FILED PURSUANT TO 424(B)(3)

P R O S P E C T U S

INHALE THERAPEUTIC SYSTEMS, INC.

$108,450,000
of 6 3/4% Convertible Subordinated Convertible Debentures due October 13, 2006
and 3,388,268 Shares of Common Stock Issuable Upon Conversion of the Debentures

---

This prospectus relates to 6 3/4% Convertible Subordinated Debentures due October 13, 2006 of Inhale Therapeutic Systems, Inc., a Delaware corporation, held by certain security holders who may offer for sale the debentures and the shares of our common stock into which the debentures are convertible at any time at market prices prevailing at the time of sale or at privately negotiated prices. The selling security holders may sell the debentures or the common stock directly to purchasers or through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions.

The holders of the debentures may convert the debentures into shares of our common stock at any time at a conversion price of $32.0075 per share of common stock. After October 13, 2002, we may redeem the debentures, in whole or in part, at the redemption prices set forth in the section entitled "Description of the Debentures--Optional Redemption by Inhale."

In the event of a Change of Control, as defined in the section entitled "Description of the Debentures--Repurchase at Option of Holders upon a Change in Control," each holder of the debentures may require us to repurchase the debentures at 100% of the principal amount of the debentures plus accrued interest. At our option, we may repurchase the debentures for cash or common stock.

The debentures are general, unsecured obligations that are subordinated in right of payment to all of our existing and future senior indebtedness. See "Description of the Debentures--Subordination".

Our common stock currently trades on the Nasdaq National Market under the symbol "INHL". The last reported sale price on January 25, 2000 was $72.94 per share.

Our 6 3/4% Convertible Subordinated Debentures are currently eligible for trading on the PORTAL Market of the Nasdaq Stock Market.

Investing in our common stock or our convertible subordinated debentures involves a high degree of risk. Please carefully consider the "Risk Factors" beginning on page 2 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is January 26, 2000

In connection with this offering, no person is authorized to give any information or to make any representations not contained in this prospectus. If information is given or representations are made, you may not rely on that information or representations as having been authorized by us. This prospectus is neither an offer to sell nor a solicitation of an offer to buy any securities other than those registered by this prospectus, nor is it an offer to sell or a solicitation of an offer to buy securities where an offer or solicitation would be unlawful. You may not imply from the delivery of this prospectus, nor from any sale made under this prospectus, that our affairs are unchanged since the date of this prospectus or that the information contained in this prospectus is correct as of any time after the date of this prospectus.

SUMMARY

THE FOLLOWING SUMMARY IS QUALIFIED IN ITS ENTIRETY BY THE MORE DETAILED INFORMATION APPEARING ELSEWHERE IN THIS PROSPECTUS. PROSPECTIVE INVESTORS SHOULD CONSIDER CAREFULLY THE INFORMATION IN THIS PROSPECTUS UNDER THE HEADING "RISK FACTORS."

THE COMPANY

We have created a drug delivery system to easily and painlessly deliver a wide range of drugs, including peptides, proteins, and other molecules, by inhalation to the deep lung for treatment of systemic and respiratory diseases. We are using this system principally to enable non-invasive delivery of macromolecule drugs currently administered by injection. Our most advanced program is inhaleable insulin, which is sponsored by Pfizer Inc. Pfizer commenced dosing for Phase III human clinical trials in June 1999. In addition to our insulin program with Pfizer, we have development collaborations with Biogen, Inc., Centeon L.L.C. (a joint venture of Hoechst Marion Roussel AG and Rhone-Poulenc Rorer, Inc., which have now merged to form Aventis), and Eli Lilly and Company. We also have early stage feasibility and research collaborations with several other companies and have tested six drugs in human clinical trials.

Currently there are approximately 35 macromolecule drugs marketed in the United States and about 120 others in human clinical trials. Sales of the top 15 genetically engineered protein drugs (a subset of macromolecule drugs) were estimated at $14 billion worldwide in 1997. Most of these drugs are currently delivered by injection. Injections are undesirable for numerous reasons including patient discomfort, inconvenience and risk of infection. Poor patient acceptance of, and compliance with, injectable therapies can lead to increased incidence of medical complications and higher disease management costs. Alternatives to injection such as oral, transdermal and nasal delivery have to date been shown generally to be commercially unattractive due to low natural bioavailability--the amount of drug absorbed from the delivery site into the bloodstream relative to injection. As an alternative to the invasiveness of injection, we believe a deep lung inhalation delivery system could expand the market for macromolecule drug therapies by increasing patient acceptance and improving compliance and may enable new therapeutic uses of certain macromolecule drugs.

We have created a proprietary technology platform integrating customized formulation, dry powder processing and packaging with a proprietary inhalation device to enable efficient, reproducible delivery of macromolecule drugs for systemic and local lung indications. For specific drug products, we formulate and process bulk drugs supplied by collaborative partners into dry powders which are packaged into individual dosing units referred to as blisters. The blisters are designed to be loaded into our device, which patients then activate to inhale the aerosolized drugs. We have developed a inhalation device that is being used several times per day for several months in outpatient trials for insulin. In addition, we have demonstrated room temperature stability of a year or more for a number of macromolecule drugs, and have scaled-up our powder processing and packaging for late stage clinical trials and small scale commercial production for certain drugs.

Our most advanced product is inhaleable insulin for Type 1 and Type 2 diabetes, which is being developed through a collaborative program with Pfizer. Insulin and insulin delivery systems sales were estimated to be $3.2 billion in 1998. Data published by Pfizer and clinical investigators from a 190 person Phase Ilb human clinical trial using our drug delivery system showed that inhaleable insulin provided statistically equivalent control of diabetes when compared with injectable mealtime insulin for diabetics on insulin, and improved control of diabetes for patients poorly controlled on oral therapies. Pfizer initiated dosing for Phase III trials in June 1999. These trials are expected to involve over 117 clinical sites. In November 1998, Pfizer announced that it entered into a co-development and co-promotion arrangement with Hoechst for inhaleable insulin. Hoechst subsequently announced that Hoechst and Pfizer would construct a jointly-owned manufacturing facility estimated to cost over

$160 million for the supply of insulin for pulmonary delivery. We will receive royalties on inhaleable insulin products marketed by Pfizer and Hoechst as well as revenues for supplying devices and powders.

Our development strategy is to focus our efforts on applying our pulmonary delivery system primarily to drugs for systemic and local lung diseases that either have proven efficacy and are approved for delivery by injection or are in late stage clinical trials. Our business strategy is to work with collaborative partners to develop and commercialize macromolecule drugs for deep lung delivery. In a typical collaboration, our partner will provide the drug, fund clinical development, and market the resulting commercial product. We will supply the delivery system and receive revenues from powder manufacturing, device supply, and royalties from sales of any commercial products. Prior to commercialization, we receive revenues from our partners for research and development funding and progress payments upon achievement of certain developmental milestones.

In addition to Pfizer's sponsorship of inhaleable insulin, we have active pulmonary delivery development programs with Biogen for AVONEX-Registered Trademark-, an interferon beta drug used in the treatment of multiple sclerosis; Centeon for an alpha-1 proteinase inhibitor for genetic emphysema; and Lilly for a proprietary compound. These and other ongoing projects in various stages of research, formulation and clinical development have been selected as focus programs by us because we believe our approach may have significant advantages over current therapies. We anticipate that any product that may be developed would be commercialized with a collaborative partner and believe our partnering strategy will enable us to reduce the investment required to develop a large and diversified potential product portfolio.

Our principal executive offices are located at 150 Industrial Road, San Carlos, CA 94070. Our telephone number is (650) 631-3100. We maintain an Internet home page at www.inhale.com. The contents of our web page are not a part of this prospectus.

RECENT EVENTS

In November 1999, we entered into an agreement with Alliance Pharmaceutical Corp. to acquire its PulmoSpheres-Registered Trademark- technology and other related assets for particle formation and powder processing. In exchange for the PulmoSpheres-Registered Trademark- technology and related assets and a number of shares of Alliance common stock having a market value of $5.0 million, we paid Alliance $15.0 million in cash and a number of shares of our common stock having a market value of $5.0 million. Alliance will also have the right to additional substantial payments upon the achievement of certain milestones and royalties on a defined number of products commercialized using the technology.

RISK FACTORS

IN ADDITION TO THE OTHER INFORMATION CONTAINED IN THIS PROSPECTUS, INVESTORS SHOULD CAREFULLY CONSIDER THE FOLLOWING RISK FACTORS IN EVALUATING AN INVESTMENT IN THE NOTES OR THE COMMON STOCK ISSUABLE UPON CONVERSION OF THE NOTES. THIS PROSPECTUS INCLUDES "FORWARD-LOOKING STATEMENTS" WITHIN THE MEANING OF SECTION 27A OF THE SECURITIES ACT AND SECTION 21E OF THE EXCHANGE ACT. ALL STATEMENTS OTHER THAN STATEMENTS OF HISTORICAL FACT ARE "FORWARD-LOOKING STATEMENTS" FOR PURPOSES OF THESE PROVISIONS, INCLUDING ANY PROJECTIONS OF EARNINGS, REVENUES OR OTHER FINANCIAL ITEMS, ANY STATEMENTS OF THE PLANS AND OBJECTIVES OF MANAGEMENT FOR FUTURE OPERATIONS, ANY STATEMENTS CONCERNING PROPOSED NEW PRODUCTS OR SERVICES, ANY STATEMENTS REGARDING FUTURE ECONOMIC CONDITIONS OR PERFORMANCE AND ANY STATEMENT OF ASSUMPTIONS UNDERLYING ANY OF THE FOREGOING. IN SOME CASES, FORWARD-LOOKING STATEMENTS CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS "MAY", "WILL", "EXPECTS", "PLANS", "ANTICIPATES", "ESTIMATES", "POTENTIAL", OR "CONTINUE" OR THE NEGATIVE THEREOF OR OTHER COMPARABLE TERMINOLOGY. ALTHOUGH WE BELIEVE THAT THE EXPECTATIONS REFLECTED IN THE FORWARD-LOOKING STATEMENTS CONTAINED HEREIN ARE REASONABLE, THERE CAN BE NO ASSURANCE THAT SUCH EXPECTATIONS OR ANY OF THE FORWARD-LOOKING STATEMENTS WILL PROVE TO BE CORRECT AND ACTUAL RESULTS COULD DIFFER MATERIALLY FROM THESE PROJECTED OR ASSUMED IN THE FORWARD-LOOKING STATEMENTS. OUR FUTURE FINANCIAL CONDITION AND RESULTS OF OPERATIONS, AS WELL AS ANY FORWARD-LOOKING STATEMENTS, ARE SUBJECT TO INHERENT RISKS AND UNCERTAINTIES, INCLUDING BUT NOT LIMITED TO THE RISK FACTORS SET FORTH BELOW AND FOR THE REASONS DESCRIBED ELSEWHERE IN THIS PROSPECTUS. ALL FORWARD-LOOKING STATEMENTS AND REASONS WHY RESULTS MAY DIFFER INCLUDED IN THIS PROSPECTUS ARE MADE AS OF THE DATE HEREOF AND WE ASSUME NO OBLIGATION TO UPDATE ANY SUCH FORWARD-LOOKING STATEMENT OR REASON WHY ACTUAL RESULTS MIGHT DIFFER.

WE DO NOT KNOW IF OUR DEEP LUNG DRUG DELIVERY SYSTEM IS COMMERCIALLY FEASIBLE.

We are in an early stage of development. There is a risk that our deep lung drug delivery technology will not be commercially feasible. Even if our deep lung delivery technology is commercially feasible, it may not be commercially accepted across a range of large and small molecule drugs. We have tested six deep lung delivery formulations in humans, but many of our potential formulations have not been tested in humans.

Many of the underlying drug compounds contained in our deep lung formulations have been tested in humans by other companies using alternative delivery routes. Our potential products require extensive research, development and preclinical (animal) and clinical (human) testing. Our potential products also may involve lengthy regulatory review before they can be sold. We do not know if, and cannot assure you that, any of our potential products will prove to be safe and effective or meet regulatory standards. There is a risk that any of our potential products will not be able to be produced in commercial quantities at acceptable cost or marketed successfully. Our failure to achieve commercial feasibility, demonstrate safety, achieve clinical efficacy, obtain regulatory approval or, together with partners, successfully market products will negatively impact our revenues and results of operations.

WE DO NOT KNOW IF OUR DEEP LUNG DRUG DELIVERY SYSTEM IS EFFICIENT.

We may not be able to achieve the total system efficiency needed to be competitive with alternative routes of delivery. Total system efficiency is determined by the amount of drug loss during manufacture, in the delivery device, in reaching the site of absorption, and during absorption from that site into the bloodstream. Deep lung bioavailability is the percentage of a drug that is absorbed into the bloodstream when that drug is delivered directly to the lungs as compared to injection. Bioavailability is the initial screen for whether deep lung delivery of any systemic drug is commercially feasible. We would not consider a drug to be a good candidate for development and commercialization if its drug loss is excessive at any one stage or cumulatively in the manufacturing and delivery process or if its deep lung bioavailability is too low.

WE DO NOT KNOW IF OUR DEEP LUNG DRUG FORMULATIONS ARE STABLE.

We may not be able to identify and produce powdered versions of drugs that retain the physical and chemical properties needed to work with our delivery device. Formulation stability is the physical and chemical stability of the drug over time and under various storage, shipping and usage conditions. Formulation stability will vary with each deep lung formulation and the type and amount of ingredients that are used in the formulation. Problems with powdered drug stability would negatively impact our ability to develop and market our potential products or obtain regulatory approval.

WE DO NOT KNOW IF OUR DEEP LUNG DRUG DELIVERY SYSTEM IS SAFE.

We may not be able to prove potential products to be safe. Our products require lengthy laboratory, animal and human testing. Most of our products are in preclinical testing or the early stage of human testing. If we find that any product is not safe, we will not be able to commercialize the product. The safety of our deep lung formulations will vary with each drug and the ingredients used in its formulation.

WE DO NOT KNOW IF OUR DEEP LUNG DRUG DELIVERY SYSTEM PROVIDES CONSISTENT DOSES OF MEDICINE.

We may not be able to provide reproducible dosages of stable formulations sufficient to achieve clinical success. Reproducible dosing is the ability to deliver a consistent and predictable amount of drug into the bloodstream over time both for a single patient and across patient groups. Reproducible dosing requires the development of:

- an inhalation device that consistently delivers predictable amounts of dry powder formulations to the deep lung;

- accurate unit dose packaging of dry powder formulations; and

- moisture resistant packaging.

We may not be able to develop reproducible dosing of any potential product. The failure to do so means that we would not consider it a good candidate for development and commercialization.

WE DEPEND ON PARTNERS FOR REGULATORY APPROVALS AND COMMERCIALIZATION OF OUR PRODUCTS.

Since we are in the business of developing technology for delivering drugs to the lungs and licensing this technology to companies that make and sell drugs, we do not have the people and other resources to do the following things:

- make bulk drugs to be used as medicines;

- design and carry out large scale clinical studies;

- prepare and file documents necessary to obtain government approval to sell a given drug product; and

- market and sell our products when and if they are approved.

When we sign a license agreement to develop a product with a drug company, the drug company agrees to do some or all of the things described above. If our partner fails to do any of these things, we cannot complete the development of the product.

WE MAY NOT OBTAIN REGULATORY APPROVAL FOR OUR PRODUCTS ON A TIMELY BASIS OR AT ALL.

There is a risk that we will not obtain regulatory approval for our products on a timely basis, or at all. Our products must undergo rigorous animal and human testing and an extensive review process mandated by the United States Food and Drug Administration ("FDA") and equivalent foreign

authorities. This process generally takes a number of years and requires the expenditure of substantial resources although the time required for completing such testing and obtaining such approvals is uncertain. We have not submitted any of our products to the FDA for marketing approval. We have no experience obtaining such regulatory approval.

In addition, we may encounter delays or rejections based upon changes in FDA policy, including policy relating to good manufacturing practice compliance, during the period of product development. We may encounter similar delays in other countries.

Even if regulatory approval of a product is granted, the approval may limit the indicated uses for which we may market our product. In addition, our marketed product, our manufacturing facilities and Inhale, as the manufacturer, will be subject to continual review and periodic inspections. Later discovery from such review and inspection of previously unknown problems may result in restrictions on our product or on us, including withdrawal of our product from the market. The failure to obtain timely regulatory approval of our products, any product marketing limitations or a product withdrawal would negatively impact our revenues and results of operations.

WE DO NOT KNOW IF OUR TECHNOLOGIES CAN BE INTEGRATED SUCCESSFULLY TO BRING PRODUCTS TO MARKET.

We may not be able to integrate all of the relevant technologies to provide a deep lung drug delivery system. Our integrated approach to systems development relies upon several different but related technologies:

- dry powder formulations;

- dry powder processing technology;

- dry powder packaging technology; and

- a deep lung delivery device.

At the same time we must:

- establish collaborations with partners;

- perform laboratory and clinical testing of potential products; and

- scale-up our manufacturing processes.

We must accomplish all of these steps without delaying any aspect of technology development. Any delay in one component of product or business development could delay our ability to develop, obtain approval of or market therapeutic products using our deep lung delivery technology.

WE MAY NOT BE ABLE TO MANUFACTURE OUR PRODUCTS IN COMMERCIAL QUANTITIES.

POWDER PROCESSING. We have no experience manufacturing products for commercial purposes. We have only performed powder processing on the small scale needed for testing formulations and for early stage and larger clinical trials. We may encounter manufacturing and control problems as we attempt to scale-up powder processing facilities. We may not be able to achieve such scale-up in a timely manner or at a commercially reasonable cost, if at all. Our failure to solve any of these problems could delay or prevent late stage clinical testing and commercialization of our products and could negatively impact our revenues and results of operations.

To date, we have relied on one particular method of powder processing. There is a risk that this technology will not work with all drugs or that the cost of drug production will prohibit the commercial viability of certain drugs. Additionally, there is a risk that any alternative powder processing methods we may pursue will not be commercially practical for aerosol drugs or that we will not have, or be able to acquire the rights to use, such alternative methods.

POWDER PACKAGING. Our fine particle powders and small quantity packaging require special handling. We have designed and qualified automated filling equipment for small and moderate quantity packaging of fine powders. We face significant technical challenges in scaling-up an automated filling system that can handle the small dose and particle sizes of our powders in commercial quantities. There is a risk that we will not be able to scale-up our automated filling equipment in a timely manner or at commercially reasonable costs. Any failure or delay in such scale-up would delay product development or bar commercialization of our products and would negatively impact our revenues and results of operations.

INHALATION DEVICE. We face many technical challenges in further developing our inhalation device to work with a broad range of drugs, to produce such a device in sufficient quantities and to adapt the device to different powder formulations. In addition, we are attempting to develop a smaller inhalation device, which presents particular technical challenges. There is a risk that we will not successfully achieve any of these things. Our failure to overcome any of these challenges would negatively impact our revenues and results of operations.

For late stage clinical trials and initial commercial production, we intend to use one or more contract manufacturers to produce our drug delivery device. There is a risk that we will not be able to enter into or maintain arrangements with any potential contract manufacturers. Our failure to do so would negatively impact our revenues and results of operations.

WE DEPEND ON KEY SUPPLIERS FOR OUR INHALATION DEVICE AND BULK DRUGS.

We plan to subcontract the manufacture of our pulmonary delivery device before commercial production of our first product. We have identified contract manufacturers that we believe have the technical capabilities and production capacity to manufacture our devices and which can meet the requirements of good manufacturing practices. We cannot assure you that we will be able to obtain and maintain satisfactory contract manufacturing on commercially acceptable terms, if at all. Our dependence on third parties for the manufacture of our inhalation device may negatively impact our cost of goods and our ability to develop and commercialize products on a timely and competitive basis.

We obtain the bulk drugs we use to formulate and manufacture the dry powders for our deep lung delivery system from sole sources of supply. For example, with respect to our source of bulk insulin, we have entered into a collaborative agreement with Pfizer which has, in turn, entered into an agreement with Hoechst to manufacture biosynthetic recombinant insulin. Under the terms of their agreement, Pfizer and Hoechst agreed to construct a jointly owned manufacturing plant in Frankfurt, Germany. Until its completion, Pfizer will provide us with insulin from Hoechst's existing plant. If our sole source suppliers fail to provide bulk drugs in sufficient quantities when required, our revenues and results of operations will be negatively impacted.

WE DO NOT KNOW IF THE MARKET WILL ACCEPT OUR DEEP LUNG DRUG DELIVERY SYSTEM.

The commercial success of our potential products depends upon market acceptance by health care providers, third-party payors like health insurance companies and Medicare, and patients. Our products under development use a new method of drug delivery and there is a risk that our potential products will not be accepted by the market. Market acceptance will depend on many factors, including:

- the safety and efficacy results of our clinical trials;

- favorable regulatory approval and product labeling;

- the frequency of product use;

- the availability of third-party reimbursement;

- the availability of alternative technologies; and

- the price of our products relative to alternative technologies.

There is a risk that health care providers, patients or third-party payors will not accept our deep lung drug delivery system. If the market does not accept our potential products, our revenues and results of operations would be significantly and negatively impacted.

IF OUR PRODUCTS ARE NOT COST EFFECTIVE, GOVERNMENT AND PRIVATE INSURANCE PLANS WILL NOT PAY FOR OUR PRODUCTS.

In both domestic and foreign markets, sales of our products under development will depend in part upon the availability of reimbursement from third-party payors, such as government health administration authorities, managed care providers, private health insurers and other organizations. In addition, such third-party payors are increasingly challenging the price and cost effectiveness of medical products and services. Significant uncertainty exists as to the reimbursement status of newly approved health care products. Legislation and regulations affecting the pricing of pharmaceuticals may change before our proposed products are approved for marketing. Adoption of such legislation and regulations could further limit reimbursement for medical products. A government third-party payor decision not to provide adequate coverage and reimbursements for our products would limit market acceptance of such products.

WE EXPECT TO CONTINUE TO LOSE MONEY FOR THE NEXT SEVERAL YEARS.

