

EPIX Pharmaceuticals, Inc.  
Form S-3  
November 14, 2006

**Table of Contents**

**As filed with the Securities and Exchange Commission on November 14, 2006**

**Registration No. 333-\_\_\_\_\_**

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549  
FORM S-3  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933  
EPIX Pharmaceuticals, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of  
incorporation or organization)

**04-3030815**

(I.R.S. Employer  
Identification Number)

**4 Maguire Road  
Lexington, Massachusetts 02421  
(781) 761-7600**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Michael G. Kauffman, M.D., Ph.D.  
Chief Executive Officer  
EPIX Pharmaceuticals, Inc.**

**4 Maguire Road  
Lexington, Massachusetts 02421  
(781) 761-7600**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

*with copies to:*

**Edward A. King, Esq.  
Goodwin Procter LLP  
Exchange Place  
Boston, Massachusetts 02109  
(617) 570-1000**

**Approximate date of commencement of proposed sale to the public:** From time to time after this Registration Statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the

following box: o

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box: o

### CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered (1)	Proposed maximum offering price per share (2)	Proposed maximum aggregate offering price (2)	Amount of registration fee
Common Stock, \$0.01 par value per share	7,722,954	\$ 4.21	\$32,513,636.34	\$3,478.96

(1) Consists of 7,722,954 issued shares of common stock.

(2) Estimated solely for the purpose of determining the registration fee pursuant to Rule 457(c) under the Securities Act of 1933, as amended, based upon the average of the high and low prices for the common stock of EPIX Pharmaceuticals, Inc. on November 13, 2006, as reported by The Nasdaq Global Market.

**The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to Section 8(a), may determine.**

**Table of Contents**

**The information in this prospectus is not complete and may be changed. The selling stockholders may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.**

**SUBJECT TO COMPLETION, DATED NOVEMBER 14, 2006**

**PROSPECTUS**

**EPIX PHARMACEUTICALS, INC.  
7,722,954 SHARES OF COMMON STOCK**

We issued 13,621,727 shares of our common stock in a merger with Predix Pharmaceuticals Holdings, Inc. ( Predix ) which closed on August 16, 2006. This prospectus relates to the resale from time to time of up to a total of 7,722,954 shares of our common stock by certain former affiliates of Predix and the chairman of our board of directors, the selling stockholders, described in the section entitled Selling Stockholders on page 41 of this prospectus.

The selling stockholders will receive all of the proceeds from the disposition of the shares or interests therein and will pay all underwriting discounts and selling commissions relating thereto. We have agreed to pay the legal, accounting, printing and other expenses related to the registration of the shares.

Our common stock is listed on The Nasdaq Global Market under the symbol EPIX. On November 13, 2006, the last reported sale price of our common stock was \$4.28 per share. Our principal executive offices are located at 4 Maguire Road, Lexington, Massachusetts 02421, and our telephone number is (781) 761-7600.

**You should consider carefully the risks that we have described in Risk Factors beginning on page 6 before deciding whether to invest in our common stock.**

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

**THE DATE OF THIS PROSPECTUS IS NOVEMBER 14, 2006**

---

## TABLE OF CONTENTS

	<b>Page</b>
<u>About this Prospectus</u>	2
<u>Summary</u>	3
<u>Cautionary Information Regarding Forward-Looking Statements</u>	5
<u>Use of Proceeds</u>	5
<u>Risk Factors</u>	6
<u>Business</u>	23
<u>Management</u>	37
<u>Selling Stockholders</u>	41
<u>Plan of Distribution</u>	43
<u>Legal Matters</u>	44
<u>Experts</u>	44
<u>Where you can Find More Information</u>	45
<u>Incorporation of Certain Documents by Reference</u>	45
<u>EX-5.1 Opinion of Goodwin Procter LLP</u>	
<u>EX-23.1 Consent of Ernst &amp; Young LLP Independent Registered Public Accounting Firm of EPIX Pharmaceuticals, Inc.</u>	
<u>EX-23.2 Consent of Ernst &amp; Young LLP Independent Auditors of Predix Pharmaceuticals Holdings, Inc.</u>	

### ABOUT THIS PROSPECTUS

You should read this prospectus and the information and documents incorporated by reference carefully. Such documents contain important information you should consider when making your investment decision. See Incorporation of Certain Documents by Reference on page 45. You should rely only on the information provided in this prospectus or documents incorporated by reference into this prospectus. We have not authorized anyone to provide you with different information. The selling stockholders are offering to sell and seeking offers to buy shares of our common stock only in jurisdictions in which offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock.

In this prospectus, we refer to EPIX Pharmaceuticals, Inc. as EPIX. This prospectus contains trademarks, trade names, service marks and service names of EPIX and other companies.

**Table of Contents****SUMMARY**

*The following is only a summary. We urge you to read this entire prospectus, including the more detailed consolidated financial statements, notes to the consolidated financial statements and other information incorporated by reference from our other filings with the SEC. Investing in our common stock involves risks. Therefore, please carefully consider the information provided under the heading Risk Factors beginning on page 6.*

On August 16, 2006, we completed our acquisition of Predix Pharmaceuticals Holdings, Inc. ( Predix ) pursuant to the terms of that certain Agreement and Plan of Merger, dated as of April 3, 2006 as amended on July 10, 2006, by and among us, EPIX Delaware, Inc., our wholly-owned subsidiary, and Predix, as amended. Pursuant to the merger agreement, Predix merged with and into EPIX Delaware, Inc. and became a wholly-owned subsidiary of us. The merger with Predix was primarily a stock transaction valued at approximately \$125 million, including the assumption of net debt at closing. As part of the merger, we also assumed all outstanding options and warrants to purchase capital stock of Predix. The purchase price includes a \$35 million payment to the holders of Predix stock, options and warrants payable in cash, stock or a combination of both based on Predix having achieved a certain strategic milestone. Pursuant to the terms of the merger agreement, \$20 million of the milestone was paid in cash on October 29, 2006. The remaining \$15 million of the milestone payment will be paid in shares of EPIX common stock on October 29, 2007, except to the extent that such shares would exceed 49.99% of outstanding shares immediately after such milestone payment when combined with all shares of EPIX common stock issued in the merger and issuable upon exercise of all Predix options and warrants that we assumed in the merger. The portion of the remaining milestone payment that can not be paid in EPIX common stock will be paid in cash with interest accrued at a rate of 10%. In addition, in connection with the merger, we effected a 1-for-1.5 reverse stock split of our outstanding common stock.

Following the merger, EPIX is a biopharmaceutical company focused on discovering, developing and commercializing novel pharmaceutical products through the use of proprietary technologies to better diagnose, treat and manage patients. We have a blood-pool imaging agent (Vasovist ) approved in the European Union, Canada, Iceland, Norway, Switzerland and Australia, and five internally-discovered therapeutic and imaging drug candidates currently in clinical trials. Vasovist is currently being marketed in Europe. These drug candidates are targeting conditions such as depression, Alzheimer's disease, cardiovascular disease and obesity. We also have collaborations with leading organizations, including Amgen, Cystic Fibrosis Foundation Therapeutics, and Schering AG (Germany).

The focus of our therapeutic drug discovery and development efforts is on the two classes of drug targets known as G-protein Coupled Receptors (GPCRs) and ion channels. GPCRs and ion channels are classes of proteins embedded in the surface membrane of all cells and are responsible for mediating much of the biological signaling at the cellular level. We believe that our proprietary drug discovery technology and approach addresses many of the inefficiencies associated with traditional GPCR and ion channel-targeted drug discovery. By integrating computer-based, or *in silico*, technology with in-house medicinal chemistry, we believe that we can rapidly identify and optimize highly selective drug candidates. We focus on GPCR and ion channel drug targets whose role in disease has already been demonstrated in clinical trials or in preclinical studies. In each of our four clinical-stage therapeutic programs, we used our drug discovery technology and approach to optimize a lead compound into a clinical drug candidate in less than ten months, synthesizing fewer than 80 compounds per program. We moved each of these drug candidates into clinical trials in less than 18 months from lead identification. We believe our drug discovery technology and approach enables us to efficiently and cost-effectively discover and develop GPCR and ion channel-targeted drugs.

In the merger, Predix stockholders received .826702 shares of our common stock for each share of Predix capital stock for an aggregate of approximately 13,621,452 shares of our common stock, or approximately 47% of the outstanding shares of our common stock, after giving effect to the merger and to our 1-for-1.5 reverse stock split. The shares of our common stock issued to the Predix stockholders were registered with the Securities and Exchange Commission on a Registration Statement on Form S-4 (Reg. No. 333-133513). Approximately 29,152,220 shares of our common stock were outstanding immediately after the merger and giving effect to the 1-for-1.5 reverse stock split. The impact of the 1-for-1.5 reverse stock split on our previously filed financial statements included in our Annual Report of Form 10-K for the year ended December 31, 2005, as incorporated by reference to this Registration Statement, is as follows:

<b>Our previously filed selected financial data:</b>	<b>December 31, 2005</b>	<b>December 31, 2004</b>	<b>December 31, 2003</b>
Shares outstanding at year-end	23,284,810	23,190,154	22,318,642
Basic and diluted net loss per share	\$ (1.05)	\$ (0.89)	\$ (1.09)
Weighted average common shares used in computing basic and diluted net loss per share	23,258,187	22,888,673	19,055,698

3

---

**Table of Contents****Our adjusted selected financial data for a 1-for-1.5 reverse stock split made effective August 16,**

	<b>December 31, 2005</b>	<b>December 31, 2004</b>	<b>December 31, 2003</b>
<b>2006:</b>			
Shares outstanding at year-end	15,523,206	15,460,102	14,879,094
Basic and diluted net loss per share	\$ (1.57)	\$ (1.34)	\$ (1.64)
Weighted average common shares used in computing basic and diluted net loss per share	15,505,458	15,259,115	12,703,798
	4		

---



**Table of Contents**

**CAUTIONARY INFORMATION REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus and the documents incorporated by reference herein contain statements with respect to the Company which constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and of the safe harbor provisions of the United States Private Securities Litigation Reform Act of 1995. Words such as anticipate, believes, budget, continue, could, estimate, expect, forecast, intend, may, plan, potential, predicts, pro, similar expressions are intended to identify such forward-looking statements. Forward-looking statements in this prospectus include, without limitation, statements regarding benefits of the proposed merger and future expectations concerning available cash and cash equivalents of the combined company, the expected timing of the conclusion of clinical trials, the timing of regulatory filings, and other matters that involve known and unknown risks, uncertainties and other factors that may cause actual results, levels of activity, performance or achievements to differ materially from results expressed in or implied by this prospectus. Such risk factors include, among others:

difficulties encountered in integrating merged businesses;

the competitive environment in the life sciences industry;

whether we can successfully develop new products and the degree to which these gain market acceptance;

the success and timing of our pre-clinical studies and clinical trials;

our ability to obtain and maintain regulatory approval for our product candidates and the timing of such approvals;

our ability to research, develop and commercialize our product candidates;

regulatory developments in the United States and foreign countries; and

our ability to obtain and maintain intellectual property protection for our product candidates.

Actual results may differ materially from those contained in the forward-looking statements in this prospectus. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this prospectus. All prior and subsequent written and oral forward-looking statements concerning the merger and other matters addressed in this prospectus and attributable to the Company or any person acting on its behalf are expressly qualified in their entirety by the cautionary statements included or referred to in this section. Except to the extent required by applicable law or regulation, the Company does not undertake any obligation to republish revised forward-looking statements to reflect events and circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events.

**USE OF PROCEEDS**

We will not receive any of the proceeds from the sale of the shares by the selling stockholders.

**Table of Contents**

**RISK FACTORS**

*The following factors should be considered carefully in evaluating whether to purchase shares of EPIX common stock. These factors should be considered in conjunction with any other information included or incorporated by reference herein, including in conjunction with forward-looking statements made herein. See *Where You Can Find More Information* on page 45.*

**Risks Related to our Business**

***Integrating our organization with Predix may divert management's attention away from our operations and, if we are unsuccessful in integrating our companies, we may not be able to operate efficiently after the merger.***

Achieving the benefits of our merger with Predix will depend in part on the successful integration of our operations and personnel in a timely and efficient manner. The integration process requires coordination of different development, regulatory, administrative and commercial teams, and involves the integration of systems, applications, policies, procedures, business processes and operations. This may be difficult and unpredictable because of possible cultural conflicts and different opinions on scientific and regulatory matters. Problems in integrating financial reporting could result in control issues, including unplanned costs. Delays in successfully integrating and managing employee benefits could lead to dissatisfaction and employee turnover. In addition, the combination of our organizations may result in greater competition for resources and elimination of research and development programs that might otherwise be successfully completed, especially in light of the difference in our current imaging business and therapeutic business. If we cannot successfully integrate our operations and personnel, we may not realize the expected benefits of the merger. Moreover, the diversion of management's attention and any difficulties encountered in the transition and integration process could result in delays in the companies' clinical trial programs and could otherwise harm our business, financial condition and operating results.

***We anticipate future losses and may never become profitable.***

Our future financial results are uncertain. We have experienced significant losses since we commenced operations in 1992. Our accumulated net losses as of September 30, 2006 were approximately \$320.4 million. These losses have primarily resulted from expenses associated with our research and development activities, including pre-clinical studies and clinical trials, acquired in-process research and development from the merger with Predix and general and administrative expenses. We anticipate that our research and development expenses will remain significant in the future and we expect to incur losses over at least the next several years as we continue our research and development efforts, pre-clinical testing and clinical trials. In particular, we believe that we will be required to conduct additional clinical trials to obtain approval from the U.S. Food and Drug Administration (FDA) for any of our product candidates, including Vasovist, which trials would be expensive and which could contribute to our continuing to incur losses.

In addition, as a result of our merger with Predix, our expenses may increase significantly as a result of the addition of our newly acquired therapeutic research and development and commercialization efforts. We expect to incur significant costs integrating our operations, product candidates and personnel with those of Predix, which cannot be estimated accurately at this time. These costs may include costs for:

conversion of information systems;

combining development, regulatory, manufacturing and commercial teams and processes;

reorganization of facilities; and

relocation or disposition of excess equipment.

As a result, we cannot predict when we will become profitable, if at all, and if we do, we may not remain profitable for any substantial period of time. If we fail to achieve profitability within the timeframe expected by investors our results of operations, the market price of our common stock may decline and consequently our business may not be sustainable.

***We have never had a commercially available product in the United States and we may never succeed in developing marketable products.***

We have never had any product candidates receive regulatory approval for commercial sale in the United States and do not expect to have any commercial therapeutic products available in the United States for at least the next several years, if at all. In September 2006, results from our pivotal Phase 3 clinical trial of our PRX-00023 product candidate for generalized anxiety disorder demonstrated that PRX-00023 did not achieve a statistically significant improvement over placebo for the primary endpoint with respect to generalized anxiety disorder. Prior to obtaining results from this trial, PRX-00023 was our most advanced therapeutic drug candidate. Based on these trial results, however, we have discontinued our development efforts with respect to PRX-00023 in anxiety and currently are focusing our development efforts for this product candidate in depression. PRX-00023 has not been tested in patients

**Table of Contents**

with a primary diagnosis of major depression and will require significant further additional clinical testing for that indication. In addition, although our Vasovist imaging product has been approved for commercial sale in European Union, Australia, Switzerland, Iceland, Norway and Canada, and is currently being marketed in Europe by Schering AG (Germany), we have not obtained approval of Vasovist in the United States and do not expect any significant income or royalties as a result of sales of Vasovist for the foreseeable future. In August 2006, the FDA denied our formal appeal to approve Vasovist and suggested that the safest path forward would be to conduct two new clinical trials for Vasovist. Accordingly, the approval of Vasovist by the FDA is subject to significant uncertainty and we may never obtain regulatory approval to market Vasovist in the United States.

In addition to PRX-00023 and Vasovist, we have four other clinical-stage drug candidates in the United States: PRX-08066 for the treatment of two types of pulmonary hypertension, which are pulmonary hypertension associated with chronic obstructive pulmonary disease, in which we initiated a Phase 2 clinical trial in August 2006, and pulmonary arterial hypertension; PRX-03140 for the treatment of Alzheimer's disease, which is expected to enter Phase 2 clinical trials in the fourth quarter of 2006; PRX-07034 for the treatment of obesity and cognitive impairment, which commenced Phase 1 clinical trials in June 2006; and EP-2104R, a contrast agent designed to enable the identification of blood clots using MRI, which completed a Phase 2a clinical trial in June 2006. Prior to the initiation of our Phase 2 clinical trial, PRX-08066 had never been tested in patients with pulmonary hypertension associated with chronic obstructive pulmonary disease and has never been tested in patients with primary pulmonary arterial hypertension. PRX-07034 has never been tested in patients with obesity or cognitive impairment. A number of companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in late-stage clinical trials even after achieving promising results in early-stage clinical development. For example, Sanofi-Aventis recently discontinued the development of its product candidate for the treatment of Alzheimer's disease designed to target the 5-HT<sub>4</sub> protein receptor due to lack of efficacy. This compound is believed to have the same mechanism of action as PRX-03140, was more advanced in clinical development and was more potent in *in vitro* assays. Accordingly, the results from the completed and ongoing studies and trials for our product candidates may not be predictive of the results we may obtain in later-stage clinical trials. In addition, Schering declined to exercise an option to exclusively license EP-2104R and, as a result, there is considerable uncertainty regarding the future clinical development plan of EP-2104R and depends upon many factors, including our ability to enter into a collaboration to continue the development of EP-2104R. If we are unable to find a new collaborative partner, we may bear the expenses of further clinical development ourselves, which expenses would be significant. If we are unable to develop one or more marketable products in the United States, or elsewhere, our results of operations, business and future prospects would be materially harmed.

***If we are unable to obtain required regulatory approval of our product candidates, we will be unable to market and sell our product candidates and our business will be materially harmed.***

Our existing product candidates and any other product candidates we may discover or acquire and seek to commercialize are subject to extensive regulation by the FDA and similar regulatory agencies in other countries relating to development, clinical trials, manufacturing and commercialization. In the United States and in many foreign jurisdictions, rigorous pre-clinical testing and clinical trials and an extensive regulatory review process must be successfully completed before a new product candidate can be sold. Satisfaction of these and other regulatory requirements is costly, time consuming, uncertain and subject to unanticipated delays. The time required to obtain approval by the FDA is unpredictable but typically exceeds five years following the commencement of clinical trials, depending upon many factors, including the complexity of the product candidate. We initiated clinical trials for PRX-08066, PRX-00023, PRX-03140 and PRX-07034 in May 2005, February 2004, December 2004 and June 2006, respectively, and thus far, these therapeutic product candidates have been studied in only a small number of patients. Early-stage clinical trials in small numbers of patients are often not predictive of results in later-stage clinical trials with a larger and more diverse patient population. Even product candidates with favorable results in late-stage pivotal clinical trials may fail to get approved for commercialization for many reasons, including:

Our failure to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a product candidate is safe and effective for a particular indication;

Our inability to demonstrate that a product candidate's benefits outweigh its risks;

Our inability to demonstrate that the product candidate presents a significant advantage over existing therapies;

the FDA's or comparable foreign regulatory authorities' disagreement with the manner in which we and our collaborators interpret the data from pre-clinical studies or clinical trials;

the FDA's or comparable foreign regulatory authorities' failure to approve our manufacturing processes or facilities or the processes or facilities of our collaborators; or

a change in the approval policies or regulations of the FDA or comparable foreign regulatory authorities.

