBP-3, IPLEX and recombinant proteins generally. Novartis AG and Chiron Corporation have rights to United States and foreign patents relating to the use of IGF-1 for the treatment of type 1 diabetes, and Novartis owns United States and foreign patents relating to the treatment of osteoporosis with IGF-1. We do not believe these patents prevent us from pursuing our plans to commercialize IPLEX and rhIGFBP-3.

We can provide no assurance, however, that a third party will not assert a contrary position in the future, for instance in the context of an infringement action. Likewise, we cannot predict with certainty the outcome of such a proceeding. In the event of a successful claim against us for infringement or misappropriation of a third party's proprietary rights, we may be required to:

pay damages, including up to treble damages and the other party's attorneys' fees, which may be substantial;

Table of Contents

cease the development, manufacture, marketing and sale of products that infringe the proprietary rights of others;

expend significant resources to redesign our product so that it does not infringe the proprietary rights of others;

develop or acquire non-infringing proprietary rights, which may not be possible and would require additional clinical trials and regulatory approvals;

redesign our product to avoid infringing on third party proprietary rights, which may result in significant regulatory delays associated with conducting additional clinical trials or other steps to obtain regulatory approval; and

obtain one or more licenses from third parties for the infringed proprietary rights, which may not be available to us on acceptable terms or at all.

Furthermore, litigation with any third party, even if the allegations are without merit, would likely be expensive and time-consuming and divert management's attention.

Any conclusions regarding non-infringement and invalidity are based in part on a review of publicly available databases and other information. There may be information not available to us or otherwise not reviewed by us that might change our conclusions. Moreover, the scope and validity of patent claims are determined based on many facts and circumstances, and in a litigation, a court may reach a different conclusion on any given patent claim than the conclusions that we have reached.

We have recently settled patent infringement litigation brought against us by Tercica and Genentech. As part of the settlement agreement, we entered into a Consent Judgment and Permanent Injunction in the United States District Court for the Northern District of California. If our settlement agreement with Tercica and Genentech is terminated, the Consent Judgment and Permanent Injunction against us will survive termination, which would have a material adverse effect on our business, financial condition and results of operations.

COMPETITION

We are engaged in an industry that is intensely competitive and characterized by rapid technological progress. For all of our product candidates, we face significant competition from biotechnology, large pharmaceutical and other companies, universities and research institutions. Most of these companies and institutions have substantially greater capital resources, research and development staffs, facilities and experience in conducting clinical studies and obtaining regulatory approvals. In addition, many of these companies have greater experience and expertise than we do in manufacturing and marketing pharmaceutical products.

We cannot predict the relative competitive position of our product candidates if they are approved for use. However, we expect that the following factors will determine our ability to compete effectively: safety, efficacy, product price, ease of administration and marketing and sales capability.

According to the Pharmaceutical Research and Manufacturers of America, PTC Therapeutics, Asklepios Biopharmaceutical Inc., Wyeth and Schering-Plough/Key Pharmaceutical all have potential products listed as in development in the United States for various forms of muscular dystrophy. IPLEX is the only potential product listed as being in development for treatment of MMD. In addition to these programs, we are aware that AVI Biopharma, Cephalon and Transgene all have products in development for various types of muscular dystrophy. We are also aware that rh IGF-I has been shown in a small clinical study to have positive effects in patients with MMD and that Nifendipine, Coenzyme Q10, DHEA-S and a low dose Metformin have all been investigated for the treatment of MMD, however we are unaware of any formal development programs to pursue this indication for these drugs:

Table of Contents

Growth hormone may also be a competitive product for the treatment of some indications that we may pursue with IPLEX, such as HARS. The major suppliers of commercially available growth hormone are Genentech, Eli Lilly, Novo Nordisk, Pfizer and Serono. For example, we are aware that Serono is seeking regulatory approval for its growth hormone, Serostim, for the treatment of HARS, and that Theratechnologies is conducting Phase III studies for a growth hormone releasing agonist for the treatment of HARS.

Many companies are pursuing the development of products for the treatment of cancer. Our competitors include multinational pharmaceutical companies, specialized biotechnology firms, universities and other research institutions. Although we are unaware of any companies developing rhIGFBP-3 for cancer, we are aware of companies who are developing products that are intended to target the same IGF-1 pathway targeted by INSM-18 and rhIGFBP-3. These companies include ImClone, Amgen, OSI Pharmaceuticals, Bristol-Meyer Squibb and Genentech.

It is possible that there are other companies with products currently in development or that exist on the market that may compete directly with IPLEX, INSM-18 and rhIGFBP-3.

GOVERNMENT REGULATION

Government authorities in the United States and other countries extensively regulate the research, development, testing, manufacture, promotion, marketing and distribution of drug products. Drugs are subject to rigorous regulation by the FDA and similar regulatory bodies in other countries. If we do not comply with applicable requirements, we may be fined, the government may refuse to approve our marketing applications or allow us to manufacture or market our products, and we may be criminally prosecuted.

We and our manufacturers may also be subject to regulations under other federal, state, and local laws, including the Occupational Safety and Health Act, the Environmental Protection Act, the Clean Air Act and import, export and customs regulations.

FDA Approval Process

The steps ordinarily required before a new drug may be marketed in the United States are similar to steps required in many other countries. The process required by the FDA before a new drug may be marketed in the United States generally involves the following: completion of preclinical laboratory testing, submission of an Investigational New Drug Application, or IND, which must become effective before human clinical studies may begin, performance of adequate and well-controlled human clinical studies to establish the safety and efficacy of the proposed drug for its intended use and submission and approval of a New Drug Application, or NDA, by the FDA.

Preclinical tests include laboratory evaluation of product chemistry and stability, as well as animal studies to evaluate toxicity before a drug is administered to human subjects. The results of preclinical testing are submitted to the FDA as part of an IND. The FDA requires a 30-day waiting period after the submission of each IND before beginning clinical tests in humans. At any time during this 30-day period or at any time thereafter, the FDA may order the partial, temporary or permanent discontinuation of a clinical trial or impose other sanctions if the FDA believes that the clinical trial is not being conducted in accordance with FDA requirements or presents an unacceptable risk to the clinical trial patients. Clinical studies must be conducted in accordance with the FDA's good clinical practices requirements. The IND process may become extremely costly and substantially delay development of our products. Moreover, positive results of preclinical tests are not necessarily indicative of similar results in clinical trials.

Clinical studies to support NDA approval are typically conducted in three sequential phases, but the phases may overlap. In Phase I clinical studies, the product is tested in a small number of patients or healthy volunteers, primarily for safety at one or more doses and to assess pharmacokinetics. In Phase II clinical studies, in addition to safety, the sponsor evaluates the efficacy of the product on targeted indications, identifies possible adverse effects

Table of Contents

and safety risks in a patient population, and assesses dose tolerance and optimal dose range. If a compound is found to be potentially effective and to have an acceptable safety profile in Phase II studies, Phase III studies, also referred to as pivotal studies, are undertaken. Phase III clinical studies typically involve testing for safety and clinical efficacy in an expanded patient population at geographically-dispersed study sites.

After completion of the required clinical testing, an NDA is submitted. An NDA contains the results of the preclinical and clinical studies, together with, among other things, detailed information on the manufacture and composition of the product and proposed labeling, including payment of a user fee. The FDA may request additional information before accepting an NDA for filing, in which case the application must be resubmitted with the additional information. During its review of an NDA, the FDA may refer the application to an appropriate advisory committee for review, evaluation and recommendation as to whether the application should be approved. The FDA is not bound by the recommendation of an advisory committee.

Under the policies agreed to by the FDA under the Prescription Drug User Fee Act, or the PDUFA, the FDA has ten months in which to complete its initial review of a standard NDA and respond to the applicant, and six months to initially review and respond to a priority NDA. Standard NDA status or priority NDA status are based on several factors identified by the FDA including for example, whether the drug product, if approved, would be a significant improvement compared to marketed products in the treatment, diagnosis, or prevention of a disease. The review process and the PDUFA goal date may be extended by three months if the FDA requests, or the NDA sponsor otherwise submits, a major amendment containing additional information or clarification regarding information already provided in the submission within the last three months of the PDUFA goal date.

If the FDA's evaluations of the NDA and the clinical and manufacturing procedures and facilities are favorable, the FDA may issue either an approval letter or an approvable letter, which contains the conditions that must be met in order to secure final approval of the NDA. If and when those conditions have been met to the FDA's satisfaction, the FDA will issue an approval letter, authorizing commercial marketing of the drug for certain approved indications. In addition, an approval letter may contain various post-marketing commitments or agreements, which are often referred to as Phase IV studies. If the FDA's evaluation of the NDA submission and the clinical and manufacturing procedures and facilities is not favorable, the FDA may refuse to approve the NDA and issue a not approvable letter.

The manufacturers of approved products and their manufacturing facilities are subject to continual review and periodic inspections. Because we intend to contract with third parties for manufacturing of these products, our control of compliance with FDA requirements may be incomplete. In addition, identification of certain side effects or the occurrence of manufacturing problems after any of our drugs are on the market could cause subsequent product recall, discontinuance, or withdrawal of approval, reformulation of the drug, additional preclinical testing or clinical studies and labeling changes.

The FDA's policies may change, and additional government regulations may be enacted that could prevent or delay regulatory approval for our products. We cannot predict the likelihood, nature or extent of adverse governmental regulation that might arise from future legislative or administrative action, either in the United States or abroad.

The Hatch-Waxman Act

The Drug Price Competition and Patent Term Restoration Act of 1984, or Hatch-Waxman Act, amended the Federal Food, Drug, and Cosmetic Act. Under the Hatch-Waxman Act, newly-approved drugs and indications may benefit from a statutory period of non-patent marketing exclusivity. The Hatch-Waxman Act provides five year marketing exclusivity to the first applicant to gain approval of an NDA for a new chemical entity, meaning that the FDA has not previously approved any other new drug containing the same active moiety. However, in the case of a combination drug containing a new chemical entity and a non-new chemical entity, five year exclusivity does not attach to the new chemical entity. The Hatch-Waxman Act prohibits the submission of an Abbreviated NDA, or ANDA, for a generic drug, or a Section 505(b)(2) NDA for another version of such drug during the five year exclusive period. However, the submission of an ANDA or Section 505(b)(2) NDA containing a paragraph IV certification claiming that a patent listed in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations, or Orange Book, for the drug is invalid or will not be infringed by the manufacture, use or sale of the

Table of Contents

new product is permitted after four years. The submission of a paragraph IV certification may trigger a 30-month stay of approval of the ANDA or Section 505(b)(2) NDA. Protection under Hatch-Waxman will not prevent the submission or approval of another full NDA; however, the applicant would be required to conduct its own preclinical and adequate and well-controlled clinical studies to demonstrate safety and effectiveness. The Hatch-Waxman Act also provides three years of marketing exclusivity for the approval of new and supplemental NDAs, for, among other things, new indications, dosage forms, or strengths of an existing drug, if new clinical investigations that were conducted or sponsored by the applicant are essential to the approval of the application.

IPLEX is currently protected by three year exclusivity period for the treatment of severe primary IGF deficiency, which expires on December 12, 2008. This exclusivity runs concurrently with a seven year period of orphan drug exclusivity, which prevents the FDA from approving another marketing application for the same drug for the same indication, except in the limited circumstances described below. In addition, the FDA's Orange Book publication lists two patents covering IPLEX to which a generic applicant must certify.

Orphan Drug Designation and Exclusivity

Some jurisdictions, including the EU and the United States, may designate drugs for relatively small patient populations as orphan drugs. The FDA grants orphan drug designation to drugs intended to treat a rare disease or condition that affects fewer than 200,000 individuals in the United States or more than 200,000 individuals in the United States and for which there is no reasonable expectation that the cost of developing and making available in the United States a drug for this type of disease or condition will be recovered from sales in the United States for that drug. In the United States, orphan drug designation must be requested before submitting an application for marketing approval. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process. If a product that has orphan drug designation subsequently receives the first FDA approval for the indication for which it has such designation, the product is entitled to orphan drug exclusivity, which means the FDA may not approve any other application to market the same drug for the same indication for a period of seven years, except in limited circumstances, such as a showing of clinical superiority (superior efficacy, safety, or a major contribution to patient care) to the product with orphan drug exclusivity. Also, competitors may receive approval of different drugs or biologics for the indications for which the orphan drug has exclusivity.

We have received orphan designation for IPLEX for the treatment of extreme insulin resistance. We also intend to file for orphan drug designation for other indications that meet the criteria for orphan drug designation. If the FDA designates the drug and approves our marketing application, or approves marketing applications under current designations, we will be granted seven years of orphan drug exclusivity for the drug for the designated indication. Obtaining FDA approval to market a product with orphan drug exclusivity may not provide us with a material commercial advantage.

Under EU medicine laws, the criteria for designation as an orphan medicine are similar but somewhat different from those in the United States. A drug is designated as an orphan drug if the sponsor can establish that the drug is intended for a life-threatening or chronically debilitating condition affecting no more than five in 10,000 persons in the EU or that is unlikely to be profitable, and if there is no approved satisfactory treatment or if the drug would be a significant benefit to those persons with the condition. Orphan medicines are entitled to ten years of market exclusivity, except under certain limited circumstances comparable to United States law. During this period of market exclusivity, no similar product, whether or not supported by full safety and efficacy data, will be approved unless a second applicant can establish that its product is safer, more effective or otherwise clinically superior. This period may be reduced to six years if the conditions that originally justified orphan drug designation change or the sponsor makes excessive profits. We have obtained orphan medicine designation in the EU for IPLEX for the treatment of extreme insulin resistance.

Other Regulatory Requirements

We may also be subject to a number of post-approval regulatory requirements. If we seek to make certain changes to an approved product, such as promoting or labeling a product for a new indication, making certain manufacturing changes or product enhancements or adding labeling claims, we will need FDA review and approval before the change can be implemented. While physicians may use products for indications that have not been

Table of Contents

approved by the FDA, we may not label or promote the product for an indication that has not been approved. Securing FDA approval for new indications or product enhancements and, in some cases, for manufacturing and labeling claims, is generally a time-consuming and expensive process that may require us to conduct clinical studies under the FDA's IND regulations. Even if such studies are conducted, the FDA may not approve any change in a timely fashion, or at all. In addition, adverse experiences associated with use of the products must be reported to the FDA, and FDA rules govern how we can label, advertise or otherwise commercialize our products.

Outside the United States, our ability to market our products will also depend on receiving marketing authorizations from the appropriate regulatory authorities. The requirements governing the conduct of clinical studies and marketing authorization vary widely from country to country. The foreign regulatory approval process includes risks similar to those associated with FDA approval described above.

EMPLOYEES

At December 31, 2006, we had 157 employees, including 18 in research and development, 41 in regulatory, clinical and quality assurance, 46 in manufacturing, 22 in finance and administration and 27 in sales and marketing.

As a result of our restructuring, announced on March 7, 2007, we eliminated our sales and marketing group and downsized our manufacturing capability. Following the restructuring, as of March 9, 2007, we have 100 employees, including 13 in research and development, 34 in regulatory, clinical and quality assurance, 32 in manufacturing and 21 in finance and administration.

Our continued success will depend in large measure on our ability to attract and retain highly skilled employees who are in great demand. None of our employees are represented by a labor union and we believe that our relations with our employees are generally good.

