INSMED INC
Form 424B4
August 06, 2003
Table of Contents

Filed pursuant to Rule 424(b)(4)

Registration No. 333-107308

P R O S P E C T U S

8,416,222 Shares

INSMED INCORPORATED

Common Stock

This prospectus relates to the offer and sale from time to time of (i) up to 5,146,846 shares of our common stock and (ii) up to 3,269,376 shares of our common stock issuable upon exercise of warrants to purchase common stock held by the selling shareholders, both for the benefit of the selling shareholders named in this prospectus.

The selling shareholders identified in this prospectus, or their pledgees, donees, transferees or other successors-in-interest, may sell the shares of our common stock at various times and in various types of transactions, including sales in the open market, sales in negotiated transactions and sales by a combination of these methods. Shares may be sold at the market price of the common stock at the time of a sale, at prices relating to the market price over a period of time or at prices negotiated with the buyers of shares. We do not know, however, when the proposed sales of the shares by the selling shareholders will occur. More detailed information concerning the distribution of the shares is contained in the section of this prospectus entitled Plan of Distribution which begins on page 21.

We are registering the offer and sale of the shares of common stock to satisfy our contractual obligations to provide the selling shareholders with freely tradable shares. We will not receive any of the proceeds from the sale of the shares.

Our common stock is listed on the Nasdaq National Market under the trading symbol INSM. The reported closing price of our common stock on the Nasdaq National Market on August 5, 2003 was $2.82 per share.

YOU SHOULD CONSIDER CAREFULLY THE RISK FACTORS BEGINNING ON PAGE 8 OF THIS PROSPECTUS BEFORE PURCHASING ANY OF THE COMMON STOCK OFFERED HEREBY.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is August 6, 2003

Table of Contents

TABLE OF CONTENTS

You should rely on the information contained in this prospectus. We have not authorized anyone to provide you with information different from that contained or incorporated by reference in this prospectus. The selling shareholders, as defined below, are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of the shares of common stock.

In this prospectus, selling shareholders refers to the persons identified in the section titled Selling Shareholders beginning on page 19.

In this prospectus, Insmed, we, us and our refer to Insmed Incorporated.

Table of Contents

THE COMPANY

Introduction

Insmed was incorporated in Virginia on November 29, 1999 to facilitate the May 31, 2000 acquisition of Celtrix Pharmaceuticals, Inc. by Insmed Pharmaceuticals, Inc. Insmed Pharmaceuticals, Inc., our predecessor, was incorporated in Virginia on September 23, 1988 and Celtrix Pharmaceuticals, Inc., was incorporated on July 24, 1990. Our principal executive offices are located at 4851 Lake Brook Drive, Glen Allen, Virginia 23060 and our phone number is (804) 565-3000.

We are a biopharmaceutical company focused on the discovery and development of drug candidates for the treatment of metabolic diseases and endocrine disorders. Our approach is to correct metabolic defects in the human body by replacing key regulatory molecules in a physiologically relevant fashion. We believe this approach will translate into an intrinsic safety advantage for our products in the marketplace. We currently have two lead drug candidates, recombinant human insulin-like growth factor one, complexed with recombinant human insulin-like growth factor binding protein three (rhIGF-I/rhIGFBP-3), also known as SomatoKine, and recombinant human insulin-like growth factor binding protein three (rhIGFBP-3). We are actively developing these drugs to treat indications in the metabolic and oncology fields.

Medical Background

One of the main factors in maintaining normal healthy growth and metabolism is the equilibrium of the triumvirate of insulin, growth hormone and insulin-like growth factor I (IGF-I). Any imbalance in the various levels of these key components will result in multiple endocrine and metabolic conditions such as Growth Hormone Deficiency and Diabetes. It is believed that the administration of IGF-I, bound together with its most common binding protein IGFBP-3, addresses certain deficiencies and instabilities caused by an imbalance in this key axis.

Hormones

Hormones are chemical messenger molecules that are made by various glands and secreted into the bloodstream to stimulate other parts of the body to perform specific activities. The human body produces a number of individual hormones that fulfill varied purposes. One of the hormones, growth hormone (GH), is made by the pituitary gland in the central brain and its primary function is to stimulate growth. As such, GH secretion is most urgently needed during adolescence when it reaches its peak concentrations in the circulatory system. GH is most frequently produced and secreted in short bursts during sleep. Typically, after the age of 20 the secretion of GH starts to decrease rapidly as the need for growth is much reduced. However, the secretion of GH does not stop completely as its presence is critical for a number of vital biological processes, including tissue repair, muscle growth, healing, brain function, bone strength, energy and metabolism. GH does not last long in the bloodstream and circulating GH is rapidly absorbed by the liver, where it stimulates the production of growth factors, including IGF-I. The term insulin-like growth factor was adopted because IGF-I shares significant structural homology with insulin and it is a member of the peptide family which includes insulin. IGF-I is a hormone just like GH, and, although GH is the initiator of a complex biological signaling cascade that promotes growth in different tissues, it is actually IGF-I that is the principal messenger molecule at the cellular level. Similar to replacing insulin in diabetic patients, we believe it should be possible to treat growth related deficiencies caused by either GH deficiencies or insensitivity to GH by making more IGF-I available in the bloodstream. Growth hormone insensitivity syndrome (GHIS) is a syndrome whereby the body does not have, or has lost, its ability to recognize human growth hormone and therefore fails to respond in the normal manner. This results in defective cell and tissue growth. There are two main types of GHIS: primary GHIS where an individual is born with a growth hormone receptor (GHR) defect, and secondary GHIS, where an individual acquires the GHR defect sometime during their life.