In addition, although Vasovist has been approved for use in various foreign countries, Vasovist has not been approved in the United States. In connection with a new drug application, or NDA, that we submitted for Vasovist in December 2003, we received an approvable letter from the FDA in January 2005 in which the FDA requested additional clinical trials prior to approval. In May 2005, we submitted a response to the FDA approvable letter, which was accepted by the FDA as a complete response in June 2005. In

**Table of Contents**

November 2005, the FDA provided us with a second approvable letter. Although no safety or manufacturing issues were raised in the second approvable letter, the second approvable letter indicated that at least one additional clinical trial and a re-read of images obtained in certain previously completed Phase 3 trials will be necessary before the FDA could approve Vasovist. We believe that these trials would require a substantial period of time to complete. We have had three meetings with the FDA since receiving the second approvable letter to discuss the path forward for Vasovist in the United States. After considering the parameters of the additional clinical trials requested by the FDA, we filed a formal appeal with the FDA asking the FDA to approve Vasovist and to utilize an advisory committee as part of the appeal process. In August 2006, the FDA denied our appeal and suggested that the safest path forward would be to conduct two new clinical trials for Vasovist. We are currently evaluating several options with respect to next steps for Vasovist, including the option to appeal the FDA's decision. The approval, timeliness of approval or labeling of Vasovist are subject to significant uncertainties related to a number of factors, including the process of reaching agreement with the FDA on the clinical data and on any clinical trial protocol required for regulatory approval of Vasovist, a re-read, or reanalysis, of images obtained from completed Phase 3 trials by a new group of radiologists, the timing and process of conducting any clinical trials that may be ultimately required if the appeal process ultimately ends in denial of our suggested path forward, obtaining the desired outcomes of any required clinical trials and the FDA's review process and conclusions regarding any additional Vasovist regulatory submissions. We cannot assure you that the appeal process, including any appeal of the FDA's August 2006 decision we may undertake, will be successful or that we will be able to reach agreement with the FDA on the design or clinical endpoints required for additional clinical trials or re-read of images from the completed Phase 3 trials that may be required if the appeal process ultimately ends in the denial of our suggested path forward. Further, we cannot assure you that any such agreed upon clinical trials will be feasible for us to conduct or whether such trials will be completed in a commercially reasonable timeframe, if at all. Any further clinical trials that are required could take several years to complete. If the FDA does not approve Vasovist, then we will not receive revenues based on sales of Vasovist in the United States. Even if ultimately approved, we do not expect revenues from the commercial sales of any of our product candidates, other than Vasovist, for at least several years.

The relevant regulatory authorities may not approve any of our applications for marketing authorization relating to any of our product candidates, or additional applications for or variations to marketing authorizations that we may make in the future as to these or other product candidates. Among other things, we have had only limited experience in preparing applications and obtaining regulatory approvals. If approval is granted, it may be subject to limitations on the indicated uses for which the product candidate may be marketed or contain requirements for costly post-marketing testing and surveillance to monitor safety or efficacy of the product candidate. If approval of an application to market product candidates is not granted on a timely basis or at all, or if we are unable to maintain our approval, our business may be materially harmed. It is possible that none of our product candidates or any other product candidates we may seek to develop in the future will ever obtain the appropriate regulatory approvals necessary for us to begin selling them, which would materially harm our business.

***Our clinical trials may not yield results that will enable us to obtain regulatory approval for our product candidates.***

We will only receive regulatory approval to commercialize a product candidate if we can demonstrate to the satisfaction of the FDA or the applicable foreign regulatory agency, in well-designed and conducted clinical trials, that the product candidate is safe and effective and otherwise meets the appropriate standards required for approval for a particular indication. Clinical trials are lengthy, complex and extremely expensive processes with uncertain results. For example, results from our recently completed Phase 3 clinical trial of PRX-00023 in generalized anxiety disorder, which was designed to evaluate the efficacy of PRX-00023 as measured by the change from baseline in the Hamilton Rating Scale for Anxiety compared to placebo, demonstrated that PRX-00023 did not achieve a statistically significant improvement over placebo for the primary endpoint with respect to generalized anxiety disorder. Based on these results, we have discontinued our development efforts of PRX-00023 in anxiety. We have limited experience in conducting and managing the clinical trials necessary to obtain regulatory approvals for our product candidates, including filing and prosecuting the applications necessary to gain approval by the FDA. Our NDA for Vasovist has not been, and may never be, approved by the FDA and we have not submitted an NDA to the FDA for any of our

other product candidates. This limited experience may result in longer regulatory processes in connection with our efforts to obtain approval of our product candidates. With respect to both our current product candidates in human clinical trials and our research product candidates which may be suitable for testing in human clinical trials at some point in the future, we face risks including that:

the product candidate may not prove to be safe and efficacious;

the dosage form of the product candidate may not deliver reproducible amounts of product to patients;

patients may die or suffer other adverse effects for reasons that may or may not be related to the product candidate being tested;

the results of later-stage clinical trials may not confirm the positive results of earlier trials;

the results may not meet the level of statistical significance required by the FDA or other regulatory agencies for approval; and

the FDA or other regulatory agencies may require additional or expanded trials.

## **Table of Contents**

Of the large number of product candidates in development, only a small percentage result in the submission of an NDA to the FDA and even fewer are approved for commercialization. For example, we have received two approvable letters from the FDA and have had three meetings with the FDA to discuss the path forward for Vasovist in the United States and we have filed a formal appeal of the FDA's decision not to approve Vasovist without data from additional clinical trials. In August 2006, the FDA denied our appeal and suggested that the safest path forward would be to conduct two new clinical trials for Vasovist. We are currently evaluating several options with respect to next steps for Vasovist, including the option to appeal the FDA's decision. We cannot predict whether the entire appeals process or additional trials would be completed timely or successfully. If we fail to demonstrate the safety and efficacy of our product candidates, we will not be able to obtain the required regulatory approvals to commercialize these product candidates. The results from pre-clinical testing of a product candidate that is under development may not be predictive of results that will be obtained in human clinical trials. In addition, the results of early human clinical trials may not be predictive of results that will be obtained in larger scale, advanced-stage clinical trials. Our current product candidates and any other product candidates we may seek to develop in the future may never complete the clinical testing necessary to obtain the appropriate regulatory approvals for us to begin selling them.

***If clinical trials for our product candidates are prolonged or delayed, we may be unable to commercialize our product candidates on a timely basis, which would require us to incur additional costs and delay our receipt of any revenue from potential product sales.***

We may encounter problems with our completed, ongoing or planned clinical trials for our product candidates that will cause us or any regulatory authority to delay or suspend those clinical trials or delay the analysis of data derived from them. A number of events, including any of the following, could delay the completion of our ongoing and planned clinical trials for our product candidates and negatively impact our ability to obtain regulatory approval for, and to enter into collaborations, market and/or sell, a particular product candidate, including our current clinical-stage product candidates:

conditions imposed on us by the FDA or any foreign regulatory authority regarding the scope or design of our clinical trials;

delays in obtaining, or our inability to obtain, required approvals from institutional review boards or other reviewing entities at clinical sites selected for participation in our clinical trials;

delay in developing a clinical dosage form, insufficient supply or deficient quality of our product candidates or other materials necessary to conduct our clinical trials;

negative or inconclusive results from clinical trials, or results that are inconsistent with earlier results, that necessitate additional clinical study;

serious and/or unexpected product-related side effects experienced by subjects in clinical trials; or

failure of our third-party contractors or our investigators to comply with regulatory requirements or otherwise meet their contractual obligations to us in a timely manner.

Regulatory authorities, clinical investigators, institutional review boards, data safety monitoring boards and the hospitals at which our clinical trials are conducted all have the power to stop our clinical trials prior to completion. In addition, the number and complexity of clinical trials needed to achieve regulatory approval for our therapeutic drug candidates, including but not limited to PRX-00023, our product candidate for the treatment of depression, and PRX-03140, our product candidate for the treatment of Alzheimer's disease, could be significant. Achieving primary efficacy endpoints in depression and anxiety trials is difficult due to the significant placebo effect commonly observed in trials in these patient populations. For example, results from our recently completed Phase 3 clinical trial of PRX-00023 demonstrated that the product candidate did not achieve a statistically significant improvement over placebo for the primary endpoint with respect to generalized anxiety disorder. Based on these results, we have discontinued our development efforts with respect to PRX-00023 in anxiety and expect to focus our efforts with



respect to PRX-00023 in depression. In addition, we must also submit the results of a two-year carcinogenicity study of PRX-00023 prior to its approval. We have not yet initiated this study and intend to conduct this study prior to submitting an NDA to the FDA. If the clinical development of PRX-00023 is delayed as a result of these matters, additional requirements set forth by the FDA, including requirements related to confirming the correct dose for PRX-00023, or otherwise, the time and cost of the development of PRX-00023 could increase significantly.

Our clinical trials for our product candidates may not begin as planned, may need to be restructured, and may not be completed on schedule, if at all. For example, in September 2001, after discussions with the FDA, we expanded our initial target indication for Vasovist from one specific body region, the aortoiliac region, to a broader indication that included the entire body's vascular system, except for the heart. This expansion required us to add two new clinical trials to our then existing Phase 3 clinical trial program. This change to the Phase 3 clinical trial program and the associated delay in the startup of new clinical centers resulted in an approximate 15-month delay in our NDA submission and an increase in costs associated with the program. In addition, because Schering AG decided not to exercise its option to exclusively license EP-2104R, which recently completed a Phase 2a clinical trial, we intend to pursue a collaboration for the continued development of EP-2104R with other potential partners. If we are unable to find a new collaborative partner, we will discontinue further clinical development of EP-2104R. Delays in clinical trials may result in increased development costs for our product candidates. In addition, if our clinical trials for our product candidates are delayed, our

**Table of Contents**

competitors may be able to bring product candidates to market before we do and the commercial viability of our product candidates could be significantly reduced.

***If we encounter difficulties enrolling subjects in our clinical trials for our product candidates, or subjects drop out of trials in progress for our product candidates, our trials could be delayed or otherwise adversely affected.***

The timing of completion of clinical trials is dependent in part upon the rate of enrollment of patients. Patient accrual is a function of many factors, including the size of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the trial, the existence of competitive clinical trials, and the availability of alternative treatments. Delays in planned patient enrollment may result in increased costs and prolonged clinical development. In addition, patients may withdraw from a clinical trial for a variety of reasons. If we fail to accrue and maintain the number of patients into one of our clinical trials for which the clinical trial was designed, the statistical power of that clinical trial may be reduced which would make it harder to demonstrate that the product candidates being tested in such clinical trial are safe and effective. We may not be able to enroll a sufficient number of qualified patients in a timely or cost-effective manner. For example, we experienced difficulty in enrolling healthy elderly volunteers in our Phase 1 clinical trial for PRX-03140. Any future delays in patient enrollment could result in increased costs and longer development times. Enrollment of patients in our clinical trials for our product candidates is affected by many factors, including:

- the limited size of the patient population and the availability of commercial products for certain target indications, including pulmonary arterial hypertension and pulmonary hypertension associated with chronic obstructive pulmonary disease;

- the nature and design of the trial protocol;

- the proximity of patients to clinical sites;

- the availability of other effective treatments for the relevant disease (whether approved or experimental);

- the eligibility criteria for enrollment in our clinical trials;

- perceived risks and benefits of the product candidate under study; and

- competing studies or trials.

In addition, the FDA could require us to conduct clinical trials with a larger number of subjects than we have projected for any of our product candidates. If we have difficulty enrolling or retaining a sufficient number of patients to participate and complete our clinical trials for our product candidates as planned, we may need to delay or terminate ongoing or planned clinical trials. Delays in enrolling patients in these clinical trials or the withdrawal of subjects enrolled in these clinical trials would adversely affect our ability to develop and seek approval for our product candidates, could delay or eliminate our ability to generate product candidates and revenue and could impose significant additional costs on us.

***Our therapeutic product candidates are currently unformulated.***

All of our therapeutic product candidates, including PRX-08066, PRX-00023, PRX-03140 and PRX-07034, are currently unformulated. The lack of an optimized and commercially-viable formulation during clinical trials may have a significant impact in the overall development and commercialization of these therapeutic product candidates, including:

- the current dosage may not provide reproducible amounts of product;

- the pharmaceutical development of a commercially viable formulation may add significant cost and time to our clinical development programs for therapeutics;

additional trials may be required if the new formulation is not bioequivalent to formulations already used in clinical trials;

future clinical trials may be delayed in order to identify, develop, optimize, manufacture and certify a commercially viable formulation; and

regulatory filings, and/or commercial launch may be delayed due to the lack of a commercial process for cGMP manufacturing of the new formulation.

The occurrence of any of the foregoing could materially harm our business.

***Failure to comply with foreign regulatory requirements governing human clinical trials and marketing approval for our product candidates could prevent us from selling our product candidates in foreign markets, which may adversely affect our operating results and financial condition.***

The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement for marketing our product candidates outside the United States vary greatly from country to country and may require additional testing. Although the use of Vasovist has been approved in the European Union, as well as Canada, Iceland, Norway, Switzerland and Australia, we have no

**Table of Contents**

experience in obtaining foreign regulatory approvals for our other product candidates. The time required to obtain approvals outside the United States may differ from that required to obtain FDA approval. We may not obtain foreign regulatory approvals on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other countries or by the FDA. Failure to comply with these regulatory requirements or obtain required approvals could impair our ability to develop foreign markets for our product candidates.

***Our product candidates will remain subject to ongoing regulatory requirements even if they receive marketing approval, and if we fail to comply with requirements, we could lose these approvals and the sale of any approved commercial products could be temporarily or permanently suspended.***

Even if we receive regulatory approval to market a particular product candidate, the product will remain subject to extensive regulatory requirements, including requirements relating to manufacturing, labeling, packaging, adverse event reporting, storage, advertising, promotion and record keeping. In addition, as clinical experience with a product expands after approval because it is typically used by a greater number of patients after approval than during clinical trials, side effects and other problems may be observed after approval that were not seen or anticipated during pre-approval clinical trials. We are required to maintain pharmacovigilance systems for collecting and reporting information concerning suspected adverse reactions to our product candidates. In response to pharmacovigilance reports, regulatory authorities may initiate proceedings to revise the prescribing information for our product candidates or to suspend or revoke our marketing authorizations. Procedural safeguards are often limited, and marketing authorizations can be suspended with little or no advance notice. Both before and after approval of a product, quality control and manufacturing procedures must conform to cGMP. Regulatory authorities, including the EMEA and the FDA, periodically inspect manufacturing facilities to assess compliance with cGMP. Accordingly, we and our contract manufacturers will need to continue to expend time, funds, and effort in the area of production and quality control to maintain cGMP compliance. If we fail to comply with the regulatory requirements of the FDA, the EMEA and other applicable U.S. and foreign regulatory authorities or previously unknown problems with any approved commercial products, manufacturers or manufacturing processes are discovered, we could be subject to administrative or judicially imposed sanctions or other setbacks, including:

- restrictions on the products, manufacturers or manufacturing processes;

- warning letters;

- civil or criminal penalties;

- fines;

- injunctions;

- product seizures or detentions;

- import bans;

- product recalls and related publicity requirements;

- unanticipated expenditures;

- total or partial suspension of production; and

- refusal to approve pending applications for marketing approval of new products or supplements to approved applications.

The imposition on us of any of the foregoing could materially harm our results of operations. In addition to regulations adopted by the EMEA, the FDA, and other foreign regulatory authorities, we are also subject to regulation under the Occupational Safety and Health Act, the Toxic Substances Control Act, the Resource Conservation and Recovery Act, and other federal, state, and local regulations.

***We are focusing our therapeutic product discovery and development efforts on G-Protein Coupled Receptor and ion channel-targeted product candidates, which have historically had a high incidence of adverse side effects.***

Despite commercial success, many G-Protein Coupled Receptor, or GPCR, and ion channel-targeted products have been associated with a high incidence of adverse side effects due in part to poor selectivity in binding to their target protein, resulting in also binding to other off-target proteins. We believe we are designing our therapeutic product candidates to be highly selective and as a result to have a favorable side-effect profile. However, all of our therapeutic product candidates are in early stages of development, and although our clinical therapeutic product candidates have to date exhibited acceptable side-effect profiles in clinical trials in a limited number of subjects, we cannot assure you that these results will be repeated in larger-scale trials. If serious side effects occur in later-stage clinical trials of our therapeutic product candidates, we may not receive regulatory approval to commercialize them. Even if any of our therapeutic product candidates receive regulatory approval, if they do not exhibit a more favorable side-effect profile than existing therapies, our competitive position could be substantially diminished.

**Table of Contents**

***The application of our in silico therapeutic product discovery technology and approach may be limited to a subset of therapeutically useful proteins, which may reduce the opportunities to develop and commercialize product candidates against other important therapeutic targets.***

To date, our technology and approach has generated clinical therapeutic product candidates, including PRX-00023, PRX-03140, PRX-08066 and PRX-07034, which mimic the activity of a small molecule, serotonin, within a class of GPCR proteins known as serotonergic receptors. The activity is achieved through binding of the ligand, serotonin, to a particular region of the protein that spans the cell membrane. These GPCRs and mechanisms of interaction represent a small subset of all known therapeutically-relevant GPCRs. The application of our *in silico* technology to other known therapeutically-relevant GPCR targets based on large molecule ligands and other interactions is unknown. Ion channels can consist of multiple protein subunits that have complex and subtle mechanisms of activation and inactivation. Therefore, it may be difficult to apply our proprietary product discovery technology to small-molecule ion channel targets.

Although we believe that the *in silico* technology platform can be utilized and developed to discover such small molecules, we cannot ensure that our *in silico* technology and approach will generate clinical candidates for all GPCRs and ion channels that are important targets for therapeutic intervention.