We have never been profitable and, through September 30, 1999, have incurred a cumulative deficit of approximately $74.3 million. We expect to continue to incur substantial and increasing losses over at least the next several years as we expand our research and development efforts, testing activities and manufacturing operations, and as we further expand our late stage clinical and early commercial production facility. All of our potential products are in research or in the early stages of development except for our insulin collaboration. We have generated no revenues from approved product sales. Our revenues to date have consisted primarily of payments under short-term research and feasibility agreements and development contracts. To achieve and sustain profitable operations, we must, alone or with others, successfully develop, obtain regulatory approval for, manufacture, introduce, market and sell products using our deep lung drug delivery system. There is a risk that we will not generate sufficient product or contract research revenue to become profitable or to sustain profitability.

WE MAY NEED TO RAISE ADDITIONAL CAPITAL THAT MAY NOT BE AVAILABLE.

We anticipate that our existing capital resources will enable us to maintain currently planned operations through at least the next 18 months. However, this expectation is based on our current operating plan, which is expected to change as a result of many factors, and we may need additional funding sooner than anticipated. In addition, we may choose to raise additional capital due to market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of such securities could result in dilution to our stockholders.

We have no credit facility or other committed sources of capital. To the extent operating and capital resources are insufficient to meet future requirements, we will have to raise additional funds to continue the development and commercialization of our technologies. Such funds may not be available on favorable terms, or at all. In particular, our substantial leverage may limit our ability to obtain additional financing. If adequate funds are not available on reasonable terms, we may be required to curtail operations significantly or to obtain funds by entering into financing, supply or collaboration agreements on unattractive terms. Our inability to raise capital could negatively impact our business.

OUR PATENTS MAY NOT PROTECT OUR PRODUCTS AND OUR PRODUCTS MAY INFRINGE ON THIRD-PARTY PATENT RIGHTS.

We have filed patent applications covering certain aspects of our device, powder processing technology, and powder formulations and deep lung route of delivery for certain molecules, and we plan to file additional patent applications. We currently have 45 issued U.S. and foreign patents that cover certain aspects of our technology and we have a number of patent applications pending. There is a risk that any of the patents applied for will not issue, or that any patents that issue or have issued will not be valid and enforceable. Enforcing our patent rights would be time consuming and costly.

Our access or our partners' access to the drugs to be formulated will affect our ability to develop and commercialize our technology. Many drugs, including powder formulations of certain drugs that are presently under development by us, are subject to issued and pending U.S. and foreign patents that may be owned by our competitors. We know that there are issued patents and pending patent applications relating to the deep lung delivery of large molecule drugs, including several for which we are developing deep lung delivery formulations. This situation is highly complex, and the ability of any one company, including Inhale, to commercialize a particular drug is unpredictable.

We intend generally to rely on the ability of our partners to provide access to the drugs that are to be formulated by us for deep lung delivery. There is a risk that our partners will not be able to provide access to such drug candidates. Even if such access is provided, there is a risk that our partners or we will be accused of, or determined to be, infringing a third-party's patent rights and will be prohibited from working with the drug or be found liable for damages that may not be subject to indemnification. Any such restriction on access to drug candidates or liability for damages would negatively impact our revenues and results of operations.

OUR COMPETITORS MAY DEVELOP AND SELL BETTER DRUG DELIVERY SYSTEMS.

We are aware of other companies engaged in developing and commercializing pulmonary drug delivery systems and enhanced injectable drug delivery systems. Many of these companies have greater research and development capabilities, experience, manufacturing, marketing, financial and managerial resources than we do and represent significant competition for us. Acquisitions of or collaborations with competing drug delivery companies by large pharmaceutical companies could enhance our competitors' financial, marketing and other resources. Accordingly, our competitors may succeed in developing competing technologies, obtaining regulatory approval for products or gaining market acceptance before us. Developments by others could make our products or technologies uncompetitive or obsolete. Our competitors may introduce products or processes competitive with or superior to ours.

INVESTORS SHOULD BE AWARE OF INDUSTRY-WIDE RISKS.

In addition to the risks associated specifically with our business described above, investors should also be aware of general risks associated with drug development and the pharmaceutical industry. These include, but are not limited to:

- changes in and compliance with government regulations;

- handling of hazardous materials;

- hiring and retaining qualified people; and

- insuring against product liability claims.

WE MAY NOT ACHIEVE YEAR 2000 COMPLIANCE.

We are aware of the issues associated with the programming code in existing computer systems as the Year 2000 approaches. The Year 2000 ("Y2K") problem is pervasive and complex as virtually every computer operation may be affected in some way by the rollover of the two digit year value to "00."

The issue is whether systems will properly recognize date sensitive information when the year changes to 2000. If our software and firmware with date-sensitive functions are not Y2K compliant, they may recognize a date with "00" as the year 1900 rather than the year 2000. This could result in a system failure or miscalculations causing disruptions of operations, including, among other things, interruptions in manufacturing operations, or a temporary inability to process transactions or engage in similar normal business activities.

To date, we have experienced no material Year 2000 problems. We have developed a comprehensive contingency plan to address situations that may result if we are unable to achieve Y2K readiness of our critical operations. As we experienced no signficant problems relating to our operations as the year changed to 2000, we have not yet had to implement this contingency plan. Nevertheless, we cannot assure you that our contingency plan will adequately address all issues that may arise in the year 2000.

Prior to January 1, 2000, we conducted formal communication with significant vendors and suppliers to determine the extent to which our operations are vulnerable to those third parties' failure to remediate their own Y2K issues. While we have not experienced any material problems with any significant vendor since January 1, 2000, in the event that any of our significant suppliers do not successfully achieve Y2K compliance in a timely manner, our business or operations could be negatively affected. We cannot assure you that the systems of other companies on which our systems rely were converted on a timely basis and will not have a future adverse effect on our operations.

We are also vulnerable to external forces that might generally affect industry and commerce, such as utility and transportation company Y2K compliance failures and related service interruptions, although we have not experienced any material disruptions since January 1, 2000. The failure by us or our suppliers to develop and implement successfully appropriate plans should Year 2000 problems continue to develop could have a negative impact on our operations and financial condition.

WE EXPECT OUR STOCK PRICE TO REMAIN VOLATILE.

Our stock price is volatile. In the last twelve months, based on closing prices on the Nasdaq National Market, our stock price ranged from $23.00 to $74.88. We expect it to remain volatile. A variety of factors may have a significant effect on the market price of our common stock, including:

- fluctuations in our operating results;

- announcements of technological innovations or new therapeutic products;

- announcement or termination of collaborative relationships by Inhale or our competitors;

- governmental regulation;

- clinical trial results or product development delays;

- developments in patent or other proprietary rights;

- public concern as to the safety of drug formulations developed by Inhale or others; and

- general market conditions.

Any litigation instigated against us as a result of this volatility could result in substantial costs and a diversion of our management's attention and resources, which could negatively impact our financial condition, revenues and results of operations.

THE DEBENTURES ARE SUBORDINATED TO ANY EXISTING AND FUTURE SENIOR DEBT

The debentures are contractually subordinated in right of payment to our existing and future Senior Debt. As of September 30, 1999, we had approximately $4.9 million of Senior Debt. The

indenture does not limit the creation of additional Senior Debt (or any other indebtedness). In connection with the expansion of our facilities, we expect that we may significantly increase our Senior Debt in the near future. Any significant additional Senior Debt incurred may materially adversely impact our ability to service our debt, including the debentures. Due to the subordination provisions, in the event of our insolvency, funds which we would otherwise use to pay the holders of the debentures will be used to pay the holders of Senior Debt to the extent necessary to pay the Senior Debt in full. As a result of these payments, our general creditors may recover less, ratably, than the holders of our Senior Debt and such general creditors may recover more, ratably, than the holders of our debentures or our other subordinated indebtedness. In addition, the holders of our Senior Debt may, under certain circumstances, restrict or prohibit us from making payments on the debentures.

SUBSTANTIAL INDEBTEDNESS MAY ADVERSELY AFFECT OUR CASH FLOW.

As of September 30, 1999, we had approximately $4.9 million in long-term debt. Upon closing of the offering of the debentures, our long-term debt increased by approximately $108.5 million. This increased indebtedness has and will continue to impact us by:

- significantly increasing our interest expense and related debt service costs;

- making it more difficult to obtain additional financing; and

- constraining our ability to react quickly in an unfavorable economic climate.

Currently, we are not generating sufficient cash flow to satisfy the annual debt service payments that will be required as a result of the consummation of sale of the debentures. This may require us to use a portion of the proceeds from the sale of the debentures to pay interest or borrow additional funds or sell additional equity to meet our debt service obligations. If we are unable to satisfy our debt service requirements, substantial liquidity problems could result, which would negatively impact our future prospects.

OUR ABILITY TO REPURCHASE DEBENTURES, IF REQUIRED, MAY BE LIMITED.

In certain circumstances involving a Change of Control, the holders of the debentures may require us to repurchase some or all of the holder's debentures. We cannot assure you that we will have sufficient financial resources at such time or would be able to arrange financing to pay the repurchase price of the debentures. Our ability to repurchase the debentures in such event may be limited by law, the indenture, by the terms of other agreements relating to our Senior Debt and as such indebtedness and agreements may be entered into, replaced, supplemented or amended from time to time. We may be required to refinance our Senior Debt in order to make such payments. We may not have the financial ability to repurchase the debentures if payment for our Senior Debt is accelerated.

AN ACTIVE TRADING MARKET FOR THE DEBENTURES MAY NOT DEVELOP.

The debentures are a new issue of securities for which there is currently no trading market. Although the debentures are eligible for trading in the PORTAL market, we cannot predict whether an active trading market for the debentures will develop or be sustained. If an active market for the debentures fails to develop or be sustained, the trading price of the debentures could fall. If an active trading market were to develop, the debentures could trade at prices that may be lower than the initial offering price of the debentures. Whether or not the debentures will trade at lower prices depends on many factors, including:

- prevailing interest rates and the markets for similar securities;

- general economic conditions; and

- our financial condition, historic financial performance and future prospects.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 to register the debentures and common stock offered by this prospectus. However, this prospectus does not contain all of the information contained in the registration statement and the exhibits and schedules to the registration statement. We strongly encourage you to carefully read the registration statement and the exhibits and schedules to the registration statement. We also file annual, quarterly and special reports, proxy statements and other information with the SEC.

You may inspect and copy such material at the public reference facilities maintained by the SEC at Room 1024, 450 Fifth Street, N.W., Washington, D.C. 20549, as well as at the SEC's regional offices at 500 West Madison Street, Suite 1400, Chicago, Illinois 60661 and 7 World Trade Center, Suite 1300, New York, New York 10048. You may also obtain copies of such material from the SEC at prescribed rates by writing to the Public Reference Section of the SEC, 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 rooms. Our SEC filings are also available to the public from the SEC's Website at www.sec.gov.

If at any time during the two-year period following October 13, 1999, we are not subject to the information requirements of Section 13 or 15(d) of the Exchange Act, we will furnish to holders of the debentures, to holders of common stock issued upon conversion thereof and to prospective purchasers thereof the information required to be delivered pursuant to Rule 144A(d)(4) under the Securities Act in order to permit compliance with Rule 144A in connection with resales of such debentures and common stock issued upon conversion thereof.

INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" the information contained in documents that 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. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus, while information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings we will make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934:

1. Our Annual Report on Form 10-K for the fiscal year ended December 31, 1998, filed on March 29, 1999, including all material incorporated by reference therein;

2. Our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 1999, filed on May 14, 1999, including all material incorporated by reference therein;

3. Our Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 1999, filed on August 13, 1999, including all material incorporated by reference therein;

4. Our Quarterly Report on form 10-Q for the fiscal quarter ended September 30, 1999, filed on November 12, 1999, including all material incorporated by reference therein;

5. Our Current Report on Form 8-K, filed on October 4, 1999;

6. Our Current Report on Form 8-K, filed on October 5, 1999;

7. All other reports filed by us pursuant to Section 13(a) or 15(d) of the Exchange Act since December 31, 1998, including all material incorporated by reference therein; and

8. The description of the common stock contained in our Registration Statement on Form 8-A.

You may request a copy of these filings, at no cost to you, by writing or telephoning us at: Inhale Therapeutic Systems, Inc. Attention: Investor Relations, 150 Industrial Road, San Carlos, CA 94070 Telephone (650) 631-3100.

Our common stock is quoted on the Nasdaq National Market under the symbol "INHL". The last reported sales price of the common stock on the Nasdaq National Market ("Nasdaq") on January 21, 2000 was $72.25 per share. You may inspect reports and other information concerning us at the offices of the National Association of Securities Dealers, Inc., 1735 K Street, N.W., Washington, D.C. 20006.

You should rely only on the information incorporated by reference or provided in this prospectus. We have authorized no one to provide you with different information. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front of the document.

USE OF PROCEEDS

We will not receive any proceeds from the sale of the notes or the shares of common stock offered hereby. See "Selling Security Holders".

RATIO OF EARNINGS TO FIXED CHARGES

We have not presented a ratio of earnings to fixed charges because we had no earnings for the relevant periods. Fixed charges were approximately $185,000, $158,000, $196,000, $435,000 and $1,065,000 for the years ended December 31, 1994, 1995, 1996, 1997 and 1998, respectively, and $803,000 and $890,000 for the nine months ended September 30, 1998 and 1999, respectively.

OVERVIEW

Inhale is creating a drug delivery system to deliver a wide range of drugs, including peptides, proteins and other molecules, by inhalation to the deep lung. Inhale is using this system principally to enable non-invasive delivery of macromolecule drugs currently administered by injection. Inhale has a variety of drug delivery programs in development with partners such as Pfizer, Biogen, Centeon and others and has tested six drugs in human clinical trials. Inhale's lead program is inhaleable insulin sponsored by Pfizer. Pfizer commenced dosing for Phase III clinical trials in June 1999. This trial is expected to utilize at least 117 clinical sites.

Currently there are approximately 35 macromolecule drugs marketed in the United States and about 120 others in human clinical trials. Sales of the top 15 genetically engineered protein drugs, which are a subset of macromolecule drugs, were estimated at $14 billion worldwide in 1997. Most of these drugs are currently delivered by injection. Injections are undesirable for numerous reasons including patient discomfort, inconvenience and risk of infection. Poor patient acceptance of, and compliance with, injectable therapies can lead to increased incidence of medical complications and higher disease management costs. Alternatives to injection such as oral, transdermal and nasal delivery have to date been shown generally to be commercially unattractive due to low natural bioavailability--the amount of drug absorbed from the delivery site into the bloodstream relative to injection. As an alternative to the invasiveness of injection, Inhale believes a deep lung or pulmonary delivery system could expand the market for macromolecule drug therapies and may enable new therapeutic uses of certain macromolecule drugs.

Inhale is creating a proprietary platform integrating customized formulation, dry powder processing and packaging with a proprietary inhalation device to enable efficient, reproducible delivery of macromolecule drugs for systemic and local lung indications. For specific drug products, Inhale formulates and processes bulk drugs supplied by collaborative partners into dry powders which are packaged into individual dosing units referred to as blisters. The blisters are designed to be loaded into Inhale's device, which patients then activate to inhale the aerosolized drugs. Inhale has developed a inhalation device that is being used several times per day, for several months in outpatient trials for insulin. In addition, Inhale has demonstrated room temperature stability of a year or more for a number of macromolecule drugs, and has scaled-up its powder processing and packaging for late stage clinical trials and small scale production for certain drugs.

As an alternative to invasive delivery techniques, Inhale believes that a deep lung delivery system could potentially expand the market for macromolecule drug therapies by increasing patient acceptance and improving compliance, which in turn could decrease medical complications and the associated costs of disease management. Additionally, deep lung delivery may enable new therapeutic uses of certain macromolecule drugs. Inhale is focusing development efforts on applying its pulmonary delivery system primarily to drugs for systemic and local lung diseases that either have proven efficacy and are approved for delivery by injection or are in late stage clinical trials.

A cornerstone of Inhale's business strategy is to work with collaborative partners to develop and commercialize macromolecule drugs for deep lung delivery. In a typical collaboration, Inhale's partner will support the application of Inhale's technology to a particular drug by providing the drug, funding clinical development, and marketing the resulting commercial product. Inhale typically will supply the delivery system and receive research and development and progress payments during development, and receive revenues from powder manufacturing, device supply, and royalties from sales of any commercial products.

In addition to Pfizer's sponsorship of inhaleable insulin, Inhale has active development programs with several other corporate partners. Inhale's most recent collaboration is with Biogen for pulmonary

delivery of AVONEX-Registered Trademark- a leading drug used for the treatment of multiple sclerosis. Inhale is also engaged in development collaborations with Centeon on alpha-1 proteinase inhibitor for genetic emphysema, and with Lilly for an undisclosed macromolecule. Inhale is also engaged in early stage feasibility and research programs with respect to other compounds. Inhale anticipates that any product that may be developed would be commercialized with a collaborative partner and believes its partnering strategy will enable it to reduce the investment required to develop a large and diversified potential product portfolio.

THE OPPORTUNITY FOR DEEP LUNG DRUG DELIVERY

MACROMOLECULES

Innovations in biotechnology and recombinant techniques have led to a large increase in the number of macromolecule drugs over the last several years. These drugs, which are identical or similar to the body's natural molecules, are enabling new therapies for many previously untreated or poorly treated diseases. Currently, approximately 35 macromolecule drugs are approved for marketing in the United States and approximately 120 additional macromolecule drugs are in human clinical trials, many for chronic and subchronic diseases. Sales of genetically engineered protein drugs were estimated at $14 billion worldwide in 1997.

Due principally to their large size, most macromolecules typically have been delivered by injection. Drug injections administered in hospitals or doctors' offices can be expensive and inconvenient to patients. Many patients find self-injectable therapies unpleasant. As a result, such therapies for many chronic and subchronic diseases meet with varying degrees of patient acceptance and compliance with the prescribed regimens. Poor acceptance and compliance can lead to increased incidence of medical complications and potentially higher disease management costs. In addition, some elderly, infirm or pediatric patients cannot administer their own injections and require assistance, thereby increasing both inconvenience to these patients and the cost of therapy.

Medical science, health care providers and consumers have been searching for alternatives to injection as a means of delivery of macromolecules used in the systemic treatment of chronic and subchronic diseases. Several non-invasive routes of delivery are being explored for macromolecule drugs, including oral, transdermal, nasal and pulmonary.

Oral delivery is a common method of delivery for many small molecule drugs. However, drug delivery scientists generally believe that oral delivery provides extremely low delivery system efficiency for most macromolecules due primarily to the low natural permeability to macromolecules of the gastrointestinal tract. In addition, Inhale believes that dosage reproducibility for oral delivery of macromolecules may be very poor because of their low oral bioavailability. While several companies are working on oral delivery for macromolecule drugs, no commercially viable system is currently being marketed.

Passive transdermal delivery using "patch" technology has not been successful to date since the skin is even less naturally permeable to macromolecules than the gastrointestinal tract. No macromolecule drugs have been approved for marketing in the United States utilizing patch technology. Certain peptides and proteins can be transported across the skin barrier into the bloodstream using high pressure "needle-less" injection devices. The devices, which inject proteins like insulin through the skin into the body, have been available for many years. However, Inhale believes these devices have not been well accepted due to patient discomfort and relatively high cost.

The nasal route has been shown to have low and variable bioavailability for proteins and peptides, which is a major limitation for the nasal administration of such drugs. As a result of these limitations, penetration enhancers are often used with nasal delivery to achieve higher bioavailability; these

enhancers may cause local irritation to the nasal tissue and result in safety concerns with long-term use. Only four peptides, have been approved for marketing in the United States utilizing nasal delivery.

Pulmonary drug delivery systems, such as metered-dose inhalers ("MDIs"), existing dry powder inhalers and nebulizers, are used primarily to deliver drugs to the airways of the lung for local lung applications. Approximately 35 drugs are approved for marketing by the FDA for delivery into the lung, but none of these pulmonary drug delivery systems was designed to optimize drug delivery to the deep lung for absorption into the bloodstream. MDIs, dry powder inhalers and nebulizers currently typically deliver only a fraction of the drug to the deep lung, with most of the drug being lost in the delivery device or in the mouth and throat. Consequently, Inhale believes that the total efficiency of such systems is generally not high enough to be commercially feasible for systemic delivery of most macromolecule drugs.

In addition, pulmonary drug delivery devices currently do not provide the dosage reproducibility and formulation stability generally needed for commercially viable systemic macromolecule drug delivery. Inhale believes that many MDI and dry powder systems do not provide the deep lung dosage reproducibility necessary for many systemic applications because the patient must coordinate the breathing maneuver with the generation of the aerosol. Further, Inhale believes that many macromolecules currently cannot be formulated for use in MDI systems, since macromolecule drugs could be denatured by the MDI formulating ingredients. In addition, Inhale believes that some macromolecules may be inactivated by nebulization and that many dry powder systems do not provide the protection needed for long-term stability that may be needed for macromolecule formulations.

Inhale believes that an efficient and reproducible deep lung delivery system for systemic macromolecule drugs used in the treatment of chronic and subchronic diseases represents a significant commercial opportunity. Such a system could improve patient acceptance of systemic macromolecule drug therapy and compliance with prescribed regimens, thereby improving therapeutic outcomes and reducing the costs of administration and treatment of disease. Additionally, pulmonary delivery may enable new therapeutic uses of certain macromolecule drugs.

Inhale also believes that opportunities for a deep lung delivery system exist in the delivery of macromolecules for local lung diseases due to the limitations of current pulmonary devices. Biotechnology and pharmaceutical companies are developing new macromolecule drugs for pulmonary diseases such as asthma, cystic fibrosis, emphysema, lung cancer, pneumonia and bronchitis. Pulmonary delivery is the preferred route for treating most lung diseases since much smaller amounts of certain drugs generally are needed than for systemic administration and the drug can be applied directly to the site of action, thereby potentially reducing systemic side effects.

OTHER MOLECULES

In addition to developing a deep lung delivery system for macromolecules, Inhale is investigating opportunities for leveraging its technology for small molecules where there is a clear, demonstrable need for an alternative drug delivery system and where Inhale's existing technology can be applied without significant modification. Examples include molecules that require rapid systemic absorption for efficacy (i.e., analgesics and antiemetics), molecules that undergo massive first pass metabolism by the oral route or molecules used for local lung delivery for diseases such as asthma that are currently delivered by sub-optimal aerosol systems.