We only operate in one segment as described in Note 1 to our consolidated financial statements.

ITEM 1A. RISK FACTORS

Our operating results and financial condition have varied in the past and may in the future vary significantly depending on a number of factors. Except for the historical information in this report, the matters contained in this report include forward-looking statements that involve risks and uncertainties. The following factors, among others, could cause actual results to differ materially from those contained in forward-looking statements made in this report and presented elsewhere by management from time to time. Such factors, among others, may have a material adverse effect upon our business, results of operations and financial condition.

In Item 1A (Risk Factors) of our Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2006, which was filed with the Securities and Exchange Commission on November 8, 2006, we describe risk factors related to the Company. Our updated risk factors are included below in this Item 1A.

You should consider carefully the following risk factors, together with all of the other information included in this annual report on Form 10-K. Each of these risk factors could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our common stock.

RISKS RELATED TO OUR BUSINESS

We will need additional funds in the future to continue our operations, but we face uncertainties with respect to our access to capital that could materially adversely impact our business, financial condition and results of operations.

We will require substantial future capital in order to implement our revised business plan with a renewed focus on research and development activities. As of December 31, 2006, we had \$24.1 million of cash on hand, which we believe is sufficient to fund our activities into the fourth quarter of 2007. However, our future capital requirements will depend on many factors, including factors associated with:

research and development, including, among other items, preclinical testing and clinical studies,

Table of Contents

process development;

obtaining marketing, sales and distribution capabilities;

obtaining regulatory approvals;

retaining employees and consultants;

filing and prosecuting patent applications and enforcing patent claims;

establishing strategic alliances;

manufacturing; and

potential future litigation.

We may also need to spend more money than currently expected because we may further change our alter drug development plans, acquire additional drugs or product candidates or we may misjudge our costs. We have no committed sources of capital and do not know whether additional financing will be available when needed, or, if available, that the terms will be favorable. There can be no assurance that our cash reserves together with any subsequent funding will satisfy our capital requirements. The failure to satisfy our capital requirements will adversely affect our business, financial condition and results of operations. Our independent registered public accounting firm has expressed their view that there are material uncertainties which cast significant doubt upon our ability to continue as a going concern. The addition of this going concern disclosure may discourage investors from purchasing our stock.

We may seek additional funding through strategic alliances, private or public sales of our securities or licensing all or a portion of our technology. Such funding may significantly dilute existing shareholders or may limit our rights to our currently developing technology. There can be no assurance, however, that we can obtain additional funding on reasonable terms, or at all. If we cannot obtain adequate funds, we may need to significantly curtail our product development programs and relinquish rights to our technologies or product candidates. This may adversely affect our business, financial condition and results of operations.

We have not completed the research and development stage of any of our product candidates. If we are unable to successfully commercialize our products, it will materially adversely affect our business, financial condition and results of operations.

Our long-term viability and growth depend on the successful commercialization of products which lead to revenue and profits. Pharmaceutical product development is an expensive, high risk, lengthy, complicated, resource intensive process. In order to succeed, among other things, we must be able to:

identify potential drug product candidates;

design and conduct appropriate laboratory, preclinical and other research;

submit for and receive regulatory approval to perform clinical studies;

Edgar Filing: INSMED INC - Form 10-K

design and conduct appropriate preclinical and clinical studies according to good laboratory and good clinical practices;

select and recruit clinical investigators;

Table of Contents

select and recruit subjects for our studies;

collect, analyze and correctly interpret the data from our studies;

submit for and receive regulatory approvals for marketing; and

manufacture the drug product candidates according to current good manufacturing practices.

The development program with respect to any given product will take many years and thus delay our ability to generate profits. In addition, potential products that appear promising at early stages of development may fail for a number of reasons, including the possibility that the products may require significant additional testing or turn out to be unsafe, ineffective, too difficult or expensive to develop or manufacture, too difficult to administer, or unstable.

In order to conduct the development programs for our products we must, among other things, be able to successfully:

raise sufficient money and pay for product development;

attract and retain appropriate personnel; and

develop relationships with other companies to perform various development activities that we are unable to perform.

Even if we are successful in developing and obtaining approval for our product candidates, there are numerous circumstances that could prevent the successful commercialization of the products such as:

the regulatory approvals of our products are delayed or we are required to conduct further research and development of our products prior to receiving regulatory approval;

we are unable to build a sales and marketing group to successfully launch and sell our products;

we are unable to raise the additional funds needed to successfully develop and commercialize our products or acquire additional products for growth;

we are required to allocate available funds to litigation matters;

we are unable to manufacture the quantity of product needed in accordance with current good manufacturing practices to meet market demand, or at all;

our product is determined to be ineffective or unsafe following approval and is removed from the market or we are required to perform additional research and development to further prove the safety and effectiveness of the product before re-entry into the market;

Edgar Filing: INSMED INC - Form 10-K

competition from other products or technologies prevents or reduces market acceptance of our products;

we do not have and cannot obtain the intellectual property rights needed to manufacture or market our products without infringing on another company's patents;

we are unsuccessful in defending against patent infringement claims being brought against us our products or technologies; or

we are unable to obtain reimbursement for our product or such reimbursement may be less than is necessary to produce a reasonable profit.

Table of Contents

Our growth strategy includes the commercialization of more than one product. We may not be able to identify and acquire complementary products, businesses or technologies and if acquired or licensed, they might not improve our business, financial condition or results of operations.

The failure to successfully acquire, develop and commercialize products will adversely affect our business, financial condition and results of operations.

Since we have a limited operating history, a history of operating losses and an expectation that we will generate operating losses for the foreseeable future, we may not achieve profitability for some time, if at all.

We are focused on the development and commercialization of product candidates for the treatment of metabolic and endocrine disorders with unmet medical needs. We have incurred losses each year of operation and we expect to continue incurring operating losses for the foreseeable future. The process of developing and commercializing our products requires significant preclinical testing and clinical trials as well as regulatory approvals for commercialization and marketing before we were allowed to begin product sales. In addition, commercialization of our product candidates requires us to establish a sales and marketing organization and contractual relationships to enable product manufacturing and other related activities. We expect that these activities, together with our general and administrative expenses, will result in substantial operating losses for the foreseeable future. As of December 31, 2006, our accumulated deficit was \$310.8 million and our consolidated net loss was \$56.1 million.

We currently have three product candidates, IPLEX, rhIGFBP-3 and INSM-18. IPLEX is currently in a Phase II development for the treatment of MMD, and HARS and Phase I/II development for the treatment of ROP. Our second compound, rhIGFBP-3, is currently in Phase I development our third compound, INSM-18, is about to enter Phase II development for the treatment of patients with refractory prostate cancer. Other clinical studies with these compounds are contemplated.

If our products fail in preclinical or clinical trials or if we cannot enroll enough patients to complete our clinical trials, such failure may adversely affect our business, financial condition and results of operations.

In order to sell our products, we must receive regulatory approval. Before obtaining regulatory approvals for the commercial sale of any of our products under development, we must demonstrate through preclinical studies and clinical trials that the product is safe and effective for use in each target indication. In addition, the results from preclinical testing and early clinical trials may not be predictive of results obtained in later clinical trials. There can be no assurance that our clinical trials will demonstrate sufficient safety and effectiveness to obtain regulatory approvals for our products still in development. A number of companies in the biotechnology and pharmaceutical industries have suffered significant setbacks in late stage clinical trials even after promising results in early stage development. If our developmental products fail in preclinical or clinical trials, it will have an adverse effect on our business, financial condition and results of operations.

All of our lead product candidates, IPLEX, rhIGFBP-3 and INSM-18, are currently in or have currently completed clinical trials. IPLEX is currently in a Phase II clinical study for the treatment of MMD, a Phase II clinical trial for the treatment of HARS and a Phase I/II clinical trial for the treatment of ROP. Our second compound, rhIGFBP-3, is currently in a Phase I clinical study of breast cancer. A Phase I/II clinical trial of our third compound, INSM-18, in patients with refractory prostate cancer has recently been completed. Other clinical studies with these compounds are contemplated.

The completion rate of clinical studies of our products is dependent on, among other factors, the patient enrollment rate. Patient enrollment is a function of many factors, including:

investigator identification and recruitment;

regulatory approvals to initiate study sites;

patient population size;

Table of Contents

the nature of the protocol to be used in the trial;

patient proximity to clinical sites;

eligibility criteria for the study; and

competition from other companies' clinical studies for the same patient population.

We believe our planned procedures for enrolling patients are appropriate; however, delays in patient enrollment would increase costs and delay ultimate commercialization and sales, if any, of our products. Such delays could materially adversely affect our business, financial condition and results of operations.

We may be required to conduct broad, long-term clinical trials to address concerns that the long-term use of one of our leading products, IPLEX, in broader chronic indications might increase the risk of diabetic retinopathy. This may materially adversely affect our business, financial condition and results of operations.

In previously published clinical trials of rhIGF-I, concerns were raised that long-term use of rhIGF-I might lead to an increased incidence and/or severity of retinopathy, a disease of new blood vessel growth in the eye which results in loss of vision. Because IPLEX contains rhIGF-I, the FDA may require us to conduct broad, long-term clinical trials to address these concerns prior to receiving FDA approval for broad chronic indications such as diabetes. These clinical trials would be expensive and could delay our commercialization of IPLEX for these broader chronic indications. Adverse results in these trials could prevent our commercialization of IPLEX for broad chronic indications or could jeopardize existing development in other indications.

We cannot be certain that we will obtain regulatory approvals in the United States, EU or other countries. The failure to obtain such approvals may materially adversely affect our business, financial condition and results of operations.

We are required to obtain various regulatory approvals prior to studying our products in humans and then again before we market and distribute our products. The regulatory review and approval process required to perform a clinical study in both the United States and EU includes evaluation of preclinical studies and clinical studies, as well as the evaluation of our manufacturing process. This process is complex, lengthy, expensive, resource intensive and uncertain. Securing regulatory approval to market our products also requires the submission of extensive preclinical and clinical data, manufacturing information regarding the process and facility, scientific data characterizing our product and other supporting data to the regulatory authorities in order to establish its safety and effectiveness. This process is also complex, lengthy, expensive, resource intensive and uncertain. We have limited experience in filing and pursuing applications necessary to gain these regulatory approvals.

Data submitted to the regulators is subject to varying interpretations that could delay, limit or prevent regulatory agency approval. We may also encounter delays or rejections based on changes in regulatory agency policies during the period in which we develop a product and the period required for review of any application for regulatory agency approval of a particular product. Delays in obtaining regulatory agency approvals could adversely affect the development and marketing of any drugs that we or our collaborative partners develop. Such delays could impose costly procedures on our collaborative partners or our activities, diminish any competitive advantages that our collaborative partners or we may attain and adversely affect our ability to receive royalties, any of which could materially adversely affect our business, financial condition and results of operations.

In order to market our products outside of the United States and EU territories, our corporate partners and we must comply with numerous and varying regulatory requirements of other countries. The approval procedures vary among countries and can involve additional product testing and administrative review periods. The time required to obtain approval in these other territories might differ from that required to obtain FDA or European Agency for the Evaluation of Medicinal Products, or EMEA, approval. The regulatory approval process in these other territories includes at least all of the risks associated with obtaining FDA and EMEA approval detailed above. Approval by the FDA or the EMEA does not ensure approval by the regulatory authorities of other countries. The failure to obtain such approvals may materially adversely affect our business, financial condition and results of operations.

Table of Contents

We may not be able to manufacture sufficient quantities of our products to meet our supply and clinical studies obligations, which may adversely affect our business, financial condition and results of operations.

We intend to manufacture IPLEX and rhIGFBP-3 bulk drug substance and perform the majority of analytical testing at our manufacturing facility in Boulder, Colorado and utilize contract manufacturers for sterile filtering, filling, finishing, labeling and some analytical testing. We intend to manufacture INSM-18 with contract manufacturers.

The available capacity for the manufacture and testing of recombinant proteins that comprise our products is limited. A shutdown or disruption at our manufacturing facility whether due to technical, regulatory, force majeure, or other problems, resulting in an interruption in supply of these materials, could delay our development activities and adversely impact our business, financial condition and results of operations.

The number of contract manufacturers with the expertise and facilities to manufacture our products is extremely limited and it would take a significant amount of time and resources to arrange for alternative manufacturers. Even if we were to find alternative manufacturers, the prices they charge may not be commercially reasonable or may only be able to provide our products in a quantity that is less than our needs. Furthermore, if we need to change to other contract manufacturers, we would also need to transfer to these new manufacturers and validate the processes and analytical methods necessary for the production and testing of our products. Any of these factors could lead to (1) the delay or suspension of our clinical studies, regulatory submissions and regulatory approvals, or (2) higher costs of production, or (3) our failure to effectively commercialize our products.

Our manufacturing facility and the facilities of contract manufacturers will be subject to ongoing periodic inspections by the FDA and the EMEA for compliance with cGMP regulations. In the event these facilities do not continue to receive satisfactory cGMP inspections for the manufacture and testing of our products, we may need to fund additional modifications to our manufacturing or testing processes, conduct additional validation studies, or find alternative manufacturing and testing facilities, any of which would result in significant cost to us as well as a significant delay of up to several years in the development of our products.

If our products fail to achieve market acceptance for any reason, such failure may materially adversely affect our business, financial condition and results of operations.

There can be no assurance that any of our product candidates if approved for marketing, will achieve market acceptance. If our product candidates, once approved, do not receive market acceptance for any reason, it will adversely affect our business, financial condition and results of operations. The degree of market acceptance of any drugs we develop will depend on a number of factors, including:

the establishment and demonstration in the medical community of the clinical efficacy and safety of our products;

our products' potential advantages over existing and future treatment methods;

Table of Contents

the price of our products; and

reimbursement policies of government and third party payers, including hospitals and insurance companies.

For example, even after we obtain regulatory approval to sell our products, physicians and healthcare payers could conclude that our products are not safe and effective and physicians could choose not to use them to treat patients. Our competitors may also develop new technologies or products which are more effective or less costly, or that seem more cost-effective than our products.

In addition, legislation and regulations affecting the pricing of pharmaceuticals may change in ways adverse to us. While we cannot predict the likelihood of any legislative or regulatory proposals, if the government or an agency adopts such proposals, they could materially adversely affect our business, financial condition and results of operations.

We are dependent upon retaining and attracting key personnel and others, the loss of which could materially adversely affect our business, financial condition and results of operations.

We depend highly on the principal members of our scientific and management staff, the loss of whose services might significantly delay or prevent the achievement of research, development or business objectives and would materially adversely affect our business, financial condition and results of operations. Our success depends, in large part, on our ability to attract and retain qualified management, scientific and medical personnel, and on our ability to develop and maintain important relationships with commercial partners, leading research institutions and key distributors. We face intense competition for such personnel and relationships. We cannot assure that we will attract and retain such persons or maintain such relationships.

We expect that our potential expansion into areas and activities requiring additional expertise, such as further clinical trials, governmental approvals, manufacturing, sales, marketing and distribution will place additional requirements on our management, operational and financial resources. We expect these demands will require an increase in management and scientific personnel and the development of additional expertise by existing management personnel. The failure to attract and retain such personnel or to develop such expertise could materially adversely affect our business, financial condition and results of operations.

We rely on collaborative relationships for our success. If we are unable to form these relationships it could materially adversely impact our business, financial condition and results of operations.