***We expect that our agreement with Amgen Inc. will provide us with a substantial portion of our future revenues.***

We expect that a substantial portion of our future revenues will be generated from our collaboration agreement with Amgen, Inc. If Amgen were to terminate this agreement, fail to meet its obligations or otherwise decrease its commitment thereunder, our future revenues could be materially adversely affected and the development and commercialization of our S1P1 therapeutic drug candidates would be interrupted. In addition, if we and Amgen do not achieve some or any of the development and regulatory milestones, or Amgen does not achieve certain net sales thresholds as set forth in the agreement, we will not fully realize the expected benefits of the agreement. Further, the achievement of the various milestones under the agreement depend on factors that are outside of our control and most are not expected for several years, if at all. Our receipt of revenues under our agreement with Amgen will be directly affected by the level of efforts of Amgen and we cannot control whether Amgen will devote sufficient resources to development or commercialization of the technology under the agreement or whether Amgen will elect to pursue the development or commercialization of alternative products or services. Disagreements with Amgen could delay or terminate the continued development and commercialization of the licensed products by Amgen or result in litigation, any of which could have a material adverse affect on our business, financial condition and results of operations overall. If our agreement with Amgen is terminated prior to expiration, we would be required to enter into other strategic relationships or find alternative ways of continuing our S1P1 program. We cannot assure you that we would be able to enter into a similar agreement with another company with sufficient product development capabilities to commercialize this technology, and its failure to do so could materially and adversely affect our ability to generate revenues.

***We depend on our strategic collaborators for support in product development and the regulatory approval process for our product candidates and, if approved, for product marketing.***

Our product development programs and potential regulatory approval and commercialization of our product candidates will require substantial additional cash to fund expenses. Our strategy includes collaborating with a leading pharmaceutical, biotechnology or other companies to assist us in further developing and potentially commercializing our product candidates requiring large commercial sales and marketing infrastructures. We may also seek to enter into such collaborations for our other product candidates, especially for target indications in which the potential collaborator has particular expertise or that involve a large, primary care market that must be served by large sales and marketing organizations. We face significant competition in seeking appropriate collaborators and these collaborations are complex and time-consuming to negotiate and document. We may not be able to enter into any such collaboration on terms that are acceptable to us, or at all. If that were to occur, we may have to curtail the development of a particular product candidate, reduce or delay one or more of our development programs or potential commercialization, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to increase our expenditures to fund development, potential regulatory approval or commercialization activities on our own, we will need to obtain additional capital, which may not be available to us

on acceptable terms, or at all. If we do not obtain sufficient funds, we will not be able to complete clinical development of our product candidates or bring our product candidates to market. For instance, in May 2006, we concluded a research collaboration with Schering AG for the development of certain potential imaging product candidates. We are in discussions, and expect to continue discussions, with Schering AG regarding the disposition of the research products under this research collaboration. While the research agreement is separate from our agreement with Schering AG relating to Vasovist, we cannot predict how the disposition or winding down of the individual research programs will occur, or whether we will be able to take forward any of these research programs ourselves or find alternative partners for these programs. In addition, on July 12, 2006, Schering AG notified us that it decided not to exercise its option to exclusively license EP-2104R. As a result, we intend to pursue a collaboration for the continued development of EP-2104R with new potential partners, who may negotiate provisions that allow them to terminate their agreements with us prior to the expiration of the negotiated term under certain circumstances.

**Table of Contents**

In addition, we depend, and expect to continue to depend, on strategic collaborators for support in a variety of other activities including manufacturing, marketing and distribution of our product candidates in the United States and abroad, when, and if, the FDA and corresponding foreign agencies approve our product candidates for marketing. Further, our receipt of revenues from strategic alliances is affected by the level of efforts of our collaborators. Our collaborators may not devote the resources necessary to complete development and commence marketing of a product candidate in their respective territories, or they may not successfully market product candidates. We are substantially dependent upon Schering to commercialize Vasovist, our lead imaging product candidate, in the United States and Europe, and Tyco/Mallinckrodt to manufacture Vasovist. Schering and Tyco/Mallinckrodt currently manufacture imaging agents for other technologies that will compete against Vasovist, and Schering AG will be responsible for setting the price of the product candidate worldwide. Accordingly, Schering AG may not set prices in a manner that maximizes revenues for us. In addition, Bayer AG recently extended an offer to acquire all of the outstanding shares of Schering AG. If the strategy of Bayer AG and Schering AG after the acquisition differs from that of Schering AG's current strategy with respect to the marketing of Vasovist, our expectations regarding the marketing of Vasovist could be negatively impacted which could have a material adverse effect on our imaging business. If Schering AG or any other third-party collaborator were to terminate its agreements with us or any third-party collaborator otherwise fails to perform its obligations under our collaboration or to complete them in a timely manner, we could lose significant revenue.

***Our competitors may develop products that are less expensive, safer or more effective, which may diminish or eliminate the commercial success of any future products that we may commercialize.***

Competition in the pharmaceutical and biotechnology industries is intense and expected to increase. We face competition from pharmaceutical and biotechnology companies, as well as numerous academic and research institutions and governmental agencies engaged in product discovery activities or funding, both in the United States and abroad. Some of these competitors have therapeutic products or are pursuing the development of therapeutic product candidates that target the same diseases and conditions that are the focus of our clinical-stage therapeutic product candidates, including the following:

*PRX-00023.* If approved, PRX-00023, the product candidate we are developing for the treatment of depression, will compete with approved products from such pharmaceutical companies as Forest Laboratories, GlaxoSmithKline, Pfizer and Wyeth, and may compete with several therapeutic product candidates in clinical development from other companies, including Eli Lilly and MediciNova. We believe that there are over 45 therapeutic product candidates in clinical trials or that have been submitted for approval for the treatment of depression.

*PRX-03140.* If approved, PRX-03140, the product candidate we are developing for the treatment of Alzheimer's disease, will compete with approved products from such pharmaceutical companies as Forest Laboratories, Johnson & Johnson, Novartis and Pfizer, and may compete with several therapeutic product candidates in clinical development from other companies, including Myriad Genetics and Neurochem. We believe that there are over 50 therapeutic product candidates in clinical trials for the treatment of Alzheimer's disease.

*PRX-08066.* If approved, PRX-08066, the product candidate we are developing for the treatment of pulmonary hypertension, will compete with approved products from such pharmaceutical companies as Actelion, CoTherix, GlaxoSmithKline, Pfizer and United Therapeutics, and may compete with several therapeutic product candidates in clinical development by other companies such as Encysive Pharmaceuticals and Myogen. We believe that there are approximately ten therapeutic product candidates in clinical trials or that have been submitted for approval for the treatment of pulmonary arterial hypertension and/or pulmonary hypertension associated with chronic obstructive pulmonary disease.

*PRX-07034.* If approved for the treatment of obesity, PRX-07034 will compete with approved products from such pharmaceutical companies as Abbott Laboratories and Roche, and may compete with several therapeutic product candidates in clinical development by other companies, such as Sanofi-Aventis and Arena



Pharmaceuticals. We believe that there are over 30 therapeutic product candidates in clinical trials for the treatment of obesity. If approved for the treatment of cognitive impairment (associated with Alzheimer's disease or schizophrenia), PRX-07034 will compete with approved products from such pharmaceutical companies as Forest Laboratories, Johnson & Johnson, Novartis and Pfizer, and may compete with several therapeutic product candidates in clinical development from other companies, including GlaxoSmithKline and Saegis Pharmaceuticals. We believe that there are over 50 therapeutic product candidates in clinical trials for the treatment of cognitive impairment associated with Alzheimer's disease or schizophrenia.

Many patents covering commercial therapeutic products for these indications will expire within the next four to nine years, which will result in greater competition in these indications resulting from companies producing generic versions of the commercial products. Many of our competitors have therapeutic products that have been approved or are in advanced development and may develop superior technologies or methods to identify and validate therapeutic product targets and to discover novel small-molecule products. Our competitors may also develop alternative therapies that could further limit the market for any therapeutic products that we may develop.

## **Table of Contents**

In addition, there are a number of general use MRI agents approved for marketing in the United States, and in certain foreign markets that, if used or developed for magnetic resonance angiography, are likely to compete with Vasovist. Such products include Magnevist and Gadovist by Schering AG, Dotarem by Guerbet, S.A., Omniscan by GE Healthcare, ProHance and MultiHance by Bracco and OptiMARK by Tyco/Mallinckrodt. We are aware of five agents under clinical development that have been or are being evaluated for use in magnetic resonance angiography: Schering AG's Gadomer and SHU555C, Guerbet's Vistarem, Bracco's B-22956/1, Ferropharm's Code VSOP-C184, and Advanced Magnetics' Ferumoxylol. Moreover, there are several well-established medical imaging methods that currently compete and will continue to compete with MRI, including digital subtraction angiography, which is an improved form of X-ray angiography, computed tomography angiography, nuclear medicine and ultrasound, and there are companies that are actively developing the capabilities of these competing methods to enhance their effectiveness in vascular system imaging.

We cannot assure you that our competitors will not succeed in the future in developing therapeutic or imaging products that are more effective than any that we are developing. We believe that our ability to compete in developing commercial products depends on a number of factors, including the success and timeliness with which we complete FDA trials, the breadth of applications, if any, for which our product candidates receive approval, and the effectiveness, cost, safety and ease of use of our product candidates in comparison to the products of our competitors. In addition, these companies may be more successful than we are in developing, manufacturing and marketing their imaging products. In addition, many of our competitors and their collaborators have substantially greater capital, research and development resources, manufacturing, sales and marketing experience and capabilities. Smaller companies also may prove to be significant competitors, particularly through proprietary research discoveries and collaboration arrangements with large pharmaceutical and established biotechnology companies. Our competitors, either alone or with their collaborators, may succeed in developing products that are more effective, safer, more affordable or more easily administered than our product candidates and may achieve patent protection or commercialize product candidates sooner than us. Any inability to compete successfully on our part will have a materially adverse impact on our business and operating results.

***If the market does not accept our technology and product candidates, we may not generate sufficient revenues to achieve or maintain profitability.***

The commercial success of our product candidates, even if approved for marketing by the FDA and corresponding foreign agencies, depends on their acceptance by the medical community and third-party payors as clinically useful, cost-effective and safe. Market acceptance, and thus sales of our products, will depend on several factors, including:

safety;

cost-effectiveness relative to alternative therapies, methods or products;

availability of third-party reimbursement;

ease of administration;

clinical efficacy; and

availability of competitive products.

If any of our product candidates, when and if commercialized, do not achieve market acceptance, we may not generate sufficient revenues to achieve or maintain profitability.

In addition, market acceptance of our imaging product candidates will also depend on our ability and that of our strategic partners to educate the medical community and third-party payors about the benefits of diagnostic imaging with Vasovist-enhanced magnetic resonance angiography compared to imaging with other technologies. While contrast agents are currently used in an estimated 25% to 35% of all MRI exams, there are no MRI agents approved by the FDA for vascular imaging. Furthermore, clinical use of magnetic resonance angiography has been limited and

use of magnetic resonance angiography for some vascular disease imaging has occurred mainly in research and academic centers. Vasovist represents a new approach to imaging the non-coronary vascular system, and market acceptance both of magnetic resonance angiography as an appropriate imaging technique for the non-coronary vascular system, and of Vasovist, is critical to our success.

***We may not be able to keep up with the rapid technological change in the biotechnology and pharmaceutical industries, which could make any of our future approved therapeutic products obsolete and reduce our revenue.***

Biotechnology and related pharmaceutical technologies have undergone and continue to be subject to rapid and significant change. Our future will depend in large part on our ability to maintain a competitive position with respect to these technologies. We believe that our proprietary therapeutic product discovery technology and approach enables structure-based discovery and optimization of certain GPCR and ion channel-targeted drug candidates. However, our competitors may render our technologies obsolete by advances in existing GPCR and ion channel-targeted drug discovery approaches or the development of new or different approaches. In addition, any future therapeutic products that we develop, including our clinical-stage therapeutic product candidates,

**Table of Contents**

PRX-08066, PRX-00023, PRX-03140 and PRX-07034, may become obsolete before we recover expenses incurred in developing those therapeutic product candidates, which may require that us to raise additional funds to continue our operations.

***We are currently focusing our imaging development efforts primarily on Vasovist and will have limited prospects for successful imaging operations if it does not prove successful.***

Since the merger with Predix, we are focusing our imaging development efforts on our lead imaging product candidate, Vasovist. Accordingly, we have decided to cease work on our research projects related to imaging and are seeking a partner to continue development of EP-2104R. We are no longer allocating resources to any imaging research or clinical programs other than the efforts required to continue to pursue FDA approval of Vasovist. Our efforts may not lead to commercially successful imaging products for a number of reasons, including the inability to be proven safe and effective in clinical trials, the lack of regulatory approvals or obtaining regulatory approvals that are narrower than we seek, inadequate financial resources to complete the development and commercialization of our imaging product candidates or their lack of acceptance in the marketplace.

***Our product candidates require significant biological testing, pre-clinical testing, manufacturing and pharmaceutical development expertise and investment. We rely primarily on external partners to complete these activities.***

We have limited in-house biological and pre-clinical testing capabilities. Therefore, we rely heavily on third parties to perform *in vitro* potency, *in vivo* functional efficacy, animal toxicology and pharmacokinetics testing prior to advancing our product candidates into clinical trials. We also do not have internal expertise to formulate our therapeutic product candidates. In addition, we do not have, nor do we currently have plans to develop, full-scale manufacturing capability for any of our products candidates, including Vasovist. We currently rely solely on Johnson Matthey Pharma Services for our therapeutic product substance manufacturing and testing, and solely on Aptuit, Inc. for our therapeutic product manufacturing and testing. Although we believe that we could replace these suppliers on commercially reasonable terms, if any of these third parties fail to fulfill their obligations to us or do not successfully compete the testing in a timely or acceptable manner, our therapeutic product development efforts could be negatively impacted and/or delayed. We rely on, and we intend to continue to rely on, Tyco/Mallinckrodt as the primary manufacturer of Vasovist for any future human clinical trials and commercial use. Together with Schering AG, we are considering alternative manufacturing arrangements for Vasovist for commercial use, including the transfer of manufacturing to Schering AG. In the event that Tyco/Mallinckrodt fails to fulfill its manufacturing responsibilities satisfactorily, Schering AG has the right to purchase Vasovist from a third party or to manufacture the compound itself. However, either course of action could materially delay the manufacture and development of Vasovist. Schering AG may not be able to find an alternative manufacturer. In addition, Schering AG may not be able to manufacture Vasovist itself in a timely manner or in sufficient quantities. If we experience a delay in manufacturing of Vasovist or any of our product candidates, it could result in a delay in their clinical testing, approval or commercialization and have a material adverse effect on our business, financial condition and results of operations.

**Operational Risks**

***We have never generated positive cash flow, and if we fail to generate revenue, it will have a material adverse effect on our business.***

To date, we have received revenues from payments made under licensing, royalty arrangements and product development and marketing agreements with strategic collaborators. In particular, our revenue for the nine months ended September 30, 2006 was \$4.4 million and consisted of \$2.4 million of product development revenue from Schering AG and CFFT, \$1.3 million of royalty revenue related to the Bracco and Schering AG agreements, and \$0.7 million of license fee revenue related to the Schering, Amgen, Tyco/Mallinckrodt and CFFT strategic collaborations and Bracco agreements. In addition to these sources of revenue, we have financed our operations to date through public stock and debt offerings, private sales of equity securities and equipment lease financings.

Although we believe that we are currently in compliance with the terms of our collaboration and licensing agreements, the revenues derived from them are subject to fluctuation in timing and amount. We may not receive anticipated revenue under our existing collaboration or licensing agreements, these agreements may be subject to disputes and, additionally, these agreements may be terminated upon certain circumstances. Therefore, to achieve

profitable and sustainable operations, we, alone or with others, must successfully develop, obtain regulatory approval for, introduce, market and sell products. We may not receive revenue from the sale of any of our product candidates for the next several years because we, and our partners, may not:

successfully complete our product development efforts;

obtain required regulatory approvals in a timely manner, if at all;

manufacture our product candidates at an acceptable cost and with acceptable quality; or

successfully market any approved products.

**Table of Contents**

As a result, we may never generate revenues from sales of our product candidates and our failure to generate positive cash flow could cause our business to fail.

***We may need to raise additional funds necessary to fund our operations, and if we do not do so, we may not be able to implement our business plan.***

Since inception, we have funded our operations primarily through our public offerings of common stock, private sales of equity securities, debt financing, equipment lease financings, product development revenue, and royalty and license payments from our strategic partners. Although we believe that we have adequate funding to fund our operations through 2007, we may need to raise substantial additional funds for research, development and other expenses through equity or debt financings, strategic alliances or otherwise. Our future liquidity and capital requirements will depend upon numerous factors, including the following:

the progress and scope of clinical trials;

the timing and costs of filing future regulatory submissions;

the timing and costs required to receive both U.S. and foreign governmental approvals;

the cost of filing, prosecuting, defending and enforcing patent claims and other intellectual property rights;

the extent to which our product candidates gain market acceptance;

the timing and costs of product introductions;

the extent of our ongoing and any new research and development programs;

the costs of training physicians to become proficient with the use of our product candidates; and

the costs of developing marketing and distribution capabilities.

Based on our current plans, expense rates, targeted timelines and our view regarding acceptance of Vasovist in the marketplace, we estimate that cash, cash equivalents and marketable securities on hand as of September 30, 2006 will fund our operations through March 31, 2008. If, however, we consider other opportunities, change our planned activities or are required to pay the remaining \$15.0 portion of the milestone payment in connection with the Predix merger to Predix security holders in cash, we will require additional funding before currently expected.

***If we are unable to attract and retain key management and other personnel, it would hurt our ability to compete.***

Our future business and operating results depend in significant part upon our ability to attract and retain qualified directors, senior management and key technical personnel. Michael G. Kauffman, M.D., Ph.D., Andrew C.G. Uprichard, M.D. and Kimberlee C. Drapkin, C.P.A., our Chief Executive Officer, President and Chief Financial Officer, respectively, are expected to play key roles moving forward. There can be no assurance that we will be able to retain Dr. Kauffman, Dr. Uprichard, Ms. Drapkin or any of our other key management and scientific personnel. For example, effective October 23, 2006, Silvia Noiman, our Senior Vice President of Pipeline Management and General Manager Israel, resigned, and Oren Becker, our Chief Scientific Officer, has been appointed to oversee Israeli operations until such time as we can identify a successor. Our inability to attract and retain qualified individuals to these positions and others, the loss of any of our key management and other personnel, or their failure to perform their current positions could have a material adverse effect on our business, financial condition and results of operations, and our ability to achieve our business objectives or to operate or compete in our industry may be seriously impaired. Competition for personnel is intense and we may not be successful in attracting or retaining such personnel. If we were to lose these employees to our competition, we could spend a significant amount of time and resources to replace them, which would impair our research and development or commercialization efforts.