A subset of primary GHIS is Laron syndrome (LS), a rare genetic condition which presently is reported to affect over 250 patients world-wide. These patients are characterized by severe dwarfism and metabolic dysfunction. LS patients also have normal to high levels of human GH and low levels of IGF-I and IGFBP-3. Most LS patients are diagnosed around the age of two and if untreated often grow to adult heights of less than four feet. As adults, LS patients experience progressive obesity, insulin resistance, and a predisposition towards high total cholesterol and diabetes.

Table of Contents

We have initiated a pivotal clinical trial in the pre-pubertal LS population, utilizing rhIGF-I/rhIGFBP-3. We believe this limited population could obtain a great deal of therapeutic benefit from treatment because they have yet to enter their normal key growth phase. If successful in treating GHIS, we further believe that rhIGF-I/rhIGFBP-3 could offer the potential for treating several other medical conditions including diabetes, severe burns and hip fractures.

Oncology

Cancer is a term applied to a variety of diseases, all of which are characterized by abnormal and unregulated cell growth. The World Health Organization estimates that by 2020, the number of annual worldwide cancer related deaths is expected to reach 10 million. Although there are several drugs available to treat cancer, their use often produces significant side effects and decreases the quality of life of the patient.

Clearly there are a number of factors which can contribute to the development and progression of malignancies. Scientific research over the past two decades has brought about the identification of key cellular pathways that regulate tumor growth. As a result, novel agents that target these growth-promoting pathways are emerging as promising new treatments for cancer.

Our oncology program focuses on IGFBP-3, a protein that is normally found in the bloodstream and that has been shown to induce cancer cell death in a variety of experimental systems. Several studies have demonstrated that cancer risk increases with decreasing levels of circulating IGFBP-3. In addition, recent independent studies have demonstrated that IGFBP-3 can induce cell cycle arrest and enhance the efficacy of chemotherapeutic agents. Insmed is currently engaged in an active preclinical program with leading clinical oncologists and world experts in the field of IGFBP-3 research to evaluate the efficacy of rhIGFBP-3 as a therapeutic agent and to define the optimal clinical protocol in which to translate these promising observations into human clinical trials.

Insmed s Products

rhIGF-I/rhIGFBP-3

Our lead product candidate, rhIGF-I/rhIGFBP-3, is the recombinant protein complex of IGF-I and its most abundant binding protein, IGFBP-3. Although IGF-I is also found in its pure form in the bloodstream, free circulating IGF-I has a biological half-life of approximately 15 minutes. IGF-I is most frequently found in the circulatory system bound to its natural binding protein IGFBP-3 which, as a complex, has a biological half-life of 12 to 15 hours. We believe this extended half-life may offer an improved safety and efficacy profile compared to the administration of rhIGF-I alone.

rhIGF-I/rhIGFBP-3 is a complex made up of IGF-I derived from *E. coli* containing a gene encoding human IGF-I, bound to IGFBP-3 derived from *E. coli* containing a gene encoding human IGFBP-3. When injected into animals and humans, rhIGF-I/rhIGFBP-3 mimics the physiological effects of IGF-I and offers certain benefits over the administration of rhIGF-I, including:

- providing a convenient once daily dose regimen; and

possibly providing an improved safety profile.

Several short and long-term (greater than five years) studies to evaluate the effects of rhIGF-I in children with GHIS, such as LS, have demonstrated the effectiveness of rhIGF-I to significantly increase growth velocity.

The Food and Drug Administration (FDA) in the US and the European Medical Evaluation Agency (EMEA) in Europe have granted us Orphan Drug Status for rhIGF-I/rhIGFBP-3 for the treatment of GHIS, which could lead to an extended period of market exclusivity. We have recently initiated a pivotal trial for rhIGF-I/rhIGFBP-3 for the treatment of GHIS and plan to apply for marketing authorization in the US and Europe during the second half of 2004. It is our intention to initially enter the market with the GHIS indication and then pursue additional unmet medical needs in which IGF-1 deficiency has been shown to play a role.

Table of Contents

We also have positive results from previously conducted clinical trials with rhIGF-I/rhIGFBP-3 in the treatment of diabetes, recovery from burn injuries and recovery from osteoporotic hip fractures.

In April 2000, the *Journal of Clinical Endocrinology & Metabolism* published the results of our first completed Phase II clinical trial with rhIGF-I/rhIGFBP-3 for type 1 diabetes. This trial demonstrated that rhIGF-I/rhIGFBP-3 significantly improves insulin sensitivity and lowers glucose in patients with type 1 diabetes with no clinically relevant adverse side effects. This data was based on a double-blind, placebo-controlled study involving 12 patients with type 1 diabetes. Specifically, data from this study revealed that when compared to placebo, average daily insulin requirements were significantly reduced ($p<0.01$), average daily blood glucose levels declined ($p<0.02$) and cholesterol levels declined ($p<0.05$). Published results of previous studies by other companies of IGF-I administered alone without rhIGFBP-3 indicate that patients frequently reported jaw pain, muscular pain, headache and tissue swelling. There were no reports of clinically relevant side effects in this Phase II trial of rhIGF-I/rhIGFBP-3.

At the 2001 American Diabetes Association meeting, we reported results from our clinical study of rhIGF-I/rhIGFBP-3 in type 2 diabetes patients. Data from this randomized, double-blind study demonstrated that the drug reduced insulin consumption by 51% to 83% and fasting blood glucose levels by 29% to 31%.