We currently rely and may in the future rely on a number of significant collaborative relationships for intellectual property rights, research funding, manufacturing, analytical services, preclinical development, clinical development and sales and marketing. For example, almost all of our clinical trial work is done in collaboration with academic institutions and we have licensed intellectual property to permit the development, manufacture and commercialization of our products. Reliance on collaborative relationships poses a number of risks, including the following:

we may not be able to effectively control whether our corporate partners will devote sufficient resources to our programs or products;

disputes may arise in the future with respect to the ownership of rights to technology developed with, licensed to or licensed from corporate partners;

disagreements with corporate partners could result in loss of intellectual property rights, delay or terminate the research, development or commercialization of product candidates or result in litigation or arbitration;

contracts with our corporate partners may fail to provide sufficient protection for our intellectual property;

we may have difficulty enforcing the contracts if one of these partners fails to perform;

Table of Contents

corporate partners have considerable discretion in electing whether to pursue the development of any additional products and may pursue technologies or products either on their own or in collaboration with our competitors; and

corporate partners with marketing rights may choose to devote fewer resources to the marketing of our products than they do to products of their own development.

Given these risks, a great deal of uncertainty exists regarding the success of our current and future collaborative efforts. Failure of these efforts could delay, impair or prevent the development and commercialization of our products and adversely affect our business, financial condition and results of operations.

Our growth strategy includes acquiring complementary businesses or technologies that may not be available or, if available and purchased or licensed, might not improve our business, financial condition or results of operations.

As part of our business strategy, we expect to pursue acquisitions and in-license new products and technologies. Nonetheless, we cannot assure you that we will identify suitable acquisitions or products or that we can make such acquisitions or enter into such license agreements on acceptable terms. If we acquire businesses, those businesses may require substantial capital, and we cannot provide assurance that such capital will be available in sufficient amounts or that financing will be available in amounts and on terms that we deem acceptable. Furthermore, the integration of acquired businesses may result in unforeseen difficulties that require a disproportionate amount of management's attention and our other resources. Finally, we cannot provide assurance that we will achieve productive synergies and efficiencies from these acquisitions.

We intend to conduct proprietary development programs with collaborators, and any conflicts with them could harm our business, financial condition and results of operations. We intend to enter into collaborative relationships which will involve our collaborator conducting proprietary development programs. Any conflict with our collaborators could reduce our ability to obtain future collaboration agreements and negatively influence our relationship with existing collaborators, which could reduce our revenues and have an adverse effect on our business, financial condition and results of operations. Moreover, disagreements with our collaborators could develop over rights to our intellectual property.

Certain of our collaborators could also be or become competitors. Our collaborators could harm our product development efforts by:

developing competing products;

precluding us from entering into collaborations with their competitors;

failing to obtain regulatory approvals;

terminating their agreements with us prematurely; or

failing to devote sufficient resources to the development and commercialization of products.

We may not accurately predict the protection afforded by our patents and proprietary technology and if our predictions are wrong, this may materially adversely affect our business, financial condition and results of operations.

Our success will depend in part on our ability to obtain patent protection for our products, prevent third parties from infringing on our patents, and refrain from infringing on the patents of others, both domestically and internationally.

Our patent positions are highly uncertain, and any future patents we receive for our potential products will be subject to this uncertainty, which may adversely affect our business, financial condition and results of operations. We intend to actively pursue patent protection for products resulting from our research and development activities that have significant potential commercial value. Nevertheless, it is possible that, in the patent application process,

Table of Contents

certain claims may be rejected or achieve such limited allowance that the value of the patents would be diminished. Further, there can be no assurance that any patents obtained will afford us adequate protection. In addition, any patents we procure may require cooperation with companies holding related patents. We may have difficulty forming a successful relationship with these other companies.

Third parties may claim that we are infringing upon or have misappropriated their proprietary rights. Various third parties have obtained, and are attempting to obtain, patent protection relating to the production and use of our approved product and product candidates. We can give no assurances as to whether any issued patents, or patents that may later issue to third parties, would affect our product candidates. We can give no assurances that such patents can be avoided, invalidated or licensed. With respect to any infringement claim asserted by a third party, we can give no assurances that we will be successful in the litigation or that such litigation would not have a material adverse effect on our business, financial condition and results of operation. In the event of a successful claim against us for infringement or misappropriation of a third party's proprietary rights, we may be required to:

pay damages, including up to treble damages, and the other party's attorneys' fees, which may be substantial;

cease the development, manufacture, marketing and sale of products or use of processes that infringe the proprietary rights of others;

expend significant resources to redesign our products or our processes so that they do not infringe the proprietary rights of others, which may not be possible;

redesign our products or processes to avoid third party proprietary rights, which may cause us to suffer significant regulatory delays associated with conducting additional clinical trials or other steps to obtain regulatory approval; and

obtain one or more licenses arising out of a settlement of litigation or otherwise from third parties for the infringed proprietary rights, which may not be available to us on acceptable terms or at all.

Furthermore, litigation with any third party, even if the allegations are without merit, would likely be expensive and time-consuming and divert management's attention.

Any conclusions we may have reached regarding non-infringement and invalidity are based in part on a review of publicly available databases and other information. There may be information not available to us or otherwise not reviewed by us that might change our conclusions. Moreover, as described above, the scope and validity of patent claims are determined based on many facts and circumstances, and in a litigation, a court may reach a different conclusion on any given patent claim than the conclusions that we have reached.

In addition, we may have to undertake costly litigation to enforce any patents issued or licensed to us or to determine the scope and validity of another party's proprietary rights. We can give no assurances that a court of competent jurisdiction would validate our issued or licensed patents. An adverse outcome in litigation or an interference or other proceeding in a court or patent office could materially adversely affect our business, financial condition and results of operations.

We operate in a highly competitive environment and if we are unable to adapt to our environment, we may be unable to compete successfully, which will materially adversely affect our business, financial condition and results of operations.

Biotechnology and related pharmaceutical technology have undergone and should continue to experience rapid and significant change. We expect that the technologies associated with biotechnology research and development will continue to develop rapidly. Our future success will depend in large part on our ability to maintain a competitive position with respect to these technologies. Any compounds, products or processes that we develop may become obsolete before we recover any expenses incurred in connection with their development. Rapid technological change could make our products obsolete, which could materially adversely affect our business, financial condition and results of operations.

Table of Contents

We expect that successful competition will depend, among other things, on product efficacy, safety, reliability, availability, timing and scope of regulatory approval and price. Specifically, we expect crucial factors will include the relative speed with which we can develop products, complete the clinical testing and regulatory approval processes and supply commercial quantities of the product to the market. We expect competition to increase as technological advances are made and commercial applications broaden. In each of our potential product areas, we face substantial competition from large pharmaceutical, biotechnology and other companies, universities and research institutions. Relative to us, most of these entities have substantially greater capital resources, research and development staffs, facilities and experience in conducting clinical studies and obtaining regulatory approvals, as well as in manufacturing and marketing pharmaceutical products. Many of our competitors may achieve product commercialization or patent protection earlier than us. Furthermore, we believe that our competitors have used, and may continue to use, litigation to gain a competitive advantage. Finally, our competitors may use different technologies or approaches to the development of products similar to the products we are seeking to develop.

Competitors could develop and gain FDA approval of products containing rhIGF-1, which could adversely affect our competitive position in all indications where we are currently developing IPLEX.

rhIGF-1 manufactured by other parties may be approved for use in other indications in the United States in the future, including MMD, HARS and ROP. In the event there are other rhIGF-1 products approved by the FDA to treat indications other than those covered by IPLEX, physicians may elect to prescribe a competitor's product containing rhIGF-1 to treat the indications for which IPLEX has received and may receive approval. This is commonly referred to as off-label use. While under FDA regulations a competitor is not allowed to promote off-label use of its product, the FDA does not regulate the practice of medicine and as a result cannot direct physicians as to what product containing rhIGF-1 to prescribe to their patients. As a result, we would have limited ability to prevent off-label use of a competitor's product containing rhIGF-1 to treat any diseases for which we have received FDA approval, even if it violates our patents and we have orphan drug exclusivity for the use of rhIGF-1 to treat such diseases.

If another party obtains orphan drug exclusivity for a product that is essentially the same as a product we are developing in a particular indication, we may be precluded or delayed from commercializing the product in that indication. This may materially adversely affect our business, financial condition and results of operations.

Under the Orphan Drug Act, the FDA may grant orphan drug designation to drugs intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the United States. The company that obtains the first marketing approval from the FDA for a designated orphan drug for a rare disease receives marketing exclusivity for use of that drug for the designated condition for a period of seven years. Similar laws exist in EU. If a competitor obtains approval of the same drug for the same indication or disease before us, we would be blocked from obtaining approval for our product for seven or more years, unless our product can be shown to be clinically superior. In addition, more than one drug may be approved by the FDA for the same orphan indication or disease as long as the drugs are different drugs. As a result, even if our product is approved and receives orphan drug exclusivity, as in the case of our drug IPLEX, the FDA can still approve different drugs for use in treating the same indication or disease covered by our product, which could create a more competitive market for us.

Confidentiality agreements with employees and others may not adequately prevent disclosure of trade secrets and other proprietary information. Disclosure of this information may materially adversely affect our business, financial condition and results of operations.

In order to protect our proprietary technology and processes, we rely in part on confidentiality agreements with our corporate partners, employees, consultants, outside scientific collaborators and sponsored researchers and other advisors. These agreements may not effectively prevent disclosure of confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, others may independently discover trade secrets and proprietary information. Costly and time-consuming litigation may be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business, financial condition and results of operations.

Table of Contents

Our research, development and manufacturing activities involve the use of hazardous materials, which could expose us to damages that could materially adversely affect our business, financial condition and results of operations.

Our research, development and manufacturing activities involve the controlled use of hazardous materials, including hazardous chemicals and radioactive materials. We believe that our procedures for handling hazardous materials comply with federal and state regulations; however, there can be no assurance that accidental injury or contamination from these materials will not occur. We currently maintain a general liability insurance policy that has a \$1.0 million per claim limit and also caps aggregate claims at \$2.0 million. In addition, we have an umbrella insurance policy that covers up to \$2.0 million of liability in excess of the general liability policy's \$2.0 million limit. In the event of an accident, we could be held liable for damages, which would likely exceed our insurance coverage and other available financial resources. This liability would limit our ability to commercialize IPLEX and develop other products which would materially adversely affect our business, financial condition and results of operations.

We are subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of hazardous materials and waste products. These laws and regulations may require us to incur significant costs to comply with environmental laws and regulations in the future that could materially adversely affect our business, financial condition and results of operations.

We may be subject to product liability claims if our products harm people, and we have only limited product liability insurance.

The manufacture and sale of human therapeutic products involve an inherent risk of product liability claims and associated adverse publicity. We currently have only limited product liability insurance for clinical studies and no commercial product liability insurance. We do not know if we will be able to maintain existing or obtain additional product liability insurance on acceptable terms or with adequate coverage against potential liabilities. This type of insurance is expensive and may not be available on acceptable terms. If we are unable to obtain or maintain sufficient insurance coverage on reasonable terms or to otherwise protect against potential product liability claims, we may be unable to commercialize our products. A successful product liability claim brought against us in excess of our insurance coverage, if any, may require us to pay substantial amounts. This could have a material adverse effect on our business, financial condition and results of operations.

If our settlement agreement with Tercica and Genentech is terminated, the Consent order from the court would be reinstated, which would have a material adverse effect on our business, financial condition and results of operations.

As part of our March 2007 settlement agreement with Genentech and Tercica, we entered into a Consent Judgment and Permanent Injunction in the United States District Court for the Northern District of California. If our settlement agreement with Tercica and Genentech is terminated, the Consent Judgment and Permanent Injunction against us will survive termination, which would have a material adverse effect on our business, financial condition and results of operations, as we would no longer have a license to manufacture IPLEX using the present process without incurring significant penalties and royalties.

RISKS ASSOCIATED WITH OUR STOCK

Conversion of our outstanding notes and exercise of warrants and options issued by us will significantly dilute the ownership interest of existing shareholders.

As of February 28, 2007, the convertible notes issued by us in March 2005 and the warrants issued by us in March 2005, November 2004 and July 2003 were convertible into and exercisable for up to approximately 13.8 million shares of our common stock, representing approximately 14% of our then outstanding common stock.

Table of Contents

As of February 28, 2007, our outstanding options to our employees, officers, directors and consultants were exercisable for up to 6.6 million shares of our common stock, representing approximately an additional six percent of our then outstanding common stock.

The conversion or exercise of some or all of our convertible notes, warrants and options will significantly dilute the ownership interests of existing shareholders. Any sales in the public market of the common stock issuable upon such conversion or exercise could adversely affect prevailing market prices of our common stock.

The market price of our stock has been and may continue to be highly volatile, and we do not anticipate paying any cash dividends on our common stock in the foreseeable future.

Our common stock is listed on the Nasdaq Global Market under the ticker symbol INSM. The market price of our stock has been and may continue to be highly volatile, and announcements by us or by third parties may have a significant impact on our stock price. These announcements may include:

our listing status on the Nasdaq Global Market;

results of our clinical studies and preclinical studies, or those of our corporate partners or our competitors;

our operating results;

developments in our relationships with corporate partners;

developments affecting our corporate partners;

negative regulatory action or regulatory approval with respect to our announcement or our competitors' announcements of new products,

government regulation, reimbursement changes and governmental investigation or audits related to us or to our products,

developments related to our patents or other proprietary rights or those of our competitors;

changes in the position of securities analysts with respect to our stock; and

operating results below the expectations of public market analysts and investors.

In addition, the stock market has from time to time experienced extreme price and volume fluctuations, which have particularly affected the market prices for emerging biotechnology and biopharmaceutical companies, and which have often been unrelated to their operating performance. These broad market fluctuations may adversely affect the market price of our common stock.

In the past, when the market price of a stock has been volatile, holders of that stock have often instituted securities class action litigation against the company that issued the stock. If any of our shareholders brought a lawsuit against us, we could incur substantial costs defending the lawsuit. The lawsuit could also divert the time and attention of our management.

Edgar Filing: INSMED INC - Form 10-K

Future sales by existing shareholders may lower the price of our common stock, which could result in losses to our shareholders. Future sales of substantial amounts of common stock in the public market, or the possibility of such sales occurring, could adversely affect prevailing market prices for our common stock or our future ability to raise capital through an offering of equity securities. Substantially all of our common stock is freely tradable in the public market without restriction under the Securities Act, unless these shares are held by affiliates of our company, as that term is defined in Rule 144 under the Securities Act.

Table of Contents

We have never paid dividends on our common stock. We currently intend to retain our future earnings, if any, to fund the development and growth of our businesses and, therefore, we do not anticipate paying any cash dividends in the foreseeable future.

Certain provisions of Virginia law, our articles of incorporation and our amended and restated bylaws, and our Rights Plan make a hostile takeover by a third party difficult.