***Gadolinium-based imaging agents, such as Vasovist and EP-2104R, may cause adverse side effects which could limit our ability to receive approval for these product candidates and our ability to effectively market these product candidates, if approved.***

Vasovist and EP-2104R, both MRI contrast drugs, contain gadolinium. In May 2006, the Danish Medicines Agency announced that it was investigating a possible link between the use of Omniscan, an imaging agent containing gadolinium, and the development of a very rare skin disease in 25 patients with severely impaired renal function who had been administered the imaging agent. Although the Danish Medicines Agency stated that a causal relationship between Omniscan and the skin changes had not been documented, they are conducting further investigations with respect to all MRI contrast media containing gadolinium. Although we have reviewed our safety databases for Vasovist and EP-2104R and have found no instances of this rare skin disease, our databases may be too small to show such an effect, if it exists. In the event gadolinium-based imaging agents such as Vasovist and EP-2104R are linked to this very rare skin disease or other unanticipated side effects, such safety concerns could have a material adverse effect on our ability to obtain marketing approval for Vasovist and/or EP-2104R or any such approval for use may be revoked. Any safety concerns could also materially harm our and our partners' ability to successfully market Vasovist and/or EP-2104R.

**Table of Contents*****Our research and development efforts may not result in product candidates appropriate for testing in human clinical trials.***

We have historically spent significant resources on research and development and pre-clinical studies of product candidates. However, these efforts may not result in the development of product candidates appropriate for testing in human clinical trials. For example, our research may result in product candidates that are not expected to be effective in treating diseases or may reveal safety concerns with respect to product candidates. In connection with our recent restructuring, we postponed or terminated several research and development programs, and we may postpone or terminate research and development of a product candidate or a program at any time for any reason such as the safety or effectiveness of the potential product, allocation of resources or unavailability of qualified research and development personnel. The failure to generate high-quality research and development candidates would negatively impact our ability to advance product candidates into human clinical testing and ultimately, negatively impact our ability to market and sell products.

***We rely on third parties to conduct our clinical trials, and those third-parties may not perform satisfactorily, including failing to meet established deadlines for the completion of such trials.***

We do not have the ability to independently conduct clinical trials for our product candidates, and we rely on third parties such as contract research organizations, medical institutions and clinical investigators to enroll qualified patients and conduct our clinical trials. Our reliance on these third parties for clinical development activities reduces our control over these activities. Accordingly, these third-party contractors may not complete activities on schedule, or may not conduct our clinical trials in accordance with regulatory requirements or our trial design. To date, we believe our contract research organizations and other similar entities with which we are working have performed well. However, if these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may be required to replace them. Although we believe that there are other third-party contractors we could engage to continue these activities, it may result in a delay of the affected trial. Accordingly, our efforts to obtain regulatory approvals for and commercialize our product candidates may be delayed.

***If we fail to get adequate levels of reimbursement from third-party payors for our product candidates after they are approved in the United States and abroad, we may have difficulty commercializing our product candidates.***

We believe that reimbursement in the future will be subject to increased restrictions, both in the United States and in foreign markets. We believe that the overall escalating cost of medical products and services has led to, and will continue to lead to, increased pressures on the health care industry, both foreign and domestic, to reduce the cost of products and services, including products offered by us. These third-party payors are increasingly attempting to contain healthcare costs by demanding price discounts or rebates and limiting both coverage on which drugs they will pay for and the amounts that they will pay for new products. As a result, they may not cover or provide adequate payment for our products. We might need to conduct post-marketing studies in order to demonstrate the cost-effectiveness of any future products to such payors' satisfaction. Such studies might require us to commit a significant amount of management time and financial and other resources. Our future products might not ultimately be considered cost-effective. There can be no assurance, in either the United States or foreign markets, that third-party reimbursement will be available or adequate, that current reimbursement amounts will not be decreased in the future or that future legislation, regulation, or reimbursement policies of third-party payors will not otherwise adversely affect the demand for our product candidates or our ability to sell our product candidates on a profitable basis. The unavailability or inadequacy of third-party payor coverage or reimbursement could have a material adverse effect on our business, financial condition and results of operations.

Failure by physicians, hospitals and other users of our product candidate to obtain sufficient reimbursement from third-party payors for the procedures in which our product candidate would be used or adverse changes in governmental and private third-party payors' policies toward reimbursement for such procedures may have a material adverse effect on our ability to market our product candidate and, consequently, it could have an adverse effect on our business, financial condition and results of operations. If we obtain the necessary foreign regulatory approvals, market acceptance of our product candidates in international markets would be dependent, in part, upon the availability of reimbursement within prevailing healthcare payment systems. Reimbursement and healthcare payment systems in international markets vary significantly by country, and include both government sponsored health care and private



insurance. We and our strategic partners intend to seek international reimbursement approvals, although we cannot assure you that any such approvals will be obtained in a timely manner, if at all, and failure to receive international reimbursement approvals could have an adverse effect on market acceptance of our product candidate in the international markets in which such approvals are sought.

We could be adversely affected by changes in reimbursement policies of governmental or private healthcare payors, particularly to the extent any such changes affect reimbursement for procedures in which our product candidates would be used. U.S. and foreign governments continue to propose and pass legislation designed to reduce the cost of healthcare. For example, in some foreign markets, the government controls the pricing of prescription pharmaceuticals. In the United States, we expect that there will continue to be federal and state proposals to implement similar governmental controls. In addition, recent changes in the Medicare program and increasing emphasis on managed care in the United States will continue to put pressure on pharmaceutical product pricing. Cost control initiatives could decrease the price that we would receive for any products in the future, which would limit our revenue and profitability. Accordingly, legislation and regulations affecting the pricing of pharmaceuticals might change before our

**Table of Contents**

product candidates are approved for marketing. Adoption of such legislation could further limit reimbursement for pharmaceuticals.

***We deal with hazardous materials and must comply with environmental laws and regulations, which can be expensive and restrict how we do business.***

The nature of our research and development processes requires the use of hazardous substances and testing on certain laboratory animals. Accordingly, we are subject to extensive federal, state and local laws, rules, regulations and policies governing the use, generation, manufacture, storage, air emission, effluent discharge, handling and disposal of certain materials and wastes as well as the use of and care for laboratory animals. Although we are not currently, nor have we been, the subject of any investigations by a regulatory authority, we cannot assure you that we will not become the subject of any such investigation. Although we believe that our safety procedures for handling and disposing of these materials comply with the standards prescribed by these laws and regulations, we cannot eliminate the risk of accidental contamination or injury from these materials.

In the event of an accident, state or federal authorities may curtail our use of these materials and interrupt our business operations. In addition, we could be liable for any civil damages that result, which may exceed our financial resources and may seriously harm our business. Due to the small amount of hazardous materials that we generate, we have determined that the cost to secure insurance coverage for environmental liability and toxic tort claims far exceeds the benefits. Accordingly, we do not maintain any insurance to cover pollution conditions or other extraordinary or unanticipated events relating to our use and disposal of hazardous materials. Additionally, an accident could damage, or force us to shut down, our operations. In addition, if we develop a manufacturing capacity, we may incur substantial costs to comply with environmental regulations and would be subject to the risk of accidental contamination or injury from the use of hazardous materials in our manufacturing process. Furthermore, current laws could change and new laws could be passed that may force us to change our policies and procedures, an event which could impose significant costs on us.

***Product liability claims could increase our costs and adversely affect our results of operations.***

The clinical testing of our products and the manufacturing and marketing of any approved products may expose us to product liability claims and we may experience material product liability losses in the future. We currently have limited product liability insurance for the use of our approved products and product candidates in clinical research, which is capped at \$10.0 million, but our coverage may not continue to be available on terms acceptable to us or adequate for liabilities we actually incur. We do not have product liability insurance coverage for the commercial sale of our product candidates, but intend to obtain such coverage when and if we commercialize our product candidates. However, we may not be able to obtain adequate additional product liability insurance coverage on acceptable terms, if at all. A successful claim brought against us in excess of available insurance coverage, or any claim or product recall that results in significant adverse publicity against us, may have a material adverse effect on our business and results of operations.

***Political and military instability and other factors may adversely affect our operations in Israel.***

We have significant operations in Israel and regional instability, military conditions, terrorist attacks, security concerns and other factors in Israel may directly affect these operations. Our employees in Israel are primarily computational chemists and are responsible for the computational chemistry for all of our therapeutic discovery stage programs. Accordingly, any disruption in our Israeli operations could adversely affect our ability to advance our therapeutic discovery stage programs into clinical trials. Since the establishment of the State of Israel in 1948, a number of armed conflicts have taken place between Israel and its Arab neighbors. A state of hostility, varying in degree and intensity, has led to security and economic problems for Israel, and in particular since 2000, there has been an increased level of violence between Israel and the Palestinians. Any armed conflicts or political instability in the region could harm our operations in Israel. In addition, many of our employees in Israel are obligated to perform annual military reserve duty, and, in the event of a war, military or other conflict, our employees could be required to serve in the military for extended periods of time. Our operations could be disrupted by the absence for a significant period of time of one or more of our key employees or a significant number of our other employees due to military service. Furthermore, several countries restrict business with Israel and Israeli companies, and these restrictive laws and policies could harm our business.

***We depend on exclusively licensed technology from Ramot at Tel Aviv University Ltd. and the Massachusetts General Hospital and, if we lose either of these licenses, it is unlikely we could obtain such technology elsewhere, which would have a material adverse effect on our business.***

Our proprietary drug discovery technology and approach is in part embodied in technology that we license from Ramot at Tel Aviv University Ltd., the technology transfer company of Tel Aviv University. All of our current clinical-stage therapeutic drug candidates, PRX-00023, PRX-03140, PRX-08066 and PRX-07034, were, at least in part, identified, characterized or developed using the licensed technology. We are required to make various payments to Ramot, as and when rights to any such drug candidates are ever sublicensed or any such drug candidates are commercialized. Because we have an ongoing obligation to pay annual minimum royalties to Ramot and the license expires upon the expiration of such obligation, the license may not expire. The license may,

**Table of Contents**

however, be terminated upon a breach by us or our bankruptcy. In addition, two of our employees, Oren Becker, Chief Scientific Officer, and Sharon Shacham, Vice President, Product Leader, were inventors of the technology that we license from Ramot. We believe that Ramot shares a portion of any royalty income received with the respective inventors and, accordingly, these employees receive a portion of the amounts we pay Ramot. In addition, under the terms of a license agreement that we have with MGH, we are the exclusive licensee to certain imaging technology, which relates to royalties we receive and to Vasovist. The license agreement imposes various commercialization, sublicensing, royalty and other obligations on us. The license agreement expires on a country-by-country basis when the patents covered by the license agreement expire. For example, the patents covered by this license agreement are currently expected to expire in November 2006, although the life of these patents may be extended. One of these patents has been extended through Supplementary Protection Certificates for Primovist through May 2011 in certain European countries. The license agreement does not contain a renewal provision. If we fail to comply with our obligations under either of these license agreements, the respective license could convert from exclusive to nonexclusive, or terminate entirely. It is unlikely that we would be able to obtain the technology licensed under either of these agreements elsewhere. Any such event would also mean that, with respect to our MGH license, we would not receive royalties from Bracco for MultiHance or Schering AG for Primovist and that we or Schering AG could not sell Vasovist and, with respect to our Ramot license, that we would not be able to sublicense or commercialize any of our current clinical-stage therapeutic drug candidate, either of which would have a material adverse effect on our business and our financial condition and results of operations.

**Intellectual Property Risks**

***We depend on patents and other proprietary rights, and if they fail to protect our business, we may not be able to compete effectively.***

The protection of our proprietary technologies is material to our business prospects. We pursue patents for our product candidates in the United States and in other countries where we believe that significant market opportunities exist. We own or have an exclusive license to patents and patent applications on aspects of our core technology as well as many specific applications of this technology. These patents relate to MRI signal generation technology, Vasovist, EP-2104R and our other research projects and include method of use patents. Some of our patents related to Vasovist will expire in 2006. Other patents related to Vasovist will not expire until 2015. Protection for Vasovist manufacturing processes in the United States will not expire until 2017. Patents related to certain methods of using Vasovist will not expire until 2021. A patent related to EP-2104R will not expire until 2022. If all of our pending patent applications issue with claims substantially similar to those currently set forth in such applications, further patent protection for EP-2104R may not expire until 2022. As of October 27, 2006, our patent portfolio included a total of 17 issued U.S. patents, 113 issued foreign patents, one allowed U.S. patent awaiting issuance, and 245 pending patent applications in the U.S. and other countries with claims covering the composition of matter and methods of use for all of our clinical-stage product candidates. We also exclusively license technology embodied in patent applications from Ramot at Tel Aviv University Ltd., the technology transfer company of Tel Aviv University. Physiome Sciences, Inc., a predecessor of Predix, received U.S. Patent 5,947,899, which covers a computational system and method for modeling the heart. This patent expires in 2016. Even though we hold numerous patents and have made numerous patent applications, because the patent positions of pharmaceutical and biopharmaceutical firms, including our patent positions, generally include complex legal and factual questions, our patent positions remain uncertain. For example, because most patent applications are maintained in secrecy for a period after filing, we cannot be certain that the named applicants or inventors of the subject matter covered by our patent applications or patents, whether directly owned or licensed to us, were the first to invent or the first to file patent applications for such inventions. Third parties may oppose, challenge, infringe upon, circumvent or seek to invalidate existing or future patents owned by or licensed to us. A court or other agency with jurisdiction may find our patents invalid, not infringed or unenforceable and we cannot be sure that patents will be granted with respect to any of our pending patent applications or with respect to any patent applications filed by us in the future. Even if we have valid patents, these patents still may not provide sufficient protection against competing products or processes. If we are unable to successfully protect our proprietary methods and technologies, or if our patent applications do not result in issued patents, we may not be able to prevent other companies from practicing our technology and, as a result, our

competitive position may be harmed.

***We may need to initiate lawsuits to protect or enforce our patents and other intellectual property rights, which could result in our incurrence of substantial costs and which could result in the forfeiture of these rights.***

We may need to bring costly and time-consuming litigation against third parties in order to enforce our issued patents, protect our trade secrets and know how, or to determine the enforceability, scope and validity of proprietary rights of others. In addition to being costly and time-consuming, such lawsuits could divert management's attention from other business concerns. These lawsuits could also result in the invalidation or a limitation in the scope of our patents or forfeiture of the rights associated with our patents or pending patent applications. We may not prevail and a court may find damages or award other remedies in favor of an opposing party in any such lawsuits. During the course of these suits, there may be public announcements of the results of hearings, motions and other interim proceedings or developments in the litigation. Securities analysts or investors may perceive these announcements to be negative, which could cause the market price of our stock to decline. In addition, the cost of such litigation could have a material adverse effect on our business and financial condition.

**Table of Contents**

***Other rights and measures that we rely upon to protect our intellectual property may not be adequate to protect our products and services and could reduce our ability to compete in the market.***

In addition to patents, we rely on a combination of trade secrets, copyright and trademark laws, non-disclosure agreements and other contractual provisions and technical measures to protect our intellectual property rights. While we require employees, collaborators, consultants and other third parties to enter into confidentiality and/or non-disclosure agreements, where appropriate, any of the following could still occur:

the agreements may be breached;

we may have inadequate remedies for any breach;

proprietary information could be disclosed to our competitors; or

others may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose such technologies.

If, as a result of the foregoing or otherwise, our intellectual property is disclosed or misappropriated, it would harm our ability to protect our rights and our competitive position. Moreover, several of our management and scientific personnel were formerly associated with other pharmaceutical and biotechnology companies and academic institutions. In some cases, these individuals are conducting research in similar areas with which they were involved prior to joining us. As a result, we, as well as these individuals, could be subject to claims of violation of trade secrets and similar claims.

***Our success will depend partly on our ability to operate without infringing the intellectual property rights of others, and if we are unable to do so, we may not be able to sell our products.***

Our commercial success will depend, to a significant degree, on our ability to operate without infringing upon the patents of others in the United States and abroad. There may be pending or issued patents held by parties not affiliated with us relating to technologies we use in the development or use of certain of our contrast agents. If any judicial or administrative proceeding upholds these or any third-party patents as valid and enforceable, we could be prevented from practicing the subject matter claimed in such patents, or would be required to obtain licenses from the owners of each such patent, or to redesign our product candidates or processes to avoid infringement. For example, in November 2003, we entered into an intellectual property agreement with Dr. Martin R. Prince, an early innovator in the field of magnetic resonance angiography, relating to dynamic magnetic resonance angiography, which involves capturing magnetic resonance angiography images during the limited time, typically 30 to 60 seconds, available for imaging with extracellular agents. Under the terms of the intellectual property agreement, Dr. Prince granted us certain discharges, licenses and releases in connection with the historic and future use of Vasovist by us and agreed not to sue us for intellectual property infringement related to the use of Vasovist. In consideration of Dr. Prince entering into the agreement, we agreed to pay him an upfront fee of \$850,000 and royalties on sales of Vasovist consistent with a non-exclusive early stage academic license and agreed to deliver to him approximately 88,000 shares of our common stock, with a value of approximately \$2.3 million based on the closing price of our common stock on the date of the agreement. In addition, we agreed to supply Dr. Prince with approximately \$140,000 worth of Vasovist annually. This obligation to provide \$140,000 of Vasovist annually to Dr. Prince continues throughout the patent life of Vasovist. If we are unable to obtain a required license on acceptable terms, or are unable to design around these or any third-party patents, we may be unable to sell our products, which would have a material adverse effect on our business.

***If MRI manufacturers are not able to enhance their hardware and software sufficiently, we will not be able to complete development of our contrast agent for the evaluation of cardiac indications.***

Although MRI hardware and software is sufficient for the evaluation of non-coronary vascular disease, which is our initial target indication, we believe that the technology is not as advanced for cardiac applications. Our initial NDA filing for Vasovist is related to non-coronary vascular disease. Based on feasibility studies we completed in 2001, however, the imaging technology available for cardiac applications, including coronary angiography and cardiac perfusion imaging, was not developed to the point where there was clear visualization of the cardiac region due to the

effects of motion from breathing and from the beating of the heart. In 2004, we initiated Phase 2 feasibility trials of Vasovist for cardiac indications using available software and hardware that can be adapted for coronary and cardiac perfusion data acquisition, and preliminary review of the data indicates that we have not resolved the technical issues related to this use of Vasovist. We have collaborated with a number of leading academic institutions and with GE Healthcare, Siemens Medical Systems and Philips Medical Systems to help optimize cardiac imaging with Vasovist. We do not know when, or if, these techniques will enable Vasovist to provide clinically relevant images in cardiac indications. If MRI device manufacturers are not able to enhance their scanners to perform clinically useful cardiac imaging, we will not be able to complete our development activities of Vasovist for that application, thereby reducing the potential market for a product in this area.