In January 2002, we announced positive results from a Phase II dose-ranging trial of rhIGF-I/rhIGFBP-3 in patients with type 2 diabetes. This study was placebo-controlled and double-blinded with eight-day treatment duration to determine the efficacy, safety and pharmacokinetics of rhIGF-I/rhIGFBP-3 in subjects with type 2 diabetes. Thirty-seven subjects were randomized to receive either placebo or rhIGF-I/rhIGFBP-3 at dose levels between 0.125 mg/kg and 2 mg/kg once daily in the evening. All subjects were on insulin therapy prior to enrollment and continued to receive appropriate insulin doses during a four-day run-in period as well as during the treatment period. The data demonstrated that statistically significant improvements in insulin sensitivity and fasting blood glucose occurred with the administration of rhIGF-I/rhIGFBP-3, with the most pronounced changes achieved with a dose of 2 mg/kg. At this dose a significant decrease in average daily insulin requirement from 70.8 units at baseline to 56.5 units (-20.2%) at the end of the treatment period was observed. Other outcome measurements included the change in fasting blood glucose which was decreased from 171.5mg/dL at baseline to 102.2mg/dL on treatment day eight (-40.4%) for the patient group receiving 2mg/kg of rhIGF-I/rhIGFBP-3 versus a decrease from 151.5mg/dL to 134.8mg/dL (-11%) for the patient group receiving placebo. The study further revealed a dose-dependent occurrence of mild hypoglycemia, which suggests that patients on rhIGF-I/rhIGFBP-3 therapy could have further lowered their daily insulin dose to achieve a desirable fasting blood glucose concentration. We believe the results demonstrated that a single daily dose of rhIGF-I/rhIGFBP-3 can be an effective adjunct to insulin in patients with type 2 diabetes whose blood glucose is poorly controlled by standard insulin regimens.

In January 2003, we announced positive results from a dose-ranging trial of rhIGF-I/rhIGFBP-3 in adolescent patients with type 1 diabetes. The double-blind placebo controlled dose-range finding study was designed to investigate the effects of the addition of a single daily dose of rhIGF-I/rhIGFBP-3 on insulin sensitivity, growth hormone and IGF-I levels in adolescent subjects with type 1 diabetes. The study was conducted at the University of Cambridge in Cambridge, England. All subjects were on insulin therapy prior to enrollment and continued to receive appropriate insulin doses during the study. The study revealed that following the administration of rhIGF-I/rhIGFBP-3, IGF-I blood levels were restored and increases in insulin sensitivity occurred in a dose-dependent manner. These results were presented at the American Diabetes Association Meeting in July 2003.

rhIGFBP-3

Our second product candidate, rhIGFBP-3, is a proprietary product currently in preclinical development to evaluate its potential as a novel anti-tumor agent to treat human cancers. In January 2003 we announced the results of studies conducted by our collaborators at McGill University in Montreal, Canada and the Bristol Royal Infirmary in Bristol, England. These studies demonstrated that rhIGFBP-3 caused a

significant reduction in cancer cell growth and a marked inhibition of tumor growth in animals with no adverse side effects. Ongoing preclinical work is directed toward defining the optimal clinical protocol in which to translate the promising observations.

Table of Contents

This program is very focused and is moving forward at a rapid pace. Toxicology studies in support of the Phase I clinical program have already begun and we plan to initiate clinical studies in the first half of 2004. In addition, we are actively seeking strategic partnerships to expedite the clinical development of this compound.

In July 2003 at the 94th Annual Meeting of the American Association of Cancer Research, we reported data from recent studies of our proprietary anti-cancer compound, rhIGFBP-3. The study conducted at McGill University in Montreal, Canada was designed to examine the anti-tumor effect of rhIGFBP-3 in three solid tumor models: lung, breast and colon, with the objective of determining the potential therapeutic capability of rhIGFBP-3 in human trials. The results of this study, published in the abstract titled, Insulin-Like Growth Factor-Binding Protein 3: Single Agent and Synergistic Effects with Chemotherapeutic Drugs on Solid Tumor Model, demonstrated the following:

1. rhIGFBP-3 inhibited lung tumor growth by 70% as a single agent in mice.

2. rhIGFBP-3 increased the effect of paclitaxel, a chemotherapy drug, from 33% to 61% in mice bearing human breast tumors.

3. rhIGFBP-3 inhibited colorectal tumor growth in mice by 25% as a single agent and increased the inhibitory effect of irinotecan, a chemotherapy drug, from 30% to 69%.

In summary, rhIGFBP-3 exhibited single agent and/or combinatorial anti-tumor effects in three solid tumor models. No signs of rhIGFBP-3 toxicity were noted in any of the animal studies.

A further study conducted at McGill University, was designed to evaluate the effects of rhIGFBP-3 on radiation therapy in a model of human breast cancer. The results are published in the abstract titled, Radiosensitizing effect of rhIGFBP-3 on MCF-7 Breast Cancer Cells In Vitro , which demonstrate the following:

1. rhIGFBP-3 alone produced a dose-dependent inhibition of cell proliferation, with a maximum suppression of approximately 45%.

2. The data also showed that rhIGFBP-3 enhanced the apoptotic effects (programmed cell death) of radiation therapy.

Table of Contents

THE OFFERING

Common stock offered by selling shareholders	8,416,222 shares (including up to 3,269,376 shares issuable upon exercise of warrants to purchase common stock held by the selling shareholders).
Use of proceeds	We will not receive any proceeds from the sale of our common stock sold by selling shareholders.
Nasdaq National Market symbol	INSM
Risk Factors	See Risk Factors for a discussion of the factors you should carefully consider before deciding to invest in shares of our common stock.

Table of Contents

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below before making an investment decision. The risks and uncertainties described below are not the only ones facing us. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations.

If any of the following risks actually occur, our business, financial condition, or results of operations could be materially adversely affected. In that case, the trading price of our common stock could decline, and you could lose all or part of your investment.