Certain provisions of Virginia law and our articles of incorporation and amended and restated bylaws could hamper a third party's acquisition of, or discourage a third party from attempting to acquire control of us. The conditions could also limit the price that certain investors might be willing to pay in the future for shares of our common stock. These provisions include:

a provision allowing us to issue preferred stock with rights senior to those of the common stock without any further vote or action by the holders of the common stock. The issuance of preferred stock could decrease the amount of earnings and assets available for distribution to the holders of common stock or could adversely affect the rights and powers, including voting rights, of the holders of the common stock. In certain circumstances, such issuance could have the effect of decreasing the market price of the common stock;

the existence of a staggered board of directors in which there are three classes of directors serving staggered three-year terms, thus expanding the time required to change the composition of a majority of directors and perhaps discouraging someone from making an acquisition proposal for us;

the amended and restated bylaws' requirement that shareholders provide advance notice when nominating our directors;

the inability of shareholders to convene a shareholders' meeting without the chairman of the board, the president or a majority of the board of directors first calling the meeting; and

the application of Virginia law prohibiting us from entering into a business combination with the beneficial owner of 10% or more of our outstanding voting stock for a period of three years after the 10% or greater owner first reached that level of stock ownership, unless we meet certain criteria.

In addition, in May 2001, our board of directors approved the adoption of a Rights Plan under which shareholders received rights to purchase new shares of preferred stock if a person or group acquires 15% or more of our common stock. These provisions are intended to discourage acquisitions of 15% or more of our common stock without negotiations with the board. The rights trade with our common stock, unless and until they are separated upon the occurrence of certain future events. Our board of directors may redeem the rights at a price of \$0.01 per right prior to the time a person acquires 15% or more of our common stock.

ITEM 2. PROPERTIES

In October 2006, our headquarters moved from Glen Allen, Virginia to Richmond, Virginia, where we occupy approximately 19,000 square feet of space for corporate and development activities under a lease expiring in October 2016. Our lease contains annual rent escalations of 3%. Our annual cash cost for the Virginia space including utilities and services in fiscal 2006 were approximately \$1.3 million. Since moving to the Richmond, Virginia office we anticipate the annual cash cost including utilities to be approximately \$0.4 million per annum.

Our process development and manufacturing facility is located in Boulder, Colorado where we occupy approximately 25,000 square feet dedicated to cGMP production of commercial and clinical drug and quality control and 26,000 square feet of space in two adjacent facilities for additional quality assurance, quality control, process development, formulation development, clinical analytical, administrative functions, and cGMP warehouse and dispensing operations. Our annual cash cost for the Colorado manufacturing facility including utilities and services in 2006 were approximately \$1.2 million under two operating leases that contain annual escalations of 3-5% and expire starting in February 2008.

Table of Contents

We believe that our existing facilities are adequate for our current needs and that suitable additional or alternate space will be available on commercially reasonable terms when our lease expires or when we need additional space.

ITEM 3. LEGAL PROCEEDINGS

In fiscal 2006, our patent infringement litigation with Tercica and Genentech continued in both the United States District Court for the Northern District of California and in the United Kingdom at the High Court of Justice, Chancery Division, Patents Court. In addition, in June 2006, Tercica filed an unfair competition suit against us in the United States District Court of the Eastern District of Virginia, claiming that we disseminated misleading statements to the market in connection with our marketing of IPLEX.

On December 6, 2006, a jury in the United States District Court for the Northern District of California found that we infringed patents held by Tercica and Genentech and awarded damages of \$7.5 million as an upfront payment and a royalty of 15% on sales of IPLEX below \$100 million and 20% for sales of IPLEX above \$100 million.

On March 5, 2007, we reached a settlement agreement ending all litigation with Tercica and Genentech. Pursuant to the agreement, we agreed to cease sales and marketing of IPLEX in the United States and agreed to withdraw our European Marketing Authorization Application for IPLEX. We will continue to provide IPLEX to named patients with ALS in Italy under our Expanded Access Program. The agreement also gives us the right, through a worldwide development partnership with Tercica and Genentech, to market IPLEX for conditions not related to short stature. These indications include MMD and HARS, among others. The development partnership includes provisions that give us a 50% share of profits and reimbursement for 50% of development costs if either Tercica or Genentech exercises opt-in rights for marketing of IPLEX in any of these new indications that we develop. In addition, as part of the settlement agreement, Tercica and Genentech waived the damages awarded by the jury in the patent infringement suit from the District Court for the Northern District of California.

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

A Special Meeting of Shareholders previously scheduled for November 30, 2006, was rescheduled to December 14, 2006. At the meeting the shareholders the shareholders voted to adopt the Amended and Restated 2000 Employee Stock Purchase Plan, in which we increased the number of shares available for issuance under the plan (from 1,000,000 to 1,500,000) and extended the term of the plan for an additional ten years. Votes cast for were 44,674,352 and votes cast against were 4,417,332 and votes abstained were 1,305,520

PART II**ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER REPURCHASES OF EQUITY SECURITIES**

Our common stock began trading on The Nasdaq SmallCap Market on June 1, 2000 and moved to the Nasdaq Global Market (formerly the Nasdaq National Market) on August 8, 2000.

Our trading symbol is INSM. The following table lists, for the periods indicated, the high and low sale prices per share for our common stock as reported on the Nasdaq Global Market.

	Insmmed	
	Common Stock High	Low
Fiscal Year 2006		
Fourth Quarter	\$ 1.98	\$ 0.80
Third Quarter	1.60	1.02
Second Quarter	2.05	1.34
First Quarter	3.35	1.83

Edgar Filing: INSMED INC - Form 10-K

Fiscal Year 2005	High	Low
Fourth Quarter	\$ 2.04	\$ 1.10
Third Quarter	1.64	0.86
Second Quarter	1.45	0.79
First Quarter	2.30	0.80

Table of Contents

On February 28, 2007, the last reported sale price for our common stock on the Nasdaq Global Market was \$1.42 per share. As of February 28, 2007, there were approximately 583 holders of record of our common stock.

We have never declared or paid dividends on our common stock. We anticipate that we will retain all earnings, if any, to support operations and to finance the growth and development of our business. Therefore, we do not expect to pay cash dividends in the foreseeable future. Any future determination as to the payment of dividends will be at the sole discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements and other factors our board of directors deems relevant.

Information about our equity incentive plans can be found in note 4 to our consolidated financial statements contained within this Form 10-K.

PERFORMANCE GRAPH

ITEM 6. SELECTED FINANCIAL DATA

In the table below, we present historical financial data for the past five years of our operations. We have prepared this information using consolidated financial statements for the five years ended December 31, 2006. The financial statements for each of the five fiscal years ended December 31, 2006, have been audited by Ernst & Young LLP, independent registered public accounting firm. Ernst & Young LLP's report on the consolidated financial statements for the year ended December 31, 2006, which appears elsewhere herein, includes an explanatory paragraph which describes an uncertainty about our ability to continue as a going concern.

Table of Contents

When you read this selected historical financial data, it is important that you also read the historical financial statements and related notes in our annual and quarterly reports filed with the Securities and Exchange Commission, as well as Management's Discussion and Analysis of Financial Condition and Results of Operations.

	Year ended December 31,				
	2002	2003	2004	2005	2006
(in thousands, except for per share data)					
Historical Statement of Operations Data:					
Revenues	\$ 1,955	\$ 150	\$ 137	\$ 131	\$ 991
Operating expenses:					
Cost of goods sold					1,490
Asset Impairment					7,103
Research and development	18,077	7,140	23,260	21,835	21,089
General and administrative	2,984	3,477	4,242	5,730	25,682
Operational restructuring charge	2,533				
Goodwill write-off	15,385				
Stock compensation		119			
Total operating expenses	38,979	10,736	27,502	27,565	55,364
Operating loss	(37,024)	(10,586)	(27,365)	(27,434)	(54,373)
Interest income, net	607	288	222	752	1,937
Interest expense			(60)	(14,247)	(3,703)
Loss before income taxes	(36,417)	(10,298)	(27,203)	(40,929)	(56,139)
Income tax expense					
Net loss	(36,417)	(10,298)	(27,203)	(40,929)	(56,139)
Basic and diluted net loss per share	(1.10)	(0.29)	(0.69)	(0.84)	(0.59)
Weighted average shares	33,066	35,600	39,160	48,742	95,321
Historical Balance Sheet Data:					
Cash, cash equivalents and marketable securities	\$ 27,337	\$ 29,526	\$ 9,222	\$ 18,835	\$ 24,112
Total assets	28,308	29,812	13,011	22,870	28,348
Long-term debt, net				6,437	3,161
Stockholders' equity	23,446	26,220	7,235	10,529	13,880

Table of Contents

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

The following discussion also should be read in conjunction with the Consolidated Financial Statements and notes thereto.

Overview

Insmmed Incorporated is a biopharmaceutical company focused on the development and commercialization of drugs to treat metabolic diseases and endocrine disorders within niche markets that have unmet medical needs. Our development activities involve drugs that modulate IGF-1 activity in the human body. In the past, we were focused on development and commercialization of IPLEX, our once-daily IGF-1 replacement therapy, for the treatment short stature disorders. IPLEX is a complex of recombinant human IGF-I and its binding protein IGFBP-3 (rhIGF-I/rhIGFBP-3). IPLEX was approved by the FDA for the treatment of short stature disorders, in December 2005 and was commercially launched in the second quarter of 2006. As a result of our recent settlement agreement with Tercica and Genentech, as discussed below, we have withdrawn IPLEX from the severe primary IGF-D market.

On March 5, 2007, we reached a settlement agreement ending all litigation with Tercica and Genentech. Pursuant to the agreement, we agreed to cease sales and marketing of IPLEX in the United States and agreed to withdraw our European Marketing Authorization Application for IPLEX. We will continue to provide IPLEX to named patients with ALS in Italy under our Expanded Access Program. The agreement also gives us the right, through a worldwide development partnership with Tercica and Genentech, to market IPLEX for conditions not related to short stature. These indications include MMD and HARS, among others. The development partnership includes provisions that give us a 50% share of profits and reimbursement for 50% of development costs if either Tercica or Genentech exercises opt-in rights for marketing of IPLEX in any of these new indications that we develop. In addition, as part of the settlement agreement, Tercica and Genentech waived the damages awarded by the jury in the patent infringement suit from the District Court for the Northern District of California.

As a result of our settlement agreement with Tercica and Genentech, we decided to restructure our business and refocus our efforts. As part of our restructuring plan, our commercial operations unit will be eliminated and production at our manufacturing facility in Boulder, Colorado, will be scaled back, to reflect the reduced product requirement saving \$12 million in annualized commercial costs and \$10 million in annualized manufacturing costs. In connection with this restructuring, our workforce was reduced by approximately 34%. We intend to refocus our business to capitalize on the therapeutic opportunities presented by our current product candidates by developing them for the treatment of metabolic diseases and endocrine disorders and oncology. As a result of taking IPLEX off the market, we incurred an impairment charge of \$7.1 million in certain capital equipment and inventory which is reflected in our fiscal 2006 financial statements. The total cost of the severance awards granted pursuant to the restructuring plan was approximately \$1.7 million and will be reflected in our 2007 financial results.

We have not been profitable and have accumulated deficits of approximately \$311 million through December 31, 2006. We expect to incur significant additional losses for at least the next several years until such time as sufficient revenues are generated to offset expenses. Moving forward our major source of income is expected to be the cost recovery charges for our Expanded Access Program and our major expenses will be for research and development. In general, our expenditures may increase as development of our product candidates progresses. However, there will be fluctuations from period to period caused by differences in project costs incurred at each stage of development.

Research and Development Activities

We are engaged in the research and development of proposed drug products for the treatment of metabolic diseases and endocrine disorders. All of our research and development expenditures, whether conducted by our own staff or by external scientists on our behalf and at our expense, are recorded as expenses as incurred and amounted to approximately \$148 million dollars for the period since inception, in November 1999, through December 31, 2006,

Table of Contents

and \$23 million, \$22 million and \$21 million in the years ended December 31, 2004, 2005 and 2006, respectively. Research and development expenses consist primarily of salaries and related expenses, costs to develop and manufacture drug candidates, patent protection costs, and amounts paid to contract research organizations, hospitals and laboratories for the provision of services and materials for drug development and clinical trials.

Substantially all of our research and development expenditures for each of fiscal 2005 and 2006 were related to IPLEX, as prior to our settlement agreement with Tercica and Genentech, we were in the process of commercializing IPLEX for the short stature disorders market.

Our research and development efforts for other products are in their early stages and include primarily research and development regarding rhIGFBP-3 for the treatment of various cancers and INSM-18 for the treatment of various tumors. These products are either in preclinical stages or, Phase I and II clinical trials. All of our research and development expenditures related to these early-stage products and our efforts associated with IPLEX are significantly interrelated as they are all associated with drugs that modulate IGF-I activity in the human body. A significant finding in any one drug for a particular indication may provide benefits to our efforts across all of these products. All of these products also share a substantial amount of our common fixed costs such as salaries, facility costs, utilities and maintenance. Given the small portion of research and development expenses that are related to products other than IPLEX we have determined that very limited benefits would be obtained from implementing cost tracking systems that would be necessary to allow for cost information on a product-by-product basis.

In the near term, we intend to focus substantially all of our research and development resources on the expansion of IPLEX into other indications. Our plans to expand IPLEX into additional indications are expected to represent our main research and development focus and expense in 2007. Our thrust to develop our other early-stage products will continue, but we expect those efforts to account for a much smaller portion of our research and development expenditures. These estimates are based on currently available information and, due to a number of factors, no assurance can be provided that this project will not take longer to complete or cost more than we have currently estimated.

Our clinical trials with our product candidates are subject to numerous risks and uncertainties that are outside of our control, including the possibility that necessary regulatory approvals may not be obtained. For example, the duration and the cost of clinical trials may vary significantly over the life of a project as a result of differences arising during the clinical trial protocol, including, among others, the following:

the number of patients that ultimately participate in the trial;

the duration of patient follow-up that is determined to be appropriate in view of results;

the number of clinical sites included in the trials;

the length of time required to enroll suitable patient subjects; and

the efficacy and safety profile of the product candidate.

Our clinical trials may also be subject to delays or rejections based on our inability to enroll patients at the rate that we expect or our inability to produce clinical trial material in sufficient quantities and of sufficient quality to meet the schedule for our planned clinical trials.

Moreover, all of our product candidates and particularly those that are in the preclinical or early clinical trial stage must overcome significant regulatory, technological, manufacturing and marketing challenges before they can be successfully commercialized. Some of these product candidates may never reach the clinical trial stage of research and development. As preclinical studies and clinical trials progress, we may determine that collaborative relationships will be necessary to help us further develop or to commercialize our product candidates, but such relationships may be difficult or impossible to arrange. Our projects or intended projects may also be subject to change from time to time as we evaluate our research and development priorities and available resources.

Table of Contents

Any significant delays that occur or additional expenses that we incur may have a material adverse affect on our financial position and require us to raise additional capital sooner or in larger amounts than is presently expected. In addition, as a result of the risks and uncertainties related to the development and approval of our product candidates and the additional uncertainties related to our ability to market and sell these products once approved for commercial sale, we are unable to provide a meaningful prediction regarding the period in which material net cash inflows from any of these projects is expected to become available.

Results of Operations

Fiscal 2006 compared to Fiscal 2005

In fiscal 2006, we recorded a net loss of \$56.1 million. Revenues for fiscal 2006 were \$1.0 million. Made up of \$0.4 million from commercial sales, \$0.4 million in cost recovery from our expanded access program and \$0.2 million in royalty. For the same period in 2005 we reported \$0.1 million in royalty.