MDIs, existing dry powder inhalers and nebulizers have been used primarily to deliver drugs to the airways of the lung for local lung applications. Some of the problems associated with traditional small molecule aerosol delivery systems include poor reproducibility, low efficiency, low drug payload per puff, poor moisture barrier and, in the case of wet systems, long dosing time and microbial growth.

Inhale believes that its technology could be used to address these problems by providing efficient dispersion of the drug into the lungs, reproducible delivery of a consistent and predictable amount of drug into the bloodstream, and a strong moisture barrier in the blister packs. Inhale further believes its technology could potentially be applied economically in market segments where it is essential that significant drug doses reach the lung. Large amounts of drugs taken orally or through inefficient inhalers can result in side effects which could be avoided or reduced through more efficient pulmonary delivery.

STRATEGY

Inhale's goal is to become the leading drug delivery company in the field of pulmonary delivery of macromolecules. In addition, Inhale is leveraging its technology base for other applications where its system can provide significant market advantages. Inhale's strategy incorporates the following principal elements:

- DEVELOP A BROADLY APPLICABLE DEEP LUNG DELIVERY SYSTEM. Inhale is developing its non-invasive deep lung drug delivery system to be applicable to a wide range of peptides, proteins and other molecules currently delivered by injection or poorly delivered by inhalation or other routes. Inhale intends to develop an effective non-invasive delivery alternative that can: (1) expand market penetration for existing therapeutics currently delivered by injection, infusion or other routes; (2) commercialize new indications by using deep lung delivery as a new route of administration; and (3) extend existing patents or seek new patents to gain important competitive advantages for Inhale and its partners.

- BUILD COMPETITIVE ADVANTAGE THROUGH AN INTEGRATED SYSTEMS APPROACH. Inhale is developing a commercially viable deep lung delivery system through an integrated systems solution. Inhale combines its expertise in aerosol engineering, chemical engineering, mechanical engineering, aerosol science, protein formulations, fine powder processing and powder filling, and pulmonary physiology and biology to build a proprietary, fully-integrated system for pulmonary delivery of therapeutic drugs. Inhale believes that building expertise in technology across several disciplines provides it with a significant competitive advantage.

- PARTNER WITH PHARMACEUTICAL AND BIOTECHNOLOGY COMPANIES. Inhale's strategy is to market its proposed products through collaborative partners. Inhale is seeking to work with partners that have significant clinical development and marketing resources, and currently has collaborations with several large pharmaceutical and biotechnology companies. For patented drug products, Inhale intends to partner with owners or licensees from the outset of the project. For drugs that are off-patent or licensed-in, Inhale may perform initial feasibility screening work, formulations development and early stage human clinical trials before entering into a partner relationship for further development. Inhale believes this partnering strategy enables it to reduce its cash requirements while developing a large and diversified potential product portfolio.

- FOCUS ON APPROVED OR LATE STAGE DRUGS. To date, Inhale has focused primarily on drugs that either have proven efficacy and are approved for marketing or are in late stage clinical trials. Inhale believes that working primarily with drugs with demonstrated efficacy reduces the technical risk of its projects. In the future, Inhale anticipates working on drugs at earlier stages of development.

- EXPAND MANUFACTURING CAPABILITY. Inhale intends to formulate, manufacture and package dry powders for most of its drugs and to subcontract manufacturing of its inhalation device. Inhale believes that this strategy will provide manufacturing economies of scale across a range of therapeutic products and expand capacity for additional partnerships and commercial scale production.

INHALE'S DEEP LUNG DRUG DELIVERY SYSTEM

Inhale believes that the following criteria are necessary for a commercially viable non-invasive deep lung drug delivery system:

- SYSTEM EFFICIENCY/COST. The system must attain a certain minimum efficiency in delivering a drug to the bloodstream as compared to injection. Bioavailability (the percentage of drug absorbed into the bloodstream from the lungs relative to that absorbed from injection) is the most important element of system efficiency. Total system efficiency is critical due to the high cost of macromolecule drugs. Total delivery system efficiency is determined by the amount of drug loss during manufacture, in the delivery device, in reaching the site of absorption, and during absorption from that site into the bloodstream. Inhale believes that for most systemic macromolecule drugs, a non-invasive delivery system must show total delivery system efficiency of at least 5% to 25% compared to injection for the system to be commercially viable.

- REPRODUCIBILITY: The system must deliver a consistent and predictable amount of drug to the lung and into the bloodstream.

- FORMULATION STABILITY. Formulations used in the system must remain physically and chemically stable over time and under a range of storage, shipping and usage conditions.

- SAFETY. The system should not introduce local toxicity problems during chronic or subchronic use by a wide patient population.

- CONVENIENCE. The system must be convenient to the patient in terms of comfort, ease of operation, transportability and required dosage time.

Inhale approaches pulmonary drug delivery with the objective of maximizing overall delivery system efficiency while addressing commercial requirements for reproducibility, formulation stability, safety and convenience. To achieve this goal, Inhale's delivery system integrates customized drug formulations with its proprietary inhalation device. Inhale combines an understanding of lung biology, aerosol science, chemical engineering, mechanical engineering and protein formulations in its system development efforts. Inhale believes that this interdisciplinary capability provides an important competitive advantage.

Inhale has chosen to base its deep lung delivery system on dry powders for several reasons. Many proteins are more stable in dry powders than in liquids. In addition, dry powder aerosols can carry approximately five times more drug in a single breath than MDIs and, for many drugs, at least 25 times more than currently marketed liquid or nebulizer systems. Inhale believes that a dry powder system for drugs requiring higher doses, such as insulin and alpha-1 proteinase inhibitor, could decrease dosing time as compared with nebulizers.

Inhale takes bulk drugs supplied by partners and formulates and processes them into fine powders that are then packaged into individual blisters. The blisters are designed to be loaded into Inhale's device, which patients activate to inhale the aerosolized drugs. Once inhaled, the aerosol particles are deposited in the deep lung, dissolved in the alveolar fluid and absorbed into the bloodstream. Although Inhale is in the advanced stages of developing its system technologies, there can be no assurance that Inhale's products will ever be successfully commercialized.

FORMULATIONS

Each macromolecule drug poses different formulation challenges due to varying chemical and physical characteristics and dosing requirements. This requires significant optimization work for each specific drug. Inhale has assembled a team with expertise in protein formulations, powder science and aerosol science and is applying this expertise to develop proprietary techniques and methods that it believes will produce stable, fillable and dispersible dry powder drug formulations. Inhale has several

protein powders with on-going room temperature stability (both chemical and physical) of more than one year. Through its work with numerous macromolecules, Inhale is developing an extensive body of knowledge on aerosol dry powder formulations, including knowledge relating to powder flow characteristics and solubility within the lung, as well as physical and chemical properties of various excipients. Inhale has filed and expects to continue to file patent applications on several of its formulations and, though strategic acquisitions, has acquired rights to certain U.S. and foreign patents and patent application relating to stabilization of macromolecule drugs in dry formulations.

POWDER PROCESSING

Inhale is modifying standard powder processing equipment and developing custom techniques to enable it to consistently produce fine dry powders with particle diameters of between one and five microns without drug degradation or significant loss of expensive bulk drug. Inhale has scaled up powder processing to sufficient levels for producing test powders for late stage clinical trials and small volume marketed products, if any. Inhale is in the process of scaling up its powder processing systems in order to produce quantities sufficient for commercial production of products Inhale believes it will need to supply in high volumes, such as insulin. However, there can be no assurance that Inhale will be successful in further scaling up its powder processing on a timely basis or at a reasonable cost, or that the powder processing system will be applicable for every drug.

POWDER PACKAGING

Fine particle powders have special handling requirements that are different from those for larger particles. Current commercial filling and packaging systems are designed for filling larger particle powders and therefore must be modified to dispense finer particles more accurately and in the small quantities required. Initially, powder filling was performed manually. Inhale has since developed and qualified a proprietary automated filling system suitable for use in clinical trials and initial production quantities for certain products. Inhale is also developing with Pfizer a proprietary, high capacity system for production use.

INHALATION DEVICE

Inhale's proprietary pulmonary delivery device is designed to provide deep lung delivery of therapeutic powders in a reproducible, safe and efficient manner. The first of a series of patents covering the device was granted in the United States in October 1995. To achieve its objectives, Inhale has designed its pulmonary delivery device to perform the following:

- EFFECTIVELY DISPERSE FINE PARTICLES INTO AN AEROSOL CLOUD. Fine powders have different dispersion requirements or characteristics than large powders. Most current dry powder inhalers use larger powders and are not efficient in dispersing powders with diameters of one to five microns. Inhale has developed and is refining its dispersion system for its device specifically for fine powders. Inhale's device has been designed to efficiently remove powders from the packaging, effectively break up the powder particles and create an aerosol cloud while maintaining the integrity of the macromolecule drug.

- EFFICIENTLY AND REPRODUCIBLY DELIVER THE AEROSOL CLOUD TO THE DEEP LUNG. Inhale has developed a proprietary aerosol cloud handling system in its device that facilitates deep lung powder deposition and reproducible patient dosing. The handling system design is intended to enable the aerosolized particles to be transported from the device to the deep lung during a patient's breath, reducing losses in the throat and upper airways. In addition, the aerosol cloud handling system, in conjunction with the dispersion mechanism and materials used in the device, is designed to reduce powder loss in the device itself.

- ELIMINATE THE USE OF PROPELLANTS TO AVOID ASSOCIATED ENVIRONMENTAL CONCERNS AND FORMULATION DIFFICULTIES. Unlike MDIs, Inhale's device does not use propellants. The oily surfactants required to stabilize propellant formulations can cause aggregation of macromolecules. Current chlorofluorocarbon propellants, which are used in most commercial MDI systems, are being phased out in many countries due to environmental concerns.

The success of Inhale's deep lung drug delivery system for any drug will depend upon Inhale achieving sufficient formulation stability, safety dosage reproducibility and system efficiency (measured by the percentage of bulk drug entering the manufacturing process that eventually is absorbed into the bloodstream relative to that administered by injection for systemic indications, or the amount of drug delivered to the lung tissue for local lung indications). The initial screening factor for the feasibility of pulmonary delivery of any systemic macromolecule drug is pulmonary bioavailability, which measures the percentage of the drug absorbed into the bloodstream when delivered directly to the lungs relative to injection. In addition, a certain percentage of each drug dose may be lost at various stages of the manufacturing and pulmonary delivery process, including drug formulation, dry powder processing, packaging, and in moving the drug from a delivery device into the lungs. Excessive drug loss at any one stage or cumulatively in the manufacturing and delivery process would render a drug commercially unfeasible for pulmonary delivery. Formulation stability (the physical and chemical stability of the formulated drug over time and under various storage, shipping and usage conditions) and safety will vary with each macromolecule and the type and amount of excipients, that are used in the formulation. Reproducible dosing (the ability to deliver a consistent and predictable amount of drug into the bloodstream over time both for a single patient and across patient groups) requires the development of an inhalation device that consistently delivers predictable amounts of dry powder formulations to the deep lung, accurate unit dose packaging of dry powder formulations and moisture resistant packaging. There can be no assurance that Inhale will be able to successfully develop such an inhalation device or overcome such other obstacles to reproducible dosing.

CLINICAL STATUS SUMMARY

The following table sets forth, for both Inhale's partner development programs and Inhale's programs available or expected to be available for partnering, the drug currently in development, the indication(s) for the particular drug, its present stage of clinical development and, with respect to Inhale's partner development programs, the identity of Inhale's corporate partner for such drug.

PARTNER DEVELOPMENT PROGRAMS

DRUG	INDICATION(S)	CLINICAL STATUS(1)	PARTNER
Insulin	Type 1 and 2 Diabetes	Phase III	Pfizer
Alpha-1 Proteinase Inhibitor	Genetic Emphysema	Preclinical	Centeon
AVONEX-Registered Trademark-	Multiple Sclerosis	Preclinical	Biogen
Undisclosed Protein	Not Released	Preclinical	Lilly
PTH	Osteoporosis	Phase I	Lilly

PROGRAMS AVAILABLE OR EXPECTED TO BE AVAILABLE FOR PARTNERING

DRUG	INDICATION(S)	CLINICAL STATUS(1)
Calcitonin	Osteoporosis, Bone Pain, Paget's Disease	Phase I
Interleukin-1 Receptor	Asthma	Phase I/II
Undisclosed Non-Protein, Non-Peptide	Not Released	Phase II
Undisclosed Non-Protein, Non-Peptide	Not Released	Phase I
Undisclosed Non-Protein, Non-Peptide	Not Released	Preclinical

- ----------

(1) Clinical Status means:

Phase III: broad out-patient clinical trials conducted to obtain information regarding specific patient groups conducted following encouraging safety and efficacy trials

Phase II: human clinical trials to establish dosing and efficacy in patients

Phase I: human clinical trials to test safety, and for drugs with systemic applications, also tests bioavailability compared with injection in healthy subjects

Preclinical: formulation development and animal testing in preparation for human clinical trials

INHALE'S PARTNER DEVELOPMENT PROGRAMS

In general, Inhale's partnership arrangements provide funding for development, payments upon the achievement of certain milestones and royalty and manufacturing revenues upon the commencement of commercial sales. The arrangements are cancelable by the partner at any time without significant penalty.

INSULIN PROGRAM

Insulin is a protein hormone naturally secreted by the pancreas to induce the removal of glucose from the blood. Diabetes, the inability of the body to properly regulate blood glucose levels, is caused by insufficient production of insulin by the pancreas or insufficient use of the insulin that is secreted. Over time, high blood glucose levels can lead to failure of the microvascular system, which may lead to blindness, loss of circulation, kidney failure, heart disease or stroke. Insulin currently is marketed only in injectable form. Insulin is supplied by various manufacturers, including Lilly, Novo-Nordisk A/S and Hoechst; however, Hoechst is currently the only supplier of biosynthetic recombinant insulin.

According to the Centers for Disease Control and Prevention, more than 16 million people in the United States have diabetes (10.3 million are diagnosed with diabetes, another 5.4 million have undiagnosed diabetes), and 798,000 new cases are diagnosed each year. All Type 1 diabetics, estimated at between 5% and 15% of all diabetics, require insulin therapy. Type 1 diabetics generally require both a baseline treatment of long-acting insulin and multiple treatments of regular, or short acting, insulin throughout the day. Type 2 diabetics, depending on the severity of their case, may or may not require insulin therapy. Type 2 diabetics who use insulin are best treated with regular insulin and sometimes require long-acting insulin as well. Many Type 2 patients who do not require insulin to survive but would benefit from it are reluctant to start treatment because of the inconvenience and unpleasantness of injections.

Regular insulin is generally administered 30 minutes before mealtimes and generally is given only twice a day. A ten-year study by the National Institutes of Health ("NIH"), however, demonstrated that the side effects of diabetes could be significantly reduced by dosing more frequently. The NIH study recommended dosing regular insulin three to four times per day, a regimen which would more closely

mirror the action of naturally produced insulin in non-diabetics. However, many patients are reluctant to increase their number of doses because they find injections unpleasant and inconvenient.

Pursuant to a collaborative agreement originally entered into January 1995, Inhale and Pfizer are developing a regular insulin that can be administered in one to three blisters using Inhale's deep lung drug delivery system. Inhale believes that its deep lung drug delivery system could provide increased user convenience and result in greater patient compliance by eliminating some injections for Type 1 and Type 2 patients and all injections for some Type 2 patients. In addition, Inhale believes that pulmonary delivery could yield medical advantages by providing a more rapid acting insulin than certain current injectable products.

Through its collaboration with Inhale, Pfizer conducted Phase I and Phase IIa clinical trials which indicated that pulmonary insulin was absorbed systemically and reduced glucose levels and provides the same control of diabetes as does injected insulin. In October 1996, Pfizer initiated a multi-site Phase Ilb outpatient trial with 190 patients with Type 1 and Type 2 diabetes. In June 1998, Pfizer announced the results of Phase Ilb trials. In 70 Type 1 diabetics treated with either inhaleable or conventional injected insulin therapy for three months, the levels of hemoglobin A1c, the best index of blood glucose control, were statistically equivalent. Virtually identical results were obtained in a group of Type 2 diabetics. In September 1998, Pfizer released additional Phase Ilb data from the inhaleable insulin trials which indicated that results from 56 of 69 patients in a three-month trial showed that individuals with Type 2 diabetes can markedly improve their glycemic control without insulin injections by combining Inhale's pulmonary insulin with oral diabetes agents.

In November 1998, Pfizer and Hoechst announced that they entered into worldwide agreements to manufacture insulin and to co-develop and co-promote inhaled insulin. Under the terms of the agreement, Pfizer and Hoechst agreed to construct a jointly owned manufacturing plant in Frankfurt, Germany. Until its completion, Pfizer will provide Inhale with biosynthetic recombinant insulin from Hoechst's existing plant for powder processing. Inhale will continue to have responsibility for manufacturing powders and supplying devices and will receive a royalty on inhaleable insulin products marketed jointly by Pfizer and Hoechst. Later in the same month, Pfizer held a meeting for 117 Phase III sites of the inhaleable insulin trials and in June 1999, Pfizer began dosing for the Phase III clinical trials.

In January 1995 and October 1996, Pfizer made two $5 million equity investments in Inhale at a 25% premium to the market price of Inhale stock at the time of each investment.

ALPHA-1 PROTEINASE INHIBITOR PROGRAM

In January 1997, Inhale entered into a collaborative agreement with Centeon to develop a pulmonary formulation of alpha-1 proteinase inhibitor to treat patients with alpha-1 antitrypsin deficiency, or genetic emphysema. Alpha-1 proteinase inhibitor is approved in the United States and several European countries for augmentation treatment of alpha-1 antitrypsin deficiency. Current treatment is given by systemic intravenous infusion on a weekly basis. This "replacement therapy" consists of a concentrated form of alpha-1 proteinase inhibitor derived from human plasma. Under the terms of the collaboration, Centeon will receive commercialization rights worldwide excluding Japan and Inhale will receive royalties on product sales, an up-front signing fee and up to an estimated $15 million in research and development funding and milestone payments. Centeon will manufacture the active ingredient for use in Inhale's delivery device. Inhale will manufacture and package the dry powder and supply inhalation devices to Centeon for commercialization and marketing.

The two companies have completed preclinical work that indicates Inhale's dry powder formulation of Centeon's alpha-1 proteinase inhibitor has the potential to significantly improve the efficiency of delivery compared with current infusion therapy. Inhale believes its pulmonary delivery system could significantly reduce the amount of drug needed for genetic emphysema therapy since alpha-1 proteinase

inhibitor could be delivered directly to the lung. Centeon is currently negotiating to secure rights under patents that have been granted in Europe directed to aerosol formulations for the treatment of the lung containing serine protease inhibitors, including alpha-1 proteinase inhibitor.

AVONEX-Registered Trademark- Program

In February 1999, Inhale entered into a collaborative agreement with Biogen to develop pulmonary delivery for Biogen's AVONEX-Registered Trademark-, a drug used in the treatment of multiple sclerosis. Multiple sclerosis is believed to be the most common chronic neurological condition of young adults in North America and Europe. It is estimated that over 250,000 people in the United States are currently affected by multiple sclerosis and that approximately 10,000 new cases are diagnosed annually in the United States. Under the terms of the agreement, Inhale will receive royalties on product sales, an up-front signing fee, and up to an estimated $25 million in research and development funding and potential progress payments. Biogen will provide bulk AVONEX-Registered Trademark- to Inhale for formulation into a dry powder which is stable at room temperature. Inhale will manufacture and package the dry powder and supply inhalation devices. Biogen will be responsible for clinical trials, marketing and commercialization.

PROPRIETARY MOLECULE PROGRAM WITH LILLY

In January 1998, Lilly and Inhale entered into a collaborative agreement to develop pulmonary delivery for an undisclosed protein product based on Inhale's deep lung drug delivery system. Under the terms of the agreement, Inhale will receive funding of up to $20 million in research, development and milestone payments. Lilly will receive global commercialization rights for the pulmonary delivery of the products with Inhale receiving royalties on any marketed products. Inhale will manufacture packaged powders for, and supply inhalation devices to, Lilly.

PTH PROGRAM

In January 1997, Inhale entered into a collaborative agreement with Lilly to develop pulmonary delivery for a selected Lilly osteoporosis drug, parathyroid hormone (PTH 1-34). Osteoporosis is estimated to affect approximately 25 million Americans, mostly women. If not prevented or left untreated, osteoporosis can progress painlessly until a bone breaks. As many as 35,000 people die each year from a cause associated with hip fractures, primarily due to complications that result from surgery or from being confined to bed.

Under the terms of its agreement with Lilly, Inhale will receive up to an estimated $20 million in initial fees, funding for research and progress payments. Lilly will receive global commercialization rights for the pulmonary delivery of the products, with Inhale receiving royalties on any marketed products. Inhale will manufacture and package product with bulk drug supplied by Lilly and supply the inhalation devices.

In late 1998, unexpected observations from a long-term test in rats of the injectable version of this osteoporosis drug led Lilly to suspend further clinical development of the injectable and pulmonary versions of PTH pending further analysis. Inhale is maintaining a minimum development effort in its pulmonary program pending further direction from Lilly. Depending on the continued evaluations by Lilly, this inhalation program could be re-initiated, suspended for an extended period, or possibly terminated. Inhale does not currently believe that this program will be re-initiated by Lilly in the near future, if at all.

INHALE'S PROGRAMS AVAILABLE OR EXPECTED TO BE AVAILABLE FOR PARTNERING

CALCITONIN PROGRAM

Inhale is funding a proprietary program to develop deep lung delivery of calcitonin for the treatment of osteoporosis, bone pain and Paget's disease. Calcitonin is a peptide hormone secreted by

the thyroid gland that inhibits bone resorption and lowers serum calcium. Calcitonin is available in two forms, fish and human. Calcitonin is administered daily or every other day by injection in the United States. In the United States, salmon calcitonin is approved for the treatment of postmenopausal osteoporosis, Paget's disease, hypercalcemia of cancer and bone pain. Human calcitonin is approved for Paget's disease and bone pain. Paget's disease is a chronic disorder of the adult skeleton, in which localized areas of bone become hyperactive and are replaced by a softened and enlarged bone structure. About 3% of Caucasians in the United States over age 60 have Paget's disease. Hypercalcemia occurs as a result of excessive serum calcium levels caused by hyperparathyroidism and malignancy. It occurs in approximately 10-20% of cancer patients.