This prospectus contains forward-looking statements that involve risk and uncertainties. Our actual results could differ materially from those anticipated in such forward-looking statements as a result of a variety of factors, including those set forth in the following risk factors and elsewhere in, or incorporated by reference into, this prospectus. In evaluating an investment in the shares of common stock you should consider carefully the following risk factors in addition to the other information presented in this prospectus or incorporated by reference into this prospectus.

GENERAL RISKS RELATED TO OUR BUSINESS

Because our products are in an early stage of development, we have not received regulatory approval for any of our products or released any products for commercial sale; therefore, we can give you no assurances that we will succeed in commercializing our products.

Our long-term viability and growth will depend on the successful commercialization of products resulting from our development activities, including rhIGF-I/rhIGFBP-3 and rhIGFBP-3. All of our potential products and production technologies are in the research or development stages, and we have generated no revenues from product sales. We need to conduct significant additional development, laboratory and clinical testing and invest significant additional amounts of capital before we can successfully commercialize our products. We can give you no assurances that we will identify, develop or produce products with commercial potential or that we will secure market acceptance for our products. The failure to commercialize our potential products will adversely affect our business, financial condition and results of operations. In addition, the research, development, testing, clinical trials and acquisition of the necessary regulatory approvals with respect to any given product will take many years and thus delay our receipt of revenues, if any, from any such products. Also, potential products that appear promising at early stages of development may fail for a number of reasons, including the possibility that the products:

- may be ineffective;
- may cause harmful side effects; or
- may be too expensive to manufacture.

Our products may also fail to receive regulatory approval and, even after regulatory authorities approve our products, the products may fail to achieve market acceptance or the proprietary rights of third parties may prevent their commercialization.

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 product development and we currently have no sales. We have incurred losses each year of operation and we expect to continue incurring operating losses for the foreseeable future. The process of developing our products requires significant pre-clinical testing and clinical trials as well as regulatory approvals for commercialization and marketing before we can begin to generate any revenue from product sales. In addition, successful commercialization of our drug candidates will require us to establish a sales and marketing organization and contractual relationships to enable product manufacturing and other related activity. We expect that these activities, together with our general and administrative expenses, will result in substantial operating losses for the foreseeable

Table of Contents

future. As of March 31, 2003, our accumulated deficit was $178.4 million. For the quarter ended March 31, 2003, our consolidated net loss was $2.2 million.

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 adversely impact our business, financial condition and results of operations.

We will require substantial future capital in order to continue to conduct the time-consuming research and development, clinical studies and regulatory activities necessary to bring our therapeutic products to market and to establish production, marketing and sales capabilities. 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 future capital requirements will depend on many factors, including the progress of pre-clinical testing and clinical trials, the time and costs involved in obtaining regulatory approvals, the costs involved in filing and prosecuting patent applications and enforcing patent claims and the establishment of strategic alliances and activities required for product commercialization. We believe that existing cash reserves with the additional capital will sufficiently fund our activities through 2005.

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/or relinquish rights to our technologies or product candidates.

If our products fail in clinical trials or if we cannot enroll enough patients to complete our clinical trials, there may be an adverse effect on our business, financial condition and results of operations.

In order to sell our products, we must receive regulatory approval for our products. Before obtaining regulatory approvals for the commercial sale of any of our products under development, we must demonstrate through pre-clinical studies and clinical trials that the product is safe and effective for use in each target indication. Therefore, if our products fail in clinical trials, there will be an adverse effect on our business, financial condition and results of operations. In addition, the results from pre-clinical 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. 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.

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

- patient population size;
- 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 trials 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 sales, if any, of our products. Such delays could materially adversely affect our business, financial condition and results of operations.

If we fail to obtain regulatory approvals for our products under development, such failure may adversely affect our business, financial condition and results of operations.

Because our products are in an early stage of development, none has received regulatory approval or been released for commercial sale. The pre-clinical testing and clinical trials of any compounds we develop and the

Table of Contents

manufacturing and marketing of any drugs produced from such compounds must comply with regulation by numerous federal, state and local governmental authorities in the United States, principally the FDA, and by similar agencies in other countries. No product can receive FDA approval unless human clinical trials show its safety and effectiveness. There can be no assurance that clinical testing will provide evidence of safety and effectiveness in humans or that regulatory agencies will grant approvals for any of our products.

The regulatory process takes many years and requires the expenditure of substantial resources. Data obtained from pre-clinical and clinical activities are 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 drug and/or the period required for review of any application for regulatory agency approval of a particular compound. Delays in obtaining regulatory agency approvals could adversely affect the marketing of any drugs that our collaborative partners or we 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.

If the FDA grants approval for a drug, such approval may limit the indicated uses for which we may market the drug, and this could limit the potential market for such drug. Furthermore, if we obtain approval for any of our products, the marketing and manufacture of such products remain subject to extensive regulatory requirements. Even if the FDA grants approval, such approval would be subject to continual review, and later discovery of unknown problems could restrict the products future use or cause their withdrawal from the market. Failure to comply with regulatory requirements could, among other things, result in fines, suspension of regulatory approvals, operating restrictions and criminal prosecution. In addition, many countries require regulatory agency approval of pricing and may also require approval for the marketing in such countries of any drug that our collaborative partners or we develop.

We cannot be certain that we will obtain any regulatory approvals in other countries, and the failure to obtain such approvals may materially adversely affect our business, financial condition and results of operations. In order to market our products outside of the United States, 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 other countries might differ from that required to obtain FDA approval. The regulatory approval process in other countries includes all of the risks associated with obtaining FDA approval detailed above. Approval by the FDA does not ensure approval by the regulatory authorities of other countries.

If our products fail to achieve market acceptance for any reason, such failure may 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 products 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 products 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;
- their potential advantage over existing treatment methods; and
- reimbursement policies of government and third-party payers, including insurance companies.

For example, even if 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. We can give no assurance that physicians, patients, third-party payers or the medical community in general will accept and use any products that we may develop.