**Risks Related to our Securities**

*Our stock price is volatile. It is possible that you may lose all or part of your investment.*

**Table of Contents**

The market prices of the capital stock of medical technology companies have historically been very volatile and the market price of the shares of our common stock fluctuates. The market price of our common stock is affected by numerous factors, including:

- actual or anticipated fluctuations in our operating results;
- announcements of technological innovation or new commercial products by us or our competitors;
- new collaborations entered into by us or our competitors;
- developments with respect to proprietary rights, including patent and litigation matters;
- results of pre-clinical studies and clinical trials;
- the timing of our achievement of regulatory milestones;
- conditions and trends in the pharmaceutical and other technology industries;
- adoption of new accounting standards affecting such industries;
- changes in financial estimates by securities analysts;
- perceptions of the value of corporate transactions; and
- degree of trading liquidity in our common stock and general market conditions.

Since the closing of our merger with Predix and our 1 for 1.5 share reverse stock split on August 16, 2006, the closing price of our common stock ranged from \$7.58 to \$3.80 per share. The last reported closing price for our common stock on November 1, 2006 was \$4.22. Significant declines in the price of our common stock could impede our ability to obtain additional capital, attract and retain qualified employees and reduce the liquidity of our common stock.

In addition, the stock market has from time to time experienced significant price and volume fluctuations that have particularly affected the market prices for the common stock of similarly staged companies. These broad market fluctuations may adversely affect the market price of our common stock. In the past, following periods of volatility in the market price of a particular company's securities, shareholders have often brought class action securities litigation against that company. Such litigation could result in substantial costs and a diversion of management's attention and resources. For example, in January 2005, a securities class action was filed in U.S. District Court for the District of Massachusetts against us and certain of our officers on behalf of persons who purchased our common stock between July 10, 2003 and January 14, 2005. The complaint alleged that we and the other defendants violated the Securities Exchange Act of 1934, as amended, by issuing a series of materially false and misleading statements to the market throughout the class period, which statements had the effect of artificially inflating the market price of our securities. In January 2006, the U.S. District Court for the District of Massachusetts granted our Motion to Dismiss for Failure to Prosecute the shareholder class action lawsuit against us. The dismissal was issued without prejudice after a hearing, which dismissal does not prevent another suit to be brought based on the same claims.

***We significantly increased our leverage as a result of the sale of 3.0% Convertible Senior Notes due 2024, and may be unable to repay, repurchase or redeem these notes if, and when, required.***

In connection with the sale of 3.0% Convertible Senior Notes due 2024, we have incurred indebtedness of \$100.0 million. Our ability to meet our debt service obligations will depend upon our future performance, which will be subject to regulatory approvals and sales of our products, as well as other financial and business factors affecting our operations, many of which are beyond our control. The amount of our indebtedness could, among other things:

- make it difficult for us to make payments on the notes;



make it difficult for us to obtain financing for working capital, acquisitions or other purposes on favorable terms, if at all;

make us more vulnerable to industry downturns and competitive pressures; and

limit our flexibility in planning for, or reacting to changes in, our business.

In addition, although our 3.0% Convertible Senior Notes do not mature until 2024, noteholders may require us to repurchase these notes at par, plus accrued and unpaid interest, on June 15, 2011, 2014 and 2019 and upon certain other designated events under the notes, which include a change of control of us or termination of trading of our common stock on The NASDAQ Global Market. The definition of change in control set forth in the indenture governing the notes does not include certain mergers and similar transactions that are not deemed a change in control. While we believe that our merger with Predix did not constitute a change of control of us under the indenture, we cannot assure you that we will not become obligated to repurchase these notes, in whole or in part, as a result of the merger. Based on the current trading price of our common stock, we anticipate that in such event most, if not all, of the noteholders would tender their notes for repurchase. We may not have enough funds or be able to arrange for additional

**Table of Contents**

financing to repurchase the notes tendered by the holders upon a designated event or otherwise. Any failure to repurchase tendered notes would constitute an event of default under the indenture, which might also constitute a default under the terms of our other debt. If we are required to repurchase or redeem these notes prior to their maturity, whether as a result of the merger or otherwise, the financial position of the combined company would be materially adversely affected and the anticipated benefits of the merger would be significantly diminished.

***Future sales of common stock by our existing stockholders and former security holders of Predix may cause the stock price of our common stock to fall.***

The market price of our common stock could decline as a result of sales by our existing stockholders and former Predix stockholders in the market, or the perception that these sales could occur. These sales might also make it more difficult for us to sell equity securities at an appropriate time and price.

***Certain anti-takeover clauses in our charter and by-laws and in Delaware law may make an acquisition of us more difficult.***

Our restated certificate of incorporation authorizes our board of directors to issue, without stockholder approval, up to 1,000,000 shares of preferred stock with voting, conversion and other rights and preferences that could adversely affect the voting power or other rights of the holders of our common stock. The issuance of preferred stock or of rights to purchase preferred stock could be used to discourage an unsolicited acquisition proposal. In addition, the possible issuance of preferred stock could discourage a proxy contest, make more difficult the acquisition of a substantial block of our common stock or limit the price that investors might be willing to pay for shares of our common stock. Our restated certificate of incorporation provides for staggered terms for the members of our board of directors. A staggered board of directors and certain provisions of our by-laws and of the state of Delaware law applicable to us could delay or make more difficult a merger, tender offer or proxy contest involving us. We are subject to Section 203 of the General Corporation Law of the State of Delaware, which, subject to certain exceptions, restricts certain transactions and business combinations between a corporation and a stockholder owning 15% or more of the corporation's outstanding voting stock for a period of three years from the date the stockholder becomes an interested stockholder. These provisions may have the effect of delaying or preventing a change in control of us without action by the stockholders and, therefore, could adversely affect the price of our stock.

**Table of Contents****BUSINESS****OVERVIEW**

On August 16, 2006, we completed our acquisition of Predix Pharmaceuticals Holdings, Inc. ( Predix ) pursuant to the terms of that certain Agreement and Plan of Merger, dated as of April 3, 2006 as amended on July 10, 2006, by and among us, EPIX Delaware, Inc., our wholly-owned subsidiary, and Predix, as amended. Pursuant to the merger agreement, Predix merged with and into EPIX Delaware, Inc. and became a wholly-owned subsidiary of us. The merger with Predix was primarily a stock transaction valued at approximately \$125 million, including the assumption of net debt at closing. As part of the merger, we also assumed all outstanding options and warrants to purchase capital stock of Predix. The purchase price includes a \$35 million payment to the holders of Predix stock, options and warrants payable in cash, stock or a combination of both based on Predix having achieved a certain strategic milestone. Pursuant to the terms of the merger agreement, \$20 million of the milestone was paid in cash on October 29, 2006. The remaining \$15 million of the milestone payment will be paid in shares of EPIX common stock on October 29, 2007, except to the extent that such shares would exceed 49.99% of outstanding shares immediately after such milestone payment when combined with all shares of EPIX common stock issued in the merger and issuable upon exercise of all Predix options and warrants that we assumed in the merger. In addition, in connection with the merger, we effected a 1-for-1.5 reverse stock split of our outstanding common stock.

Following the merger, EPIX is a biopharmaceutical company focused on discovering, developing and commercializing novel pharmaceutical products through the use of proprietary technologies to better diagnose, treat and manage patients. We have a blood-pool imaging agent (Vasovist ) approved in the European Union, Canada, Iceland, Norway, Switzerland and Australia, and five internally-discovered therapeutic and imaging drug candidates currently in clinical trials. Vasovist is currently marketed in Europe. These drug candidates are targeting conditions such as depression, Alzheimer's disease, cardiovascular disease and obesity. We also have collaborations with leading organizations, including Amgen, Cystic Fibrosis Foundation Therapeutics, and Schering AG (Germany).

The focus of our therapeutic drug discovery and development efforts is on the two classes of drug targets known as G-protein Coupled Receptors (GPCRs) and ion channels. GPCRs and ion channels are classes of proteins embedded in the surface membrane of all cells and are responsible for mediating much of the biological signaling at the cellular level. We believe that our proprietary drug discovery technology and approach addresses many of the inefficiencies associated with traditional GPCR and ion channel-targeted drug discovery. By integrating computer-based, or *in silico*, technology with in-house medicinal chemistry, we believe that we can rapidly identify and optimize highly selective drug candidates. We focus on GPCR and ion channel drug targets whose role in disease has already been demonstrated in clinical trials or in preclinical studies. In each of our four clinical-stage therapeutic programs, we used our drug discovery technology and approach to optimize a lead compound into a clinical drug candidate in less than ten months, synthesizing fewer than 80 compounds per program. We moved each of these drug candidates into clinical trials in less than 18 months from lead identification. We believe our drug discovery technology and approach enables us to efficiently and cost-effectively discover and develop GPCR and ion channel-targeted drugs.

**OUR PRODUCT CANDIDATES**

Through the application of our GPCR and ion channel drug discovery expertise, over the past four years we have created a pipeline of drug candidates designed to address diseases with significant unmet medical needs and commercial potential across a range of therapeutic areas. The following chart summarizes the status of our clinical drug development programs:

**Table of Contents**

***THERAPEUTICS***

**PRX-08066 for Pulmonary Hypertension**

PRX-08066 is a novel, highly selective, small-molecule inhibitor, or antagonist, of a specific GPCR known as 5-HT<sub>2B</sub>. We are developing PRX-08066 for the treatment of two types of pulmonary hypertension: pulmonary arterial hypertension; and pulmonary hypertension associated with chronic obstructive pulmonary disease. Pulmonary hypertension (PH) in general is a serious, often fatal cardiovascular disease characterized by elevation of pulmonary blood pressure and progressive thickening and narrowing of the blood vessels of the lungs, often leading to heart failure.

We initiated a Phase 2 trial of PRX-08066 in pulmonary hypertension associated with chronic obstructive pulmonary disease (COPD) in August 2006. This randomized, double-blind, placebo-controlled Phase 2 trial is expected to enroll approximately 72 patients with PH associated with COPD. The primary endpoint of the trial is to assess the effect of PRX-08066 compared to placebo on systolic pulmonary artery pressure in patients with PH associated with COPD following two weeks of treatment. The trial is also designed to assess the safety and tolerability of PRX-08066 during the course of therapy. We have completed three Phase 1 clinical trials of PRX-08066 in healthy volunteers, including a Phase 1b clinical trial in athletes conditioned to exercise at high altitudes. Results from the Phase 1b trial showed that, compared with placebo, PRX-08066 caused a statistically significant reduction in the increase in systolic pulmonary blood pressure observed during exercise in volunteers breathing low oxygen, compared to placebo. In the two earlier Phase 1 trials as well as the Phase 1b trial, PRX-08066 was well-tolerated, with a half-life of approximately 16 hours, supporting once daily oral dosing. To date, there have been no serious adverse events associated with treatment with PRX-08066.

**PRX-00023 for Depression**

We are currently developing PRX-00023, a novel, highly selective, small-molecule 5-HT<sub>1A</sub> agonist for the treatment of depression. In September 2006 we completed a pivotal Phase 3 clinical trial for the treatment of generalized anxiety disorder with PRX-00023. Results from this trial demonstrated that PRX-00023 did not achieve a statistically significant improvement over placebo for the primary endpoint of efficacy with respect to generalized anxiety disorder at the dose tested (80mg once daily). The trial was statistically powered to evaluate the efficacy of PRX-00023 compared to placebo as measured by the change from baseline in the Hamilton Rating Scale for Anxiety (HAM-A). The HAM-A scale is the accepted standard for the evaluation of anti-anxiety drug activity by the U.S. Food and Drug Administration ( FDA ). Effects of PRX-00023 on symptoms of depression, which was a secondary endpoint of the Phase 3 clinical trial, were assessed using the Montgomery Asberg Depression Rating Scale (MADRS), the FDA-recommended assessment for depression. The data from this trial showed a statistically significant improvement from baseline with PRX-00023 treatment compared to placebo in the MADRS score, indicating that PRX-00023 reduced symptoms of depression present in the patients in this trial. In this Phase 3 trial, PRX-00023 was well tolerated, and the rate of discontinuation due to adverse events was very low (1.4% with PRX-00023 vs. 2.9% with placebo). To date, there have been no serious adverse events associated with treatment in more than 250 subjects who have received PRX-00023.

Based on the Phase 3 trial results, we have discontinued clinical development of PRX-00023 at a dose of 80mg once daily in generalized anxiety disorder. We are currently focusing our development efforts for this drug candidate on depression. We plan to initiate a randomized, blinded Phase 2 clinical trial of PRX-00023 in major depression in the first half of 2007.

**Table of Contents**

The Phase 3 trial was a double-blind, placebo-controlled, multi-center study with approximately 310 patients diagnosed with moderate-to-severe generalized anxiety disorder. Patients with co-morbid depressive symptoms were allowed to enroll in this trial; however, patients with a primary diagnosis of major depression were not enrolled. The trial included 25 sites in the United States. Patients were randomized equally into one of two arms: treatment with PRX-00023; or placebo. The trial protocol was oral dosing with PRX-00023 at 40 mg once daily for the first three days, followed by 80 mg once daily for the remainder of the study. The primary objective was to evaluate the efficacy of PRX-00023 as measured by the change from baseline in the HAM-A scale compared to placebo after eight weeks, with additional evaluations of HAM-A at weeks 2, 4 and 6. The trial was statistically powered to detect an approximately two point difference in the change from baseline in HAM-A score with PRX-00023 treatment vs. placebo. Patients were not permitted to take any other psychiatric medications during the trial.

The preliminary Phase 3 trial data indicate the mean HAM-A score change from baseline to week eight with PRX-00023 treatment was 9.8, compared to a mean HAM-A score change of 8.5 from baseline to week eight with placebo. This result corresponds to a measure of probability, or p-value, of 0.116 ( $p=0.116$ ), which is not statistically significant. A p-value represents the probability that a difference observed between groups during an experiment happened by chance. For example, a p-value of  $p=0.05$  means there is a 5% probability that the result occurred by chance. In general, clinical scientists regard p-values of less than 0.05 to be statistically significant, and p-values greater than 0.05 to be insignificant. On the pre-specified secondary endpoint of change in MADRS, an index of depressive symptoms, there was a highly statistically significant ( $p=0.009$ ) change from baseline to week eight with PRX-00023 treatment compared to placebo. There was also a trend toward improvement in symptoms of depression by week four, but this result did not reach statistical significance ( $p=0.06$ ). Other assessments of drug activity on anxiety and depression (Hospital Anxiety and Depression scale (HADS) and Profile of Mood States scale (POMS)) also showed positive trends in efficacy, with HADS data showing more effect on symptoms of depression than on anxiety; these effects were not statistically significant, however. Patients in the trial with high MADRS scores at baseline (upper half) had a statistically significant improvement on symptoms of depression, as demonstrated by a mean MADRS reduction of 6.3 with PRX-00023 treatment at week 8 compared to a mean MADRS reduction of 3.3 with placebo ( $p=0.041$ ). While these data are preliminary and continue to be analyzed, we believe that they are encouraging regarding the potential efficacy of PRX-00023 for the treatment of major depression.

**PRX-03140 for Alzheimer's disease**

PRX-03140 is a novel, highly selective, small-molecule 5-HT<sub>4</sub> agonist that we are developing for the treatment of Alzheimer's disease. PRX-03140 is being developed to provide improved cognition and to slow Alzheimer's disease progression. We completed a Phase 1b clinical trial in Alzheimer's disease patients with PRX-03140 in September 2005. PRX-03140 was well tolerated in this trial and also in two additional Phase 1 clinical trials in healthy adult and elderly volunteers. In the 14-day Phase 1b clinical trial in patients with mild-to-moderate Alzheimer's disease, treatment with PRX-03140 resulted in changes in brain wave activity in these patients that are consistent with those seen in clinical trials with currently approved drugs for Alzheimer's disease. In several pre-clinical animal models, PRX-03140 enhanced cognition and exhibited trends towards reduced levels of beta amyloid, or Ab, a protein that is believed to be associated with Alzheimer's disease progression. In addition, in a pre-clinical animal model of memory impairment, PRX-03140 demonstrated synergistic activity when combined with two different acetylcholinesterase inhibitors, which are approved by FDA for the treatment of Alzheimer's disease. These results are based on pre-clinical animal studies and a small number of patients in Phase 1 clinical trials and are not necessarily predictive of results in later-stage clinical trials with larger and more diverse patient populations. We expect to initiate a Phase 2 trial of PRX-03140 in combination with an approved drug for Alzheimer's disease (the cholinesterase inhibitor Aricept® (donepezil)) in patients with Alzheimer's disease in the fourth quarter of 2006.

**PRX-07034 for Obesity and Cognitive Impairment**

PRX-07034 is a novel, highly selective, small-molecule antagonist of a specific GPCR known as 5-HT<sub>6</sub>. PRX-07034 is being developed for the treatment of obesity as well as cognitive impairment (associated with Alzheimer's disease or schizophrenia). Pre-clinical animal models of obesity suggest that this drug candidate may reduce both food intake and body weight. In addition, pre-clinical animal models of memory impairment suggest that PRX-07034 may have cognitive-enhancing properties. In October 2006, we initiated a Phase 1 multiple ascending

dose clinical trial to study the safety, tolerability, pharmacokinetics, and pharmacodynamics of PRX-07034 administered once-daily for 28 days in a population of otherwise healthy obese adults with body mass indices (BMI) between 30 and 42 kg/m<sup>2</sup>. Normal BMI is less than 25 kg/m<sup>2</sup>. Preliminary safety and tolerability data from a recently completed single ascending dose Phase 1 trial in healthy adult male and female volunteers indicated that single doses of PRX-07034 were well-tolerated up to 2500 mg, the highest dose tested. In addition, PRX-07034 demonstrated adequate absorption, with drug exposures increasing with increasing doses and a half-life of 14 to 24 hours, which we believe may make PRX-07034 suitable for once-daily oral dosing.

***IMAGING AGENTS***

**Vasovist**

Vasovist is an internally discovered, injectable intravascular contrast agent that is designed to provide improved imaging of the vascular system using magnetic resonance angiography (MRA). Our initial target indication for Vasovist is for use in MRA

**Table of Contents**

imaging of peripheral vascular disease, with a goal of improving the physician's ability to visualize the human vascular system and thereby enhance disease diagnosis and treatment.

Vasovist reversibly binds to the human blood protein albumin, allowing imaging of the blood vessels for approximately an hour after administration. With a single injection, Vasovist enables the capture of three-dimensional images of arteries and veins in the body. Vasovist may make it possible for physicians to detect vascular disease earlier, more safely and less invasively than with X-ray angiography, and for physicians to provide an improved evaluation of potential therapeutic options including percutaneous intervention and vascular surgery.