In April 1997, Inhale announced the successful completion of Phase I clinical trials to determine the safety and bioavailability of pulmonary delivery of a dry powder, aerosolized form of salmon calcitonin as a potential treatment for osteoporosis, Paget's disease, hypercalcemia and other bone diseases. The single-dose study conducted in the United Kingdom with a total of 36 fasted normal volunteers indicated that the drug was systemically absorbed through the pulmonary route when delivered with Inhale's system. Inhale is continuing work on this program while it seeks a partner for further clinical development.

INTERLEUKIN-1 RECEPTOR PROGRAM

Interleukin-1 receptor is a cytokine that helps initiate the inflammatory response to foreign pathogens. Inhale collaborated with Immunex to develop pulmonary delivery of a therapeutic product for asthma. Initial formulation development and animal toxicology have been completed, and the two companies successfully completed Phase I/II trials demonstrating pulmonary delivery. This program is awaiting further work and/or licensing by Immunex.

MOLECULE PROGRAMS WITH BAXTER

In March 1996, Inhale entered into a collaborative agreement with Baxter International Inc. to use Inhale's dry powder pulmonary delivery system as a technology platform for developing and launching therapeutic products. In connection with the collaboration, Baxter made a $20 million equity investment in Inhale at a 25% premium to the market price of Inhale stock at the time of the investment. Baxter received worldwide commercialization rights for four non-protein/peptide drugs in exchange for up to an estimated $60 million in research and development funding and progress payments. In April 1998, Inhale announced that the first two compounds from its collaboration with Baxter had successfully completed Phase I and Phase II trials respectively. In addition, it was announced that the program would focus on the product that had completed Phase I as it was the product with the most commercial potential. The technology from one of the three remaining products was returned to Inhale, leaving the development of the other two compounds on hold. In October 1998, Inhale announced that it had reached an agreement with Baxter to amend their collaborative agreement to facilitate signing a new corporate partner to fund further development and commercialization of the undisclosed compound that had been their focus since April 1998. Baxter's obligations under that amendment expired in September 1999. As a result, rights to the compounds reverted to Inhale and are now available for other partnering opportunities.

OTHER PROGRAMS

In addition to the above mentioned programs, Inhale has and continues to conduct feasibility studies with respect to additional drug formulations both for its own account and in cooperation with potential partners. Inhale will continue to pursue these and other feasibility programs to determine the potential for collaborative development programs with respect to these drugs. Included among such studies is initial research on a long-acting inhaleable insulin. Some diabetic patients require a long-acting insulin to maintain baseline insulin levels. A long-acting, inhaleable form of insulin could be

used by these patients as a supplement to short-acting, mealtime inhaleable insulin. This program is part of a broader sustained release program announced by Inhale in January 1999.

MANUFACTURING

Inhale generally plans to formulate, manufacture and package the powders for its deep lung delivery products and to subcontract the manufacture of its proprietary pulmonary delivery devices. Under its collaborative agreement with Pfizer to develop inhaleable insulin, Inhale will be the primary manufacturer of insulin powders and Pfizer will be primarily responsible for filling blisters. The terms of the collaborative agreement with Pfizer provide that prior to the commercialization of its first products, Inhale must build and have validated a powder processing and packaging facility and must select and have validated a device manufacturer or manufacturers. Inhale believes its manufacturing strategy will enable it to achieve the following:

- provide economies of scale by utilizing manufacturing capacity for multiple products;

- improve its ability to retain any manufacturing know-how; and

- allow its customers to bring pulmonary delivery products to market faster.

Inhale has built a powder processing and packaging facility in San Carlos, California capable of producing powders in quantities sufficient for human clinical trials and commercial launch. This facility has been inspected and licensed by the State of California and is used to manufacture and package powders under current good manufacturing practices. Inhale intends to expand the facility to meet its future commercial manufacturing commitments.

Inhale is working to further scale up its powder processing to a larger production scale system and to further develop the necessary powder packaging technologies. Fine particle powders and small quantity powder packaging (such as those to be used in Inhale's delivery system) require special handling. Current commercial packaging systems are designed for filling larger quantities of larger particle powders and therefore must be modified to dispense finer particles in the small quantities required by Inhale. Inhale has developed and validated a proprietary prototype automated filling system which Inhale believes is capable of supporting its requirements through Phase III trials and into commercial production for some products. Inhale is developing a higher capacity automated filling unit capable of filling blisters on a production scale for moderate and large volume products. Inhale faces significant technical challenges in developing an automated, commercial-scale filling system that can accurately and economically handle the small dose and particle sizes of its powders. There can be no assurance that Inhale will be able to develop or acquire the technology necessary to develop successfully any such system in a timely manner or at commercially reasonable cost. Any failure or delay in developing such technology would delay product development or bar commercialization of Inhale's products and would have a material adverse effect on Inhale.

A new inhalation device has been developed for commercial use and is being used in the Phase III insulin and other trials in 1999. Inhale plans to subcontract the manufacture of its pulmonary delivery device before commercial production of its first product. Inhale has identified contract manufacturers that it believes have the technical capabilities and production capacity to manufacture its devices and which can meet the requirements of current good manufacturing practices. There can be no assurance that Inhale will be able to obtain and maintain satisfactory contract manufacturing on commercially acceptable terms, if at all. Inhale's dependence upon third parties for the manufacture of its inhalation device may adversely affect Inhale's cost of goods and its ability to develop and commercialize products on a timely and competitive basis.

GOVERNMENT REGULATION

The research and development, manufacture and marketing of pulmonary drug delivery systems are subject to regulation by the FDA in the United States and by comparable regulatory agencies in other countries. These national agencies and other federal, state and local entities regulate, among other things, research and development activities and the testing, manufacture, safety, effectiveness, labeling, storage, record keeping, approval, advertising and promotion of Inhale's products.

The process required by the FDA before a pulmonary drug delivery system may be marketed in the United States depends on whether the compound has existing approval for use in other dosage forms. If the drug is a new chemical entity that has not been approved, the process includes the following:

- preclinical laboratory and animal tests;

- the filing of an Investigational New Drug application ("IND");

- adequate and well-controlled human clinical trials to establish the safety and efficacy of the drug in its intended indication; and

- submission to the FDA for approval of a New Drug Application ("NDA") with respect to drugs or a Biological License Application ("BLA") with respect to biologics.

If the drug has been previously approved, the approval process is similar, except that certain toxicity tests normally required for the IND and NDA/BLA application may not be necessary.

Preclinical tests include laboratory evaluation of product chemistry and animal studies to assess the potential safety and efficacy of the product and its formulation. Pulmonary systems must be formulated according to current good manufacturing practices, and preclinical safety tests must be conducted by laboratories that comply with FDA good laboratory practices regulations. The results of the preclinical tests are submitted to the FDA as part of an IND application and are reviewed by the FDA before human clinical trials begin. The IND application becomes effective 30 days after receipt by the FDA, unless the FDA raises objections.

Clinical trials involve the administration of the drug to healthy volunteers or to patients under the supervision of, a qualified principal investigator. Clinical trials are conducted in accordance with protocols that detail the objectives of the study, the parameters to be used to monitor safety and the efficacy criteria to be evaluated. Each protocol is submitted to the FDA as part of the IND. Each clinical study is conducted under the auspices of an independent Institutional Review Board ("IRB"). The IRB will consider, among other things, ethical factors, the safety of human subjects and the possible liability of the institution.

Clinical trials are typically conducted in three sequential phases, but the phases may overlap. In Phase I, the initial introduction of the drug into healthy human subjects, the product generally is tested for safety, dosage tolerance, pharmacokinetics, absorption, metabolism and excretion. Phase II involves studies in a limited patient population to:

- determine the efficacy of the product for specific, targeted indications;

- determine dosage tolerance and optimal dosage; and

- identify possible adverse effects and safety risks.

When Phase II evaluations demonstrate that dosing the drug by the pulmonary system is effective and has an acceptable safety profile, Phase III trials are undertaken to evaluate further clinical efficacy and safety within an expanded patient population at geographically dispersed clinical study sites. The FDA, the clinical trial sponsor, the investigator or the IRB may suspend clinical trials at any time if it believes that clinical subjects are being exposed to an unacceptable health risk.

The results of product development, preclinical studies and clinical studies are submitted to the FDA as an NDA/BLA for approval of the marketing and commercial shipment of the pulmonary system. The FDA may deny an NDA/BLA if applicable regulatory criteria are not satisfied or may require additional clinical testing. Even if such data is submitted, the FDA may ultimately decide that the NDA/BLA does not satisfy the criteria for approval. Product approvals may be withdrawn if compliance with regulatory standards are not maintained or if problems occur after the product reaches the market. The FDA may require testing and surveillance programs to monitor the effect of pulmonary systems that have been commercialized, and has the power to prevent or limit future marketing of the product based on the results of these post-marketing programs.

Each domestic drug product manufacturing establishment must be registered with, and approved by, the FDA. Drug product manufacturing establishments located in California also must be licensed by the State of California. Establishments handling controlled substances must be licensed by the United States Drug Enforcement Administration ("DEA"). Domestic manufacturing establishments are subject to biennial inspections by the FDA for current good manufacturing practices compliance. Inhale is also subject to U.S. federal, state and local regulations regarding workplace safety, environmental protection and hazardous and controlled substance controls, among others.

Many of the drugs with which Inhale is working are already approved for marketing by the FDA. Inhale believes that when working with approved drugs, the approval process for delivery by pulmonary delivery may require less time and fewer tests than for new chemical entities. However, Inhale expects that its formulations often will use excipients not currently approved for pulmonary use. Use of these excipients will require additional toxicological testing that may increase the costs of, or lengthen the time in, gaining regulatory approval. In addition, regulatory procedures applicable to Inhale's products may change as regulators gain experience in the area of macromolecules, and any such changes may delay or increase the cost of regulatory approval.

Inhale's device will not be developed as an independent product but will be an inseparable part of the deep lung drug delivery system for each specific molecule. Prior to or at the time of submission of the IND, the FDA Center and division within the Center will be identified to be responsible for the review of the IND and NDA/BLA. In the case of Inhale's products, either the Center for Drug Evaluation and Research or the Center for Biologics Evaluation and Research, in consultation with the Center for Devices and Radiological Health, will be involved in the review. However, one Center is designated as the Center which has the lead responsibility for regulating the product. The jurisdiction within the FDA is based on the primary mode of action of the drug and is identified in the FDA's intercenter agreement.

Inhale expects that its partners generally will be responsible for clinical and regulatory approval procedures, but Inhale may participate in this process by submitting to the FDA or to each partner portions of the Drug Master File being developed and to be maintained by Inhale which contains data concerning the manufacturing processes for the product. The regulatory review process generally takes a number of years and requires the expenditure of substantial resources. Inhale's ability to manufacture and sell products developed under contract depends upon the partner's completion of satisfactory clinical trials and obtaining marketing approvals. Inhale may prepare and submit an IND application and perform initial clinical studies before licensing the product to a partner. Inhale's business strategy contemplates performing more of these studies in the future.

Sales of Inhale's products outside the United States are subject to regulatory requirements governing human clinical trials and marketing approval for drugs and pulmonary delivery systems. Such requirements vary widely from country to country.

Prior to marketing a new dosage form of any drug, including one developed for use with Inhale's pulmonary drug delivery system, the product must undergo rigorous preclinical and clinical testing and an extensive review process mandated by the FDA and equivalent foreign authorities regardless of

whether or not such drug was already approved for marketing in another dosage form. These processes generally take a number of years and require the expenditure of substantial resources. None of Inhale's proposed products has been submitted to the FDA for marketing approval. Inhale has no experience obtaining such regulatory approval, does not have the expertise or other resources to do so and intends to rely on its partners to fund clinical testing and to obtain product approvals.

PATENTS AND PROPRIETARY RIGHTS

Inhale's policy is to apply for patent protection for the technology, inventions and improvements deemed important to the development of its business. Inhale also relies upon trade secrets, know-how, continuing technological innovations and licensing opportunities to maintain and further develop its competitive position. Inhale plans to defend aggressively its proprietary technology and any issued patents.

Inhale expects that its integrated system for the development of pulmonary delivery technology for macromolecule drugs will yield innovations in dry powder formulations, powder processing, powder packaging and device design. It is Inhale's strategy to build proprietary positions in each of its technological areas. Inhale's success will depend in part upon its ability to protect its proprietary technology from infringement, misappropriation, duplication and discovery. Inhale has filed patent applications covering certain aspects of its device and powder processing technology and powder formulations and pulmonary route of delivery for certain molecules, and plans to file additional patent applications. There can be no assurance that any of the patents applied for by Inhale will issue, or that any patents that issue will be valid and enforceable. Even if such patents are enforceable, Inhale anticipates that any attempt to enforce its patents could be time consuming and costly.

Inhale currently has 45 issued U.S. and foreign patents covering certain aspects of its technology and has a number of patent applications pending. Among the significant and more recent patents received by Inhale from the United States Patent and Trademark Office (the "PTO") are the following:

- Patent No. 5,458,135 (October 17, 1995) for certain claims covering the use of its device in a method for delivering powder formulations of drugs to the lung.

- Patent No. 5,607,915 (March 4, 1997) for pulmonary delivery of active fragments of parathyroid hormone (PTH) 1-34.

- Patent No. 5,654,007 (August 5, 1997) for a system and methods for processing fine dispersible powders for easier processing.

- Patent No. 5,740,794 (April 21, 1998) for a method and means to access a packaged drug, to break up a dry powder drug into particles with compressed air (aerosolize), and to transport the aerosolized drug into a holding chamber.

- Patent No. 5,775,320 (July 7, 1998) for a method and means for dispersing a dry-powder or liquid drug, and transferring the drug in its aerosolized "cloud" form to a holding chamber where it is held until a patient is ready to inhale, as well as a method and means to pull in atmospheric "chase" air following the initial inhalation to help push the drug into the deep lung.

- Patent No. 5,780,014 (July 14, 1998) for methods and means for pulmonary delivery of dry powder alpha-1 proteinase inhibitor for administration to a patient.

- Patent No. 5,785,049 (July 28, 1998) for approximately 50 claims directed to methods and means for aerosolizing dry powders through use of a high pressure gas stream to draw dry powder from a receptacle such as a blister and for which Inhale utilizes the design described therein to achieve efficient aerosolization of fine dry powders to enable deep lung delivery for systemic absorption.

- Patent No. 5,826,633 (October 27, 1998) relating to Inhale's powder handling technologies, including the process of transferring fine powder particles into blister packs in an un-compacted state so that they can be easily dispersed in Inhale's pulmonary delivery system.

- Patent No. 5,928,469 (July 27, 1999) for a method for preparing storage stable compositions. In this method, a material to be stored and a glass forming substance are spray-dried to form stable particles

- Patent No. 5,976,574 (November 2, 1999) for a process for spray-drying hydrophobic drugs in organic solvent suspensions.

- Patent No. 5,985,248 (November 16, 1999) for a process for spray-drying a hydrophobic drug and a hydrophilic excipient in an organic solvent and compositions formed by the process.

- Patent No. 5,994,314 (November 30, 1999) for dry powder nucleic acid compositions and methods for their preparation

- Patent No. 5,997,848 (December 7, 1999) for pulmonary administration of dry powder insulin which is rapidly absorbed through the alveoli into the systemic circulation

In October 1999, Inhale and Alliance entered into an agreement for Inhale to acquire Alliance's PulmoSpheres-Registered Trademark- technology and other related assets for particle formation and powder processing and in November 1999, the acquisition was completed. The PulmoSpheres-Registered Trademark- technology utilizes an emulsification process to produce a powder having characteristics that Inhale believes may improve efficiency and reproducibility for drugs delivered to the lung through alternative technologies such as MDIs as well as potentially improve drug delivery through Inhale's proprietary deep lung drug delivery system. The assets acquired included Alliance's intellectual property portfolio for PulmoSpheres-Registered Trademark- consisting of, among other things, several patent applications. With respect to applications of the PulmoSpheres-Registered Trademark- technology outside the respiratory field, Inhale has licensed the technology back to Alliance. While Alliance has made several representations in its agreement with Inhale regarding its ownership rights of the PulmoSpheres-Registered Trademark- technology, it is possible that third parties might assert claims challenging Alliance's rights, and thus Inhale's rights. Even if Inhale can defend its rights successfully, the uncertainty regarding the status of its rights during the time any such litigation is pending may prevent Inhale from using the underlying technology.

In April 1998, Inhale and Initiatech Inc. signed an agreement under which Inhale will license technology, intellectual property, and patents for protecting biologically active compounds in the dry state. Inhale plans to use this technology to expand its current technology base in stabilizing dry powder aerosol formulations for peptides, proteins, and other macromolecules at room temperature. Inhale's license is exclusive for the fields of respiratory delivery of pharmaceutical products and for any delivery form of insulin. The license includes rights to two issued U.S. patents and a Canadian patent covering the protection of biological materials from degradation. Initiatech has licensed exclusive rights to this technology from the Boyce Thompson Institute for Plant Research Inc., (BTI) including the right to sub-license.

In June 1997, Inhale acquired the intellectual property portfolio of the BioPreservation Division of Pafra. This portfolio includes issued U.S. and foreign Letters Patents and pending applications relating to the stabilization of macromolecule drugs in dry formulations. An application for reissue of the original U.S. patent included in this portfolio is pending in the PTO. There can be no assurance that Inhale will be successful in obtaining a reissued patent. A second U.S. patent issued on July 27, 1999. A granted European patent included in this portfolio was the subject of an opposition proceeding before the European Patent Office. The opposition hearing was held on December 16, 1999. Inhale successfully defended the patent and its method claims relating to glass stabilization technology against four opposing parties. There can be no assurance that any of the other Pafra patent applications will issue, or that any Pafra patents will be held to be valid and enforceable. The inability to obtain or defend the Pafra patents could have a material adverse effect on Inhale.

Inhale has obtained license rights to certain know-how and patent applications owned by Genentech, Inc. covering formulations and powder processing and pulmonary delivery of certain molecules, which it believes could be important to the development of its business. These license rights are worldwide, nonexclusive, sublicensable and royalty free. In 1997, Genentech successfully defended an opposition proceeding involving a pending European patent licensed to Inhale. Recently, this decision was upheld on appeal. The pending patent covers the pulmonary delivery of cytokines and growth factors.

The patent positions of pharmaceutical, biotechnology and drug delivery companies, including Inhale, are uncertain and involve complex legal and factual issues. Additionally, the coverage claimed in a patent application can be significantly reduced before the patent is issued. As a consequence, Inhale does not know whether any of its patent applications will be circumvented or invalidated. Since patent applications in the United States are maintained in secrecy until patents issue, and since publication of discoveries in the scientific or patent literature often lag behind actual discoveries, Inhale cannot be certain that it was the first inventor of inventions covered by its issued patents or pending patent applications or that it was the first to file patent applications for such inventions. Moreover, Inhale may have to participate in interference proceedings declared by the PTO to determine priority of invention, which could result in substantial cost to Inhale, even if the eventual outcome is favorable. An adverse outcome could subject Inhale to significant liabilities to third parties, require disputed rights to be licensed from or to third parties or require Inhale to cease using the technology in dispute.

Inhale is aware of numerous pending and issued U.S. and foreign patent rights and other proprietary rights owned by third parties that relate to aerosol devices and delivery, pharmaceutical formulations, dry powder processing technology and the pulmonary route of delivery for certain powder formulations of macromolecules. Inhale cannot predict with any certainty which, if any, patent references will be considered relevant to its technology by authorities in the various jurisdictions where such rights exist, nor can Inhale predict with certainty which, if any, of these rights will or may be asserted against it by such third parties. There can be no assurance that Inhale can obtain any license to any technology that it determines it needs, on reasonable terms, if at all, or that Inhale could develop or otherwise obtain alternate technology. The failure to obtain licenses if needed would have a material adverse effect on Inhale.

Inhale also relies upon trade secret protection for its confidential and proprietary information. No assurance can be given that others will not independently develop substantially equivalent proprietary information and techniques or otherwise gain access to Inhale's trade secrets or disclose such technology, or that Inhale can meaningfully protect its trade secrets.

Third parties from time to time have asserted or may assert that Inhale is infringing their proprietary rights based upon issued patents, trade secrets or know-how that they believe cover Inhale's technology. In addition, future patents may issue to third parties which Inhale's technology may infringe. Inhale could incur substantial costs in defending itself and its partners against any such claims. Furthermore, parties making such claims may be able to obtain injunctive or other equitable relief which could effectively block Inhale's ability to further develop or commercialize some or all of its products in the United States and abroad, and could result in the award of substantial damages. In the event of a claim of infringement, Inhale and its partners may be required to obtain one or more licenses from third parties. There can be no assurance that Inhale or its partners will be able to obtain such licenses at a reasonable cost, if at all. Defense of any lawsuit or failure to obtain any such required license could have a material adverse effect on Inhale.

Inhale's ability to develop and commercialize its technology will be affected by its or its partners' access to the drugs which are to be formulated. Many biopharmaceutical drugs, including some of those which are presently under development by Inhale, are subject to issued and pending United States and foreign patent rights which may be owned by competing entities. There are issued patents and pending patent applications relating to the pulmonary delivery of macromolecule drugs, including several for

which Inhale is developing pulmonary delivery formulations. Inhale intends generally to rely on the ability of its partners to provide access to the drugs which are to be formulated for pulmonary delivery. There can be no assurance, however, that Inhale's partners will be able to provide access to drug candidates for formulation for pulmonary delivery or that, if such access is provided, Inhale or its partners will not be accused of, or determined to be, infringing a third party's rights and will not be prohibited from working with the drug or be found liable for damages that may not be subject to indemnification. Any such restriction on access or liability for damages would have a material adverse effect on Inhale.