Table of Contents

We currently have no internal manufacturing and limited marketing capability, which may make commercializing our products difficult.

We have no internal manufacturing and limited marketing capability. Failure to successfully manufacture and market our products could materially adversely affect our business, financial condition and results of operations. We intend to enter strategic alliances with other parties that have established commercial scale manufacturing capabilities. There can be no assurance that we will enter such strategic alliances on terms favorable to us, or at all. If we are unable to establish and maintain relationships with third parties for manufacturing sufficient quantities of our product candidates and their components that meet our planned time and cost parameters, the development and timing of our clinical trials may be adversely affected. In addition, there can be no assurance that an adverse FDA inspection of a contractor s manufacturing facilities would not impede our commercial supply capability. As an alternative, we may choose to commercialize such products on our own, which would require substantial additional funds.

If the FDA or any other regulatory agency permits us to commence commercial sales of products, we will face competition with respect to commercial sales, marketing and distribution. These are areas in which we have no experience. To market any of our products directly, we must develop a marketing and sales force with technical expertise and with supporting distribution capability. Alternatively, we may engage a pharmaceutical company with a large distribution system and a large direct sales force to assist us. There can be no assurance that we will successfully establish sales and distribution capabilities or gain market acceptance for our proprietary products. To the extent we enter co-promotion or other licensing arrangements, any revenues we receive will depend on the efforts of third parties and there can be no assurance that our efforts will succeed.

Manufacturing capacity necessary to supply rhIGF-I/rhIGFBP-3 and rhIGFBP-3 may not be available, which may adversely affect our business, financial condition and results of operations.

The available capacity for the manufacture of recombinant proteins that comprise rhIGF-I/rhIGFBP-3 is limited. A shutdown or disruption in any of these facilities due to technical, regulatory 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.

Process improvements in the manufacture of rhIGF-I/rhIGFBP-3 and rhIGFBP-3 will be necessary to conduct Phase III clinical trials and produce commercial scale quantities.

We have signed an agreement with Avecia Limited to manufacture rhIGF-I/rhIGFBP-3 and rhIGFBP-3 at Avecia s site at Billingham, England. At present, rhIGF-I/rhIGFBP-3 and rhIGFBP-3 have never been manufactured by Avecia; we cannot guarantee that they will be able to produce rhIGF-I/rhIGFBP-3 and rhIGFBP-3 at scales necessary for Phase III and commercialization. If process improvements are not successful, our costs will increase and the manufacture of rhIGF-I/rhIGFBP-3 and rhIGFBP-3 for research and development will be delayed. Such delay could materially adversely affect our business, financial condition and results of operations.

We need collaborative relationships for success.

We currently rely and may in the future rely on a number of significant collaborative relationships for research funding, clinical development and/or sales and marketing. Reliance on collaborative relationships poses a number of risks, including the following:

we cannot 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 corporate partners;

disagreements with corporate partners could 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 of our intellectual property;

Table of Contents

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

- 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 our product development or impair commercialization of our products.

Uncertainty regarding third-party reimbursement and healthcare cost containment initiatives may negatively affect our business, financial condition and results of operations.

If we succeed in bringing any of our proposed products to the market, we cannot assure you that third parties will consider the products cost-effective or provide reimbursement in whole or in part for their use. Our commercial success will depend in part on third-party payers agreeing to reimburse patients for the costs of products. Government health administration authorities, private health insurers and other organizations generally provide reimbursement. Third-party payers frequently challenge the pricing of new drugs. Significant uncertainty exists as to the reimbursement status of newly approved healthcare products. Therefore, third-party payers may not approve our products for reimbursement.

If third-party payers do not approve our products for reimbursement, sales will suffer, as some patients will opt for a competing product that is approved for reimbursement. Even if third-party payers make reimbursement available, these payer s reimbursement policies may adversely affect our corporate partners and our ability to sell such products on a profitable basis.

Moreover, the trend toward managed healthcare in the United States, the growth of organizations such as health maintenance organizations and legislative proposals to reform healthcare and government insurance programs could significantly influence the purchase of healthcare services and products, resulting in lower prices and reducing demand for our products which could adversely affect our business, financial condition and results of operations.

In addition, legislation and regulations affecting the pricing of pharmaceuticals may change in ways adverse to us before or after the FDA or other regulatory agencies approve any of our proposed products for marketing. While we cannot predict the likelihood of any such 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.

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 assure you 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 assure you 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

Table of Contents

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 timely regulatory approvals;
- terminating their agreements with us prematurely; or
- failing to devote sufficient resources to the development and commercialization of products.

We face uncertainties related to patents and proprietary technology that may 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 arising from our research and development activities that have significant potential commercial value. Nevertheless, it is possible that, in the patent application process, 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.

We can give no assurance that a third party will not claim (with or without merit) that we have infringed or misappropriated their proprietary rights. A variety of third parties have obtained, and are attempting to obtain, patent protection relating to the production and use of rhIGF-I

and/or rhIGFBP-3. We can give no assurances as to whether any issued patents, or patents that may later issue to third parties, would affect our contemplated commercialization of rhIGF-I/rhIGFBP-3 or rhIGFBP-3. We can give no assurances that such patent(s) can be avoided, invalidated or licensed. If any third party were to assert a claim for infringement, we can give no assurances that we would 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. Furthermore, we may not be able to afford the expense of defending against such a claim.