In October 2005, the European Medicines Agency granted marketing approval of Vasovist for all 25 member states of the European Union. Schering AG, Germany, our partner for Vasovist, began marketing Vasovist in Europe in the second quarter of 2006. Vasovist is currently marketed in the Netherlands, Norway, Sweden, Denmark, United Kingdom, Austria and Germany. In 2006, Vasovist was also approved for marketing in Switzerland, Australia, Iceland, Norway and, most recently, Canada.

In December 2003, we submitted a New Drug Application (NDA) to the FDA for the use of Vasovist in detection of vascular disease. In January 2005, we received an approvable letter from the FDA for Vasovist pending additional clinical trials. In May 2005, we submitted a response to the FDA, which was accepted as a complete response the following month. We received a second approvable letter from the FDA in November 2005. We met with the FDA twice in early 2006 to discuss the approvable letters and the path forward for Vasovist in the United States. After considering the parameters of the additional clinical trials requested by the FDA, we filed a formal appeal with the FDA requesting approval of Vasovist, as well as the use of an advisory committee as part of the appeal process. In August 2006, we received a letter from the FDA denying our formal appeal to approve Vasovist and our request for an advisory committee to review Vasovist. In its response letter, the Office of New Drugs (OND) of the FDA also suggested that if we decide to conduct additional clinical research to support approval, then rather than relying on a blinded re-read of previously submitted data and data from a new clinical trial, a safer course of action would be to conduct two new clinical trials to support the application for approval. We have met with the FDA since receiving the August 2006 response letter and are currently in dialogue with the FDA regarding the path forward for Vasovist in the United States.

***EP-2104R***

We have developed a second targeted contrast agent product candidate, EP-2104R, which is designed to enable the identification of blood clots using MRI. Finding blood clots is of critical medical significance in the evaluation and diagnosis of patients with possible stroke, transient ischemic attack, chest pain, heart attack, irregular heartbeat, deep vein thrombosis and pulmonary embolism. We designed EP-2104R to bind reversibly to fibrin, the dominant protein found in blood clots. In pre-clinical studies, EP-2104R has been shown to enhance the ability of MRI to image clots throughout the vascular system. In 2004, we completed Phase 1 clinical trials of EP-2104R in which it was well-tolerated in healthy volunteers.

EP-2104R entered a Phase 2a clinical trial in April 2005. In July 2005, we announced that we would be amending our Phase 2a proof-of-concept clinical trial protocols for EP-2104R to include additional patient safety monitoring based on a review by the FDA of observations from a 14-day, repeat dose pre-clinical toxicology study. We believe that these observations, which were evident in both treated and untreated test animals, were not related to EP-2104R. We accelerated the enrollment in the Phase 2a trial and completed the trial in the second quarter of 2006. In this study, we have seen encouraging images, which may be indicative of EP-2104R's potential utility for identifying patients at risk of acute thrombotic events, such as stroke and transient ischemic attack. The data from the Phase 2a clinical trial will be presented at the annual meeting of the Radiological Society of North America (RSNA) in November 2006.

Schering AG had an option to license and develop EP-2104R, which, in 2006, it determined not to exercise. We do not intend to conduct additional clinical studies on EP-2104R utilizing internal resources and, accordingly, we are pursuing a collaboration for the continued development of EP-2104R.

**Table of Contents****OUR DRUG DISCOVERY TECHNOLOGY AND APPROACH**

We have developed a novel and proprietary *in silico* protein structure-based approach to GPCR and ion channel-targeted drug discovery that allows us to benefit from the structure-based approach in the absence of experimentally-determined structures for these targets. Our PREDICT technology combines genomic information (the amino acid sequence of the target protein) with physical and chemical properties of the cell membrane environment to determine the most stable 3D structure of a membrane-bound protein. The use of our PREDICT technology to determine a 3D structure of the target protein is the foundation and first step in our novel system of discovery and optimization for GPCR and ion channel-targeted drugs. We maintain our GPCR and ion channel structures as trade secrets, which, when combined with our proprietary software and the know-how required to use the PREDICT technology, we believe creates a strong barrier to entry for our competitors.

Using our proprietary drug discovery technology and approach requires the successive application of the following five steps: (1) using our PREDICT technology to identify the most stable 3D structure of the desired GPCR or ion channel drug target, bypassing the need for X-ray crystallography, (2) analyzing the resulting 3D structure and identifying a potential binding site on the target structure for drug interaction, (3) performing *in silico* screening using the computer to virtually fit more than two million drug-like compounds into this drug site, ensuring that both the shape and chemical properties of the binding site and the compound match, (4) selecting the approximately 100-200 compounds that best match the binding site on the target and testing their activity *in vitro* in the laboratory and (5) identifying the most active and novel chemical compounds, referred to as lead compounds, and then subjecting these lead compounds to an integrated structure-based lead optimization process. The PREDICT-generated 3D structure of the target protein as well as other 3D protein structures (many of which are also generated by PREDICT) and more traditional medicinal chemistry efforts are used to steer lead optimization along the most efficient path, transforming lead compounds into drug candidates expeditiously. Our discovery and optimization process is outlined in the following steps:

**PREDICT-3D *in silico* modeling.** We have developed novel proprietary algorithms which we use in our PREDICT technology to model the 3D structure of targets of interest (GPCRs and ion channel proteins) from their primary amino acid sequence. PREDICT uses algorithms that explore a large number of possible structures of the target and then selects the biologically relevant one. It takes into account specific interactions between the target protein and the membrane, specific interactions within the target protein itself, and addresses the limitations that hamper homology-based modeling of GPCRs and ion channel proteins. The PREDICT software code and many of its algorithms are kept as trade secrets, making it difficult to copy or reverse-engineer. We filed patent applications for PREDICT version 1.0 in 2000. The current version of PREDICT is highly advanced from the original version and includes numerous new algorithms and capabilities. PREDICT bypasses the need for X-ray crystallography structures of the GPCR or ion channel protein target to initiate a structure-based discovery program.

**Virtual libraries.** Our libraries consist of virtual versions of more than two million drug-like compounds which are available for purchase from commercial vendors worldwide. These virtual libraries reduce the need for us to synthesize or purchase, store and maintain tens or hundreds of thousands of actual compounds for the initial screening.

**Rapid *in silico* screening.** The process of *in silico* screening requires the computer to perform trillions of operations in trying to fit numerous drug-like compounds into the binding site of the target protein, matching both shape and chemical properties. We perform high-throughput *in silico* screening with a combination of proprietary and public software to identify compounds that may bind to a target GPCR or ion channel protein.

**Ranking of screening results.** We have developed proprietary algorithms for ranking our *in silico* screening results using internally developed tools, which we believe enables us to select the



100-200 most promising compounds for *in vitro* testing.

**Integrated structure-based lead optimization.** The most promising novel lead compounds, identified *in silico* and shown to have binding affinity and functionality *in vitro*, are optimized into drug candidates using an integrated structure-based approach. This process makes use of the PREDICT 3D structures (of the drug target and related off-target proteins) as well as many other *in silico* tools that we have created to enable efficient structure-based lead optimization, leading to highly selective drug candidates. These tools allow us to overcome challenges frequently encountered during lead optimization, such as selectivity, blood-brain barrier penetration and hERG ion channel binding, in a fraction of the time and cost compared to traditional lead optimization efforts. Using these *in silico* tools, our computational and medicinal chemists are able to select for actual synthesis the most promising subset of suggested compounds for further optimization. In each of our clinical-stage programs, this approach has allowed us to synthesize less than 10% of the compounds than we believe would have been synthesized if we were to follow the traditional methods of lead optimization.

## **STRATEGIC ALLIANCES AND COLLABORATIONS**

### ***Ramot***

Our proprietary drug discovery technology and approach is in part embodied in technology that we license from Ramot at Tel Aviv University Ltd., the technology transfer company of Tel Aviv University. Pursuant to this license, we have exclusive, worldwide rights to certain technology developed at Tel Aviv University to develop, commercialize and sell products for the treatment of diseases

**Table of Contents**

or conditions in humans and animals. The licensed technology, as continually modified, added to and enhanced by us, consists in large part of computer-based models of biological receptors and methods of designing drugs to bind to those receptors.

All of our current clinical-stage therapeutic drug candidates, PRX-00023, PRX-03140, PRX-08066 and PRX-07034, were, at least in part, identified, characterized or developed using the licensed technology, and we would be required to make payments to Ramot, as described below, as and when rights to any such drug candidates are ever sublicensed or any such drug candidates are commercialized. In addition, we have used the licensed technology in all of our preclinical-stage programs, except for our atrial fibrillation program, and would expect to make payments to Ramot if rights to any drug candidates were ever commercialized from any of these programs. Two of our employees, Oren Becker, Chief Scientific Officer, and Sharon Shacham, Vice President, Product Leader, were inventors of the technology that we license from Ramot. We believe that Ramot shares a portion of any royalty income received with the respective inventors and, accordingly, these employees receive a portion of the amounts we pay Ramot.

We paid Ramot an upfront fee of \$40,000 upon the grant of the license. Under the license, we have an obligation to make royalty payments to Ramot on our net sales of products that are identified, characterized or developed through the use of the licensed technology that are either 1.5% or 2.5% of such net sales (depending upon the degree to which the product needed to be modified after being identified, characterized or developed through the use of the licensed technology) and decrease as the volume of sales increases. The royalty obligation for each product expires on a country-by-country basis twelve years after the first commercial sale. There is also an annual minimum royalty payment obligation of \$10,000 per year due beginning December 31, 2005.

We also are required to share between 5% and 10% of the consideration we receive from parties to whom we grant sublicenses of rights in the Ramot technology or sublicenses of rights in products identified, characterized or developed with the use of such technology and between 2% and 4% of consideration we receive from performing services using such technology. As such a sublicense, in connection with our collaborations with Cystic Fibrosis Foundation Therapeutics Incorporated and Amgen Inc., we paid \$212,500 and \$1,000,000, respectively, of the total upfront and milestone payments received to date under these license agreements to Ramot.

The license may be terminated by either party upon a material breach by the other party unless cured within 30 days, in the case of a payment breach, and 90 days in the case of any other breach. The license may also be terminated by either party in connection with the bankruptcy or insolvency of the other party. The license expires upon the expiration of our obligation to make payments to Ramot. Therefore, since we have an ongoing obligation to pay annual minimum royalties to Ramot as described above, the license may not expire and may only terminate upon a breach by, or bankruptcy of, a party.

***Amgen***

On July 31, 2006, we entered into an exclusive license agreement with Amgen Inc. to develop and commercialize products based on our pre-clinical compounds that modulate the S1P1 receptor and compounds and products that may be identified by or acquired by Amgen and that modulate the S1P1 receptor. The S1P1 receptor is a biological receptor that is associated with certain autoimmune diseases, such as rheumatoid arthritis and multiple sclerosis.

Pursuant to the license agreement, we granted Amgen an exclusive worldwide license to our intellectual property and know-how related to the compounds in our S1P1 program that modulate the S1P1 receptor, for the development and commercialization of those compounds and other compounds and products that modulate the S1P1 receptor. Amgen has limited rights to sublicense its rights under the license. In return for the license, Amgen paid us a nonrefundable, up-front payment of \$20 million and royalties based on aggregate annual net sales of all S1P1-receptor-modulating products developed by Amgen under the license agreement. In addition, we may be eligible for up to an aggregate of \$287.5 million of nonrefundable milestone payments that relate to milestones associated with the commencement of clinical trials, regulatory approvals and annual net sales thresholds of the products under the license agreement. These royalty rates and milestone amounts are subject to reduction in the event that, among other things:

Amgen is required to obtain third-party rights to develop and commercialize a product that incorporates an EPIX compound; and

Amgen develops and commercializes products that are not covered by the intellectual property rights we licensed to Amgen, such as for example, S1P1-modulating products that may be acquired by Amgen from a third party.

Generally, Amgen's royalty obligation under the agreement terminates on a product-by-product and country-by-country basis upon the later of (a) the expiration or termination of the last claim within the patents (whether such patents are patents EPIX licensed to Amgen or are patents owned or in-licensed by Amgen) covering such product and (b) ten years following the first commercial sale of the product. The agreement expires when all of Amgen's royalty obligations have terminated.

We have the option to co-promote one product from the collaboration in the United States for one indication to be jointly selected by EPIX and Amgen. During the first 15 months of the agreement, we will design, discover and develop, at our own cost, additional compounds that modulate the S1P1 receptor and that are within the same family of compounds as those identified in our patent applications licensed to Amgen under the agreement. The collaboration agreement provides Amgen with a license to these additional compounds to further its development efforts. We may undertake additional research under the agreement, at our own

**Table of Contents**

expense, as approved by a joint steering committee formed pursuant to the agreement. We have responsibility and control for filing, prosecution or maintenance for any of our patents licensed to Amgen for 24 months or until start of Phase 1 clinical trials for the first product developed under the agreement, at which time, responsibility and control of such patents transfers to Amgen. Amgen has responsibility and control for filing, prosecution or maintenance for all other patents covered by the agreement, including patents jointly developed under the agreement. Amgen will have final decision making authority on all other research matters and will be responsible for non-clinical and clinical development, manufacturing, regulatory activities and commercialization of the compounds and products developed under the license agreement, at its own expense.

The parties each have the right to terminate the agreement (in whole or for specified products or countries, depending upon the circumstances) upon a material uncured breach by the other party and Amgen has the right to terminate the agreement for convenience upon varying periods of at least three months advance notice. Upon a termination of the agreement, depending upon the circumstances, the parties have varying rights and obligations with respect to the grant of continuing license rights, continued commercialization rights and continuing royalty obligations.

***Schering AG***

In June 2000, we entered into a strategic collaboration agreement with Schering AG pursuant to which we granted Schering AG an exclusive license to co-develop and market Vasovist worldwide, excluding Japan. In December 2000, we amended this strategic collaboration agreement to grant to Schering AG the exclusive rights to develop and market Vasovist in Japan. Generally, each party to the agreement will share equally in Vasovist costs and profits in the United States. Under the agreement, we retained responsibility for completing clinical trials and filing for FDA approval in the United States and Schering AG leads clinical and regulatory activities for the product outside the United States. In addition, we granted Schering AG an exclusive option to develop and market an unspecified vascular MRI blood pool agent from our product pipeline. In connection with this strategic collaboration and the amendment to our strategic collaboration agreement with Tyco/ Mallinckrodt, as further described below, Schering AG paid us an up-front fee of \$10.0 million, which we then paid to Tyco/ Mallinckrodt. Under the agreement, Schering AG also paid us \$20.0 million in exchange for shares of our common stock through its affiliate, Schering AG Berlin Venture Corporation, or Schering AG BV. We may receive up to an additional \$28.8 million in milestone payments under the strategic collaboration agreement, of which \$5.5 million has been paid to date and up to an additional \$1.3 million may be earned upon U.S. product approval. We also are entitled to receive a royalty on products sold outside the United States and, if and when Vasovist is launched in the United States, a percentage of Schering AG's operating profit margin on products sold in the United States.

Under the terms of the strategic collaboration agreement with Schering AG, either party may terminate the agreement upon thirty days notice if there is a material breach of the contract. In addition, Schering AG may terminate the agreement at any time on a region-by-region basis or in its entirety, upon six months written notice to us; and we may terminate the agreement with respect to development of Vasovist in the European Union at any time upon 90 days written notice to Schering AG, if Schering AG has failed to meet its obligations in connection with the regulatory approval of Vasovist in the European Union.

In May 2003, we announced a broad alliance with Schering AG for the discovery, development and commercialization of molecularly-targeted contrast agents for MRI. The alliance was composed of two areas of collaboration, with one agreement generally providing for exclusive development and commercialization collaboration for EP-2104R, our product candidate for the detection of thrombus, and the second agreement covering an exclusive research collaboration to discover novel compounds for diagnosing human disease using MRI. Under the first agreement, Schering AG had an option to the late stage development and worldwide marketing rights for EP-2104R. On July 12, 2006, Schering AG notified us that it declined to exercise this option. As a result, we retain commercial rights to EP-2104R. In the event EP-2104R is commercialized, we are obligated to pay Schering AG a minimal royalty limited to a portion of the funding we received for this program from Schering AG. The second agreement related to the broader research collaboration expired in May 2013 but the on-going research jointly pursued under the research collaboration agreement concluded in May 2006. We are currently discussing with Schering AG the winding up of activities and the allocation of rights to intellectual property generated during the research effort.

On May 8, 2000, we granted to Schering AG a worldwide, royalty-bearing license to patents covering Schering AG's development project, Primovist, an MRI contrast agent for imaging the liver, that was approved in the European Union in 2004. Under this agreement, Schering AG is required to pay us royalties based on sales of products covered by this agreement. This agreement expires upon the last-to-expire patent covered by the agreement unless terminated earlier by either party because of the material breach of the agreement by the other party. Also on May 8, 2000, Schering AG granted us a non-exclusive, royalty-bearing license to certain of its Japanese patents. We agreed to withdraw our invalidation claim of Schering AG's Japanese patent 1,932,626 in the Japanese Patent Office pursuant to this license agreement. Under this agreement, we are required to pay Schering AG royalties based on sales of products covered by this agreement. This agreement expires upon the last-to-expire patent covered by the agreement unless terminated earlier by either party because of the material breach of the agreement by the other party.

***Tyco/ Mallinckrodt***

In June 2000, in connection with the exclusive license that we granted to Schering AG under our strategic collaboration agreement, we amended our strategic collaboration with Tyco/ Mallinckrodt. The amendment enabled us to sublicense certain technology from Tyco/ Mallinckrodt to Schering AG which allowed us to enter into the strategic collaboration agreement for Vasovist

**Table of Contents**

with Schering AG. Pursuant to that amendment, we also granted to Tyco/ Mallinckrodt a non-exclusive, worldwide license to manufacture Vasovist for clinical development and commercial use on behalf of Schering AG in accordance with a manufacturing agreement entered into in June 2000 between Tyco/ Mallinckrodt and Schering AG. In connection with this amendment, we paid Tyco/ Mallinckrodt an up-front fee of \$10.0 million and are obligated to pay up to an additional \$5.0 million in milestone payments, of which \$2.5 million was paid following NDA filing in February 2004 and \$2.5 million will be paid upon U.S. product approval. We will also pay Tyco/ Mallinckrodt a share of our Vasovist operating profit margins in the United States and a percentage of the royalty that we receive from Schering AG on Vasovist gross profits outside the United States.