It is Inhale's policy to require its employees and consultants, outside scientific collaborators, sponsored researchers and other advisors who receive confidential information from Inhale to execute confidentiality agreements upon the commencement of employment or consulting relationships with Inhale. These agreements provide that all confidential information developed or made known to the individual during the course of the individual's relationship with Inhale is to be kept confidential and not disclosed to third parties except in specific circumstances. The agreements provide that all inventions conceived by an employee shall be the property of Inhale. There can be no assurance, however, that these agreements will provide meaningful protection or adequate remedies for Inhale's trade secrets in the event of unauthorized use or disclosure of such information.

COMPETITION

Inhale believes that products developed using its technology will compete on the basis of system efficiency, dosage reproducibility, safety, patient convenience and cost. There is intense competition to develop a solution to the non-invasive delivery of drugs from several drug delivery and pharmaceutical companies, many of which are much larger and have far greater resources than Inhale. These include companies working on developing systems for other non-invasive routes of delivery, such as oral, transdermal, bucal, nasal, and needle-less injections, as well as companies working on pulmonary delivery systems. In addition, several companies are working on sustained release injectable systems. While these latter systems involve injections, the lower number of injections could be competitive with Inhale's pulmonary delivery technology in certain applications. Inhale believes its technology and integrated pulmonary delivery systems approach provides it with important competitive advantages in the delivery of drugs compared with currently known alternatives. However, new drugs or further developments in alternative drug delivery methods may provide greater therapeutic benefits for a specific drug or indication, or may offer comparable performance at lower cost than Inhale's proprietary deep lung drug delivery system.

With respect to pulmonary delivery, several companies are marketing and developing dry powder, MDI, liquid and nebulizer devices that could have applications for drug delivery, including Dura Pharmaceuticals, Inc. and Aradigm Corporation, which also have collaborative arrangements with corporate partners for the development of pulmonary delivery systems for insulin. Several of these companies may have or may be developing dry powder devices that could be used for pulmonary delivery of macromolecules. There can be no assurance that competitors will not introduce products or processes competitive with or superior to those of Inhale. Inhale intends to monitor competitive device activities and continue to focus its activities on those products for which Inhale believes it has and can maintain a competitive advantage. If a device is developed that is superior to Inhale's for certain applications, Inhale may seek to obtain a license to allow Inhale's partners to use such device with Inhale-developed powders, although there can be no assurance that Inhale would be able to do so.

Inhale's success depends upon maintaining a competitive advantage in the development of products and technologies for pulmonary delivery of pharmaceutical drugs. If a competing company were to develop or acquire rights to a better dry powder pulmonary delivery device or fine powder processing technology, a better system for efficiently and reproducibly delivering macromolecule drugs to the deep lung, a non-invasive drug delivery system which is more attractive for delivery drugs to the

deep lung, a non-invasive drug delivery system which is more attractive for the delivering of drugs than pulmonary delivery, or an invasive delivery system which overcomes some of the drawbacks of current invasive systems for chronic or subtonic indications (such as sustained release system), Inhale's business would be negatively impacted.

Inhale is in competition with pharmaceutical, biotechnology and drug delivery companies, hospitals, research organizations, individual scientists and nonprofit organizations engaged in the development of alternative drug delivery systems or new drug research and testing, as well as with entities producing and developing injectable drugs. Inhale is aware of a number of companies currently seeking to develop new products and non-invasive alternatives to injectable drug delivery, including oral delivery systems, intranasal delivery systems, transdermal systems, bucal and colonic absorption systems. Several of these companies may have developed or are developing dry powder devices that could be used for pulmonary delivery of macromolecules. Many of these companies and entities have greater research and development capabilities, experience, manufacturing, marketing, financial and managerial resources than Inhale and represent significant competition for Inhale. Acquisitions of competing drug delivery companies by large pharmaceutical companies could enhance competitors' financial, marketing and other resources. Accordingly, Inhale's competitors may succeed in developing competing technologies, obtaining FDA approval for products or gaining market acceptance more rapidly than Inhale. Developments by others may render Inhale's products or technologies noncompetitive or obsolete.

EMPLOYEES AND CONSULTANTS

As of September 30, 1999, Inhale had 306 full time employees, of which 248 were engaged in research and development (including manufacturing) activities and 58 were engaged in general administration and business development. Two hundred fifty-one of the employees hold advanced degrees, of which 50 are Ph.D.s. Inhale employs scientists and engineers with expertise in the areas of pulmonary biology, aerosol science, mechanical engineering, protein chemistry and chemical engineering. None of Inhale's employees are covered by a collective bargaining agreement and Inhale has experienced no work stoppages. Inhale believes that it maintains good relations with its employees.

To complement its own expertise, Inhale utilizes specialists in regulatory affairs, pulmonary toxicology, process engineering, manufacturing, quality assurance, device design, clinical trial design and business development. These individuals include certain of Inhale's scientific advisors (see "Management" below) as well as independent consultants.

FACILITIES

Inhale currently leases approximately 165,000 feet in San Carlos, California and 20,000 square feet in Palo Alto, California. The Palo Alto facility is used for research, development and administration. The lease has a five-year term, and expires on May 31, 2003.

The San Carlos facility is leased pursuant to a 15-year lease agreement. The San Carlos facility serves as the Company's corporate headquarters and is used for research and development, manufacturing and administration. The lease provides Inhale with an option to lease approximately 80,000 additional square feet in the same facility. This manufacturing facility operates under current good manufacturing practices and has been approved and licensed by the State of California to manufacture clinical supplies for use in human clinical trials.

In October 1998, Inhale acquired 4.7 acres of land adjacent to its San Carlos facility. Inhale intends to use this property to expand future operations. In October 1999, Inhale commenced construction of a 85,000 square foot facility on this site to expand its administrative offices and research and development capacity.

DESCRIPTION OF THE DEBENTURES

The debentures were issued under an indenture between us and Chase Manhattan Bank and Trust Company, National Association, as trustee, dated October 13, 1999. The terms of the debentures include those provided in the indenture and those provided in the registration rights agreement, which we entered into with the initial purchasers of the debentures on October 13, 1999.

The following description of provisions of the debentures is not complete and is subject to, and qualified in its entirety by reference to, the debentures, the indenture and the registration rights agreement.

GENERAL

The debentures are general unsecured obligations of Inhale and rank junior in right of payment to all of our existing and future Senior Debt and are convertible into our common stock as described under "--Conversion Rights" below. The debentures will mature on October 13, 2006, unless earlier redeemed by us or repurchased by us at the option of the holder upon the occurrence of a Change of Control (as defined below).

The debentures bear interest from October 13, 1999 at the rate of 6 3/4% per year, subject to adjustment upon the occurrence of a Reset Transaction. See "--Interest Rate Adjustments" below. Interest is payable semi-annually on April 13 and October 13 of each year to holders of record at the close of business on the preceding March 31 and September 30, respectively, beginning April 13, 2000. We may pay interest on debentures represented by certificated debentures by check mailed to such holders. However, a holder of debentures with an aggregate principal amount in excess of $5,000,000 will be paid by wire transfer in immediately available funds at the election of such holder. Interest will be computed on the basis of a 360-day year comprised of twelve 30-day months.

Principal will be payable, and the debentures may be presented for conversion, registration of transfer and exchange, without service charge, at our office or agency in New York City, which shall initially be the office or agency of the trustee in New York, New York. See "--Form, Denomination and Registration" for information as to debentures held by QIBs (as defined below).

The indenture does not contain any financial covenants or any restrictions on the payment of dividends, the repurchase of our securities or the incurrence of Senior Debt or any other indebtedness. The indenture also does not contain any covenants or other provisions that afford protection to holders of debentures in the event of a highly leveraged transaction or a Change in Control of Inhale except to the extent described under "--Repurchase at Option of Holders Upon a Change of Control" below.

INTEREST RATE ADJUSTMENTS

If a Reset Transaction occurs, the interest rate will be adjusted to equal the Adjusted Interest Rate from the effective date of such Reset Transaction to, but not including, the effective date of any succeeding Reset Transaction.

A "Reset Transaction" means:

- a merger, consolidation or statutory share exchange to which the entity that is the issuer of the common stock into which the debentures are then to be convertible into is a party;

- a sale of all or substantially all the assets of that entity;

- a recapitalization of that common stock; or

- a distribution described in clause (4) of the fourth paragraph under "--Conversion Rights" below,

after the effective date of which transaction or distribution the debentures would be convertible into:

- shares of an entity the common stock of which had a dividend yield for the four fiscal quarters of such entity immediately preceding the public announcement of the transaction or distribution that was more than 2.5% higher than the dividend yield on our common stock (or other common stock then issuable upon conversion of the debentures) for the four fiscal quarters preceding the public announcement of the transaction or distribution; or

- shares of an entity that announces a dividend policy prior to the effective date of the transaction or distribution which policy, if implemented, would result in a dividend yield on that entity's common stock for the next four fiscal quarters that would result in such a 2.5% increase.

The "Adjusted Interest Rate" with respect to any Reset Transaction will be the rate per year that is the arithmetic average of the rates quoted by two dealers engaged in the trading of convertible securities selected by us or our successor as the rate at which interest should accrue so that the fair market value, expressed in dollars, of a debenture immediately after the later of

- the public announcement of the Reset Transaction or

- the public announcement of a change in dividend policy in connection with the Reset Transaction

will equal the average Trading Price of a debenture for the 20 trading days preceding the date of public announcement of the Reset Transaction However, the Adjusted Interest Rate will not be less than 6 3/4% per year.

For purposes of the definition of Reset Transaction, the dividend yield on any security for any period means the dividends paid or proposed to be paid pursuant to an announced dividend policy on the security for that period divided by, if with respect to dividends paid on that security, the average Closing Price (as defined in the indenture) of the security during that period and, if with respect to dividends proposed to be paid on the security, the Closing Price of such security on the effective date of the related Reset Transaction.

The "Trading Price" of a security on any date of determination means:

- the closing sale price (or, if no closing sale price is reported, the last reported sale price) of a security (regular way) on the New York Stock Exchange ("NYSE") on that date;

- if that security is not listed on the NYSE on that date, the closing sale price as reported in the composite transactions for the principal U.S. securities exchange on which that security is listed;

- if that security is not so listed on a U.S. national or regional securities exchange, the closing sale price as reported by the Nasdaq National Market;

- if that security is not so reported, the last price quoted by Interactive Data Corporation for that security or, if Interactive Data Corporation is not quoting such price, a similar quotation service selected by us;

- if that security is not so quoted, the average of the mid-point of the last bid and ask prices for that security from at least two dealers recognized as market-makers for that security; or

- if that security is not so quoted, the average of that last bid and ask prices for that security from a dealer engaged in the trading of convertible securities.

FORM, DENOMINATION AND REGISTRATION

The debentures were issued in fully registered form, without coupons, in denominations of $1,000 principal amount and whole multiples of $1,000.

The debentures are evidenced by a global debenture deposited with the trustee as custodian for The Depository Trust Company, New York, New York ("DTC"), and registered in the name of Cede & Co. as DTC's nominee. Record ownership of the global debenture may be transferred, in whole or in part, only to another nominee of DTC or to a successor of DTC or its nominee, except as set forth below.

A "qualified institutional buyer," as defined in rule 144A under the Securities Act ("QIB") may hold its interests in the global debenture directly through DTC if such QIB is a participant in DTC, or indirectly through organizations which are direct DTC participants. Transfers between direct DTC participants will be effected in the ordinary way in accordance with DTC's rules and will be settled in same-day funds. QIBs may also beneficially own interests in the global debenture held by DTC through certain banks, brokers, dealers, trust companies and other parties that clear through or maintain a custodial relationship with a direct DTC participant, either directly or indirectly.

So long as Cede & Co., as nominee of DTC, is the registered owner of the global debenture, Cede & Co. for all purposes will be considered the sole holder of the global debenture. Except as provided below, owners of beneficial interests in the global debenture will not be entitled to have certificates registered in their names, will not receive or be entitled to receive physical delivery of certificates in definitive form, and will not be considered holders thereof. The laws of some states require that certain persons take physical delivery of securities in definitive form. Consequently, the ability to transfer a beneficial interest in the global debenture to such persons may be limited.

We will wire, through the facilities of the trustee, principal, premium, if any, and interest payments on the global debenture to Cede & Co., the nominee for DTC, as the registered owner of the global debenture. Inhale, the trustee and any paying agent will have no responsibility or liability for paying amounts due on the global debenture to owners of beneficial interests in the global debenture.

It is DTC's current practice, upon receipt of any payment of principal of and premium, if any, and interest on the global debenture, to credit participants' accounts on the payment date in amounts proportionate to their respective beneficial interests in the debentures represented by the global debenture, as shown on the records of DTC, unless DTC believes that it will not receive payment on the payment date. Payments by DTC participants to owners of beneficial interests in debentures represented by the global debenture held through DTC participants will be the responsibility of DTC participants, as is now the case with securities held for the accounts of customers registered in "street name."

If you would like to convert your debentures into common stock pursuant to the terms of the debentures, you should contact your broker or other direct or indirect DTC participant to obtain information on procedures, including proper forms and cut-off times, for submitting those requests.

Because DTC can only act on behalf of DTC participants, who in turn act on behalf of indirect DTC participants and other banks, your ability to pledge your interest in the debentures represented by global debenture to persons or entities that do not participate in the DTC system, or otherwise take actions in respect of such interest, may be affected by the lack of a physical certificate.

Neither Inhale nor the trustee (nor any registrar, paying agent or conversion agent under the indenture) will have any responsibility for the performance by DTC or direct or indirect DTC participants of their obligations under the rules and procedures governing their operations. DTC has advised us that it will take any action permitted to be taken by a holder of debentures, including, without limitation, the presentation of debentures for conversion as described below, only at the

direction of one or more direct DTC participants to whose account with DTC interests in the global debenture are credited and only for the principal amount of the debentures for which directions have been given.

DTC has advised us as follows: DTC is a limited purpose trust company organized under the laws of the State of New York, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the Uniform Commercial Code and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934, as amended. DTC was created to hold securities for DTC participants and to facilitate the clearance and settlement of securities transactions between DTC participants through electronic book-entry changes to the accounts of its participants, thereby eliminating the need for physical movement of certificates. Participants include securities brokers and dealers, banks, trust companies and clearing corporations and may include certain other organizations such as the initial purchasers of the debentures. Certain DTC participants or their representatives, together with other entities, own DTC. Indirect access to the DTC system is available to others such as banks, brokers, dealers and trust companies that clear through, or maintain a custodial relationship with, a participant, either directly or indirectly.

Although DTC has agreed to the foregoing procedures in order to facilitate transfers of interests in the global debenture among DTC participants, it is under no obligation to perform or continue to perform such procedures, and such procedures may be discontinued at any time. If DTC is at any time unwilling or unable to continue as depositary and a successor depositary is not appointed by us within 90 days, we will cause debentures to be issued in definitive form in exchange for the global debenture. None of Inhale, the trustee or any of their respective agents will have any responsibility for the performance by DTC, direct or indirect DTC participants of their obligations under the rules and procedures governing their operations, including maintaining, supervising or reviewing the records relating to, or payments made on account of, beneficial ownership interests in global debentures.

DTC's management is aware that some computer applications, systems and the like for processing data that are dependent upon calendar dates, including dates before, on or after January 1, 2000, may encounter "Year 2000 problems." DTC has informed DTC participants and other members of the financial community that it has developed and is implementing a program so that its systems, as the same relates to the timely payment of distributions, including principal and interest payments, to securityholders, book-entry deliveries and settlement of trades within DTC, continue to function appropriately. This program includes a technical assessment and a remediation plan, each of which is complete. Additionally, DTC's plan includes a testing phase, which is expected to be completed within appropriate time frames.

However, DTC's ability to perform properly its services is also dependent upon other parties, including, but not limited to, issuers and their agents, as well as third-party vendors from whom DTC licenses software and hardware, and third-party vendors on whom DTC relies for information or the provision of services, including telecommunications and electrical utility service providers, among others. DTC has informed DTC participants and other members of the financial community that it is contacting and will continue to contact third-party vendors from whom DTC acquires services to (1) impress upon them the importance of such services being Year 2000 compliant and (2) determine the extent of their efforts for Year 2000 remediation (and, as appropriate, testing) of their services. In addition, DTC is in the process of developing such contingency plans as it deems appropriate.

According to DTC, the foregoing information with respect to DTC has been provided to its participants and other members of the financial community for informational purposes only and is not intended to serve as a representation, warranty or contract modification of any kind.

CONVERSION RIGHTS

The holders of debentures may, at any time prior to the close of business on the final maturity date of the debentures, convert any outstanding debentures (or portions thereof) into our common stock, initially at the conversion price set forth on the cover page of this prospectus, subject to adjustment as described below. Holders may convert debentures only in denominations of $1,000 and whole multiples of $1,000. Except as described below, no adjustment will be made on conversion of any debentures for interest accrued thereon or dividends paid on any common stock.

If debentures are converted after a record date for an interest payment but prior to the next interest payment date, those debentures, other than debentures called for redemption, must be accompanied by funds equal to the interest payable on the next interest payment date on the principal amount so converted. No payment will be required if we exercise our right to redeem such debentures on a redemption date that is an interest payment date. We are not required to issue fractional shares of common stock upon conversion of debentures and instead will pay a cash adjustment based upon the market price of our common stock on the last business day before the date of the conversion. In the case of debentures called for redemption, conversion rights will expire at the close of business on the second business day preceding the date fixed for redemption, unless we default in payment of the redemption price.

A holder may exercise the right of conversion by delivering the debenture to be converted to the specified office of a conversion agent, with a completed notice of conversion, together with any funds that may be required as described in the preceding paragraph. The conversion date will be the date on which the debentures, the notice of conversion and any required funds have been so delivered. A holder delivering a debenture for conversion will not be required to pay any taxes or duties relating to the issuance or delivery of the common stock for such conversion, but will be required to pay any tax or duty which may be payable relating to any transfer involved in the issuance or delivery of the common stock in a name other than the holder of the debenture. Certificates representing shares of common stock will be issued or delivered only after all applicable taxes and duties, if any, payable by the holder have been paid. If any debenture is converted within two years after its original issuance, the common stock issuable upon conversion will not be issued or delivered in a name other than that of the holder of the debenture unless the applicable restrictions on transfer have been satisfied.

The initial conversion price will be adjusted for certain events, including:

1) the issuance of our common stock as a dividend or distribution on our common stock;

2) certain subdivisions and combinations of our common stock;

3) the issuance to all holders of our common stock of certain rights or warrants to purchase our common stock (or securities convertible into our common stock) at less than (or having a conversion price per share less than) the current market price of our common stock;

4) the dividend or other distribution to all holders of our common stock or shares of our capital stock (other than common stock) or evidences of our indebtedness or our assets (including securities, but excluding those rights and warrants referred to above and dividends and distributions in connection with a reclassification, change, consolidation, merger, combination, sale or conveyance resulting in a change in the conversion consideration pursuant to the second succeeding paragraph or dividends or distributions paid exclusively in cash);

5) dividends or other distributions consisting exclusively of cash to all holders of our common stock to the extent that such distributions, combined together with (A) all other such all-cash distributions made within the preceding 12 months for which no adjustment has been made plus (B) any cash and the fair market value of other consideration paid for any tender offers by us or any of our subsidiaries for our common stock concluded within the preceding

12 months for which no adjustment has been made, exceeds 10% of our market capitalization on the record date for such distribution; market capitalization is the product of the then current market price of our common stock times the number of shares of our common stock then outstanding; and

6) the purchase of our common stock pursuant to a tender offer made by us or any of our subsidiaries to the extent that the same involves an aggregate consideration that, together with (A) any cash and the fair market value of any other consideration paid in any other tender offer by us or any of our subsidiaries for our common stock expiring within the 12 months preceding such tender offer for which no adjustment has been made plus (B) the aggregate amount of any all-cash distributions referred to in clause (5) above to all holders of our common stock within 12 months preceding the expiration of tender offer for which no adjustments have been made, exceeds 10% of our market capitalization on the expiration of such tender offer.

No adjustment in the conversion price will be required unless such adjustment would require a change of at least 1% in the conversion price then in effect at such time. Any adjustment that would otherwise be required to be made shall be carried forward and taken into account in any subsequent adjustment. Except as stated above, the conversion price will not be adjusted for the issuance of our common stock or any securities convertible into or exchangeable for our common stock or carrying the right to purchase any of the foregoing.

In the case of

- any reclassification or change of our common stock (other than changes resulting from a subdivision or combination) or

- a consolidation, merger or combination involving us or a sale or conveyance to another corporation of all or substantially all of our property and assets,

in each case as a result of which holders of our common stock are entitled to receive stock, other securities, other property or assets (including cash or any combination thereof) with respect to or in exchange for our common stock, the holders of the debentures then outstanding will be entitled thereafter to convert those debentures into the kind and amount of shares of stock, other securities or other property or assets (including cash or any combination thereof) which they would have owned or been entitled to receive upon such reclassification, change, consolidation, merger, combination, sale or conveyance had such debentures been converted into our common stock immediately prior to such reclassification, change, consolidation, merger, combination, sale or conveyance. We may not become a party to any such transaction unless its terms are consistent with the foregoing.

If a taxable distribution to holders of our common stock or other transaction occurs which results in any adjustment of the conversion price, the holders of debentures may, in certain circumstances, be deemed to have received a distribution subject to U.S. income tax as a dividend. In certain other circumstances, the absence of an adjustment may result in a taxable dividend to the holders of common stock. See "Certain United States Federal Income Tax Considerations."

We may from time to time, to the extent permitted by law, reduce the conversion price of the debentures by any amount for any period of at least 20 days. In that case we will give at least 15 days' notice of such decrease. We may make such reductions in the conversion price, in addition to those set forth above, as our board of directors deems advisable to avoid or diminish any income tax to holders of our common stock resulting from any dividend or distribution of stock (or rights to acquire stock) or from any event treated as such for income tax purposes.