Third parties, including Genentech, Chiron, Amgen, Novartis AG, Fujisawa, Beth Israel Hospital and Robert Rieveley hold United States and/or foreign patents possibly directed to the composition, production and/or use of rhIGF-I, rhIGFBP-3, rhIGF-I/rhIGFBP-3 and/or recombinant proteins in general. After examining these patents, we do not believe they present an obstacle to our plans to commercialize rhIGF-I/rhIGFBP-3 and rhIGFBP-3. However, we can provide no assurance that any one of these third parties will not assert in the future a contrary position, for instance in the context of an infringement action. Moreover, while we cannot predict with certainty the outcome of such a proceeding, an adverse ruling could impact our ability to make, use or sell our products.

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 cannot assure that a court of competent jurisdiction

Table of Contents

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 subject us to significant liabilities to other parties, require us to license disputed rights from other parties or require us to cease using such technology, any of which could materially adversely affect our business, financial condition and results of operations.

In 1998 Genentech requested a hearing with the European Patent Office to oppose the validity of one of our European patents with claims to rhIGFBP-3, uses of rhIGFBP-3 and uses of rhIGF-I/rhIGFBP-3. As of yet, no hearing date has been set by the European Patent Office. Should the opposition hearing be held and should Genentech prevail, some or all of the claims of this patent may be revoked. This result could lessen our ability to exclude others, but would not affect our own ability, to practice these claims.

Confidentiality agreements with employees and others may not adequately prevent disclosure of trade secrets and other proprietary information.

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 could 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 position.

Third-party claims that our products infringe on their proprietary rights may adversely affect our business, financial condition and results of operations.

We have entered into license agreements, and may enter into future license agreements, with various licensees to develop and market our products, and we cannot assure that third parties will not claim that we and/or our licensees, by practicing our technology, are infringing on their proprietary rights. If other companies successfully bring legal actions against us or our licensees claiming patent or other intellectual property infringements, in addition to any potential liability for damages, a court could require us and/or our licensees to obtain a license in order to continue to use the affected processes or to manufacture or use the affected products, or alternatively, require us and/or our licensees to cease using such products or processes. Such a result may have an adverse effect on our business, financial condition and results of operations. Any such claim, with or without merit, could result in costly litigation or might require us and/or our licensees to enter into royalty or licensing agreements, all of which could delay or otherwise adversely impact the development of our potential products for commercial use. If a court requires us to obtain licenses, there can be no assurance that we and/or our licensees will be able to obtain them on commercially favorable terms, if at all. Without such licenses, we and/or our licensees may be unable to develop certain products. Our breach of an existing license or our failure to obtain, or our delay in obtaining, a license to any technology that we require to commercialize our products may materially adversely impact our business, financial condition and results of operations.

An inability to compete successfully would harm our business, financial condition and results of operations.

We engage in a business characterized by extensive research efforts, rapid developments and intense competition. We cannot assure that our products will compete successfully or that research and development by others will not render our products obsolete or uneconomical. Our failure to compete effectively would materially adversely affect our business, financial condition and results of operations. 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, as well as 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 trials 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 we will. 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.

Rapid technological change could make our products obsolete, which could 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 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.

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 highly depend 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, regulatory compliance, governmental approvals, contract manufacturing and marketing, 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 prospects for our success.

Our research and development 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 and development 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. In the event of an accident, we could be held liable for any damages, which could exceed our available financial resources, including our insurance coverage. This liability could 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 trials 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

Table of Contents

of our insurance coverage, if any, may require us to pay substantial amounts. This could have a material adverse effect our business, financial condition and results of operations.

RISKS RELATED TO OUR COMMON STOCK

The market price of our stock may continue to be highly volatile.

Our common stock is listed on the Nasdaq National 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 National Market;
- Results of our clinical trials 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 announcement of new products;
- Government regulations, reimbursement changes and governmental investigations 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/or
- 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.

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 of 1933, as amended (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.

We have never paid dividends on our common stock and do not anticipate paying any cash dividends in the foreseeable future.

We have not thus far paid cash 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.

Table of Contents

Certain provisions of Virginia law, our articles of incorporation and our amended and restated bylaws, and our Stockholder 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 Shareholder 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.

Table of Contents

FORWARD-LOOKING INFORMATION

The matters discussed throughout this prospectus that are not historical facts are forward-looking and, accordingly, involve estimates, projections, goals, forecasts, assumptions and uncertainties that could cause actual results or outcomes to differ materially from those expressed in the forward-looking statements. This prospectus and the documents incorporated by reference herein contain forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934 (the Exchange Act). Our actual results may differ materially from those projected in the forward-looking statements as a result of the risk factors set forth below. In particular, please review the sections captioned Management s Discussion and Analysis of Financial Condition and Results of Operations in our current reports on Form 10-Q for the quarter ended March 31, 2003, and in our annual report on Form 10-K for the fiscal year ended December 31, 2002, which reports are incorporated herein by reference, and such section of any subsequently filed Exchange Act reports.

These forward-looking statements may include, but are not limited to, future capital expenditures, acquisitions (including the amount and nature of acquisitions), future revenues, earnings, margins, costs, demand for new pharmaceutical products, market trends in the pharmaceutical business, inflation and various economic and business trends. You can identify forward- looking statements by the use of words such as expect, estimate, project, budget, forecast, anticipate, plan and similar expressions. Forward- looking statements include all statements regarding commencement of clinical trials, expected financial position, results of operations, cash flows, dividends, financing plans, business strategies, operating efficiencies or synergies, budgets, capital and other expenditures, competitive positions, growth opportunities for our proposed products, plans and objectives of management, proposed relationships with third-party research organizations, manufacturers and suppliers and markets for our stock.

These forward-looking statements are found at various places throughout this prospectus. We caution you not to place undue reliance on these forward-looking statements, which speak only as of the date they were made. We do not undertake any obligation to publicly release any revisions to these forward- looking statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events.