Cost of goods sold for the fiscal 2006 was \$1.5 million, which represents both variable and fixed components of drug supply production costs. These costs, which were previously expensed prior to commercial launch, were capitalized into inventory following launch and charged to the cost of product sales as units of IPLEX were sold. The high cost of goods sold in fiscal 2006 was primarily driven by the large site fixed cost component being spread over a restricted commercial production as process enhancements required production downtime and also includes a lower of cost or market valuation adjustment of approximately \$0.9 million.

Research and development expenses, which consist primarily of costs associated with clinical trials of our product candidates, including the costs of manufacturing, compensation and other expenses related to research and development personnel and facilities expenses, decreased \$0.7 million, from \$21.8 million in fiscal 2005 to \$21.1 million in fiscal 2006. This reduction in spending resulted primarily from recording litigation expenses in the selling, general and administrative category in accordance with United States generally accepted accounting principles.

Selling, general and administrative expenses increased \$20.0 million, from \$5.7 million for fiscal 2005 to \$25.7 million for fiscal 2006. The increase was due to the commercial launch of IPLEX and the recordation of legal costs in selling, general and administrative.

Following the agreement with Tercica and Genentech on March 5, 2007, approximately \$2.1 million in inventory and \$5.0 million in construction-in-progress was written-off to asset impairment as a result of management's assessed fair-value of these assets at December 31, 2006.

We recorded \$3.7 million in interest expense for fiscal 2006 as a result of the amortization and conversion of our March 15, 2005 convertible notes. Of this amount \$3.4 million was non-cash as a result of the accelerated amortization of the debt discount due to the conversion of notes to common stock in the first and fourth quarters of fiscal 2006. \$2.0 million of unamortized debt discount remained in long-term liabilities on our balance sheet and is expected to be amortized over the remaining life of the notes.

As of December 31, 2006, cash and cash equivalents increased to \$24.1 million from \$18.8 million at December 31, 2005. As a result of a higher average cash balance and higher interest rates in fiscal 2006 compared to fiscal 2005, interest income increased \$1.1 million, from \$0.8 million in fiscal 2005 to \$1.9 million in fiscal 2006.

Accounts payable and accrued project costs and other increased \$5.3 million, from \$3.0 million in fiscal 2005 to \$8.3 million in fiscal 2006 as a result of increased litigation activity. Stockholders' equity increased \$3.3 million, mainly due to our common stock financing on March 9, 2006, in which we received net proceeds of \$42.8 million and the exercise of warrants during the year in which we received \$9.1 million. This was offset by our net loss for of \$56.1 million. The accumulated deficit at December 31, 2006, increased to approximately \$310.8 million due to our fiscal 2006 net loss of \$56.1 million.

Fiscal 2005 compared to Fiscal 2004

In fiscal 2005, we recorded a net loss of \$40.9 million. Research and development expenses, which consist primarily of costs associated with clinical trials of our product candidates, including the costs of manufacturing,

Table of Contents

compensation and other expenses related to research and development personnel and facilities expenses, decreased \$1.4 million, from \$23.3 million in fiscal 2004 to \$21.9 million in fiscal 2005. This decrease in spending resulted from a winding-down of our clinical trials program offset by an increase in our manufacturing activity.

General and administrative expenses increased \$1.5 million, from \$4.2 million for fiscal 2004 to \$5.7 million for fiscal 2005. The increase was due to higher external service and personnel costs in support of our business. Revenues decreased \$6,000, from \$137,000 in fiscal 2004 to \$131,000 in fiscal 2005, due to a slight decline in royalties for TGF Beta.

We recorded \$14.2 million in interest expense for fiscal 2005, as a result of our March 15, 2005 convertible notes financing. Of this amount \$13.1 million was non-cash as a result of the accelerated amortization of the debt discount due to the conversion of notes to common stock in the third and fourth quarters of fiscal 2005. \$5.0 million of unamortized debt discount remained in long-term liabilities on our balance sheet and is expected to be amortized over the remaining life of the notes.

In fiscal 2005, cash and cash equivalents increased to \$18.8 million from \$9.2 million at December 31, 2004. As a result of a higher average cash balance and higher interest rates in 2005 compared to 2004, interest income increased \$530,000 from \$222,000 in fiscal 2004 to \$752,000 in fiscal 2005.

Accounts payable and accrued project costs and other decreased \$0.5 million, from \$3.5 million in fiscal 2004 to \$3.0 million in fiscal 2005, as a result of decreased clinical and manufacturing activity. Stockholders' equity increased \$3.3 million, mainly as a result of our convertible notes financing on March 15, 2005, in which we received net proceeds of \$32.6 million. This was offset by the net loss for fiscal 2005 year of \$40.9 million. The accumulated deficit at the end of fiscal 2005 increased to approximately \$254.7 million, due to our fiscal 2005 net loss of \$40.9 million.

Liquidity and Capital Resources

There is considerable time and cost associated with developing a potential drug or pharmaceutical product to the point where FDA approval for sales is received. In our financial management, we seek to raise the funds necessary for such development primarily through the issuance of equity securities in private placement transactions. However, it is our intention to pursue additional financing options, including entering into agreements with corporate partners in order to provide milestone payments, license fees and equity investments.

Capital Requirements

Capital expenditures in fiscal 2006, were principally related to the research and development, clinical trial activity, legal defense, sales and marketing and manufacturing activities at our site in Boulder, Colorado, as well as administrative support activities. In the short-term, we will need to raise substantial additional funds to expand IPLEX into other indications. In the longer-term, we will require substantial additional funds for the continued development of our other lead product candidates. We have filed a shelf registration statement with the Securities and Exchange Commission that allows us to sell up to \$75,000,000 of our common stock, preferred stock or warrants for common or preferred stock of which \$29 million is still available on the shelf. We may sell these securities in one or more separate offerings in amounts, at prices and on terms to be determined at the time of such offer or offerings. This shelf registration statement is intended to give us flexibility to take advantage of financing opportunities when and if deemed appropriate by us. Our continuation as a going concern depends on our ability to obtain such additional financing and, ultimately, to generate positive cash flow and attain profitability. There can be no assurance that adequate funds will be available when we need them or on favorable terms. If at any time we are unable to obtain sufficient additional funds, we will be required to delay, restrict or eliminate some or all of our research or development programs, dispose of assets or technology or cease operations.

The report of the Independent Registered Public Accounting Firm to our audited financial statements for the period ended December 31, 2006, indicates that there are a number of factors that raise substantial doubt about our ability to continue as a going concern. Such factors identified in the report are our net loss position, our failure to attain positive cash flows from operations and our dependence upon obtaining adequate financing.

Table of Contents

Planned expenditures in 2007 include the funding of our ongoing research and development activity, such as manufacturing and clinical trial costs, and general and administrative support costs.

Capital Resources

We have funded our operations to date primarily through public and private placements of debt and equity securities. We plan to continue incurring losses as we expand our research and development and do not expect material revenues for at least the next several years. At December 31, 2006, our cash and cash investments were approximately \$24.1 million, and were invested in money market instruments. The increase in our cash on hand of \$5.3 million from the level at December 31, 2005 is due to \$52.5 million in net cash received from financing activities which was partially offset by a total of \$47.2 million used in operating and investing activities.

On March 9, 2006, we entered into an underwriting agreement (the Underwriting Agreement) with Lazard Capital Markets LLC, as representative of the underwriters (together, the Underwriters), relating to the public offering, issuance and sale of 23,000,000 shares of our common stock, \$0.01 par value per share. The price to the public was \$2.00 per share, and the Underwriters purchased the shares from the us pursuant to the Underwriting Agreement at a price of \$1.88 per share. The offering was made pursuant to the our effective shelf registration statement.

Our business strategy contemplates raising additional capital through equity sales. We also plan to enter into agreements with corporate partners in order to fund research and development and to provide milestone payments, license fees and equity investments to fund our operations.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that we believe is material to investors.

Contractual Obligations

We are obligated to make future payments under various contracts as set forth below:

Contractual Obligations

(in thousands)

	Payments Due by Years						2012 & Beyond
	Total	2007	2008	2009	2010	2011	
Long term debt (1)	\$ 5,759	\$ 282	\$ 2,513	\$ 2,387	\$ 577	\$	\$
Operating lease obligations	5,588	992	691	647	631	419	2,208
	\$ 11,347	\$ 1,274	\$ 3,204	\$ 3,034	\$ 1,208	\$ 419	\$ 2,208

- (1) Long-term debt obligations reflect the future interest and principal payments of the future interest and principal payments of the Company's convertible notes outstanding as of December 31, 2006. These notes become due in quarterly installments, beginning on March 8, 2008, if not converted to common shares at an earlier date.

Table of Contents

Critical Accounting Policies

Preparation of financial statements in accordance with United States Generally Accepted Accounting Principles requires us to make estimates and assumptions affecting the reported amounts of assets, liabilities, revenues and expenses and the disclosures of contingent assets and liabilities. We use our historical experience and other relevant factors when developing our estimates and assumptions. We continually evaluate these estimates and assumptions. The accounting policies discussed below are those we consider critical to an understanding of our consolidated financial statements because their application places the most significant demands on our judgment. Actual results could differ from our estimates. For additional accounting policies, see Note 1 to our Consolidated Financial Statements Description of the Business and Summary of Significant Accounting Policies.

Research and Development

Research and development costs are expensed as incurred. Research and development expenses consist primarily of salaries and related expenses, cost to develop and manufacture products, patent protection costs, and amounts paid to contract research organizations, hospitals and laboratories for the provision of services and materials for drug development and clinical trials. We do not have separate accounting policies for internal or external research and development and we do not conduct any research and development for others. Our expenses related to clinical trials are based on estimates of the services received and efforts expended pursuant to contracts with third party organizations that conduct and manage clinical trials on our behalf. These contracts set forth the scope of work to be completed at a fixed fee or amount per patient enrolled. Payments under these contracts depend on performance criteria such as the successful enrollment of patients or the completion of clinical trial milestones. Expenses are accrued based on contracted amounts applied to the level of patient enrollment and to activity according to the clinical trial protocol.

Litigation costs as it relates to our patents were recorded as research and development expenditures through the first quarter of fiscal 2006. However, since May 2006 when we shifted from research and development operations to commercial operations, litigation costs were recorded as a selling, general and administrative activity.

Revenue Recognition

We record revenue from product sales when the goods are delivered and title passes to the customer. At the time of sale, estimates for sales deductions, including rebates to government agencies, are recorded. These provisions are provided for in the same period the related product sales are recorded. We began generating revenue from the sale of IPLEX, in May 2006. On May 23, 2006 we announced the IPLEX Utilization Program which informed the payer universe that the annual charge for therapy is limited to actual milligrams prescribed and used. The utilization program assures that there is no charge for unused product remaining after the prescribed dose is extracted. Any remaining product discarded as waste is accounted for when all the vials in a 30 vial pack are used, and any wastage is replaced by us at no charge to the payer or patient, to assure that the payer or patient pays only for the amount dosed and administered. Revenues from IPLEX are expected to cease by the end of March 2007 as a result of our settlement agreement with Genentech and Tercica.

Stock-Based Compensation

We account for stock-based compensation in accordance with Statement of Financial Accounting Standards No. 123R, *Shared-Based Payment*. Under the provisions of SFAS No. 123R, stock-based compensation cost is estimated at the grant date based on the award's fair value as calculated by the Black-Scholes-Merton (BSM) option-pricing model and is recognized as expense over the requisite service period. The BSM model requires various highly judgmental assumptions including volatility, forfeiture rates and expected option life. If any of the assumptions used in the BSM model change significantly, stock-based compensation expense may differ materially in the future from that recorded in the current period.

Table of Contents

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We invest excess cash in investment grade, interest-bearing securities and, at December 31, 2006, had \$24.1 million invested in money market instruments. Such investments are subject to interest rate and credit risk. Our policy of investing in highly rated securities whose maturities at December 31, 2006, are all less than six months minimizes such risks. In addition, while a hypothetical one percent per annum decrease in market interest rates would reduce interest income in 2007, it would not result in a loss of the principal and the decline in interest income would be deemed immaterial. Our purpose in making these investments is to generate investment income.

We currently do not transact any significant portion of our business in currencies other than the United States dollar. To the extent that we continue to transact our business in United States dollars, we do not believe that the fluctuations in foreign currency exchange rates will have a material adverse effect on our results of operations.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The information required by Item 8 is set forth on pages F-1 to F-13.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Based on their evaluation, as of December 31, 2006, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) are effective.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as 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.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2006 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, 2006, our internal control over financial reporting was effective.

Ernst & Young LLP, an independent registered public accounting firm, has issued an audit report on management's assessment of 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.

There have been no changes in our internal control over financial reporting that occurred during the three months ended December 31, 2006 that have materially affected, or are reasonably likely to materially affect, such internal control over financial reporting.

Table of Contents

ITEM 9B. OTHER INFORMATION

None.

PART III

The information required by Items 10, 11, 12, 13 and 14 of Form 10-K is incorporated by reference from the discussion responsive thereto under the captions Election of Directors and Designation of Auditors in our 2007 Proxy Statement.

Table of Contents

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Documents filed as part of this report.

1. FINANCIAL STATEMENTS. The following consolidated financial statements of the Company are set forth herein, beginning on page F-1:

(i) Report of Ernst & Young LLP, Independent Registered Public Accounting Firm

(ii) Consolidated Balance Sheets

(iii) Consolidated Statements of Operations

(iv) Consolidated Statements of Stockholders' Equity

(v) Consolidated Statements of Cash Flows

(vi) Notes to Consolidated Financial Statements

2. FINANCIAL STATEMENT SCHEDULES.

None required.

3. EXHIBITS.

The exhibits that are required to be filed or incorporated by reference herein are listed in the Exhibit Index. Exhibits 10.1, 10.2 and 10.17 constitute management contracts or compensatory plans or arrangements required to be filed as exhibits hereto.

Table of Contents

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Richmond, Commonwealth of Virginia, on the 16th day of March, 2007.

INSMED INCORPORATED
a Virginia corporation
(Registrant)

By: **/s/ GEOFFREY ALLAN**
Geoffrey Allan, Ph.D.
*Chairman of the Board, President and Chief
Executive Officer (Principal 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 indicated on the 16th day of March, 2007.

Signature	Title
/s/ GEOFFREY ALLAN Geoffrey Allan, Ph.D.	Chairman of the Board, President and Chief Executive Officer (Principal Executive Officer)
/s/ Kevin P. Tully Kevin P. Tully C.G.A.	Chief Financial Officer (Principal Financial Officer) and Executive Vice President
/s/ KENNETH G. CONDON Kenneth G. Condon	Director
/s/ GRAHAM K. CROOKE Graham K. Crooke, MB.BS	Director
/s/ STEINAR J. ENGELSEN Steinar J. Engelsen, M.D.	Director
/s/ MELVIN SHAROKY Melvin Sharoky, M.D.	Director
/s/ RANDALL W. WHITCOMB Randall W. Whitcomb, M.D.	Director

Table of Contents

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders

Insmmed Incorporated

We have audited the accompanying consolidated balance sheets of Insmmed Incorporated (the Company) as of December 31, 2006 and 2005, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2006. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Insmmed Incorporated at December 31, 2006 and 2005, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2006, in conformity with United States generally accepted accounting principles.