OPTIONAL REDEMPTION BY INHALE

The debentures are not redeemable prior to October 13, 2002. At any time on or after that date, we may redeem some or all of the debentures on at least 20 but not more than 60 days' notice, at the following prices (expressed in percentages of the principal amount), together with accrued and unpaid interest to, but excluding, the date fixed for redemption. However, if a redemption date is an interest payment date, the semi-annual payment of interest becoming due on such date shall be payable to the holder of record as of the relevant record date and the redemption price shall not include such interest payment.

DURING THE TWELVE MONTHS COMMENCING	REDEMPTION PRICE
October 13, 2002	103.375%
October 13, 2003	102.250%
October 13, 2004	101.125%
October 13, 2005	100.000%

If we do not redeem all of the debentures, the trustee will select the debentures to be redeemed in principal amounts of $1,000 or whole multiples of $1,000 by lot or on a pro rata basis. If any debentures are to be redeemed in part only, a new debenture or debentures in principal amount equal to the unredeemed principal portion thereof will be issued. If a portion of a holder's debentures is selected for partial redemption and the holder converts a portion of its debentures, the converted portion will be deemed to be taken from the portion selected for redemption.

No sinking fund is provided for the debentures.

REPURCHASE AT OPTION OF HOLDERS UPON A CHANGE OF CONTROL

If a Change of Control occurs, each holder of debentures will have the right to require us to repurchase all of that holder's debentures not previously called for redemption, or any portion of those debentures that is equal to $1,000 or a whole multiple of $1,000, on the date that is 45 days after the date we give notice at a repurchase price equal to 100% of the principal amount of the debentures to be repurchased, together with interest accrued and unpaid to, but excluding, the repurchase date.

Instead of paying the repurchase price in cash, we may pay the repurchase price in common stock. The number of shares of common stock a holder will receive will equal the repurchase price divided by 95% of the average of the closing sales prices of our common stock for the five trading days immediately preceding and including the third day prior to the repurchase date. However, we may not pay in common stock unless we satisfy certain conditions prior to the repurchase date as provided in the indenture.

Within 30 days after the occurrence of a Change of Control, we are required to give notice to all holders of debentures, as provided in the indenture, of the occurrence of the Change of Control and of their resulting repurchase right. We must also deliver a copy of our notice to the trustee. To exercise the repurchase right, a holder of debentures must deliver prior to or on the 30th day after the date of our notice irrevocable written notice to the trustee of the holder's exercise of its repurchase right, together with the debentures with respect to which the right is being exercised.

A "Change of Control" will be deemed to have occurred at such time after the original issuance of the debentures when the following has occurred:

- the acquisition by any person, including any syndicate or group deemed to be a "person" under Section 13(d)(3) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), of beneficial ownership, directly or indirectly, through a purchase, merger or other acquisition transaction or series of transactions of shares of our capital stock entitling that person to exercise 50% or more of the total voting power of all shares of our capital stock entitled to vote

generally in elections of directors, other than any acquisition by us, any of our subsidiaries or any of our employee benefit plans; or

- our consolidation or merger with or into any other person, any merger of another person into us, or any conveyance, transfer, sale, lease or other disposition of all or substantially all of our properties and assets to another person, other than:

  1) any transaction (A) that does not result in any reclassification, conversion, exchange or cancellation of outstanding shares of our capital stock and (B) pursuant to which holders of our capital stock immediately prior to the transaction have the entitlement to exercise, directly or indirectly, 50% or more of the total voting power of all shares of our capital stock entitled to vote generally in the election of directors of the continuing or surviving person immediately after the transaction; and

  2) any merger solely for the purpose of changing our jurisdiction of incorporation and resulting in a reclassification, conversion or exchange of outstanding shares of common stock solely into shares of common stock of the surviving entity.

However, a Change of Control will not be deemed to have occurred if the closing sales price per share of our common stock for any five trading days within the period of 10 consecutive trading days ending immediately after the later of the Change of Control or the public announcement of the Change of Control, in the case of a Change of Control under the first clause above, or the period of 10 consecutive trading days ending immediately before the Change of Control, in the case of a Change of Control under the second clause above, equals or exceeds 110% of the conversion price of the debentures in effect on each such trading day. The beneficial owner shall be determined in accordance with Rule 13d-3 promulgated by the SEC under the Exchange Act. The term "person" includes any syndicate or group which would be deemed to be a "person" under Section 13(d)(3) of the Exchange Act.

Rule 13e-4 under the Exchange Act, as amended, requires the dissemination of certain information to security holders if an issuer tender offer occurs and may apply if the repurchase option becomes available to holders of the debentures. We will comply with this rule to the extent applicable at that time.

We may, to the extent permitted by applicable law, at any time purchase the debentures in the open market or by tender at any price or by private agreement. Any debenture so purchased by us may, to the extent permitted by applicable law, be reissued or resold or may be surrendered to the trustee for cancellation. Any debentures surrendered to the trustee may not be reissued or resold and will be canceled promptly.

The foregoing provisions would not necessarily protect holders of the debentures if highly leveraged or other transactions involving us occur that may adversely affect holders.

Our ability to repurchase debentures upon the occurrence of a Change in Control is subject to important limitations. The occurrence of a Change in Control could cause an event of default under, or be prohibited or limited by, the terms of Senior Debt that we may incur in the future. As a result, any repurchase of the debentures would, absent a waiver, be prohibited under the subordination provisions of the indenture until the Senior Debt is paid in full. Further, we cannot assure you that we would have the financial resources, or would be able to arrange financing, to pay the repurchase price for all the debentures that might be delivered by holders of debentures seeking to exercise the repurchase right. Any failure by us to repurchase the debentures when required following a Change in Control would result in an event of default under the indenture, whether or not such repurchase is permitted by the subordination provisions of the indenture. Any such default may, in turn, cause a default under Senior Debt that we may incur in the future. See "--Subordination" below.

SUBORDINATION

The debentures are subordinated in right of payment to the prior payment in full of all our existing and future Senior Debt. The indenture provides that in the event of any distribution of our assets upon our dissolution, winding up, liquidation or reorganization, the holders of our Senior Debt shall first be paid in respect of all Senior Debt in full in cash or other payment satisfactory to the holders of Senior Debt before we make any payments of principal of, or premium, if any, and interest (including liquidated damages, if any) on the debentures. In addition, if the debentures are accelerated because of an event of default, the holders of any Senior Debt would be entitled to payment in full in cash or other payment satisfactory to the holders of Senior Debt of all obligations in respect of Senior Debt before the holders of the debentures are entitled to receive any payment or distribution. Under the indenture, we must promptly notify holders of Senior Debt if payment of the debentures is accelerated because of an event of default.

The indenture further provides if any default by us has occurred and is continuing in the payment of principal of or premium, if any, or interest on, rent or other payment obligations in respect of, any Senior Debt, then no payment shall be made on account of principal of, premium, if any, or interest on the debentures (including any liquidated damages), until all such payments due in respect of that Senior Debt have been paid in full in cash or other payment satisfactory to the holders of that Senior Debt. During the continuance of any event of default with respect to any Designated Senior Debt (other than a default in payment of the principal of or premium, if any, or interest on, rent or other payment obligations in respect of any Designated Senior Debt), permitting the holders thereof to accelerate the maturity thereof (or, in the case of any lease, permitting the landlord either to terminate the lease or to require us to make an irrevocable offer to terminate the lease following an event of default thereunder), no payment may be made by us, directly or indirectly, with respect to principal of or premium, if any, or interest on the debentures (including any liquidated damages, if any) for 179 days following written notice to us, from any holder, representative or trustee under any agreement pursuant to which that Designated Senior Debt may have been issued, that such an event of default has occurred and is continuing, unless such event of default has been cured or waived or that Designated Senior Debt has been paid in full in cash or other payment satisfactory to the holders of that Designated Senior Debt. However, if the maturity of that Designated Senior Debt is accelerated (or, in the case of a lease, as a result of such events of default, the landlord under the lease has given us notice of its intention to terminate the lease or to require us to make an irrevocable offer to terminate the lease following an event of default thereunder), no payment may be made on the debentures until that Designated Senior Debt has been paid in full in cash or other payment satisfactory to the holders of that Designated Senior Debt or such acceleration (or termination, in the case of the lease) has been cured or waived.

By reason of such subordination provisions, in the event of insolvency, funds which we would otherwise use to pay the holders of debentures will be used to pay the holders of Senior Debt to the extent necessary to pay Senior Debt in full in cash or other payment satisfactory to the holders of Senior Debt. As a result of these payments, our general creditors may recover less, ratably, than holders of Senior Debt and such general creditors may recover more, ratably, than holders of debentures.

"Senior Debt" means the principal of, premium, if any, interest (including all interest accruing subsequent to the commencement of any bankruptcy or similar proceeding, whether or not a claim for post-petition interest is allowable as a claim in any such proceeding) and rent payable on or termination payment with respect to or in connection with, and all fees, costs, expenses and other amounts accrued or due on or in connection with, our Indebtedness, whether outstanding on the date of the indenture or subsequently created, incurred, assumed, guaranteed or in effect guaranteed by us (including all deferrals, renewals, extensions or refundings of, or amendments, modifications or supplements to, the foregoing), unless in the case of any particular Indebtedness, the instrument

creating or evidencing such Indebtedness or the assumption or guarantee thereof expressly provides that that Indebtedness shall not be senior in right of payment to the debentures or expressly provides that such Indebtedness is equal with or junior " to the debentures. However, the term "Senior Debt" shall not include our Indebtedness to any of our subsidiaries of which we own, directly or indirectly, a majority of the voting stock.

"Indebtedness" means, with respect to any person:

1) all indebtedness, obligations and other liabilities (contingent or otherwise) of that person for borrowed money (including obligations in respect of overdrafts, foreign exchange contracts, currency exchange agreements, interest rate protection agreements, and any loans or advances from banks, whether or not evidenced by notes or similar instruments) or evidenced by bonds, debentures, notes or other instruments for the payment of money, or incurred in connection with the acquisition of any property, services or assets (whether or not the recourse of the lender is to the whole of the assets of such person or to only a portion thereof), other than any account payable or other accrued current liability or obligation to trade creditors incurred in the ordinary course of business in connection with the obtaining of materials or services;

2) all reimbursement obligations and other liabilities (contingent or otherwise) of that person with respect to letters of credit, bank guarantees, bankers' acceptances, surety bonds, performance bonds or other guaranty of contractual performance;

3) all obligations and liabilities (contingent or otherwise) in respect of (A) leases of such person required, in conformity with generally accepted accounting principles, to be accounted for as capitalized lease obligations on the balance sheet of such person, and (B) any lease or related documents (including a purchase agreement) in connection with the lease of real property which provides that such person is contractually obligated to purchase or cause a third party to purchase the leased property and thereby guarantee a minimum residual value of the leased property to the landlord and the obligations of such person under such lease or related document to purchase or to cause a third party to purchase the leased property;

4) all obligations of such person (contingent or otherwise) with respect to an interest rate or other swap, cap or collar agreement or other similar instrument or agreement or foreign currency hedge, exchange, purchase or similar instrument or agreement;

5) all direct or indirect guaranties or similar agreements by that person in respect of, and obligations or liabilities (contingent or otherwise) of that person to purchase or otherwise acquire or otherwise assure a creditor against loss in respect of, indebtedness, obligations or liabilities of another person of the kind described in clauses (1) through (4);

6) any indebtedness or other obligations described in clauses (1) through (4) secured by any mortgage, pledge, lien or other encumbrance existing on property which is owned or held by such person, regardless of whether the indebtedness or other obligation secured thereby shall have been assumed by such person; and

7) any and all deferrals, renewals, extensions and refundings of, or amendments, modifications or supplements to, any indebtedness, obligation or liability of the kind described in clauses (1) through (6).

"Designated Senior Debt" means our Senior Debt which, at the date of determination, has an aggregate amount outstanding of, or under which, at the date of determination, the holders thereof are committed to lend up to, at least $25 million and is specifically designated in the instrument evidencing or governing that Senior Debt as "Designated Senior Debt" for purposes of the indenture. However, the instrument may place limitations and conditions on the right of that Senior Debt to exercise the rights of Designated Senior Debt. At September 30, 1999, we had approximately $4.9 million of Senior Debt and no Designated Senior Debt. There are no restrictions in the indenture on the creation of

Senior Debt or any other indebtedness in the future. For information concerning our potential incurrence of additional Senior Debt, see "Management's Discussion of and Analysis of Financial Condition and Results of Operations--Liquidity and Capital Resources."

The debentures are our obligations exclusively and will be, in effect, subordinated to all Indebtedness (including trade payables) of any subsidiaries that we own in the future. The indenture does not limit the amount of Indebtedness or other liabilities any future subsidiaries may incur. Our ability to make required interest, principal, repurchase, cash conversion or redemption payments on the debentures may be impaired as a result of the obligations of any future subsidiaries. Any future subsidiaries would be separate and distinct legal entities and would have no obligation, contingent or otherwise, to pay any amounts due pursuant to the debentures or to make any funds available therefor, whether by dividends, loans or other payments. Any right we have to receive assets of any of our future subsidiaries upon the latter's liquidation or reorganization (and the consequent right of the holders of the debentures to participate in those assets) will be effectively subordinated to the claims of that subsidiary's creditors, except to the extent that we are ourselves recognized as a creditor of that subsidiary, in which case our claims would still be subordinate to any security interests in the assets of that subsidiary and any indebtedness of that subsidiary senior to that held by us. There are no restrictions in the indenture on the ability of any of our future subsidiaries to incur Indebtedness or other liabilities.

We are obligated to pay reasonable compensation to the trustee and to indemnify the trustee against any losses, liabilities or expenses incurred by it in connection with its duties relating to the debentures. The trustee's claims for such payments will be senior to those of holders of the debentures in respect of all funds collected or held by the trustee.

EVENTS OF DEFAULT

Each of the following constitutes an event of default under the indenture:

1) our failure to pay when due the principal of or premium, if any, on any of the debentures at maturity, upon redemption or exercise of a repurchase right or otherwise, whether or not such payment is prohibited by the subordination provisions of the indenture;

2) our failure to pay an installment of interest (including liquidated damages, if any) on any of the debentures for 30 days after the date when due, whether or not such payment is prohibited by the subordination provisions of the indenture;

3) our failure to perform or observe any other term, covenant or agreement contained in the debentures or the indenture for a period of 60 days after written notice of such failure, requiring us to remedy the same, shall have been given to us by the trustee or to us and the trustee by the holders of at least 25% in aggregate principal amount of the debentures then outstanding;

4) our failure to make any payment by the end of the applicable grace period, if any, after the maturity of any Indebtedness for borrowed money in an amount in excess of $5 million (PROVIDED that such failure will not constitute an event of default if (1) we determine, in good faith, that a lessor under a lease described in clause (3)(A) of the definition of Indebtedness set forth under "--Subordination" (that is, a sale/leaseback transaction) breached a covenant under the lease and we give notice of the breach to the lessor and the trustee and (2) as a result of the breach, we withhold payment under the lease) (a "Default Exception"), or the acceleration of Indebtedness for borrowed money in an amount in excess of $5 million because of a default with respect to such Indebtedness (other than a Default Exception) without such Indebtedness having been discharged or such acceleration having been cured, waived, rescinded or annulled, in either case, for a period of 30 days after written notice to us

by the trustee or to us and the trustee by holders of at least 25% in aggregate principal amount of the debentures then outstanding; and

5) certain events of our bankruptcy, insolvency or reorganization.

The indenture provides that the trustee shall, within 90 days of the occurrence of a default, give to the registered holders of the debentures notice of all uncured defaults known to it, but the trustee shall be protected in withholding such notice if it, in good faith, determines that the withholding of such notice is in the best interest of such registered holders, except in the case of a default in the payment of the principal of, or premium, if any, or interest on, any of the debentures when due or in the payment of any redemption or repurchase obligation.

If an event of default specified in clause (5) above occurs and is continuing, then automatically the principal of all the debentures and the interest thereon shall become immediately due and payable. If an event of default shall occur and be continuing, other than with respect to clause (5) above (the default not having been cured or waived as provided under "--Meetings, Modifications and Waiver" below), the trustee or the holders of at least 25% in aggregate principal amount of the debentures then outstanding may declare the debentures due and payable at their principal amount together with accrued interest, and thereupon the trustee may, at its discretion, proceed to protect and enforce the rights of the holders of debentures by appropriate judicial proceedings. Such declaration may be rescinded or annulled either with the written consent of the holders of a majority in aggregate principal amount of the debentures then outstanding or a majority in aggregate principal amount of the debentures represented at a meeting at which a quorum (as specified under "--Meetings, Modifications and Waiver" below) is present, in each case upon the conditions provided in the indenture.

The indenture contains a provision entitling the trustee, subject to the duty of the trustee during default to act with the required standard of care, to be indemnified by the holders of debentures before proceeding to exercise any right or power under the indenture at the request of such holders. The indenture provides that the holders of a majority in aggregate principal amount of the debentures then outstanding through their written consent, or the holders of a majority in aggregate principal amount of the debentures then outstanding represented at a meeting at which a quorum is present by a written resolution, may direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred upon the trustee.

We are required to furnish annually to the trustee a statement as to the fulfillment of our obligations under the indenture.

CONSOLIDATION, MERGER OR ASSUMPTION

We may, without the consent of the holders of debentures, consolidate with, merge into or transfer all or substantially all of our assets to any other corporation organized under the laws of the United States or any of its political subdivisions provided that:

- the surviving corporation assumes all our obligations under the indenture and the debentures;

- at the time of such transaction, no event of default, and no event which, after notice or lapse of time, would become an event of default, shall have happened and be continuing; and

- certain other conditions are met.

MEETINGS, MODIFICATIONS AND WAIVER

The indenture contains provisions for convening meetings of the holders of debentures to consider matters affecting their interests.

The indenture (including the terms and conditions of the debentures) may be modified or amended by us and the trustee, without the consent of the holder of any debenture, for the purposes of, among other things:

- adding to our covenants for the benefit of the holders of debentures;

- surrendering any right or power conferred upon us;

- providing for conversion rights of holders of debentures if any reclassification or change of our common stock or any consolidation, merger or sale of all or substantially all of our assets occurs;

- providing for the assumption of our obligations to the holders of debentures in the case of a merger, consolidation, conveyance, transfer or lease;

- reducing the conversion price, provided that the reduction will not adversely affect the interests of holders of debentures in any material respect;

- complying with the requirements of the SEC in order to effect or maintain the qualification of the indenture under the Trust Indenture Act of 1939, as amended;

- curing any ambiguity or correcting or supplementing any defective provision contained in the indenture; provided that such modification or amendment does not, in the good faith opinion of our board of directors and the trustee, adversely affect the interests of the holders of the debentures in any material respect; or

- adding or modifying any other provisions which we and the trustee may deem necessary or desirable and which will not adversely affect the interests of the holders of debentures in any material respect.

Modifications and amendments to the indenture or to the terms and conditions of the debentures may also be made, and past default by us may be waived, either:

- with the written consent of the holders of at least a majority in aggregate principal amount of the debentures at the time outstanding or

- by the adoption of a resolution at a meeting of holders by at least a majority in aggregate principal amount of the debentures represented at such meeting.

However, no such modification, amendment or waiver may, without the written consent or the affirmative vote of the holder of each debenture so affected:

- change the maturity of the principal of or any installment of interest on that debenture (including any payment of liquidated damages);

- reduce the principal amount of, or any premium or interest on (including any payment of liquidated damages), that debenture;

- change the currency of payment of that debenture or interest thereon;

- impair the right to institute suit for the enforcement of any payment on or with respect to that debenture;

- modify our obligations to maintain an office or agency in New York City;

- except as otherwise permitted or contemplated by provisions concerning corporate reorganizations, adversely affect the repurchase option of holders upon a Change of Control or the conversion rights of holders of the debentures;

- modify the subordination provisions of the debentures in a manner adverse to the holders of debentures;

- reduce the percentage in aggregate principal amount of debentures outstanding necessary to modify or amend the indenture or to waive any past default; or

- reduce the percentage in aggregate principal amount of debentures outstanding required for the adoption of a resolution or the quorum required at any meeting of holders of debentures at which a resolution is adopted.

The quorum at any meeting called to adopt a resolution will be persons holding or representing a majority in aggregate principal amount of the debentures at the time outstanding and, at any reconvened meeting adjourned for lack of a quorum, 25% of that aggregate principal amount.

SATISFACTION AND DISCHARGE

We may discharge our obligations under the indenture while debentures remain outstanding, subject to certain conditions, if

- all outstanding debentures will become due and payable at their scheduled maturity, within one year; or

- all outstanding debentures are scheduled for redemption within one year,

and, in either case, we have deposited with the trustee an amount sufficient to pay and discharge all outstanding debentures on the date of their scheduled maturity or the scheduled date of redemption.

GOVERNING LAW

The indenture and the debentures are governed by, and construed in accordance with, the law of the State of New York.

INFORMATION CONCERNING THE TRUSTEE

Chase Manhattan Bank and Trust Company, National Association, as trustee under the indenture, has been appointed by us as paying agent, conversion agent, registrar and custodian with regard to the debentures. ChaseMellon Shareholder Services LLC is the transfer agent and registrar for our common stock. The trustee or its affiliates may from time to time in the future provide banking and other services to us in the ordinary course of their business.

REGISTRATION RIGHTS

We have, at our expense, filed with the SEC a shelf registration statement on such form as we deem appropriate covering resales by holders of all debentures and the common stock issuable upon conversion of the debentures. Under the terms of the registration rights agreement, we agree to use all reasonable efforts to:

- cause the registration statement to become effective as promptly as is practicable, but in no event later than 180 days after the earliest date of original issuance of any of the debentures; and

- keep the registration statement effective until such date that is two years after the last date of original issuance of any of the debentures (or such earlier date when the holders of the debentures and the common stock issuable upon conversion of the debentures are able to sell all such securities immediately without restriction pursuant to the volume limitation provisions of Rule 144 under the Securities Act or any successor rule thereto or otherwise).

We also agree to provide to each registered holder copies of the prospectus, notify each registered holder when the shelf registration statement has become effective and take certain other actions as are required to permit unrestricted resales of the debentures and the common stock issuable upon conversion of the debentures. A holder who sells those securities pursuant to the shelf registration statement generally will be required to be named as a selling stockholder in the related prospectus and to deliver a prospectus to purchasers and will be bound by the provisions of the registration rights

agreement, which are applicable to that holder (including certain indemnification provisions). If a shelf registration statement covering those securities is not effective, they may not be sold or otherwise transferred except pursuant to an exemption from registration under the Securities Act and any other applicable securities laws or in a transaction not subject to those laws.