In some cases, you can identify forward-looking statements by terms such as may, will, should, could, would, expects, plans, anticipa believes, estimates, projects, predicts, potential, and similar expressions intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss many of these risks in this prospectus in greater detail under the heading Risk Factors. In connection with forward-looking statements which appear in these disclosures, prospective purchasers of the shares offered hereby should carefully consider the factors set forth in this prospectus under Risk Factors. Also these forward-looking statements represent our estimates and assumptions only as of the date of this prospectus.

Table of Contents

USE OF PROCEEDS

We will not receive any proceeds from the sale of the shares of our common stock by the selling shareholders. All proceeds from the sale of the shares of common stock by the selling shareholders will be received directly by the selling shareholders. See Selling Shareholders. If the selling shareholders exercise the warrants to purchase our common stock, then we will receive the exercise price from the exercise of the warrants. The proceeds from the exercise of the warrants, if any, will be used for development of our pharmaceutical product candidates, working capital and general corporate purposes.

SELLING SHAREHOLDERS

On July 11, 2003 we issued 5,146,846 shares of our common stock and warrants to purchase up to 1,544,046 shares of our common stock to accredited institutional investors in a private placement transaction. In May 2000 we issued warrants to purchase up to 1,725,330 shares of our common stock to accredited institutional investors. We are registering the 8,416,222 shares covered by this prospectus on behalf of the selling shareholders named in the table below. We have registered the shares to permit the selling shareholders and their pledgees, donees, transferees or other successors-in-interest that receive their shares from the selling shareholders as a gift, partnership distribution or other non-sale related transfer after the date of this prospectus to resell the shares.

The following table sets forth the name of each selling shareholder, the number of shares owned by it, the number of shares that may be offered under this prospectus and the number of shares of our common stock owned by the selling shareholder after this offering is completed. Except as otherwise disclosed below, none of the selling shareholders has, or within the past three years has had, any position, office or other material relationship with us. The number of shares in the column Number of Shares Being Offered represents all of the shares that a selling shareholder may offer under this prospectus and assumes the exercise of all the common stock warrants. The selling shareholders may sell some, all or none of their shares. We do not know how long the selling shareholders will hold the shares before selling them, and we currently have no agreements, arrangements or understandings with the selling shareholders regarding the sale of any of the shares. The shares offered by this prospectus may be offered from time to time by the selling shareholders.

Beneficial ownership is determined in accordance with Rule 13d-3(d) promulgated by the SEC under the Securities Exchange Act of 1934, as amended (the Securities Exchange Act). The warrants issued to the investors in the July 2003 private placement are not exercisable until January 11, 2004. In accordance with Rule 13d-3(d), the 1,544,046 shares of common stock issuable upon exercise of these warrants will not be deemed to be beneficially owned by the investors until November 12, 2003. The number of shares in the column Number of Shares of Common Stock Beneficially Owned Before This Offering excludes the 1,544,046 shares of common stock underlying these warrants, and the number of shares in the column Number of Shares Being Offered includes the 1,544,046 shares of common stock underlying these warrants.

Table of Contents

Selling Shareholder	Number of Shares of Common Stock Beneficially Owned Before This Offering	Number of Shares Being Offered	Number of Shares of Common Stock Beneficially Owned After This Offering
Portside Growth and Opportunity Fund LLC	833,333	1,083,332	0
Deephaven Small Cap Growth Fund LLC	648,148	842,592	0
Capital Ventures International	555,555	722,221	0
Omicron Master Trust	518,518	674,073	0
Elliott International, L.P.	420,000	546,000	0
Gryphon Master Fund, L.P.	370,370	481,481	0
Elliott Associates, L.P.	280,000	364,000	0
Langley Partners, L.P.	260,000	338,000	0
Quantum Partners, LDC	494,995	250,048	244,947(1)
Pequot International Fund, Inc.	250,048	250,048	0
Pequot Partners Fund, L.P.	250,048	250,048	0
Veron International Ltd.	1,291,560	250,048	1,041,512(2)
Otape Investments LLC	185,185	240,740	0
Castle Creek Healthcare Partners LLC	185,185	240,740	0
AIG DKR Soundshore Private Investors Holding Fund Lt.	150,000	195,000	0
Vector Later-Stage Equity Fund II (QP), L.P.	723,253	187,536	535,717(3)
CLSP, L.P.	170,108	170,108	0
Redwood Partners, LLC	92,592	120,369	0
Spectra Capital Management	92,592	120,369	0
Stonestreet LP	92,592	120,369	0
WEC Partners LLC	92,592	120,369	0
Highbridge International LLC	100,018	100,018	0
Truk Opportunity Fund, LLC	75,000	97,500	0
Crown Investment Partners, LP	60,000	78,000	0
Everspring Master Fund Ltd.	50,000	65,000	0
T. Rowe Price Health Services	62,512	62,512	0
Greenline Health Sciences Fund	62,512	62,512	0
Vector Later-Stage Equity Fund II, L.P.	241,083	62,512	178,571(1)
JAS Securities, LLC	46,296	60,184	0
TCMP3 Partners L.P.	46,296	60,184	0
CLSP-SBS I, L.P.	58,511	58,511	0
Greenwich Growth Fund Ltd.	37,037	48,148	0
Wolverine Trading LLC	37,037	48,148	0
Maybach Capital Inc.	18,518	24,073	0
CLSP-SBS II, L.P.	21,429	21,429	0
Total	**8,872,923**	**8,416,222**	**2,000,747**

(1) Represents less than 1% of our outstanding shares of common stock upon completion of this offering.
(2) Represents 2.5% of our outstanding shares of common stock upon completion of this offering.
(3) Represents 1.3% of our outstanding shares of common stock upon completion of this offering.