The accompanying financial statements have been prepared assuming that Insmmed Incorporated will continue as a going concern. As more fully described in Note 2, the Company has incurred recurring operating losses and negative cash flows from operations. These conditions raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 2. The financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

As discussed in Note 1 to the consolidated financial statements, in 2006 the Company changed its method of accounting for stock-based compensation to comply with the accounting provisions of Financial Accounting Standards Board Statement No. 123(R), Share-Based Payment.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of Insmmed Incorporated's internal control over financial reporting as of December 31, 2006, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 9, 2007 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Richmond, Virginia

March 9, 2007

Table of Contents

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

The Board of Directors and Stockholders

Insmmed Incorporated

We have audited management's assessment, included in the accompanying Report of Management on Insmmed Incorporated's Internal Control over Financial Reporting, that Insmmed Incorporated maintained effective internal control over financial reporting as of December 31, 2006, based on criteria established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). Insmmed Incorporated's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on management's assessment and an opinion on the effectiveness of the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with 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, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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

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

In our opinion, management's assessment that Insmmed Incorporated maintained effective internal control over financial reporting as of December 31, 2006, is fairly stated, in all material respects, based on the COSO criteria. Also, in our opinion, Insmmed Incorporated maintained, in all material respects, effective internal control over financial reporting as of December 31, 2006, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Insmmed Incorporated, as of December 31, 2006 and 2005, and the related consolidated statements of operations, stockholders equity and cash flows for the three years in the period ended December 31, 2006, and our report dated March 9, 2007 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Richmond, Virginia

March 9, 2007

Table of Contents

INSMED INCORPORATED
CONSOLIDATED BALANCE SHEETS

(in thousands, except per share data)

	December 31, 2006	December 31, 2005
Assets		
Current assets:		
Cash and cash equivalents	\$ 24,112	\$ 18,835
Restricted cash	407	285
Accounts receivable, net	241	
Inventories	576	
Other current assets	87	83
Total current assets	25,423	19,203
Long-term assets:		
Restricted cash - long term	2,708	3,118
Deferred financing costs, net	209	532
Property and equipment, net	8	17
Total long-term assets	2,925	3,667
Total assets	\$ 28,348	\$ 22,870
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	\$ 7,187	\$ 968
Accrued project costs & other	1,115	1,990
Payroll liabilities	1,302	1,574
Interest payable	23	52
Deferred rent	54	286
Total current liabilities	9,681	4,870
Long-term liabilities:		
Convertible debt	5,125	11,438
Debt discount	(1,964)	(5,001)
Net convertible debt	3,161	6,437
Asset retirement obligation	1,626	1,034
Total liabilities	14,468	12,341
Stockholders' equity:		
Common stock; \$.01 par value; authorized shares 500,000,000; issued and outstanding shares, 101,328,118 in 2006 and 66,525,792 in 2005	1,013	665
Additional paid-in capital	323,664	264,522
Accumulated deficit	(310,797)	(254,658)
Net stockholders' equity	13,880	10,529
Total liabilities and stockholders' equity	\$ 28,348	\$ 22,870

See accompanying notes.

F-3

Table of Contents

INSMED INCORPORATED
CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except per share data)

	Year Ended		
		December 31,	
	2006	2005	2004
Sales	\$ 834	\$	\$
Royalties	157	131	137
Total revenues	991	131	137
Operating expenses:			
Cost of goods sold	1,490		
Asset impairment	7,103		
Research and development	21,089	21,835	23,260
Selling, general and administrative	25,682	5,730	4,242
Total expenses	55,364	27,565	27,502
Operating loss	(54,373)	(27,434)	(27,365)
Interest income	1,937	752	222
Interest expense	(3,703)	(14,247)	(60)
Net loss	\$ (56,139)	\$ (40,929)	\$ (27,203)
Basic and diluted net loss per share	\$ (0.59)	\$ (0.84)	\$ (0.69)
Shares used in computing basic and diluted net loss per share	95,321	48,742	39,160

See accompanying notes.

Table of Contents

INSMED INCORPORATED
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

YEARS ENDED DECEMBER 31, 2006, 2005, AND 2004

(in thousands, except share amounts)

	Common Stock	Additional Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total
Balance at December 31, 2003	\$ 384	\$ 212,362	\$ (186,526)	\$	\$ 26,220
Issuance of 6,091 shares of common stock upon exercise of stock options		3			3
Issuance of 36,860 shares of common stock from Employee Stock Purchase Plan		69			69
Issuance of 6,455,551 shares of common stock and 3,227,775 warrants for cash, net of offering costs of \$602,472	65	8,048			8,113
Recognition of stock compensation expense for consultants		33			33
Comprehensive earnings:					
Net loss and comprehensive loss			(27,203)		(27,203)
Balance at December 31, 2004	449	220,515	(213,729)		7,235
Issuance of 163,322 shares of common stock upon exercise of stock options	2	131			133
Issuance of 169,823 shares of common stock from Employee Stock Purchase Plan	2	140			142
Issuance of 18,287,848 shares of common stock upon conversion of notes	182	23,500			23,682
Issuance of 3,011,303 shares of common stock upon exercise of warrants	30	4,195			4,225
Recognition of debt discount in conjunction with issuance of \$35 million of convertible notes net of offering costs of \$2,428,000		15,993			15,993
Recognition of stock acceleration expense for employees		15			15
Recognition of stock compensation expense for consultants		33			33
Comprehensive earnings:					
Net loss and comprehensive loss			(40,929)		(40,929)
Balance at December 31, 2005	665	264,522	(254,658)		10,529
Issuance of 36,500 shares of common stock upon exercise of stock options		19			19
Issuance of 280,234 shares of common stock from Employee Stock Purchase Plan	3	254			257
Issuance of 4,912,971 shares of common stock upon conversion of notes	49	6,313			6,362
Issuance of 6,572,621 shares of common stock upon exercise of warrants	66	9,003			9,069
Issuance of 23,000,000 shares of common stock for cash, net of offering costs of \$421,000	230	42,589			42,819
Recognition of stock compensation expense for consultants		79			79
Recognition of stock option expense in accordance with FAS 123R		885			885
Comprehensive earnings:					
Net loss and comprehensive loss			(56,139)		(56,139)

Edgar Filing: INSMED INC - Form 10-K

Balance at December 31, 2006	\$ 1,013	\$ 323,664	\$ (310,797)	\$	\$ 13,880
-------------------------------------	----------	------------	--------------	----	-----------

See accompanying notes.

F-5

Table of Contents

INSMED INCORPORATED
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year Ended		
	2006	December 31 2005	2004
Operating activities			
Net loss	\$ (56,139)	\$ (40,929)	\$ (27,203)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	3,369	12,897	34
Non-cash stock acceleration		15	
Stock based compensation expense	885		
Stock options issued for services	79	33	33
Impairment of property, plant and equipment	5,020		
Changes in operating assets and liabilities:			
Accounts receivable	(241)		
Inventories	(576)		
Other assets	(4)	91	51
Accounts payable	6,219	(1,653)	1,961
Accrued project costs and other	(875)	1,106	(863)
Payroll liabilities	(272)	391	978
Deferred rent	(232)	(359)	(335)
Asset retirement obligation	592	591	443
Interest payable	(29)	52	
Net cash used in operating activities	(42,204)	(27,765)	(24,901)
Investing activities			
Purchases of property, plant and equipment	(5,020)		
Net cash used in investing activities	(5,020)		
Financing activities			
Proceeds from issuance of convertible debt with detachable stock warrants		35,000	
Proceeds from issuance of common stock			
Public offering - issuance of 23 million shares	43,240		
Issuance costs	(421)		
Warrants converted into shares	9,069		
Other	325	4,621	8,185
Total proceeds from issuance of common stock	52,213	39,621	8,185
Costs incurred in conjunction with issuance of debt		(2,428)	
Cash restricted to restricted letters of credit	288	185	(3,588)
Net cash provided by financing activities	52,501	37,378	4,597
Increase (decrease) in cash and cash equivalents	5,277	9,613	(20,304)
Cash and cash equivalents at beginning of year	18,835	9,222	29,526

Edgar Filing: INSMED INC - Form 10-K

Cash and cash equivalents at end of year	\$ 24,112	\$ 18,835	\$ 9,222
--	-----------	-----------	----------

Supplemental information

Cash paid for interest	\$ 319	\$ 1,104	\$
------------------------	--------	----------	----

See accompanying notes.

F-6

Table of Contents

INSMED INCORPORATED

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Description of the Business and Summary of Significant Accounting Policies

Insmmed Incorporated is a biopharmaceutical company focused on the development and commercialization of drugs for the treatment of metabolic diseases and endocrine disorders. We concentrate our efforts on treatments of conditions for niche markets with unmet medical needs. Currently, our development activities involve drugs that modulate IGF-1 activity in the human body. Our lead product, IPLEX (mecasermin rinfabate [rDNA origin] injection), the only once-daily IGF-1 replacement therapy, has been approved for commercial sale by the FDA. Our development efforts are now focused on expanding the label for IPLEX into other clinical indications where we have proof of concept for IGF-1 therapy. In addition, we are developing two other drug candidates, INSM-18 and rhIGFBP-3, which are in clinical development for treating cancer.

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries, Insmmed Therapeutic Proteins, Insmmed Pharmaceuticals, Incorporated and Celtrix Pharmaceuticals, Incorporated (Celtrix). All significant intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of the consolidated financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

Cash and Cash Equivalents

The Company considers investments with maturities of three months or less when purchased to be cash equivalents.

On April 14, 2004 the Company announced that it had acquired a lease to operate a recombinant protein manufacturing facility located in Boulder, Colorado. The Company intends to use the facility for the commercial manufacture of its FDA approved product, IPLEX. Insmmed provided a Letter of Credit to the landlord of the Boulder facility in the amount of \$0.9 million for prepayment of the remaining outstanding lease term of approximately one year and a Letter of Credit to Baxter Healthcare Corporation for \$2.2 million to cover facility restoration expenses on termination of the lease. These amounts are classified as restricted cash on the balance sheet. The accrued restoration expenses as of December 31, 2006 were \$1.6 million and is recorded in asset retirement obligation on the balance sheet. Accretion expense for the years ended December 31, 2006, 2005 and 2004 totaled \$0.6 million, \$0.6 million and \$0.4 million respectively.

Inventories

Inventories are stated at the lower of cost or market and consist primarily of manufacturing costs for the production of IPLEX that were incurred subsequent to the approval for marketing by the United States Food and Drug Administration (the FDA). Cost is determined using average costing. Included in Cost of Good Sold is a lower of cost or market valuation adjustment of approximately \$0.9 million. As of December 31, 2006 we had approximately \$576,000 of IPLEX finished goods inventory. Please see Note 3 for asset impairment write-down related to inventory.

Table of Contents*Property and Equipment*

Depreciation is provided using the straight-line method over periods ranging from three to seven years. Property and equipment is stated at cost and consists of the following:

	December 31,	
	2006	2005
Furniture and office equipment	\$ 511	\$ 511
Accumulated depreciation	(503)	(494)
Property and equipment, net	\$ 8	\$ 17

Fair Value of Financial Instruments

The Company considers the recorded cost of its financial assets and liabilities, which consist primarily of cash and cash equivalents and accounts receivable to approximate the fair value of the respective assets and liabilities at December 31, 2006 and 2005 due to the short-term maturities of these instruments. The carrying value of the convertible debt is \$5.1 million which approximates fair value.

Stock-Based Compensation

In December 2004, the Financial Accounting Standards Board (FASB) issued Statement 123(R), *Share-Based Payment*, a revision of SFAS No. 123, *Accounting for Stock-Based Compensation*, which superseded APB Opinion No. 25, *Accounting for Stock Issued to Employees*. Statement 123(R) addresses the accounting for share-based payment transactions in which a company receives employee services in exchange for equity instruments of the company or liabilities that are based on the fair value of the company's equity instruments or that may be settled by the issuance of such equity instruments. This statement requires that share-based transactions be accounted for using a fair-value-based method to recognize non-cash compensation expense; this expense is recognized ratably over the requisite service period, which generally equals the vesting period of options, and is adjusted for expected forfeitures. The Company adopted this standard as of the beginning of 2006 using the modified prospective method. Results for prior periods have not been restated.

Revenue Recognition

We record revenue from product sales when the goods are delivered and title passes to the customer. At the time of sale, estimates for sales deductions, including rebates to government agencies, are recorded. These provisions are provided for in the same period the related product sales are recorded. We began generating revenue from the sale of IPLEX[®] in May 2006. On May 23, 2006 we announced the IPLEX[®] Utilization Program which informed the payer universe that the annual charge for therapy is limited to actual milligrams prescribed and used. The utilization program assures that there is no charge for unused product remaining after the prescribed dose is extracted. Any remaining product discarded as waste is accounted for when all the vials in a 30 vial pack are used, and any wastage is replaced by us at no charge to the payer or patient, to assure that the payer or patient pays only for the amount dosed and administered. Following the agreement with Tercica and Genentech on March 5, 2007 Insmmed ceased to supply IPLEX to patients and discontinued sales of IPLEX product as of March 7, 2007.

Research and Development

Research and development costs are expensed as incurred. Research and development expenses consist primarily of salaries and related expenses, cost to develop and manufacture drug candidates, patent protection costs, amounts paid to contract research organizations, hospitals and laboratories for the provision of services and materials for drug development and clinical trials. We do not have separate accounting policies for internal or external research and development and we do not conduct any research and development for others. Our expenses related to clinical trials are based on estimates of the services received and efforts expended pursuant to contracts with third party organizations that conduct and manage clinical trials on our behalf. These contracts set forth the scope of work to be completed at a fixed fee or amount per patient enrolled. Payments under these contracts depend

Table of Contents

on performance criteria such as the successful enrollment of patients or the completion of clinical trial milestones. Expenses are accrued based on contracted amounts applied to the level of patient enrollment and to activity according to the clinical trial protocol.

Litigation costs as it relates to our patents were recorded as research and development expenditures through the first quarter of 2006. However, during the year we shifted from research and development operations to commercial operations and litigation costs were recorded as a selling, general and administrative activity through December 31, 2006.

Income Taxes

Income taxes are accounted for in accordance with SFAS 109 *Accounting for Income Taxes*. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

SFAS 109 also requires that deferred tax assets be reduced by a valuation allowance if it is more likely than not that some portion of the deferred tax asset will not be realized. In evaluating the need for a valuation allowance, we take into account various factors, including the expected level of future taxable income. If actual results differ from the assumptions made in the evaluation of our valuation allowance, we record a change in valuation allowance through income tax expense in the period such determination is made.

Net Loss Per Share

Basic net loss per share is computed based upon the weighted average number of common shares outstanding during the year. The Company's diluted net loss per share is the same as its basic net loss per share because all stock options, warrants, and other potentially dilutive securities are antidilutive and, therefore, excluded from the calculation of diluted net loss per share.

Segment Information

The Company currently operates in one business segment, which is the development and commercialization of pharmaceutical products for the treatment of metabolic and endocrine diseases associated with insulin resistance. The Company is managed and operated as one business. A single management team that reports to the Chief Executive Officer comprehensively manages the entire business. The Company does not operate separate lines of business with respect to its products or product candidates. Accordingly, the Company does not have separately reportable segments as defined by FASB Statement No. 131, *Disclosure about Segments of an Enterprise and Related Information*.