Each holder must notify us not later than three business days prior to any proposed sale by that holder pursuant to the shelf registration statement. This notice will be effective for five business days. We may suspend the holder's use of the prospectus for a reasonable period not to exceed 45 days (60 days under certain circumstances relating to a proposed or pending material business transaction, the disclosure of which would impede our ability to consummate such transaction) in any 90-day period, and not to exceed an aggregate of 90 days in any 12-month period, if we, in our reasonable judgment, believe we may possess material non-public information the disclosure of which would have a material adverse effect on us and our subsidiaries taken as a whole. Each holder, by its acceptance of a debenture, agrees to hold any communication by us in response to a notice of a proposed sale in confidence.

Under the terms of the registration rights agreement, if

- on the 90th day following the earliest date of original issuance of any of the debentures, the shelf registration statement had not been filed with the SEC;

- on the 180th day following the earliest date of original issuance of any of the debentures, the shelf registration statement had not been declared effective; or

- the registration statement shall cease to be effective or fail to be usable without being succeeded within five business days by a post-effective amendment or a report filed with the SEC pursuant to the Exchange Act that cures the registration statement; or

- on the 45th or 60th day, as the case may be, of any period that the prospectus has been suspended as described in the preceding paragraph, such suspension has not been terminated (each, a "registration default"),

additional interest as liquidated damages will accrue on the debentures, from and including the day following the registration default to but excluding the day on which the registration default has been cured. Liquidated damages will be paid semi-annually in arrears, with the first semi-annual payment due on the first interest payment date, as applicable, following the date on which such liquidated damages begin to accrue, and will accrue at a rate per year equal to:

- an additional 0.25% of the principal amount to and including the 90th day following such registration default; and

- an additional 0.5% of the principal amount from and after the 91st day following such registration default.

In no event will liquidated damages accrue at a rate per year exceeding 0.5%. If a holder has converted some or all of its debentures into common stock, the holder will be entitled to receive equivalent amounts based on the principal amount of the debentures converted.

We agreed to distribute a questionnaire to each holder to obtain certain information regarding the holder for inclusion in the prospectus. Holders were required to complete and deliver the questionnaire within 20 business days after receipt of the questionnaire to be named as selling stockholders in the related prospectus at the time of effectiveness. A holder will not be entitled to liquidated damages unless it has provided all information requested by the questionnaire prior to the deadline.

The specific provisions relating to the registration described above are contained in the registration rights agreement which was entered into on the closing of the initial offering of the debentures.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock and certain provisions of our certificate of incorporation and bylaws is a summary and is qualified in its entirety by the provisions of our certificate of incorporation and bylaws.

Our authorized capital stock consists of 50,000,000 shares of common stock, and 10,000,000 shares of preferred stock.

COMMON STOCK

As of January 4, 2000, there were 17,226,456 shares of our common stock outstanding. The holders of common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders. The holders of common stock are not entitled to cumulative voting rights with respect to the election of directors, and as a consequence, minority stockholders are not able to elect directors on the basis of their votes alone. Subject to preferences that may be applicable to any shares of preferred stock issued in the future, holders of common stock are entitled to receive ratably such dividends as may be declared by the Board of Directors out of funds legally available therefor. In the event of a liquidation, dissolution or winding up of Inhale, holders of the common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preference of any then outstanding preferred stock. Holders of common stock have no preemptive rights and no right to convert their common stock into any other securities. There are no redemption or sinking fund provisions applicable to the common stock.

PREFERRED STOCK

The Board of Directors has the authority, without further action by the stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof, including dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, without any further vote or action by stockholders. The issuance of preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation and could have the effect of delaying, deferring or preventing a change in control. We have no present plan to issue any shares of preferred stock.

REGISTRATION RIGHTS

Pursuant to a restated investor rights agreement, as amended, the holders of approximately 250,044 shares of common stock are entitled to require us in any twelve-month period, to register their shares on Form S-3, subject to certain conditions and limitations. Subject to certain limitations, we are required to bear all registration and selling expenses in connection with such requested registrations. These registration rights expire in 2004, or with respect to any individual holder, at such time as that holder owns less than one percent of our outstanding common stock and is able to dispose of all of that holder's registrable securities in any 90 day period pursuant to Rule 144 under the Securities Act.

Pfizer has the right to include shares of our common stock purchased pursuant to the purchase agreement relating to its equity investment in the first firmly underwritten public offering of our common stock effected after January 18, 2000. We are required to pay all expenses in connection with such registration, excluding the fees of counsel for Pfizer.

Baxter has the right to include shares of our common stock purchased pursuant to the purchase agreement relating to its equity investment in the first firmly underwritten public offering of our

common stock effected after March 1, 1999. We are required to pay all expenses in connection with such registration, excluding fees of counsel for Baxter.

We have agreed in principal to register shares of our common stock issued to Alliance pursuant to the asset purchase agreement on Form S-3 as soon as reasonably practicable and to maintain the effectiveness of such registration until the earlier of November 4, 2000 or all such shares have been sold under the registration statement.

ANTI-TAKEOVER EFFECTS OF PROVISIONS OF OUR CHARTER AND BYLAWS

Our certificate of incorporation provides for the Board of Directors to be divided into three classes, with staggered three-year terms. As a result, only one class of directors will be elected at each annual meeting of stockholders, with the other classes continuing for the remainder of their respective three-year terms. Stockholders have no cumulative voting rights, and the stockholders representing a majority of the shares of common stock outstanding are able to elect all of the directors.

Our certificate of incorporation also requires that any action required or permitted to be taken by our stockholders must be effected at a duly called annual or special meeting of the stockholders and may not be effected by a consent in writing and that the stockholders may amend our bylaws or adopt new bylaws, only by the affirmative vote of 66 2/3% of the outstanding voting securities. A special meeting of the stockholders may be called by the Chairman, either Chief Executive Officer or stockholders owning 10% or more of the outstanding voting capital stock. These provisions may have the effect of delaying, deferring or preventing a change in control.

The classification of the Board of Directors and lack of cumulative voting will make it more difficult for our existing stockholders to replace the Board of Directors as well as for another party to obtain control of Inhale by replacing the Board of Directors. Since the Board of Directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management.

These and other provisions may have the effect of deterring hostile takeovers or delaying changes in control or management. These provisions are intended to enhance the likelihood of continued stability in the composition of the Board of Directors and in the policies of the Board of Directors and to discourage certain types of transactions that may involve an actual or threatened change in control. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. The provisions also are intended to discourage certain tactics that may be used in proxy rights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and, as a consequence, they also may inhibit fluctuations in the market price of the our shares that could result from actual or rumored takeover attempts. Such provisions also may have the effect of preventing changes in our management.

SECTION 203 OF THE DELAWARE GENERAL CORPORATION LAW

We are subject to Section 203 of the Delaware General Corporation Law, which, subject to certain exceptions, prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the time that such stockholder became an interested stockholder, unless:

- prior to such time, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested holder;

- Upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding those shares owned (a) by persons who are

directors and also officers and (b) by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or at or subsequent to such time, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock which is not owned by the interested stockholder.

In general, Section 203 defines "business combination" to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;

- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;

- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;

- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or

- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines "interested stockholder" as an entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by such entity or person.

TRANSFER AGENT AND REGISTRAR

ChaseMellon Shareholder Services LLC is the transfer agent and registrar for our common stock.

CERTAIN UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS

The following is a general discussion of certain anticipated U.S. federal income tax consequences to a holder with respect to the purchase, ownership and disposition of the debentures or our common stock acquired upon conversion of a debenture as of the date hereof. This summary is generally limited to holders who will hold the debentures and the shares of common stock into which the debentures are convertible as "capital assets" within the meaning of Section 1221 of the Internal Revenue Code of 1986, as amended (the "Code") and who acquired the debentures in the initial offering at the initial offering price, and does not deal with special situations including those that may apply to particular holders such as exempt organizations, holders subject to the U.S. federal alternative minimum tax, dealers in securities, commodities or foreign currencies, financial institutions, insurance companies, regulated investment companies, holders whose "functional currency" is not the U.S. dollar and persons who hold the debentures or shares of common stock in connection with a "straddle," "hedging," "conversion" or other risk reduction transaction. This discussion does not address the tax consequences arising under any state, local or foreign law.

The federal income tax considerations set forth below are based upon the Internal Revenue Code of 1986, as amended, existing and proposed Treasury Regulations, court decisions, and Internal Revenue Service ("IRS") rulings now in effect, all of which are subject to change. We have not sought any ruling from the IRS with respect to statements made and conclusions reached in this discussion and there can be no assurance that the IRS will agree with such statements and conclusions. Prospective investors should particularly note that any such change could have retroactive application so as to result in federal income tax consequences different from those discussed below.

As used herein, the term "U.S. holder" means a beneficial owner of a debenture (or our common stock acquired upon conversion of a debenture) that is for U.S. federal income tax purposes:

- a citizen or resident of the United States;

- a corporation or partnership created or organized in or under the laws of the United States or of any political subdivision thereof (other than a partnership that is not treated as a U.S. person under any applicable Treasury Regulations);

- an estate the income of which is subject to U.S. federal income taxation regardless of its source;

- a trust, if a court within the U.S. is able to exercise primary jurisdiction over its administration and one or more U.S. persons within the meaning of Section 7701(a)(30) of the Code have authority to control all of its substantial decisions, or if the trust has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person; or

- is otherwise subject to U.S. federal income taxation on a net income basis in respect of the debentures or our common stock.

As used herein, a "non-U.S. holder" means a holder that is not a U.S. holder. Prospective investors are urged to consult their tax advisors regarding the tax consequences, in their particular circumstances, of purchasing, holding and disposing of the debentures or our common stock, including the tax consequences arising under any state, local or foreign laws. While the following does not purport to discuss all tax matters relating to the debentures or the common stock acquired upon conversion of a debenture, the following are the material tax consequences of the debentures and common stock acquired upon conversion of a debenture, subject to the qualifications set forth below.

Based on currently applicable authorities, we are treating the debentures as indebtedness for U.S. federal income tax purposes. However, since the debentures have certain equity characteristics, it is possible that the IRS will contend that the debentures should be treated as an equity interest in, rather than indebtedness of Inhale. Except as otherwise noted, the remainder of this discussion assumes that the debentures constitute indebtedness for U.S. tax purposes.

U.S. HOLDERS

STATED INTEREST

The debentures were not issued with more than a de minimis amount of original issue discount within the meaning of Section 1273(a) of the Code. As a result, interest paid on a debenture will be includible in the income of a U.S. holder as ordinary income at the time it accrues or is actually or constructively received in accordance with the holder's method of accounting for U.S. federal income tax purposes. The interest rate on the debentures is subject to increase by the payment of liquidated damages if the debentures are not registered with the Commission within prescribed time periods. We are treating the possibility that we will pay such additional interest as subject to a remote and incidental contingency, within the meaning of applicable Treasury Regulations and, therefore, we believe that any such additional interest will not affect the yield to maturity on the debentures and therefore will be taxable to U.S. holders at the time it accrues or is received in accordance with each such holder's method of accounting. Our determination that there is a remote likelihood of paying additional interest on the debentures is binding on each U.S. holder unless the holder explicitly discloses in the manner required by applicable Treasury Regulations that its determination is different from ours. Our determination is not, however, binding on the IRS.

CONVERSION OR REPURCHASE FOR COMMON STOCK

A U.S. holder will not recognize income, gain or loss upon conversion of the debentures solely into our common stock or a repurchase for common stock of a debenture pursuant to exercise of the

repurchase right (except with respect to any amounts attributable to accrued interest on the debentures, which will be treated as interest for federal income tax purposes), and except with respect to cash received in lieu of fractional shares, and with respect to market discount, as described below under "--Market Discount." The U.S. holder's basis in the common stock received on conversion or repurchase of a debenture for common stock pursuant to the repurchase right will be the same as the U.S. holder's adjusted tax basis in the debentures at the time of conversion or repurchase (reduced by any basis allocable to a fractional share), and the holding period for the common stock received on conversion or repurchase will include the holding period of the debentures that were converted or repurchased.

Cash received in lieu of a fractional share of common stock upon conversion of the debentures into common stock or upon a repurchase for common stock of a debenture pursuant to exercise of the repurchase right will be treated as a payment in exchange for the fractional share of common stock. Accordingly, the receipt of cash in lieu of a fractional share of common stock generally will result in capital gain or loss measured by the difference between the cash received for the fractional share and the U.S. holder's adjusted tax basis in the fractional share.

DIVIDENDS ON COMMON STOCK

Generally, distributions will be treated as a dividend, subject to tax as ordinary income, to the extent of our current or accumulated earnings or profits, then as a tax-free return of capital to the extent of such U.S. holder's adjusted tax basis in the common stock and thereafter as gain from the sale or exchange of such common stock. Additionally, a dividend distribution to a corporate U.S. holder may qualify for a dividends received deduction.

DISPOSITION, REDEMPTION OR REPURCHASE FOR CASH

Except as set forth above under "--Conversion or Repurchase for Common Stock," and below under "--Market Discount," U.S. holders generally will recognize capital gain or loss upon the sale, redemption, including a repurchase for cash pursuant to the repurchase right, or other taxable disposition of the debentures or common stock in an amount equal to the difference between:

- the U.S. holder's adjusted tax basis in the debentures or common stock (as the case may be); and

- the amount of cash and fair market value of any property received from such disposition (other than amounts attributable to accrued interest on the debentures, which will be treated as interest for federal income tax purposes).

A U.S. holder's adjusted tax basis in a debenture generally will equal the cost of the debenture to such U.S. holder, increased by market discount previously included in income by the U.S. holder and reduced by any amortized premium.

Such gain or loss from the taxable disposition of the debentures or common stock generally will be long-term capital gain or loss if the debentures were held for more than one year at the time of the disposition and, in the case of an individual holder, will be taxed at a maximum rate of 20%. Short term capital gains realized by individual U.S. holders are taxed at a maximum rate of 39.6%. Corporate U.S. holders are subject to a maximum regular income tax rate of 35% on all capital gains and ordinary income. The deductibility of capital losses is subject to limitations.

MARKET DISCOUNT

The resale of debentures may be affected by the impact on a purchaser of the "market discount" provisions of the Code. For this purpose, the market discount on a debenture generally will be equal to the amount, if any, by which the stated redemption price at maturity of the debenture immediately

after its acquisition exceeds the U.S. holder's adjusted tax basis in the debenture. Subject to a de minimis exception, these provisions generally require a U.S. holder who acquires a debenture at a market discount to treat as ordinary income any gain recognized on the disposition of the debenture to the extent of the "accrued market discount" on the debenture at the time of disposition, unless the U.S. holder elects to include accrued market discount in income currently. This election to include market discount in income currently, once made, applies to all market discount obligations acquired on or after the first taxable year to which the election applies and may not be revoked without the consent of the IRS. In general, market discount will be treated as accruing on a straight-line basis over the remaining term of the debenture at the time of acquisition, or, at the election of the U.S. holder, under a constant yield method. A U.S. holder who acquires a debenture at a market discount and who does not elect to include accrued market discount in income currently may be required to defer the deduction of a portion of the interest on any indebtedness incurred or maintained to purchase or carry the debenture until the debenture is disposed of in a taxable transaction. If a U.S. holder acquires a debenture with market discount and receives common stock upon conversion of the debenture, the amount of accrued market discount not previously included in income with respect to the converted debenture through the date of conversion will be treated as ordinary income and will increase the U.S. holder's basis in the debenture.

AMORTIZABLE PREMIUM

A U.S. holder who purchases a debenture at a premium over its stated principal amount, plus accrued interest, generally may elect to amortize such premium ("section 171 premium") from the purchase date to the debenture's maturity date under a constant-yield method that reflects semiannual compounding based on the debenture's payment period. Amortizable premium, however, will not include any premium attributable to a debenture's conversion feature. The premium attributable to the conversion feature is the excess, if any, of the debenture's purchase price over what the debenture's fair market value would be if there were no conversion feature. Amortized section 171 premium is treated as an offset to interest income on a debenture and not as a separate deduction. Bond premium on a debenture held by a U.S. holder that does not make the election to amortize will decrease the gain or increase the loss otherwise recognized upon disposition of the debenture. The election to amortize premium on a constant yield method, once made, applies to all debt obligations held or subsequently acquired by the electing U.S. holder on or after the first day of the first taxable year to which the election applies and may not be revoked without the consent of the IRS.

ADJUSTMENT OF CONVERSION PRICE

The conversion price of the debentures is subject to adjustment under certain circumstances. Under Section 305 of the Code and the Treasury Regulations issued thereunder, adjustments or the failure to make such adjustments to the conversion price of the debentures may result in a taxable constructive distribution to the U.S. holders of debentures if, and to the extent that, certain adjustments or failure to make adjustments in the conversion price that may occur in limited circumstances (for example, an adjustment to reflect a taxable dividend to holders of our common stock) increase the proportionate interest of a U.S. holder in our assets or earnings and profits whether or not the U.S. holders ever convert the debentures. Such constructive distribution will be treated as a dividend, resulting in ordinary income (and a possible dividends received deduction in the case of corporate holders) to the extent of our current and accumulated earnings and profits, with any excess treated first as a tax-free return of capital which reduces the U.S. holder's tax basis in the debentures to the extent thereof and thereafter as gain from the sale or exchange of the debentures. Generally, a U.S. holder's tax basis in a debenture will be increased to the extent any such constructive distribution is treated as dividend. Moreover, if there is an adjustment (or a failure to make an adjustment) to the conversion price of the debentures that increases the proportionate interest of the holders of outstanding common stock in our assets or earnings and profits, then such increase in the

proportionate interest of the holders of the common stock generally will be treated as a constructive distribution to such holders, taxable as described above. As a result, U.S. holders of debentures could have taxable income as a result of an event pursuant to which they receive no cash or property.

DEDUCTIBILITY OF INTEREST

Generally, under Section 279 of the Code, an interest deduction in excess of $5.0 million is not permitted with respect to certain "corporate acquisition indebtedness." Corporate acquisition indebtedness includes any indebtedness that is:

- issued to provide consideration for the direct or indirect acquisition of stock or assets of another corporation;

- subordinated;

- convertible directly or indirectly into the stock of the issuing corporation; and

- issued by a corporation that has a debt to equity ratio that exceeds 2 to 1.

Our ability to deduct all of the interest payable on the debentures will depend on the application of the foregoing tests to us. The availability of an interest deduction with respect to the debentures was not determinative in our issuance of the debentures pursuant to this offering.

Under Section 163(l) of the Code, no deduction is permitted for interest paid or accrued on any indebtedness of a corporation that is "payable in equity" of the issuer or a related party. Debt is treated as debt payable in equity of the issuer if the debt is part of an arrangement designed to result in payment of the instrument with or by reference to the equity. Such arrangements could include debt instruments that are convertible at the holder's option if it is substantially certain that the option will be exercised. The legislative history indicates that it is not expected the provision will affect debt with a conversion feature where the conversion price is significantly higher than the market price of the stock on the date of the debt issuance. Accordingly, we do not believe that our interest deduction with respect to interest payments on the debentures will be adversely affected by these rules.

BACKUP WITHHOLDING AND INFORMATION REPORTING

We or our designated paying agent will, where required, report to U.S. holders of debentures or common stock and the IRS the amount of any interest paid on the debentures (or dividends paid with respect to the common stock or other reportable payments) in each calendar year and the amount of tax, if any, withheld with respect to such payments.

Under the backup withholding provisions of the Code and the applicable Treasury Regulations, a U.S. holder of debentures or our common stock acquired upon the conversion of a debenture may be subject to backup withholding at the rate of 31% with respect to dividends or interest paid on, or the proceeds of a sale, exchange or redemption of, debentures or common stock, unless:

- such holder is a corporation or comes within certain other exempt categories and when required demonstrates this fact; or

- provides a correct taxpayer identification number, certifies as to no loss of exemption from backup withholding and otherwise complies with applicable requirements of the backup withholding rules.

The amount of any backup withholding from a payment to a U.S. holder will be allowed as a credit against the U.S. holder's federal income tax liability and may entitle such holder to a refund, provided that the required information is furnished to the IRS.

Treasury Regulations, generally effective January 1, 2001, subject to certain transition rules, modify the currently effective information withholding and backup withholding procedures and requirements. Prospective investors should consult their own tax advisors concerning the application of the new withholding regulations.

NON-U.S. HOLDERS

PAYMENTS OF INTEREST

Generally, payments of interest on the debentures to, or on behalf of, a non-U.S. holder will not be subject to U.S. federal withholding tax where such interest is not effectively connected with the conduct of a trade or business within the U.S. by such non-U.S. holder if

- such non-U.S. holder does not actually or constructively own 10% or more of the total combined voting power of all classes of our stock within the meaning of Code Section 871(h)(3);

- such non-U.S. holder is not (a) a controlled foreign corporation for U.S. federal income tax purposes that is related to us through stock ownership or (b) a bank that received the debenture on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business as described in Code Section 881(c)(3)(A); and

- the non-U.S. holder provides a statement signed under penalties of perjury that includes its name and address and certifies that it is not a U.S. person in compliance with applicable requirements of the Treasury Regulations or an exemption is otherwise established.

If certain requirements are satisfied, the certification described above may be provided by a securities clearing organization, a bank, or other financial institution that holds customer's securities in the ordinary course of its trade or business. For purposes of this exception, the non-U.S. holder of debentures would be deemed to own constructively the common stock into which it could be converted.

If these requirements cannot be satisfied, a non-U.S. holder will be subject to U.S. federal withholding tax at a rate of 30% (or lower treaty rate, if applicable) on interest payments on the debentures unless:

- the interest is effectively connected with the conduct of a U.S. trade or business, in which case the interest will be subject to U.S. federal income tax on net income that applies to U.S. persons generally; or

- an applicable income tax treaty provides for a lower rate of, or exemption from, withholding tax.