***Massachusetts General Hospital***

In July 1995, we entered into a license agreement with MGH pursuant to which MGH granted us an exclusive worldwide license to patents and patent applications which relate to Vasovist. The MGH license imposed certain due diligence obligations with respect to the development of products covered by the license, all of which have been fulfilled to date. The MGH license requires us to pay royalties on the net sales of products covered by this license, including Primovist, MultiHance and Vasovist. We have paid MGH approximately \$500,000 in royalty payments, primarily related to the sale of Primovist and MultiHance, through the third quarter of 2006 under this license agreement. The license agreement expires on a country-by-country basis when the patents covered by the license agreement expire. For example, the patents covered by this license agreement are currently expected to expire in November 2006, although the life of these patents may be extended. The license agreement does not contain a renewal provision. We believe that the expiration of these patents does not compromise our proprietary position with respect to Vasovist because Vasovist is covered by composition of matter patents independent of our license with MGH. These composition of matter patents extend into 2015 in the United States, although the life of these patents may be extended.

***Prince***

In November 2003, we entered into an intellectual property agreement with Dr. Martin R. Prince, an early innovator in the field of magnetic resonance angiography relating to dynamic magnetic resonance angiography, which involves capturing magnetic resonance angiography images during the limited time, typically 30 to 60 seconds, available for imaging with extracellular agents. Under the terms of the intellectual property agreement, Dr. Prince granted us certain discharges, licenses and releases in connection with the historic and future use of Vasovist by us and agreed not to sue us for intellectual property infringement related to the use of Vasovist. In consideration of Dr. Prince entering into the agreement, we agreed to pay him an upfront fee of \$850,000 and royalties on sales of Vasovist consistent with a non-exclusive early stage academic license and agreed to deliver to him 132,000 shares of our common stock with a value of approximately \$2.3 million based on the closing price of our common stock on the date of the agreement. In addition, we agreed to supply Dr. Prince with approximately \$140,000 worth of Vasovist per year during the term of the agreement. The agreement expires upon the expiration of the last patent under the agreement. The agreement is subject to termination by either party upon the incurred material breach of the agreement by the other party.

***Cystic Fibrosis Foundation Therapeutics Incorporated***

In March 2005, Predix entered into a research, development and commercialization agreement with Cystic Fibrosis Foundation Therapeutics Incorporated, or CFFT, the drug discovery and development affiliate of the Cystic Fibrosis Foundation. In August 2006, we expanded the research, development and commercialization agreement with CFFT. Under the terms of the amended agreement, we may be eligible for up to an additional \$3.5 million in research funding and milestone payments, bringing the total value of our research collaboration with CFFT to \$16 million.

Through September 30, 2006, we have received approximately \$7.6 million from CFFT under this agreement, consisting of a \$2.0 million upfront payment, approximately \$3.4 million of reimbursed research and development costs and milestone payments totaling approximately \$2.2 million. The milestone payments, which were earned in July and August 2006, relate to the first development program described below. Including the payments already received, we may receive up to an aggregate of \$16.0 million from CFFT under this agreement. The agreement involves two development programs as follows:

The first program is focused on correcting a malfunction of the Cystic Fibrosis Transmembrane conductance Regulator, or CFTR, ion channel protein. We are using our proprietary structure-based technologies to model the structure of this ion channel protein target and identify binding sites in the channel for therapeutic intervention. Once these sites are identified, we aim to use our drug discovery capabilities to discover a drug that restores proper functionality to the channel in patients with cystic fibrosis. If the preliminary program is successful, we and CFFT have agreed to negotiate towards a follow-on agreement under which we will explore a structure-based approach for the discovery and commercialization of a drug that will target CFTR, with the financial support of CFFT and subject to a royalty payable to CFFT.

The second program is focused on the discovery of a small-molecule agonist to the G-Protein Coupled Receptor known as P2Y(2), which plays a role in cystic fibrosis, using our proprietary structure-based drug design system. We retain the right to develop and commercialize any drug candidates discovered through this second program, and are obligated to make aggregate royalty payments of up to \$15 million to CFFT for the first drug candidate that reaches particular regulatory and sales milestones.

## Table of Contents

The agreement expires with respect to the first program on August 2, 2009 and with respect to the second program on March 7, 2007, unless extended by the parties or terminated by either party beforehand. CFFT may terminate either or both programs without cause upon 120 days notice or if we suspend or discontinue our business. Either party may terminate the agreement for an uncured material breach.

## **COMPETITION**

We face, and will continue to face, intense competition from pharmaceutical and biotechnology companies, as well as numerous academic and research institutions and governmental agencies engaged in drug discovery activities or funding, both in the United States and abroad. Some of these competitors are pursuing the development of product candidates that target the same indications that we are targeting for our clinical and pre-clinical programs. Even if we and our collaborators are successful in developing our clinical-stage candidates, the resulting products will compete with a variety of established products.

Significant competitors in the area of GPCR-focused drug discovery include Arena Pharmaceuticals, Acadia Pharmaceuticals and 7TM Pharma, and for ion channels our competitors include Icagen, Cardiome and Vertex Pharmaceuticals. In addition, most large pharmaceutical companies have drug discovery programs that target GPCRs and ion channels.

Many of our competitors have significantly greater financial, manufacturing, marketing and product development experience and resources than we do. These companies also have significantly greater research and development capabilities than we do, and have significantly greater experience than we do in preclinical and clinical trials of potential pharmaceutical products, and in obtaining FDA and other regulatory clearances. Our commercial opportunity will be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer side effects or are less expensive than any products that we may develop.

If our six clinical-stage drug candidates are approved, they will compete with currently approved drugs and potentially with drug candidates currently in development for the same indications, including the following:

**PRX-08066.** If approved, PRX-08066, the drug candidate we are developing for the treatment of pulmonary arterial hypertension (PAH), will compete with approved products from such pharmaceutical companies as Actelion, CoTherix, GlaxoSmithKline, Pfizer and United Therapeutics, and may compete with drug candidates in clinical development by other companies, such as Encysive Pharmaceuticals and Myogen.

**PRX-00023.** If approved, PRX-00023, the drug candidate we are developing for the treatment of depression, will compete with approved products from such pharmaceutical companies as Forest Laboratories, GlaxoSmithKline, Pfizer and Wyeth, and may compete with drug candidates in clinical development from other companies, including Sanofi-Aventis and Fabre-Kramer.

**PRX-03140.** If approved, PRX-03140, the drug candidate we are developing for the treatment of Alzheimer's disease, will compete with approved products from such pharmaceutical companies as Forest Laboratories, Johnson & Johnson, Novartis and Pfizer, and may compete with drug candidates in clinical development from other companies, including Myriad Genetics and Neurochem Inc.

**PRX-07034.** If approved for the treatment of obesity, PRX-07034 will compete with approved products from such pharmaceutical companies as Abbott Laboratories and Roche, and may compete with several therapeutic product candidates in clinical development by other companies, such as Sanofi-Aventis and Arena Pharmaceuticals. If approved for the treatment of cognitive impairment (associated with Alzheimer's disease or schizophrenia), PRX-07034 will compete with approved products from such pharmaceutical companies as Forest Laboratories, Johnson & Johnson, Novartis and Pfizer, and may compete with several therapeutic product candidates in clinical development from other companies, including GlaxoSmithKline and Saegis Pharmaceuticals.

**Vasovist and EP-2104R.** There are a number of general use MRI agents approved for marketing in the United States and in certain foreign markets that, if used or developed for MR angiography, are likely to compete with



Vasovist. Such products include Magnevist® and Gadovist® by Schering AG, Dotarem® by Guerbet, S.A., Omniscan® by GE Healthcare, ProHance® and MultiHance® by Bracco and OptiMARK® by Tyco/Mallinckrodt. We are aware of five agents under clinical development that have been or are being evaluated for use in MRA: Schering AG's Gadomer and SHU555C, Guerbet's Vistar®, Bracco's B-22956/1, Ferropharm's Code VSOP-C184, and Advanced Magnetix's Ferumoxylol. We are aware of no MRI contrast agent other than EP-2104R being developed for use in imaging blood clots. In addition to competition within the MRI field, we also face competition from other imaging technologies, including CT scans, ultrasounds, and X-ray scans. Our success will depend on physician acceptance of MRI as a primary imaging modality for certain vascular and other applications.

**Table of Contents****MARKETING, SALES AND DISTRIBUTION**

We currently have no marketing, sales or distribution capabilities. To commercialize any of our drug candidates or imaging products, we must develop these capabilities internally or through collaboration with pharmaceutical or biotechnology companies. In selected indications where we believe that our products can be commercialized by a specialty sales force that calls on a limited but focused group of physicians, we may commercialize our products in the United States. For example, we believe that pulmonary specialists who treat pulmonary hypertension, and the centers in which they practice, are sufficiently concentrated to enable us to effectively promote PRX-08066, if approved by the FDA, to this market in the United States with a small internal sales force. In therapeutic or diagnostic areas that require a large sales force selling to a large and diverse prescribing population and for markets outside of the United States, we plan to establish collaborations with pharmaceutical or biotechnology companies for commercialization of our drug candidates.

**MANUFACTURING**

We outsource and plan to continue to outsource manufacturing responsibilities to third parties for our existing and future drug candidates for clinical development and commercial purposes. Schering AG is responsible for the manufacture of Vasovist. Schering AG relies on Tyco/ Mallinckrodt as the sole manufacturer of Vasovist for human clinical trials and commercial use. Together with Schering AG, EPIX is considering alternative manufacturing arrangements for Vasovist for commercial use, including the transfer of manufacturing to Schering AG. In the event that Tyco/ Mallinckrodt fails to fulfill its manufacturing responsibilities satisfactorily, Schering AG has the right to purchase Vasovist from a third party or to manufacture the compound itself. In addition, we currently rely on Aptuit, Inc. for our therapeutic drug product manufacturing and testing, and on Johnson Matthey Pharma Services for the manufacture and testing of our active therapeutic pharmaceutical ingredients. Our agreements with these suppliers generally operate on a work order basis, with no minimum purchase requirements and are generally terminable by us upon 60 days and 90 days prior written notice, respectively. Small amounts of material used for pre-clinical research and development purposes are synthesized in-house. The production of our drug candidates PRX-00023, PRX-03140, PRX-08066 and PRX-07034 uses small-molecule synthetic organic chemistry procedures that are standard in the pharmaceutical industry. We are currently working with our contract manufacturers to produce sufficient quantities of the active pharmaceutical ingredient and drug product in each of our programs for our planned clinical trials in 2006. If one of our manufacturers for our therapeutic product candidates should become unavailable to it for any reason, we believe that there are a number of potential replacements as our processes are not manufacturer-specific, though we may incur some added cost and delay in identifying or qualifying such replacements, including delays associated with the need for FDA review and approval of the new manufacturer, as well as those associated with the new manufacturer's ability to establish the manufacturing process.

PRX-00023, PRX-03140, PRX-08066 and PRX-07034 are manufactured in a straightforward synthetic process from readily available starting materials. There are no complicated chemistries or unusual equipment required in the manufacturing process of these drug candidates.

PRX-00023, PRX-03140, PRX-08066 and PRX-07034 are all currently administered as unformulated drug products. A commercially viable formulation will need to be developed, manufactured and certified for each of these drug candidates. The final commercial formulation may not prove to be bioequivalent to the current formulation. This may result in the need to initiate additional clinical trials to define new dosing regimens. Furthermore, the development and implementation of a new formulation and commercial process for cGMP manufacturing may add significant delays to additional clinical trials, regulatory filings and commercial launch.

**GOVERNMENT REGULATION AND PRODUCT APPROVAL**

The FDA and comparable regulatory agencies in state and local jurisdictions and in foreign countries impose substantial requirements upon the clinical development, manufacture and marketing of pharmaceutical products. These agencies and other federal, state and local entities regulate, among other things, the testing, manufacture, quality control, safety, effectiveness, labeling, storage, record keeping, advertising and promotion of our products. Failure to comply with regulatory requirements may result in criminal prosecution, civil penalties, recall or seizure of products, total or partial suspension of production or injunction, as well as other actions that could affect our product candidates or us. Any failure to comply with regulatory requirements, to obtain and maintain regulatory approvals, or

any delay in obtaining regulatory approvals could materially adversely affect our business.

The process required by the FDA before drugs may be marketed in the U.S. generally involves the following: preclinical laboratory and animal studies;

submission of an investigational new drug application, or IND, which must become effective before human clinical trials may begin;

adequate and well-controlled human clinical trials to establish the safety and efficacy of the proposed drug for its intended use; and

FDA approval of a new drug application, or NDA.

The testing and approval process requires substantial time, effort and financial resources, and we cannot be certain that any

## **Table of Contents**

approvals for any of our drug candidates will be granted on a timely basis, if at all.

Once a pharmaceutical candidate is identified for development it enters the preclinical testing stage. During preclinical studies, laboratory and animal studies are conducted to show biological activity of the drug candidate in animals, both healthy and with the targeted disease. Also, preclinical tests evaluate the safety of drug candidates. Preclinical tests must be conducted in compliance with good laboratory practice regulations. In some cases, long-term preclinical studies are conducted while clinical studies are ongoing.

Prior to commencing a clinical trial, we must submit an IND to the FDA. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, raises concerns or questions about the conduct of the trial. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. Our submission of an IND may not result in FDA authorization to commence a clinical trial. All clinical trials must be conducted under the supervision of one or more qualified investigators in accordance with good clinical practice regulations. These regulations include the requirement that all subjects provide informed consent. Further, an institutional review board, or IRB, at each institution participating in the clinical trial must review and approve the plan for any clinical trial before it commences at that institution. Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and more frequently if adverse events or other certain types of other changes occur.

Human clinical trials are typically conducted in three sequential phases that may overlap:

Phase 1: The drug is initially introduced into healthy human subjects or patients with the disease and tested for safety, dosage tolerance, absorption, metabolism, distribution and excretion.

Phase 2: Involves studies in a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage.

Phase 3: Clinical trials are undertaken to further evaluate dosage, clinical efficacy and safety in an expanded patient population at geographically dispersed clinical study sites. These studies are intended to establish the overall risk-benefit ratio of the product and provide, if appropriate, an adequate basis for product labeling.

In the case of some products for severe or life-threatening diseases, especially when the product may be too inherently toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients. Because these patients already have the target disease, these studies may provide initial evidence of efficacy traditionally obtained in Phase 2 clinical trials, and thus these trials are frequently referred to as Phase 1/2 clinical trials.

The FDA or an IRB or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk.

Concurrent with clinical trials and preclinical studies, companies also must develop information about the chemistry and physical characteristics of the drug and finalize a process for manufacturing the product in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product candidate and the manufacturer must develop methods for testing the quality, purity and potency of the final drugs. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the product candidate does not undergo unacceptable deterioration over its shelf-life.

A sponsor of an IND may request that the FDA evaluate within 45 days certain protocols and issues relating to the protocols. Such Special Protocol Assessments, or SPAs, may be requested for clinical protocols for Phase 3 clinical trials whose data will form the primary basis for an efficacy claim if the trials had been the subject of discussion at an end-of-Phase 2/ pre-Phase 3 meeting. If the sponsor and the FDA reach a written agreement regarding the protocol, the SPAs will be considered binding on the FDA and will not be changed unless the sponsor fails to follow the agreed-upon protocol, data supporting the request are found to be false or incomplete, or the FDA determines that a substantial scientific issue essential to determining the safety or effectiveness of the drug was identified after the testing began. Even if a SPA is agreed to, approval of the NDA is not guaranteed since a final determination that an agreed-upon protocol satisfies a specific objective, such as the demonstration of efficacy, or

supports an approval decision, will be based on a complete review of all the data in the NDA.

The results of product development, preclinical studies and clinical studies, along with descriptions of the manufacturing process, analytical tests conducted on the chemistry of the drug, results of chemical studies and other relevant information are submitted to the FDA as part of an NDA requesting approval to market the product. The FDA reviews all NDAs submitted before it accepts them for filing. It may request additional information rather than accept an NDA for filing. In this event, the NDA must be resubmitted with the additional information. The resubmitted application also is subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth review of the NDA. The submission of an NDA is subject to the payment of user fees, but a waiver of such fees may be obtained under certain circumstances. The FDA may refuse to approve an NDA if the applicable regulatory criteria are not satisfied or may require additional clinical or other data. Even if such data is submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval. Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory standards is not maintained or if problems occur after the product

**Table of Contents**

reaches the market. In addition, the FDA may require testing and surveillance programs to monitor the effect of approved products that have been commercialized, and the FDA has the power to prevent or limit further marketing of a product based on the results of these post-marketing programs.

The FDA has various programs, including fast track, priority review and accelerated approval, that are intended to expedite or simplify the process for reviewing drugs and/or provide for approval on the basis of surrogate endpoints. Generally, drugs that may be eligible for these programs are those for serious or life-threatening conditions, those with the potential to address unmet medical needs, and those that offer meaningful benefits over existing treatments. For example, priority review applies to new drugs that have the potential for providing significant improvements compared to marketed products in the treatment or prevention of a disease. Although priority review does not affect the standards for approval, FDA will attempt to expedite review of the application for a drug designated for priority review. We do not know whether our drugs will be eligible for, or whether we will apply for, any of these programs. Even if a drug qualifies for one or more of these programs, we cannot be sure that the time period for FDA review will be shortened.

Satisfaction of FDA requirements or similar requirements of state, local and foreign regulatory agencies typically takes at least several years and the actual time required may vary substantially, based upon, among other things, the type, complexity and novelty of the product or disease. Government regulation may delay or prevent marketing of potential products for a considerable period of time and impose costly procedures upon our activities. Success in early-stage clinical trials does not assure success in later-stage clinical trials. Data obtained from clinical activities are not always conclusive and may be susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. Even if a product receives regulatory approval, the approval may be significantly limited to specific diseases and dosages. Further, even after regulatory approval is obtained, later discovery of previously unknown problems with a product may result in restrictions on the product or even complete withdrawal of the product from the market. Delays in obtaining, or failures to obtain regulatory approvals for any drug candidate could substantially harm our business and cause our stock price to drop significantly. In addition, we cannot predict what adverse governmental regulations may arise from future U.S. or foreign governmental action.

Any drug products manufactured or distributed by us pursuant to FDA approvals are subject to continuing regulation by the FDA, including, among other things, record-keeping requirements, reporting of adverse experiences with the drug, drug sampling and distribution requirements, notifying the FDA and gaining its approval of certain manufacturing or labeling changes, complying with certain electronic records and signature requirements and complying with FDA promotion and advertising requirements. Drug manufacturers and their subcontractors are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP, which impose certain procedural and documentation requirements upon us and our contract manufacturers. We cannot be certain that we or our present or future suppliers will be able to comply with the pharmaceutical cGMP regulations and other FDA regulatory requirements.