Recent Accounting Pronouncements

In June 2006, the Financial Accounting Standards Board (FASB) issued FASB Interpretation No. 48, *Accounting for Uncertainty in Income Taxes* (FIN 48). This Interpretation clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with FASB Statement No. 109, *Accounting for Income Taxes*. 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. It also provides guidance on disclosure requirements, measurement and classification provisions, and transition requirements. FIN 48 will be effective for us beginning on January 1, 2007. The interpretation is not expected to have a material impact on our financial statements.

In September 2006, the FASB issued *FASB Statement No. 157, Fair Value Measurements* (FAS 157), which establishes a common definition for fair value under U.S. generally accepted accounting principles and creates a framework for measuring fair value. The FASB believes that the new standard will make the measurement of fair value more consistent and comparable and improve disclosures about those measures. FAS 157 is effective for fiscal years beginning after November 15, 2007. The Company is currently evaluating the requirements and future impact of FAS 157 on its financial statements.

Table of Contents

2. Risks and Uncertainties

For the period from inception to December 31, 2006, the Company has incurred recurring net losses and has accumulated a deficit of \$310.8 million. During 2006, the Company incurred a net loss of \$56.1 million and net cash used in operations of \$42.2 million. The Company's ability to continue as a going concern is dependent upon its ability to take advantage of raising capital through securities offerings, debt financing, and partnerships and use these sources of capital to fund operations. Management is focusing on raising capital through any one or more of these options. There can be no assurance that any of management's plans as described above will be successfully implemented or that the Company will continue as a going concern. Accordingly, there is substantial doubt regarding the Company's ability to continue as a going concern and the financial statements do not include any adjustments to reflect the possible effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

3. Asset Impairment

In accordance with FAS 144, *Accounting for the Impairment or Disposal of Long-Lived*, (FAS 144) assets are reviewed for impairment losses whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Following the Settlement, License and Development agreement with Tercica, Inc. and Genentech Inc. on March 5, 2007, Insmmed entered into a Consent Judgment and Permanent Injunction whereby Insmmed will cease supplying IPLEX to patients with Primary IGF-D and other short stature indications. In accordance with the provisions of FAS 144, the Company recorded an asset impairment of approximately \$5.0 million related to fixed assets previously capitalized to support the production of IPLEX. In addition to the asset impairment noted above, the Company considered the realizability of IPLEX inventory in accordance with applicable guidance. We also recorded an inventory write-down of approximately \$2.1 million to adjust inventory to its net realizable value.

4. Stockholders' Equity

Common Stock & Convertible Debt

On March 15, 2006, Insmmed entered into an underwriting agreement (the "Underwriting Agreement") with Lazard Capital Markets LLC, as representative of the underwriters (together, the "Underwriters"), relating to the public offering, issuance and sale of 23,000,000 shares of the Company's common stock, \$0.01 par value per share. The price to the public was \$2.00 per share, and the Underwriters purchased the shares from the Company pursuant to the Underwriting Agreement at a price of \$1.88 per share. Proceeds from the offering were \$42.8 million, net of \$0.4 million in offering costs. The offering was made pursuant to the Company's effective shelf registration statement on Form S-3 (Registration No. 333-131535).

On March 15, 2005 (the Initial Closing Date), Insmmed issued and sold approximately \$35,000,000 aggregate principal amount of 5.5% Senior Convertible Notes (the Notes) to a group of institutional investors, which Notes will be convertible into our common stock, par value \$0.01 per share, and Warrants to purchase 14,864,865 shares of our common stock (the Warrants), at an exercise price of \$1.36 per share. The Notes will convert into the Company's Common Stock at a conversion price of \$1.295 per share as adjusted in accordance with certain anti-dilution adjustments (the Conversion Price). The principal of each Note will mature and be payable in nine quarterly installments commencing on March 1, 2008 and ending on March 1, 2010. All outstanding Notes shall be repaid in cash or converted within five years after the Initial Closing Date. Interest on the Notes is payable quarterly. Upon conversion of the Notes, the related accrued and unpaid interest, if any, shall be paid in cash to the investor. The Warrants are exercisable for five years from the Initial Closing Date. Commencing two years after the Initial Closing Date, if the market value of our common stock closes above 200% of the Conversion Price for at least fifteen of twenty consecutive trading days and other specific criteria are met, we shall have the right on one occasion only to redeem 50% or more (on a pro rata basis) of the Notes at par, plus any related accrued interest. The investor has the right to require us to repurchase the Notes upon the occurrence of certain repurchase events set forth in the transaction agreements, including, but not limited to, the absence of trading or market prices, delisting, a

Table of Contents

fundamental change or certain actions that discriminate against the investors in regards to their interest in the common stock. The investors shall also have a right of participation in any future financings undertaken by us for one year, which will permit the investors to purchase up to such portion of any subsequent equity or equity-linked financing, on the same terms and conditions as the other parties in the financing, as shall enable each investor to maintain its ownership percentage of the Company on a fully diluted basis at such time. The table below details our debt payments over the corresponding years.

	Total	Payments Due by Years			
		2007	2008	2009	2010
Long term debt	\$ 5,125	\$ 2,278	\$ 2,278	\$ 569	

Periodically, the Company has issued shares of common stock in exchange for services provided by shareholders and others. These issuances have been recorded at their estimated fair value at the time of the respective transactions and corresponding amounts have been reflected as expense in the accompanying consolidated statements of operations.

Stock Warrants and Options

The Company issues stock options to attract and retain executive officers, key employees, non-employee directors and other non-employee advisors and service providers. The maximum number of shares issuable under the Company's stock option plan is 9,250,000. There were 2,686,068 options issuable at December 31, 2006. Options may be granted at the discretion of the board of directors, compensation committee or a delegate. The weighted-average fair value of options granted during 2006, 2005, and 2004 was \$1.25, \$0.83, and \$1.51, respectively. A summary of stock option activity is as follows:

Description	2006	Weighted average exercise price	2005	Weighted average exercise price	2004	Weighted average exercise price
Options outstanding at January 1	5,924,931	\$ 3.18	4,864,425	\$ 3.68	3,900,516	\$ 4.06
Granted	1,326,500	1.90	1,765,250	1.29	976,000	2.12
Exercised	(36,500)	0.52	(163,322)	0.81	(6,091)	0.50
Cancelled	(650,999)	7.77	(541,422)	2.28	(6,000)	2.20
Options outstanding at December 31	6,563,932	\$ 2.48	5,924,931	\$ 3.17	4,864,425	\$ 3.68

Table of Contents

The following table summarizes options outstanding at December 31, 2006:

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Number Outstanding	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price
\$ 0.172 - \$ 1.50	2,874,385	4.91	\$ 1.22	1,413,463	\$ 1.15
\$ 1.52 - \$ 2.86	1,950,804	4.81	2.20	729,928	2.37
\$ 3.00 - \$ 8.25	1,620,229	2.17	4.36	1,526,479	4.44
\$ 10.00 - \$ 32.12	118,514	3.42	11.65	118,514	11.65
	6,563,932	4.18	\$ 2.48	3,788,384	\$ 3.04

A total of 20,406,900 shares of common stock were reserved at December 31, 2006 in connection with stock options, stock warrants, and the employee stock purchase plan.

5. Stock Options

As a result of adopting Statement 123(R), the Company recognized non-cash share-based compensation expense of approximately \$0.9 million for 2006 as compared to no expense recognition under APB 25. This expense was included on the Selling, general and administrative and Research and development lines of the consolidated statement of operations. Basic and diluted earnings per share for 2006 are \$0.01 lower than if the Company had continued accounting for stock options as it did prior to adopting Statement 123(R). As of December 31, 2006, there was \$2.5 million of total unrecognized compensation cost related to stock options expected to be recognized over the next three years.

Prior to the adoption of Statement 123(R), the Company's stock-based employee compensation plans were accounted for in accordance with APB 25, under which no compensation expense was recorded because the exercise price of employee stock options equaled the market price of the underlying stock on the date of grant. Had the Company adopted Statement 123(R) in prior periods, the impact of that statement would have approximated the impact of FAS 123 (as if the fair-value-based recognition provisions of that statement had been applied) as shown in the following table. The weighted-average grant date fair values of stock options awarded in 2005 and 2004 were estimated at the date of grant using the Black-Scholes-Merton option-pricing model assuming a weighted average volatility of 89% in 2005 and 89% in 2004, a risk-free interest rate of 4.17% in 2005, and 3.83% in 2004, no dividends, and a weighted-average expected life of the option of 5 years in 2005, and 5 years in 2004.

INSMED INCORPORATED**Stock Compensation Expense**

(in thousands)

	Year Ended December 31,	
	2005	2004
Net Loss	\$ (40,929)	\$ (27,203)
Net Loss Per Share (Basic and Diluted)	(0.84)	(0.69)
Stock based employee compensation cost (under APB 25)		
Fair value stock compensation expense	(1,628)	(1,851)
Pro-Forma Net Income	(42,557)	(29,054)
Pro-Forma Net Loss Per Share (Basic and Diluted)	\$ (0.87)	\$ (0.74)

F-12

Table of Contents

The Company valued stock options granted in 2006 using a Black-Scholes-Merton valuation model which necessitates the development of certain key assumptions. The volatility factor was estimated based on the Company's historical volatility. The Company also used historical data to derive the option's expected life and employee forfeiture rates within the valuation model. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the date of grant. The dividend yield is predicated on the current annualized dividend payment. The weighted-average grant-date fair value of stock options awarded in 2006 was estimate on the date of grant using the following assumptions: risk-free interest rate of 4.3%, no dividends, volatility of 113%, and an expected life of 2.59 years. Please see the summary of option activity during the year in Note 4.

6. Income Taxes

The deferred tax assets of approximately \$122.6 million and \$112.0 million at December 31, 2006 and 2005, respectively, arise primarily due to net operating loss carryforwards for income tax purposes. Due to the Company's anticipated future losses, these amounts have been entirely offset by a valuation allowance.

At December 31, 2006 and 2005, the Company had net operating loss carryforwards for income tax purposes of approximately \$313.0 million and \$278.2 million, respectively, expiring in various years beginning in 2007. Utilization of these carryforwards will be significantly limited due to changes in the ownership of the Company's common stock.

Deferred tax assets (liabilities) consist of the following at December 31:

	2006 (in thousands)	2005
Deferred tax assets		
General Business Credits	3,801	5,478
Other	1,000	932
NOL Carryforwards	117,806	105,597
	122,607	112,007
Total deferred tax assets		
Deferred tax liabilities		
Other		
Total deferred tax liabilities		
Tax deferred asset/(liability)	122,607	112,007
Valuation allowance	(122,607)	(112,007)
Net deferred tax asset/(liability)		

The differences between the U.S. federal statutory tax rate and the Company's effective tax rate are as follows:

	2006	2005	2004
Statutory federal tax rate	34%	34%	34%
Permanent items	-3%	-11%	0%
State income taxes net of federal benefit	4%	3%	4%
Research and development credit	-1%	1%	0%
Other	-15%	-8%	0%
Change in valuation allowance	-19%	-19%	-38%

Total Expense	0%	0%	0%
---------------	----	----	----

F-13

Table of Contents**7. Leases**

The Company leases office space in Richmond, Virginia under an operating lease agreement expiring in October 2016. The lease provides for monthly rent of approximately \$30,800 with a 3% escalation per year. The Company also leases a manufacturing facility and warehouse in Boulder, Colorado under two operating lease agreements expiring in February 2008 and December 2010, respectively. These leases provide for monthly rents of approximately \$30,000 and \$15,000 with a 3% and 5% escalation per year. The Company also leases a vehicle and office equipment. Future minimum payments on all these leases at December 31, 2006 is presented in the table below. Rent expense for all operating leases approximated \$1,427,000 in 2006, \$846,000 in 2005, and \$869,000 in 2004.

	Payments Due by Years						2012
	Total	2007	2008	2009	2010	2011	& Beyond
Operating lease obligations	\$ 5,588	\$ 992	\$ 691	\$ 647	\$ 631	\$ 419	\$ 2,208

8. Employee Benefit Plans

In 2000, the Company adopted a stock purchase plan whereby eligible employees may purchase common stock. Purchases may be made through payroll deductions subject to annual limitations. The purchase price per share under the plan is the lesser of 85% of the fair market value of a share of common stock at the beginning of each offering period or 85% of the fair market value on the date the purchase is made. As of December 31, 2006 there were 1,500,000 shares authorized for issuance under the plan and 598,052 had been issued.

The Company also maintains a tax-qualified employee savings and retirement plan, (the 401(k) plan) for eligible employees. Participating employees may defer up to the lesser of 25% of W-2 compensation or the maximum amount permitted by the Internal Revenue Code, as amended. The 401(k) plan permits the Company to make matching contributions on behalf of all participants who have elected to make deferrals. To date, the Company has not made any contributions to the plan.

9. License and Collaborative Agreements

Fujisawa Pharmaceutical Co., Ltd.

In January 2004, the Company was granted a non-exclusive license to patent rights pertaining to the use of IGF-I therapy for the treatment of extreme or severe insulin resistant diabetes from Fujisawa Pharmaceutical Co., Ltd. Under the terms of the agreement, Insmmed obtained worldwide rights in territories (excluding Japan) where a valid patent claim exists, including the United States and Europe. We have made a commitment to use reasonable commercial efforts to make IPLEX available on a named patient basis to patients with extreme insulin resistance.

Table of Contents

Pharmacia

In August 2002 we entered into an agreement with Pharmacia that grants us an exclusive license to Pharmacia's portfolio of regulatory filings pertaining to rhIGF-I. In consideration for the exclusive license we have agreed to make therapy available to the 17 Growth Hormone Insensitivity Syndrome subjects that were previously being treated with rhIGF-I supplied by Pharmacia.

UVA Patent Foundation

In 1988, the Company entered into a license agreement with The University of Virginia Alumni Patents Foundation (the "Foundation"). The agreement, as amended, provides the Company with an exclusive, worldwide license to develop and sell products related to certain patent rights for insulin resistance and associated disorders. The Company discontinued the development of products covered under this license and terminated this agreement on June 29, 2004.

10. Legal Proceedings

In December 2004, Tercica and Genentech filed patent infringement suits against us in the United States District Court for the Northern District of California and in the United Kingdom at the High Court of Justice, Chancery Division, Patents Court. In these cases, Tercica and Genentech alleged that production and use of IPLEX willfully infringed claims in certain United States and European Patents, owned by Genentech and Tercica, directed to methods of using rhIGF-I/rhIGFBP-3 and methods of producing rhIGF-I and IGFBP-3.

In fiscal 2006, our patent infringement litigation with Tercica and Genentech continued in both the United States District Court for the Northern District of California and in the United Kingdom at the High Court of Justice, Chancery Division, Patents Court. In addition, in June 2006, Tercica filed an unfair competition suit against us in the United States District Court of the Eastern District of Virginia, claiming that we disseminated misleading statements to the market in connection with our marketing of IPLEX.

On December 6, 2006, a jury in the United States District Court for the Northern District of California found that we infringed patents held by Tercica and Genentech and awarded damages of \$7.5 million as an upfront payment and a royalty of 15% on sales of IPLEX below \$100 million and 20% for sales of IPLEX above \$100 million.