It is not clear whether the above discussion would be applicable to liquidated damages, if any, received by non-U.S. holders.

CONVERSION OF DEBENTURES

A non-U.S. holder generally will not be subject to U.S. federal withholding tax on the conversion of a debenture into common stock. To the extent a non-U.S. holder receives cash in lieu of a fractional share of common stock upon conversion, such cash may give rise to gain that would be subject to the rules described below with respect to the sale or exchange of a debenture or common stock. See "Sale or Exchange of Debentures or Common Stock" below.

ADJUSTMENT OF CONVERSION PRICE

The conversion price of the debentures is subject to adjustment in certain circumstances. Any such adjustment could, in certain circumstances, give rise to a deemed distribution to non-U.S. holders of the debentures. See "U.S. Holders--Adjustment of Conversion Price" above. In such case, the deemed

distribution would be subject to the rules below regarding withholding of U.S. federal tax on dividends in respect of common stock.

DISTRIBUTIONS ON COMMON STOCK

Distributions on common stock will constitute a dividend for U.S. federal income tax purposes to the extent of our current or accumulated earnings and profits as determined under U.S. federal income tax principles. Dividends paid on common stock held by a non-U.S. holder will be subject to U.S. federal withholding tax at a rate of 30% (or lower treaty rate, if applicable), unless the dividend is effectively connected with the conduct of a U.S. trade or business by the non-U.S. holder and, if required by a tax treaty, is attributable to a permanent establishment maintained in the United States, in which case the dividend will be subject to U.S. federal income tax on net income that applies to U.S. persons generally (and, with respect to corporate holders under certain circumstances, the branch profits tax). A non-U.S. holder may be required to satisfy certain certification requirements in order to claim a reduction of or exemption from withholding under the foregoing rules. However, prior to January 1, 2001, for purposes of an applicable tax treaty, if a stockholder's address is outside the United States it will be assumed that such stockholder is a citizen or resident of that country absent the payor's knowledge to the contrary.

SALE OR EXCHANGE OF DEBENTURES OR COMMON STOCK

In general, a non-U.S. holder will not be subject to a U.S. federal withholding tax on gain recognized upon the sale or other disposition (including a redemption) of a debenture or common stock received upon conversion thereof unless the gain is effectively connected with the conduct of a U.S. trade or business by the non-U.S. holder and, if required by a tax treaty, is attributable to a permanent establishment maintained in the United States, or unless the non-U.S. holder:

- is a nonresident alien individual who is present in the United States for 183 or more days in the taxable year in which the gain is realized and certain other conditions are satisfied; or

- is subject to tax pursuant to the provisions of U.S. tax law applicable to certain U.S. expatriates.

However, if the Company were to become a United States real property holding corporation (a "USRPHC"), a non-U.S. holder might be subject to federal income tax withholding with respect to gain realized on the disposition of debentures or shares of common stock. In that case, any withholding tax withheld pursuant to the rules applicable to dispositions of a "United States real property interest" would be creditable against such non-U.S. holder's U.S. federal income tax liability and might entitle such non-U.S. holder to a refund upon furnishing required information to the IRS. We do not believe that we are a USRPHC or will become a USRPHC in the future.

U.S. ESTATE TAX

Debentures owned or treated as owned by an individual who is not a citizen or resident (as specifically defined for U.S. federal estate tax purposes) of the United States at the time of death (a "nonresident decedent") will not be includible in the nonresident decedent's gross estate for U.S. federal estate tax purposes as a result of such nonresident decedent's death, provided that, at the time of death, the nonresident decedent does not own, actually or constructively, 10% or more of the total combined voting power of all classes of our stock and payments with respect to such debentures would not have been effectively connected with the conduct of a U.S. trade or business by the nonresident decedent. Common stock owned or treated as owned by a nonresident decedent will be includible in the nonresident decedent's gross estate for U.S. federal estate tax purposes as a result of the nonresident decedent's death. Subject to applicable treaty limitations, if any, a nonresident decedent's estate may be subject to U.S. federal estate tax on property includible in the estate for U.S. federal estate tax purposes.

BACKUP WITHHOLDING AND INFORMATION REPORTING

A non-U.S. holder will generally not be subject to IRS reporting or backup withholding if the payor has received appropriate certification statements from or on behalf of the non-U.S. holder and provided that the payor does not have actual knowledge that the non-U.S. holder is a U.S. person. However, with respect to distributions on common stock, prior to January 1, 2001, if a stockholder's address is outside of the United States it will be assumed that such stockholder is a citizen or resident of that country absent the payor's knowledge to the contrary. The payment of the proceeds from the disposition of the debentures or common stock to or through the U.S. office of any U.S. or foreign broker will be subject to IRS reporting and possibly backup withholding unless the owner certifies as to its non-U.S. status under penalties of perjury or otherwise establishes an exemption, provided that the broker does not have actual knowledge that the holder is a U.S. person or that the conditions of any other exemption are not, in fact, satisfied. The payment of the proceeds from the disposition of a debenture or common stock to or through a non-U.S. office of a non-U.S. broker that is not a U.S. related person will not be subject to IRS or backup withholding. For this purpose, a "U.S. related person" is:

- a "controlled foreign corporation" for U.S. federal income tax purposes; or

- a non-U.S. person 50% or more of whose gross income from all sources for the three-year period ending with the close of its taxable year preceding the payment (or for such part of the period that the broker has been in existence) is derived from activities that are effectively connected with the conduct of a U.S. trade or business.

In the case of the payment of proceeds from the disposition of debentures or common stock to or through a non-U.S. office of a broker that is a U.S. related person, the applicable Treasury Regulations require IRS reporting on the payment unless the broker has documentary evidence in its files that the owner is a non-U.S. holder and the broker has no knowledge to the contrary. Backup withholding will not apply to payments made through foreign offices of a broker that is a U.S. person or a U.S. related person (absent actual knowledge that the payee is a U.S. person).

Any amounts withheld under the backup withholding rates from a payment to a non-U.S. holder will be allowed as a credit against such holder's U.S. federal income tax liability, if any, or will otherwise be refundable, provided that the requisite procedures are followed. Non-U.S. holders of the debentures or common stock should consult their own tax advisors regarding their qualification for exemption from backup withholding and the procedure for obtaining such an exemption, if applicable.

The IRS has issued new withholding regulations generally effective January 1, 2001. The proposed regulations provide that information reporting, but not backup withholding, may apply to a payment made outside the United States of the proceeds of a sale of a debenture through an office outside the United States of a broker that is a foreign partnership if one or more of its partners are "U.S. persons," as defined in the Treasury Regulations, who in the aggregate hold more than 50% of the income or capital interest in the partnership or such foreign partnership is engaged in a U.S. trade or business, unless the broker has documentary evidence in its records that the holder is a non-U.S. person and does not have actual knowledge that the holder is a U.S. person, or the holder otherwise establishes an exemption. Non-U.S. holders should consult their own tax advisors with respect to the future impact of these new withholding regulations.

The preceding discussion of certain U.S. federal income tax consequences is for general information only and is not tax advice. Accordingly, you should consult your own tax adviser as to particular tax consequences to you of purchasing, holding and disposing of the debentures and our common stock, including the applicability and effect of any state, local or foreign tax laws, and of any proposed changes in applicable laws.

SELLING SECURITY HOLDERS

The debentures were originally issued by us and sold by the initial purchasers in a transaction exempt from the registration requirements of the Securities Act to persons reasonably believed by the initial purchasers to be qualified institutional buyers. Selling holders, including their transferees, pledgees or donees or their successors, may from time to time offer and sell pursuant to this prospectus any or all of the debentures and common stock into which the debentures are convertible.

The following table sets forth information with respect to the selling holders and the principal amounts of debentures beneficially owned by each selling holder that may be offered under this prospectus. The information is based on information provided by or on behalf of the selling holders. The selling holders may offer all, some or none of the debentures or common stock into which the debentures are convertible. Because the selling holders may offer all or some portion of the debentures or the common stock, no estimate can be given as to the amount of the debentures or the common stock that will be held by the selling holders upon termination of any sales. In addition, the selling holders identified below may have sold, transferred or otherwise disposed of all or a portion of their debentures since the date on which they provided the information regarding their debentures in transactions exempt from the registration requirements of the Securities Act.

NAME	PRINCIPAL AMOUNT OF DEBENTURES BENEFICIALLY OWNED AND OFFERED(1)	COMMON STOCK ISSUABLE UPON CONVERSION OF THE DEBENTURES	COMMON STOCK OFFERED	COMMON STOCK OWNED AFTER COMPLETION OF THE OFFERING
Aftra Health Fund	$ 750,000.00	23,432	23,432	--
AIG SoundShore Holdings, Ltd	8,000,000.00	249,941	249,941	--
AIG SoundShore Opportunity Holding Ltd	1,300,000.00	40,615	40,615	--
AIG SoundShore Strategic Holding Fund Ltd	1,700,000.00	53,112	53,112	--
Allstate Insurance Company	1,250,000.00	39,053	39,053	--
Alta Partners Holdings, LDC	500,000.00	15,621	15,621	--
Ashford Capital Management, f/b/o Louviers Land LLC	25,000.00	781	781	--
Ashford Capital Management, f/b/o Brandy Trust Small Cap Partnership Limited Partner	50,000.00	1,562	1,562	--
Ashford Capital Management, f/b/o Katherine May	25,000.00	781	781	--
Ashford Capital Management, f/b/o Benjamin Spencer Fund	50,000.00	1,562	1,562	--
Ashford Capital Management, f/b/o Nancy G. Frederick	100,000.00	3,124	3,124	--
Ashford Capital Management, f/b/o William H. Frederick, Jr	60,000.00	1,874	1,874	--
Ashford Capital Management, f/b/o Mary B. Evans Trust	70,000.00	2,186	2,186	--
Ashford Capital Management, f/b/o Hanna Schweizer	10,000.00	312	312	--
Ashford Capital Management, f/b/o Hyde & Watson Foundation	100,000.00	3,124	3,124	--
Ashford Capital Management, f/b/o Patricia Chalphin Trust	50,000.00	1,562	1,562	--

NAME	PRINCIPAL AMOUNT OF DEBENTURES BENEFICIALLY OWNED AND OFFERED(1)	COMMON STOCK ISSUABLE UPON CONVERSION OF THE DEBENTURES	COMMON STOCK OFFERED	COMMON STOCK OWNED AFTER COMPLETION OF THE OFFERING
Ashford Capital Management, f/b/o Gilbert Spiegel Trust	50,000.00	1,562	1,562	--
Ashford Capital Management, f/b/o Jane D. Engel	35,000.00	1,093	1,093	--
Ashford Capital Management, f/b/o Frank & Yetta Chaiken Foundation	30,000.00	937	937	--
Ashford Capital Management, f/b/o Frank L. Chaiken Irrevocable Trust	125,000.00	3,905	3,905	--
Ashford Capital Management, f/b/o Ashford Capital Partners, L.P	200,000.00	6,248	6,248	--
Ashford Capital Management, f/b/o Sophie Consagra	50,000.00	1,562	1,562	--
Ashford Capital Management, f/b/o Susan A. Boyd Trust	20,000.00	624	624	--
Ashford Capital Management, f/b/o Robert Lovett Trust	100,000.00	3,124	3,124	--
Ashford Capital Management, f/b/o Virginia Q. Lovett Trust	50,000.00	1,562	1,562	--
Ashford Capital Management, f/b/o Evelyn D. Lovett Trust	50,000.00	1,562	1,562	--
Ashford Capital Management, f/b/o Mt. Cuba Astronomical Observatory	10,000.00	312	312	--
Ashford Capital Management, f/b/o Robin Foundation	10,000.00	312	312	--
Ashford Capital Management, f/b/o Wisconsin Alumni Research Foundation	500,000.00	15,621	15,621	--
Ashford Capital Management, f/b/o Dorothy Lovett	30,000.00	937	937	--
Ashford Capital Management, f/b/o Harry Corless Trust	40,000.00	1,249	1,249	--
Ashford Capital Management, f/b/o Harry Corless IRA	30,000.00	937	937	--
Ashford Capital Management, f/b/o Jeanne O. Shields	60,000.00	1,874	1,874	--
Ashford Capital Management, f/b/o Kessler Institute Pension Plan	150,000.00	4,686	4,686	--
Ashford Capital Management, f/b/o Frank Chaiken Irrevocable Trust	20,000.00	624	624	--
Ashford Capital Management, f/b/o John P. Larmann	100,000.00	3,124	3,124	--
Ashford Capital Management, f/b/o Karin & Joseph Kirkland	100,000.00	3,124	3,124	--
Ashford Capital Management, f/b/o Joseph J. Kirkland Charitable Remainder Trust	20,000.00	624	624	--

NAME	PRINCIPAL AMOUNT OF DEBENTURES BENEFICIALLY OWNED AND OFFERED(1)	COMMON STOCK ISSUABLE UPON CONVERSION OF THE DEBENTURES	COMMON STOCK OFFERED	COMMON STOCK OWNED AFTER COMPLETION OF THE OFFERING
Ashford Capital Management, f/b/o Judith A. Destefano	30,000.00	937	937	--
BNP Arbitrage SNC	5,000,000.00	156,213	156,213	--
Brown & Williamson Tobacco Master Retirement Trust	200,000.00	6,248	6,248	--
Cirdet (IMA) Limited	1,800,000.00	56,236	56,236	--
Concorde Special Situations Investment Fund	100,000.00	3,124	3,124	--
Deutsche Bank Securities	4,000,000.00	124,970	124,970	--
Family Service Life Insurance Company	300,000.00	9,372	9,372	--
Fist Franklin Convertible Securities Fund	4,000,000.00	124,970	124,970	--
FSS Franklin California Growth Fund	6,000,000.00	187,456	187,456	--
FSS Franklin Small Cap Growth Fund	25,000,000.00	781,066	781,066	--
GEM Capital Management, Inc., as investment advisor to GranGem 23 41 LLC	550,000.00	17,183	17,183	--
GEM Capital Management, Inc., as investment advisor to Frederic C. Hamilton	450,000.00	14,059	14,059	--
GEM Capital Management, Inc., as investment advisor to Mary Ann Hamilton	450,000.00	14,059	14,059	--
GEM Capital Management, Inc., as investment advisor to Mount Sinai School of Medicine	500,000.00	15,621	15,621	--
GEM Capital Management, Inc., as investment advisor to Olin Foundation	1,000,000.00	31,242	31,242	--
GEM Capital Management, Inc., as investment advisor to United States Olympic Foundation	600,000.00	18,745	18,745	--
General Motors Welfare Benefit Trust	1,300,000.00	40,615	40,615	--
Guardian Life Insurance Company	6,500,000.00	203,077	203,077	--
Guardian Pension Trust	200,000.00	6,248	6,248	
JMG Capital Partners, LP	2,750,000.00	85,917	85,917	
JMG Triton Offshore Fund, Ltd	5,250,000.00	164,024	164,024	
Lehman Brothers Inc	16,340,000.00	510,505	510,505	--
Mainstay Convertible Fund	2,000,000.00	62,485	62,485	--
Mainstay Strategic Value Fund	250,000.00	7,810	7,810	--
Mainstay VP Convertible Portfolio	1,000,000.00	31,242	31,242	--
The New York Life Separate Account #7	1,175,000.00	36,710	36,710	--
The Retail Clerks Pension Trust	2,000,000.00	62,485	62,485	--
St. Albans Partners, Ltd	1,900,000.00	59,361	59,361	--
The Travelers Indemnity Company	2,916,000.00	91,103	91,103	--
The Travelers Insurance Company	1,865,000.00	58,267	58,267	--
The Travelers Insurance Company Separate Account TLAC	219,000.00	6,842	6,842	--
Tribeca Investments, LLC	7,250,000.00	226,509	226,509	--

NAME	PRINCIPAL AMOUNT OF DEBENTURES BENEFICIALLY OWNED AND OFFERED(1)	COMMON STOCK ISSUABLE UPON CONVERSION OF THE DEBENTURES	COMMON STOCK OFFERED	COMMON STOCK OWNED AFTER COMPLETION OF THE OFFERING
Value Line Convertible Fund, Inc.	500,000.00	15,621	15,621	--
Warburg Dillon Read LLC	1,000,000.00	31,242	31,242	--

(1) Amounts indicated may be in excess of the total amount registered due to sales or transfers exempt from the registration requirements of the Securities Act since the date upon which the selling holders provided to us the information regarding their debentures.

With the exception of Lehman Brothers Inc., none of the selling holders nor any of their affiliates, officers, directors or principal equity holders has held any position or office or has had any material relationship with us within the past three years. Lehman Brothers Inc. acted as managing underwriter in an underwritten public offering of Inhale's common stock in November 1997 and as an initial purchaser of the debentures. The selling holders purchased the debentures in private transactions on or after October 13, 1999. All of the debentures were "restricted securities" under the Securities Act prior to this registration.

Information concerning the selling holders may change from time to time and any changed information will be set forth in supplements to this prospectus if and when necessary. In addition, the conversion rate and therefore, the number of shares of common stock issuable upon conversion of the debentures, is subject to adjustment under certain circumstances. Accordingly, the aggregate principal amount of debentures and the number of shares of common stock into which the debentures are convertible may increase or decrease.

PLAN OF DISTRIBUTION

The selling holders and their successors, including their transferees, pledgees or donees or their successors, may sell the debentures and the common stock into which the debentures are convertible directly to purchasers or through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions from the selling holders or the purchasers. These discounts, concessions or commissions as to any particular underwriter, broker-dealer or agent may be in excess of those customary in the types of transactions involved.

The debentures and the common stock into which the debentures are convertible may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market prices, at varying prices determined at the time of sale, or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions:

- on any national securities exchange or U.S. inter-dealer system of a registered national securities association on which the debentures or the common stock may be listed or quoted at the time of sale;

- in the over-the-counter market;

- in transactions otherwise than on these exchanges or systems or in the over-the-counter market;

- through the writing of options, whether the options are listed on an options exchange or otherwise; or

- through the settlement of short sales.

In connection with the sale of the debentures and the common stock into which the debentures are convertible or otherwise, the selling holders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the debentures or the common stock into which the debentures are convertible in the course of hedging the positions they assume. The selling holders may also sell the debentures or the common stock into which the debentures are convertible short and deliver these securities to close out their short positions, or loan or pledge the debentures or the common stock into which the debentures are convertible to broker-dealers that in turn may sell these securities.

The aggregate proceeds to the selling holders from the sale of the debentures or common stock into which the debentures are convertible offered by them will be the purchase price of the debentures or common stock less discounts and commissions, if any. Each of the selling holders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of debentures or common stock to be made directly or through agents. We will not receive any of the proceeds from this offering.

Our outstanding common stock is listed for trading on the Nasdaq National Market. We do not intend to list the debentures for trading on any national securities exchange or on the Nasdaq National Market and can give no assurance about the development of any trading market for the debentures.

In order to comply with the securities laws of some states, if applicable, the debentures and common stock into which the debentures are convertible may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the debentures and common stock into which the debentures are convertible may not be sold unless they have been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

The selling holders and any underwriters, broker-dealers or agents that participate in the sale of the debentures and common stock into which the debentures are convertible may be "underwriters"

within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling holders who are "underwriters" within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act. The selling holders have acknowledged that they understand their obligations to comply with the provisions of the Exchange Act and the rules thereunder relating to stock manipulation, particularly Regulation M.

In addition, any securities covered by this prospectus that qualify for sale pursuant to Rule 144 or Rule 144A of the Securities Act may be sold under Rule 144 or Rule 144A rather than pursuant to this prospectus. A selling holder may not sell any debentures or common stock described in this prospectus and may not transfer, devise or gift these securities by other means not described in this prospectus.

To the extent required, the specific debentures or common stock to be sold, the names of the selling holders, the respective purchase prices and public offering prices, the names of any agent, dealer or underwriter, and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement of which this prospectus is a part.

We entered into a registration rights agreement for the benefit of holders of the debentures to register their debentures and common stock under applicable federal and state securities laws under specific circumstances and at specific times. The registration rights agreement provides for cross-indemnification of the selling holders and us and their and our respective directors, officers and controlling persons against specific liabilities in connection with the offer and sale of the debentures and the common stock, including liabilities under the Securities Act. We will pay substantially all of the expenses incurred by the selling holders incident to the offering and sale of the debentures and the common stock.

LEGAL MATTERS

The validity of the debentures and common stock offered hereby is being passed upon for us by Cooley Godward LLP, Menlo Park, California. As of the date of this prospectus, certain members and associates of Cooley Godward LLP beneficially own an aggregate of 300 shares of our common stock.

INDEPENDENT AUDITORS

The financial statements of Inhale Therapeutic Systems, Inc. at December 31, 1997 and 1998 and for each of the three years in the period ended December 31, 1998, incorporated by reference in this registration statement have been audited by Ernst & Young LLP, independent auditors, as stated in their report and are included in reliance upon such report given upon the authority of such firm as experts in accounting and auditing.

- ---
- ---

WE HAVE AUTHORIZED NO ONE TO GIVE ANY INFORMATION OR TO MAKE ANY REPRESENTATIONS THAT ARE NOT CONTAINED IN THIS PROSPECTUS. YOU SHOULD RELY ONLY ON THE INFORMATION PROVIDED IN THIS PROSPECTUS OR INCORPORATED BY REFERENCE THEREIN. YOU MUST NOT RELY ON ANY UNAUTHORIZED INFORMATION.

THIS PROSPECTUS DOES NOT OFFER TO SELL OR BUY ANY DEBENTURES OR SHARES OF COMMON STOCK IN ANY JURISDICTION WHERE IT IS UNLAWFUL. YOU SHOULD NOT ASSUME THAT THE INFORMATION IN THIS PROSPECTUS IS ACCURATE AS OF ANY DATE OTHER THAN THE DATE ON THE FRONT OF THE DOCUMENT.

TABLE OF CONTENTS

INHALE THERAPEUTIC SYSTEMS, INC.

$108,450,000

6 3/4% CONVERTIBLE
SUBORDINATED DEBENTURES
DUE OCTOBER 13, 2006
AND
3,388,268 SHARES
OF COMMON STOCK
ISSUABLE UPON CONVERSION
OF THE DEBENTURES

- ---
- ---