Table of Contents

PLAN OF DISTRIBUTION

The selling shareholders and any of their donees, transferees, pledgees, assignees and successors-in-interest may sell, from time to time, any or all of their shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at fixed or negotiated prices. The selling shareholder may use any one or more of the following methods when selling shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer so engaged will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- over-the-counter distribution in accordance with the rules of the Nasdaq National Market;
- privately negotiated transactions;
- short sales;
- broker-dealers may agree with the selling shareholder to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

Under applicable rules and regulations under the Securities Exchange Act, any person engaged in a distribution of the shares of common stock covered by this prospectus may be limited in its ability to engage in market activities with respect to such shares. A selling shareholder, for example, will be subject to applicable provisions of the Securities Exchange Act and the rules and regulations under it, including, without limitation, Regulation M, which provisions may restrict certain activities of the selling shareholder and limit the timing of purchases and sales of any shares of common stock by the selling shareholder. Furthermore, under Regulation M, persons engaged in a distribution of securities are prohibited from simultaneously engaging in market making and certain other activities with respect to such securities for a specified period of time prior to the commencement of such distributions, subject to specified exceptions or exemptions. The foregoing may affect the marketability of the shares offered by this prospectus.

To the extent required, this prospectus may be amended or supplemented from time to time to describe a specific plan of distribution. In connection with distributions of the shares or otherwise, the selling shareholders may enter into hedging transactions with broker-dealers or other financial institutions. In connection with such transactions, broker-dealers or other financial institutions may engage in short sales of our common stock in the course of hedging the positions they assume with selling shareholders. The selling shareholders may also sell our securities short and redeliver the shares to close out such short positions. The selling shareholders may also enter into option or other transactions with broker-dealers or other financial institutions that require the delivery to such broker-dealer or other financial institution of shares offered by this

prospectus, which shares the broker-dealer or other financial institution may resell pursuant to this prospectus, as supplemented or amended to reflect such transaction.

The selling shareholder may also engage in short sales against the box, puts and calls and other transactions in our securities or derivatives of our securities and may sell or deliver shares in connection with these trades. The selling shareholder may pledge its shares to their brokers under the margin provisions of customer agreements. If a selling shareholder defaults on a margin loan, the broker may offer and sell, from time to time, the pledged shares.

The selling shareholder may sell shares directly to market makers acting as principals and/or broker-dealers acting as agents for itself or its customers. Broker-dealers engaged by the selling shareholder may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions, concessions or discounts from the selling shareholder (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated. The selling shareholder does not expect these commissions and discounts to exceed what is customary in the types of transactions involved. Market makers and block purchasers that purchase the shares will

Table of Contents

do so for their own account and at their own risk. It is possible that a selling shareholder will attempt to sell shares in block transactions to market makers or other purchasers at a price per share that may be below the then-current market price. We cannot make assurances that all or any of the shares of common stock will be issued to, or sold by, the selling shareholder.

In addition, any shares that qualify for sale pursuant to Rule 144 promulgated under the Securities Act may be sold under Rule 144 rather than pursuant to this prospectus.

The selling shareholder and any broker-dealers or agents that are involved in selling the shares may be deemed to be underwriters within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act.

In certain states, the applicable state securities laws will require a holder of shares desiring to sell its shares to sell its shares only through registered or licensed brokers or dealers. In addition, in certain states the shares may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

We are required to pay all fees and expenses incident to the registration of the shares, including fees and disbursements of counsel to the selling shareholders. We have agreed to indemnify the selling shareholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

In addition, we will make copies of this prospectus available to the selling shareholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling shareholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

At the time a particular offer of shares is made, if required, a prospectus supplement will be distributed that will set forth the number of shares being offered and the terms of the offering, including the name of any underwriter, dealer or agent, the purchase price paid by any underwriter, any discount, commission and other item constituting compensation, any discount, commission or concession allowed or reallowed or paid to any dealer, and the proposed selling price to the public.

Table of Contents

LEGAL MATTERS

The validity of the common stock offered hereby will be passed upon for us by Hunton & Williams LLP, Richmond, Virginia.

EXPERTS

Ernst & Young LLP, independent auditors, have audited our consolidated financial statements included in our Annual report on Form 10-K for the year ended December 31, 2002, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP s report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements, and other information with the Securities and Exchange Commission (the SEC). You may read and copy any documents we file at the SEC s Public Reference Room at 450 Fifth Street, N.W., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. Our SEC filings are also available to the public on our web site at http://www.insmed.com at the SEC s web site at http://www.sec.gov.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below, and any future filings made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act, until all the shares registered by this prospectus are sold. This prospectus is part of a Registration Statement we filed with the SEC (Registration No. 333-107308). The documents we incorporate by reference are:

1. Our Annual Report on Form 10-K for the fiscal year ended December 31, 2002;

2. Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2003;

3. Our Current Reports on Form 8-K, filed with the SEC on May 13, 2003, July 11, 2003 and July 16, 2003;

4. The description of our Common Stock contained in our Registration Statement on Form 8-A, as filed with the SEC on June 1, 2000; and

5. The description of our Preferred Stock Purchase Rights contained in our Registration Statement on Form 8-A, as filed with the SEC on May 17, 2001.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address: Mr. Kevin P. Tully, Insmed Incorporated, 4851 Lake Brook Drive, Glen Allen, Virginia 23060; telephone number (804) 565-3000.

Table of Contents

We have not authorized any dealer, salesperson or other person to give any information or to make any representations not contained in this prospectus or any Prospectus Supplement. You must not rely on any unauthorized information. This prospectus is not an offer of these securities in any state where an offer is not permitted. The information in this prospectus is current as of August 6, 2003. You should not assume that this prospectus is accurate as of any other date.

TABLE OF CONTENTS

INSMED INCORPORATED

8,416,222 Shares

Common Stock

PROSPECTUS

August 6, 2003