Table of Contents

In March 2007 Insmmed Incorporated reached a Settlement, License and Development agreement with Tercica, Inc. and Genentech Inc. involving the outstanding lawsuits between the parties. All outstanding litigation was settled including the patent infringement case in the Northern District of California, the patent infringement case in the United Kingdom, and the unfair business practice case in the Eastern District of Virginia. As part of the settlement Insmmed entered into a Consent Judgment and Permanent Injunction whereby Insmmed will cease supplying IPLEX to patients with Primary IGF-D and other short stature indications and will withdraw its EU marketing application for SPIGF-D. As part of the settlement, Tercica and Genentech waived the damages award by the jury in the U.S. patent infringement litigation. Under the license and development agreement, Insmmed will continue clinical trial development in other indications as well as continue its expanded access program for the treatment of ALS in Italy. Under the license and development agreement Tercica and Genentech would have an opt in provision with a 50/50 cost/profit share for any new indications that Insmmed would seek FDA approval. Insmmed would have freedom to operate in named indications with a 4% royalty payable to Tercica and Genentech if they decided not to opt in. If our settlement agreement with Tercica and Genentech is terminated, the Consent Judgment and Permanent Injunction against us will survive termination, which would have a material adverse effect on our business, financial condition and results of operations.

11. Quarterly Financial Data (Unaudited)**INSMED INCORPORATED****Quarterly Financial Data**

(in thousands)

	Fiscal Quarter							
	First		Second		Third		Fourth	
	2006	2005	2006	2005	2006	2005	2006	2005
Revenues	\$ 54	\$ 57	\$ 210	\$ 28	\$ 226	\$ 22	\$ 501	\$ 24
Operating Loss (1)	(10,920)	(5,523)	(9,324)	(6,951)	(12,724)	(7,896)	(21,405)	(7,064)
Net Loss (1)	(13,427)	(5,764)	(8,911)	(8,524)	(12,372)	(13,756)	(21,429)	(12,885)
Net Loss Per Share (Basic and Diluted)	\$ (0.17)	\$ (0.13)	\$ (0.09)	\$ (0.19)	\$ (0.12)	\$ (0.29)	\$ (0.21)	\$ (0.27)

- (1) During the 4th quarter ended December 31, 2006, we recorded an asset impairment of approximately \$7.1 million related to the settlement of certain legal matters as described further in Note 3.

12. Subsequent Events

On January 5, 2007, Insmmed Incorporated entered into an agreement with NAPO Pharmaceuticals, whereby NAPO will license from Insmmed the Technology surrounding INSM-18 also know as Masoprocal. The license gives NAPO the right to develop, manufacture and commercialize masoprocal products for any indications relating specifically to diabetes, cardiac disease, vascular disease, metabolic disease and Syndrome X. The agreement calls for payments from NAPO to Insmmed upon the delivery of certain milestones.

Table of Contents

EXHIBIT INDEX

Exhibit Number	Exhibit Title
3.1	Articles of Incorporation of Insmmed Incorporated, as amended (previously filed as Annex H to the Joint Proxy Statement/Prospectus contained in Part I of Insmmed Incorporated's Registration Statement on Form S-4 (Registration No. 333-30098) and incorporated herein by reference).
3.2	Amended and Restated Bylaws of Insmmed Incorporated (previously filed as Annex I to the Joint Proxy Statement/Prospectus contained in Part I of Insmmed Incorporated's Registration Statement on Form S-4 (Registration No. 333-30098) and incorporated herein by reference).
3.3	Form of Articles of Amendment to Insmmed Incorporated's Articles of Incorporation, as amended, creating a new series of Preferred Stock designated as Series A Junior Participating Preferred Stock (previously filed as Exhibit A to the Rights Agreement, dated as of May 16, 2001, between Insmmed Incorporated and First Union National Bank, as Rights Agent, filed as Exhibit 4.4 to Insmmed Incorporated's Registration Statement on Form 8-A filed with the Securities and Exchange Commission on May, 17, 2001 and incorporated herein by reference).
3.4	Amendment for Reverse Split (previously filed as Exhibit 3.4 to Insmmed Incorporated's Annual Report on Form 10-K for the year ended December 31, 2003 and incorporated herein by reference).
4.1	Description of Capital Stock (contained in the Articles of Incorporation filed as Exhibit 3.1).
4.2	Specimen stock certificate representing common stock, \$.01 par value per share, of the Registrant (previously filed as Exhibit 4.2 to Insmmed Incorporated's Registration Statement on Form S-4 (Registration No. 333-30098) and incorporated herein by reference).
4.3	Article VI of the Articles of Incorporation of Insmmed Incorporated (previously filed as Exhibit 4.1 to Insmmed Incorporated's Registration Statement on Form S-4 (Registration No. 333-30098) and incorporated herein by reference).
4.4	Rights Agreement, dated as of May 16, 2001, between Insmmed Incorporated and First Union National Bank, as Rights Agent (which includes as (i) Exhibit A the form of Articles of Amendment to Insmmed Incorporated's Articles of Incorporation, as amended, (ii) Exhibit B the form of Rights Certificate, and (iii) Exhibit C the Summary of the Rights to Purchase Preferred Stock) (previously filed as Exhibit 4.4 to Insmmed Incorporated's Registration Statement on Form 8-A filed with the Securities and Exchange Commission on May 17, 2001 and incorporated herein by reference).
4.5	Form of Rights Certificate (previously filed as Exhibit B to the Rights Agreement, dated as of May 16, 2001, between Insmmed Incorporated and First Union National Bank, as Rights Agent, filed as Exhibit 4.4 to Insmmed Incorporated's Registration Statement on Form 8-A filed with the Securities and Exchange Commission on May 17, 2001 and incorporated herein by reference).
4.6	Form of Stock and Warrant Purchase Agreement by and between Insmmed Incorporated and each of the investors in the July 2003 private placement of common stock and warrants to purchase common stock (previously filed as Exhibit 4.6 to Insmmed Incorporated's Registration Statement on Form S-3 (Registration No. 333-107308) on July 24, 2003 and incorporated herein by reference).
4.7	Form of Warrant issued by Insmmed Incorporated to each of the investors in July 2003 private placement of common stock and warrants to purchase common stock (previously filed as Exhibit 4.7 to Insmmed Incorporated's Registration Statement on Form S-3 (Registration No. 333-107308) on July 24, 2003 and incorporated herein by reference).

Table of Contents

- 4.8 Form of Stock and Warrant Purchase Agreement by and between Insmmed Incorporated and each of the investors in the November 2004 private placement of common stock and warrants to purchase common stock (previously filed as Exhibit 10.1 to Insmmed Incorporated's Current Report on Form 8-K on November 10, 2004 and incorporated herein by reference).
- 4.9 Form of Warrant issued by Insmmed Incorporated to each of the investors in November 2004 private placement of common stock and warrants to purchase common stock (previously filed as Exhibit B to the Form of Stock and Warrant Purchase Agreement by and between Insmmed Incorporated and each of the investors previously filed as Exhibit 10.1 to Insmmed Incorporated's Current Report on Form 8-K on November 10, 2004 and incorporated herein by reference).
- 4.10 Form of Purchase Agreement dated March 15, 2005 between Insmmed Incorporated and each of the investors in the March 2005 private placement of notes and warrants to purchase common stock (previously filed as Exhibit 4.1 to Insmmed Incorporated's Current Report on Form 8-K on March 16, 2005 and incorporated herein by reference).
- 4.11 Form of 5.5% Note Due 2008-2010 dated March 15, 2005 between Insmmed Incorporated and each of the investors in the March 2005 private placement of notes and warrants to purchase common stock (previously filed as Exhibit 4.2 to Insmmed Incorporated's Current Report on Form 8-K on March 16, 2005 and incorporated herein by reference).
- 4.12 Form of Warrant dated March 15, 2005 between Insmmed Incorporated and each of the investors in the March 2005 private placement of notes and warrants to purchase common stock (previously filed as Exhibit 4.3 to Insmmed Incorporated's Current Report on Form 8-K on March 16, 2005 and incorporated herein by reference).
- 4.13 Form of Registration Rights Agreement dated March 15, 2005 between Insmmed Incorporated and each of the investors in the March 2005 private placement of notes and warrants to purchase common stock (previously filed as Exhibit 4.4 to Insmmed Incorporated's Current Report on Form 8-K on March 16, 2005 and incorporated herein by reference).
- 4.14 Amendment No. 1 to Rights Agreement dated March 15, 2005 between Insmmed Incorporated and Wachovia Bank, N.A. (f/k/a First Union National Bank) (previously filed as Exhibit 4.5 to Insmmed Incorporated's Current Report on Form 8-K on March 16, 2005 and incorporated herein by reference).
- 10.1 Insmmed Incorporated 2000 Stock Purchase Plan (previously filed as Exhibit 10.1 to Insmmed Incorporated's Registration Statement on Form S-4 (Registration No. 333-30098) and incorporated herein by reference).
- 10.2 Insmmed Incorporated 2000 Stock Incentive Plan (previously filed as Exhibit 10.2 to Insmmed Incorporated's Registration Statement on Form S-4 (Registration No. 333-30098) and incorporated herein by reference).
- 10.3 Amended and Restated License Agreement between Insmmed Pharmaceuticals, Inc. and the University of Virginia Patent Foundation (previously filed as Exhibit 10.3 to Insmmed Incorporated's Registration Statement on Form S-4 (Registration No. 333-30098) and incorporated herein by reference).
- 10.4+ Subscription, Joint Development and Operating Agreement by and among Celtrix Pharmaceuticals, Inc., Elan Corporation, plc, Elan International Services, Ltd., and Celtrix Newco Ltd. dated as of April 21, 1999 (previously filed as Exhibit 10.8 to Insmmed Incorporated's Registration Statement on Form S-4 (Registration No. 333-30098) and incorporated herein by reference).
- 10.5+ License Agreement by and between Celtrix Newco Ltd. and Celtrix Pharmaceuticals, Inc. dated as of April 21, 1999 (previously filed as Exhibit 10.9 to Insmmed Incorporated's Registration Statement on Form S-4 (Registration No. 333-30098) and incorporated herein by reference).
- 10.6+ License Agreement by and between Celtrix Newco Ltd. and Elan Pharmaceutical Technologies, a division of Elan Corporation, plc, dated as of April 21, 1999 (previously filed as Exhibit 10.10 to Insmmed Incorporated's Registration Statement on Form S-4 (Registration No. 333-30098) and incorporated herein by reference).

Table of Contents

10.7	License Agreement, dated as of April 1, 1993, between Genentech, Inc. and Celtrix Pharmaceuticals, Inc. (previously filed as Exhibit 10.11 to Insmmed Incorporated's Registration Statement on Form S-4 (Registration No. 333-30098) and incorporated herein by reference).
10.8	Purchase Agreement among Insmmed, Inc., Insmmed Pharmaceuticals, Inc. and certain investors named therein dated January 13, 2000 (previously filed as Exhibit 10.12 to Insmmed Incorporated's Registration Statement on Form S-4 (Registration No. 333-30098) and incorporated herein by reference).
10.9	Form of Warrant of Insmmed to be issued pursuant to Purchase Agreement among Insmmed Incorporated, Insmmed Pharmaceuticals, Inc. and certain investors dated January 13, 2000 (previously filed as Exhibit 10.13 to Insmmed Incorporated's Registration Statement on Form S-4 (Registration No. 333-30098) and incorporated herein by reference).
10.10	Form of Registration Rights Agreement among Insmmed Incorporated, Insmmed Pharmaceuticals, Inc. and certain investors party to the Purchase Agreement among Insmmed Incorporated, Insmmed Pharmaceuticals, Inc. and certain investors dated January 13, 2000 (previously filed as Exhibit 10.14 to Insmmed Incorporated's Registration Statement on Form S-4 (Registration No. 333-30098) and incorporated herein by reference).
10.11	Sublease, dated March 30, 2001, between Rhodia Inc. and Insmmed Incorporated (previously filed as Exhibit 10.15 to Insmmed Incorporated's Quarterly Report on form 10-Q for the quarter ended March 31, 2001 and incorporated herein by reference).
10.12	Consent to Sublease, dated as of April 12, 2001, among A & W Virginia Corporation, as Landlord, Rhodia Inc., as Tenant, and Insmmed Incorporated, as Subtenant (previously filed as Exhibit 10.16 to Insmmed Incorporated's Quarterly Report on form 10-Q for the quarter ended March 31, 2001 and incorporated herein by reference).
10.13+	License and Supply Agreement, dated as of August 28, 2003, between Insmmed Incorporated and Pharmacia AB (previously filed as Exhibit 10.16 to Insmmed Incorporated's Annual Report of form 10-K for the year ended December 31, 2003 and incorporated herein by reference).
10.14	Agreement, dated as of March 3, 2004, between Insmmed Incorporated and Geoffrey Allan, Ph.D. (previously filed as Exhibit 10.17 to the Insmmed Incorporated's Annual Report on form 10-K for the year ended December 31, 2003 and incorporated herein by reference).
10.15*	License Agreement, dated as of January 19, 2004, between Insmmed Incorporated and Fujisawa Pharmaceutical Co., Ltd. (previously filed as Exhibit 10.18 to the Insmmed Incorporated's Annual Report on Form 10-K for the year ended December 31, 2003 and incorporated herein by reference).
10.16	Form of change of Control Agreement entered into between Insmmed Incorporated and certain of its executive officers (previously filed as Exhibit 10.19 to Insmmed Incorporated's Annual Report on form 10-K for the year ended December 31, 2004 and incorporated herein by reference).
10.17	Form of Executive Stock Option Grant (previously filed as Exhibit 10.1 to Insmmed Incorporated's Annual Report on form 10-K for the year ended December 31, 2004 and incorporated herein by reference).
10.18	Lease between 2545 Central, LLC and Insmmed Incorporated made December 14, 2005. (previously filed as Exhibit 10.21 to Insmmed Incorporated's Annual Report on form 10-K for the year ended December 31, 2005 and incorporated herein by reference).
10.19	Change in Control Agreement for G. Allan,
10.20	Change in Control Agreement for R. Gunn
10.21	Change in Control Agreements for K. Tully & D. Farrar

Table of Contents

10.22 Amended and Restated 2000 Employee Stock Purchase Plan

- 21.1 Subsidiaries of Insmmed Incorporated (previously filed as Exhibit 21.1 to Insmmed Incorporated's annual Report on form 10-K for the year ended December 31, 2001 and incorporated herein by reference).
- 23.1 Consent of Ernst & Young LLP.
- 31.1 Certification of Geoffrey Allan, Ph.D., chairman of the Board and Chief Executive Officer of Insmmed Incorporated, pursuant to Rules 13a-14(a) and 15d-14(a) promulgated under the Securities Exchange Act of 1932, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2003.
- 31.2 Certification of Kevin P. Tully, Executive vice President and Chief Financial Officer (Principal Financial and Accounting Officer) of Insmmed Incorporated, pursuant to Rules 13a-14(a) and 15d-14(a) promulgated under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2003.
- 32.1 Certification of Geoffrey Allan, Ph. D., Chairman of the Board and Chief Executive Officer of Insmmed Incorporated, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2003.
- 32.2 Certification of Kevin P. Tully, Executive Vice President and Chief Financial Officer (Principal Financial and Accounting Officer) of Insmmed Incorporated, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2003.

+ The Securities and Exchange Commission has granted confidential treatment with respect to certain information in these exhibits. The confidential portions of these exhibits have been omitted and filed separately with the Securities and Exchange Commission.

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