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

Under the Orphan Drug Act, the FDA may grant orphan drug designation to drugs intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the U.S. Orphan drug designation must be requested before submitting an NDA. After the FDA grants orphan drug designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation does not convey any advantage in or shorten the duration of the regulatory review and approval process. If a product that has orphan drug designation subsequently receives FDA approval for the disease for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other applications to market the same drug for the same indication, except in very limited circumstances, for seven years. Orphan drug exclusivity, however, also could block the approval of our product for seven years if a competitor obtains approval of the same drug as defined by the FDA or if our product is determined to

be contained within the competitor's product for the same indication or disease. We intend to file for orphan drug designation for those diseases that meet the criteria for orphan designation, including for PRX-08066 for the treatment of pulmonary hypertension. There is no guarantee that we will be awarded orphan exclusivity for PRX-08066 or for any other products or indications. In addition, obtaining FDA approval to market a product with orphan drug exclusivity may not provide us with a material commercial advantage.

The FDA Modernization Act of 1997 included a pediatric exclusivity provision that was extended by the Best Pharmaceuticals for Children Act of 2002. Pediatric exclusivity is designed to provide an incentive to manufacturers for conducting research about the safety of their products in children.

Pediatric exclusivity, if granted, provides an additional six months of market exclusivity in the U.S. for new or currently marketed drugs. Under Section 505a of the Federal Food, Drug and Cosmetic Act, six months of market exclusivity may be granted in exchange for the voluntary completion of pediatric studies in accordance with an FDA-issued Written Request. The FDA may issue a Written Request for studies on unapproved or approved indications, where it determines that information relating to the use of a drug in a pediatric population, or part of the pediatric population, may produce health benefits in that population. We have not requested or received a Written Request for such pediatric studies, although we may ask the FDA to issue a Written Request for such studies in the future. To receive the six-month pediatric market exclusivity, we would have to receive a Written Request from the

## **Table of Contents**

FDA, conduct the requested studies and submit reports of the studies in accordance with a written agreement with the FDA or, if there is no written agreement, in accordance with commonly accepted scientific principles. There is no guarantee that the FDA will issue a Written Request for such studies or accept the reports of the studies. The current pediatric exclusivity provision is scheduled to end on October 1, 2007 and it may not be reauthorized.

### **Reimbursement**

Sales of our product candidates depend in significant part on the availability of third-party reimbursement. We anticipate third-party payors will provide reimbursement for our therapeutic and imaging products. It is time consuming and expensive for us to seek reimbursement from third-party payors. Reimbursement may not be available or sufficient to allow us to sell our products on a competitive and profitable basis.

The passage of the Medicare Prescription Drug and Modernization Act of 2003, or the MMA, imposes new requirements for the distribution and pricing of prescription drugs for Medicare beneficiaries, which may affect the marketing of our products. The MMA also introduced a new reimbursement methodology, part of which went into effect in 2004. At this point, it is not clear what effect the MMA will have on the prices paid for currently approved drugs and the pricing options for new drugs approved after January 1, 2006. Moreover, while the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own payment rates. Any reduction in payment that results from the MMA may result in a similar reduction in payments from non-governmental payors.

In addition, in some foreign countries, the proposed pricing for a product candidate must be approved before it may be lawfully marketed. The requirements governing pricing vary widely from country to country. For example, the European Union provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A member state may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market.

We expect that there will continue to be a number of federal and state proposals to implement governmental pricing controls. While we cannot predict whether such legislative or regulatory proposals will be adopted, the adoption of such proposals could have a material adverse effect on our business, financial condition and profitability.

### **INTELLECTUAL PROPERTY**

We actively seek to protect the proprietary technology that we consider important to our business, including chemical species, compositions and formulations, their methods of use and processes for their manufacture, as new intellectual property is developed. In addition to seeking patent protection in the United States, we plan to selectively file patent applications in certain additional foreign countries in order to further protect the inventions that we consider important to the development of our foreign business. We also rely upon trade secrets and contracts to protect our proprietary information.

As of October 27, 2006, our patent portfolio included a total of 17 issued U.S. patents, 113 issued foreign patents, one allowed U.S. patent awaiting issuance and 245 pending patent applications in the United States and other countries with claims covering the composition of matter and methods of use for all of our clinical-stage candidates. We also exclusively license technology embodied in patent applications from Ramot at Tel Aviv University Ltd., the technology transfer company of Tel Aviv University. In addition to patents, we rely where necessary upon unpatented trade secrets and know-how and continuing technological innovation to develop and maintain our competitive position. We seek to protect our proprietary information, in part, using confidentiality agreements with our collaborators, employees and consultants and invention assignment agreements with our employees. These agreements may be breached, and we may not have adequate remedies for any breach. In addition, our trade secrets may otherwise become known or be independently discovered by competitors. To the extent that our collaborators, employees and consultants use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions.

### **EMPLOYEES**

We believe that our success will depend greatly on our ability to identify, attract and retain capable employees. As of October 25, 2006, we had 92 full time employees, including a total of 50 employees who hold M.D. or Ph.D. degrees, 64 of our employees are primarily engaged in research and development activities, and 23 are primarily



engaged in general and administrative activities. Our employees are not represented by any collective bargaining unit, and we believe our relations with our employees are good.

**PROPERTIES**

Our operations are based primarily in Lexington, Massachusetts, which is located 25 minutes northwest of Boston, Massachusetts. We currently lease and occupy the following properties:

<b>Location</b>	<b>Approximate square feet</b>	<b>Use</b>	<b>Lease expiration date</b>
4 Maguire Road, Lexington, Massachusetts	57,303	Office & Laboratory	October 15, 2013
3 Hayetzira Street, Ramat Gan, Israel	6,458	Office & Laboratory	October 14, 2007
Rogers Street, Cambridge, MA	23,921	Laboratory	December 31, 2007

---

**Table of Contents**

We believe that these facilities are adequate to meet our current needs. We believe that if additional space is needed in the future, such space will be available on commercially reasonable terms as needed.

In addition, we also lease approximately 25,338 square feet of space in Princeton, New Jersey under a lease that expires on July 1, 2011. We sublease all of this space to a single tenant under a sublease that expires on June 30, 2011.

**LEGAL PROCEEDINGS**

Currently, we are not a party to any material legal proceedings.

**Table of Contents****MANAGEMENT****Executive Officers and Directors**

Set forth below is the name, age, position and a brief account of the business experience of each of our executive officers and directors:

<b>Name</b>	<b>Age</b>	<b>Position</b>
Michael G. Kauffman, M.D., Ph.D.	42	Chief Executive Officer and Director
Andrew C.G. Uprichard, M.D.	49	President
Kimberlee C. Drapkin, CPA	38	Chief Financial Officer
Oren Becker, Ph.D.	46	Chief Scientific Officer
Chen Schor, CPA	34	Chief Business Officer
Christopher F.O. Gabrieli	46	Chairman of the Board
Patrick J. Fortune, Ph.D.	59	Director
Frederick Frank	73	Director
Michael Gilman, Ph.D.	51	Director
Mark Leuchtenberger	50	Director
Robert J. Perez	42	Director
Gregory D. Phelps	57	Director
Ian F. Smith, CPA, ACA	39	Director

*Michael G. Kauffman, M.D., Ph.D.* has served as our Chief Executive Officer and as a member of the our board of directors since the closing of the our merger with Predix on August 16, 2006. Dr. Kauffman served as Predix's President and Chief Executive Officer and as a member of Predix's board of directors from August 2003 through August 2006. From September 2002 until August 2003, Dr. Kauffman served as President and Chief Executive Officer of Predix Pharmaceuticals, Inc., the wholly-owned U.S. subsidiary of Predix Pharmaceuticals Ltd., an Israeli corporation that Predix acquired in August 2003. From March 2000 to September 2002, Dr. Kauffman served as Vice President, Medicine, and Proteasome Inhibitor (Velcade) Program Leader at Millennium Pharmaceuticals Inc. Dr. Kauffman held senior positions at Millennium Predictive Medicine, Inc., as cofounder and Vice President of Medicine from September 1997 to February 2000. From September 1995 to September 1997, Dr. Kauffman served as Medical Director at Biogen Corporation (now Biogen Idec). He currently serves on the board of directors of Bioenvision, Inc., a publicly traded biopharmaceutical company, CombinatoRx, Inc., a publicly traded biopharmaceutical company. Dr. Kauffman received his M.D. and Ph.D. (Molecular Biology and Biochemistry) at Johns Hopkins and his postdoctoral training at Harvard University. He received his B.A. in Biochemistry summa cum laude from Amherst College and is board certified in Internal Medicine.

*Andrew C.G. Uprichard, M.D.* joined EPIX in July 2004 and currently serves as our President. Prior to the merger with Predix, Dr. Uprichard served as our President and Chief Operating Officer. Dr. Uprichard has an extensive background in discovery research and development in the biopharmaceutical industry. Prior to joining EPIX, Dr. Uprichard served as Chief Operating Officer at ArQule, Inc. from 2002 to 2003 and at Curis, Inc. from 2000 to 2002. For the preceding 11 years, Dr. Uprichard held numerous management positions at Parke-Davis/Warner-Lambert (now part of Pfizer) in pharmaceutical research, where his experience spanning drug discovery, pre-clinical and clinical development included the oversight of a number of IND and NDA filings. From 1997 to 2000, Dr. Uprichard was Vice President, Drug Development; from 1994 to 1997, the Senior Director, Cardiovascular Pharmacology; and from 1989 to 1994, Dr. Uprichard held various oversight positions in Cardiovascular Clinical Development. In the late 1980s, Dr. Uprichard was a Cardiology and Postdoctoral Fellow at the University of Michigan Medical School. Dr. Uprichard holds M.B., Ch.B. and M.D. degrees from the University of Edinburgh, Scotland; is a Fellow of the Royal College of Physicians of Edinburgh; a Fellow of the Faculty of Pharmaceutical Medicine and a Fellow of the American College of Physicians.

*Kimberlee C. Drapkin, CPA* has served as our Chief Financial Officer since the closing of our merger with Predix on August 16, 2006. Prior to the closing of the merger, Ms. Drapkin served as Predix's Chief Financial Officer

from February 2005 through August 2006. From 1995 to February 2005, Ms. Drapkin held senior positions of increasing responsibility within the finance organization at Millennium Pharmaceuticals, Inc. with leadership responsibility for financial reporting, technical accounting, Sarbanes Oxley compliance and internal audit.

Ms. Drapkin began her professional career at Price Waterhouse (now PricewaterhouseCoopers LLP) and is a Certified Public Accountant. Ms. Drapkin is a graduate of Babson College, holding a B.S. in Accounting summa cum laude.

*Oren Becker, Ph.D.* has served as our Chief Scientific Officer since the closing of our merger with Predix on August 16, 2006. Prior to the closing of the merger, Dr. Becker served as Predix's Chief Scientific Officer from August 2003 through August 2006. Dr. Becker founded Predix Pharmaceuticals Ltd. and served as its Chief Technology Officer and on its board of directors from its inception in November 2000 through August 2003. Before founding Predix, Dr. Becker held a position as a visiting professor at Harvard University from 1999 to 2000 and a professor at Tel-Aviv University from 1994 to 2000. Dr. Becker received his B.Sc. in Physics and Chemistry summa cum laude, a B.A. in Philosophy magna cum laude and a Ph.D. in Theoretical Chemical Physics from

**Table of Contents**

the Hebrew University of Jerusalem and his postdoctoral training at Harvard University.

*Chen Schor, CPA* has served as our Chief Business Officer since the closing of our merger with Predix on August 16, 2006. Prior to the closing of the merger, Mr. Schor served as our Chief Business Officer from January 2004 to August 2006. From 1998 to December 2003 Mr. Schor served as Partner, Life Sciences, and Chief Financial Officer, at Yozma Venture Capital Group. Yozma was one of the lead investors in Predix Pharmaceuticals Ltd. when the company was founded in 2000. Mr. Schor served as a member of the board of directors of Predix Pharmaceuticals Ltd. from November 2000 to August 2003 and Predix Pharmaceuticals, Inc. from September 2001 until August 2003. Mr. Schor served as a member of Predix's board of directors from August 2003 until December 2003. Mr. Schor previously held positions at Arthur Andersen from 1995 to 1996 and BDO consultants from 1996 to 1998 and holds an MBA, B.A. in Biology, B.A. in Economics and is a Certified Public Accountant.

*Christopher F.O. Gabrieli* has been a member of our board of directors since 1994, and he is the Chairman of the board of directors. Mr. Gabrieli is the Chairman of Massachusetts 2020, a non-profit public policy organization. He is a member of the general partners of Bessemer Venture Partners III L.P. and Bessemer Venture Partners IV L.P. and related venture capital partnerships, where he worked from 1986 to 2000.

*Patrick J. Fortune, Ph.D.* has served as a member of our board of directors since the closing of the EPIX/Predix merger on August 16, 2006. Prior to the closing of the merger, Dr. Fortune served as a member of Predix's board of directors from January 2005 through August 2006. Dr. Fortune has been a partner at Boston Millennia Partners since August 2001. He was previously President and Chief Operating Officer of New Era of Networks from 1999 to July 2001; Vice President at Monsanto from 1995 to 1999; Vice President at Bristol-Myers Squibb from 1991 to 1994; Group President at Baxter International from 1984 to 1989 and Vice President of Research and Development at Baxter International from 1982 to 1984. Dr. Fortune currently serves on the board of directors of Parexel International Corp. and several private companies. He has served on the engineering and scientific advisory boards of the University of Wisconsin, the University of Illinois and the University of Chicago. Dr. Fortune holds a B.A. from the University of Wisconsin, an MBA from Northwestern University and a Ph.D. in Physical Chemistry from the University of Wisconsin.

*Frederick Frank* has served as a member of our board of directors since the closing of the EPIX/Predix merger on August 16, 2006. Prior to the closing of the merger, Mr. Frank served as chairman of Predix's board of directors from January 2001 through August 2006. Mr. Frank is Vice Chairman and a Director of Lehman Brothers. Before joining Lehman Brothers as a Partner in September 1969, Mr. Frank was co-director of research, as well as Vice President and Director, of Smith, Barney & Co. Incorporated. He is a Chartered Financial Analyst, member of The New York Society of Security Analysts and a past president of the Chemical Processing Industry Analysts. Mr. Frank is a director of Diagnostic Products Corporation, Landec Corporation and Pharmaceutical Product Development, Inc., all of which are publicly traded companies. He also serves on the boards of directors of Business Engine, Digital Arts & Sciences, Inc. and eSoft, Inc. He is Chairman of the National Genetics Foundation, a director of the Salk Institute, a member of the Pharmaceutical Executive Magazine advisory board, a member of the Board of Governors of the National Center for Genome Resources, Chairman of the Board of The Irvington Institute for Immunological Research, a member of the Advisory Board of The Harvard School of Public Health and also the John Hopkins Bloomberg School of Public Health. Mr. Frank holds a B.A. from Yale University and an MBA from Stanford Business School.

*Michael Gilman, Ph.D.* has been a member of our board of directors since April 2006. Most recently he was Executive Vice President, Research at Biogen Idec. He joined Biogen in 1999 as Director of Molecular Biology and became head of research at Biogen in 2000. Dr. Gilman was Executive Vice President and Chief Scientific Officer of ARIAD Pharmaceuticals from 1995 to 2000. Prior to that, Dr. Gilman spent eight years on the scientific staff of Cold Spring Harbor Laboratory in New York, where his research focused on mechanisms of signal transduction and gene regulation. Dr. Gilman holds a Ph.D. in Biochemistry from University of California, Berkeley, and a S.B. in Life Sciences from Massachusetts Institute of Technology.

*Mark Leuchtenberger* has been a member of our board of directors since September 2004. Mark Leuchtenberger is the President and Chief Executive Officer of Targanta Therapeutics, a privately held biopharmaceutical company focused on developing and commercializing novel antibacterial agents to address unmet medical needs in the hospital

market. Mr. Leuchtenberger joined Targanta from Therion Biologics Corporation, a privately held cancer vaccine company, where he served as President and Chief Executive Officer from 2002 to 2006. Prior to joining Therion in 2002, Mr. Leuchtenberger spent 11 years at Biogen, Inc., where he led the development and launch of Avonex and ran North American and international commercial operations. Prior to Biogen, he was a consultant at Bain & Company specializing in healthcare. Mr. Leuchtenberger also serves on boards for the Massachusetts Biotechnology Council, Beth Israel Deaconess Medical Center and Wake Forest University.

*Robert J. Perez* has been a member of our board of directors since August 2006. Mr. Perez has served as Senior Vice President, Commercial Operations for Cubist Pharmaceuticals since July 2004 and served as Cubist's Senior Vice President, Sales and Marketing from August 2003 to July 2004. Prior to joining Cubist, Mr. Perez served as Vice President of Biogen's Central Nervous System Business Unit since 2001 where he was responsible for leading the U.S. neurology franchise, including Biogen's product Avonex. From 1995 to 2001 he served as a Regional Director, Director of Sales, and Avonex Commercial Executive at Biogen. From 1987 to 1995, Mr. Perez held various sales and marketing positions at Zeneca Pharmaceuticals, ultimately serving as Regional Business Director, responsible for strategic planning and profitability of the western regional business unit, managing both national accounts and regional sales managers. Mr. Perez received a BS from California State University, Los Angeles and an MBA from The Anderson School at UCLA.

**Table of Contents**

*Gregory D. Phelps* has served as a member of our board of directors since July 2004. Mr. Phelps is the Chairman of the Board, President and Chief Executive Officer of RenaMed Biologics, Inc., a biotechnology company developing therapeutic products. He has previously held positions of Chief Executive Officer of Ardais Corporation, Viagene, Inc. and ZymoGenetics, Inc. He has also served as Vice Chairman of Dyax Corporation, Executive Vice President of Genzyme Corporation and Vice President of Baxter Travenol Laboratories, Inc. (now Baxter Healthcare).

*Ian F. Smith, CPA, ACA* has been a member of our board of directors since the closing of the EPIX/Predix merger on August 16, 2006. Prior to the closing of the merger, Mr. Smith served as a member of Predix's board of directors from May 2005 through August 2006. Mr. Smith is currently Senior Vice President and Chief Financial Officer of Vertex Pharmaceuticals Incorporated. He began as Vice President and Chief Financial Officer in October 2001, and was promoted to Senior Vice President and Chief Financial Officer in November 2003. Prior to joining Vertex Mr. Smith was a partner in the Life Science and Technology Practice of Ernst & Young, LLP since 1999. He had various responsibilities in Ernst & Young's accounting, auditing and mergers and acquisitions groups. Mr. Smith initially joined Ernst & Young's U.K. firm in 1987, and then joined its Boston office in 1995. Mr. Smith holds a B.A. in Accounting and Finance from Manchester Metropolitan University, U.K., is a member of the American Institute of Certified Public Accountants and is a Chartered Accountant of England and Wales.

***Board Composition***

Our board of directors is divided into three classes, with each director serving a three-year term and one class being elected at each year's annual meeting of stockholders. A majority of the members of our board of directors are independent within the meaning of the director independence standards of The NASDAQ Global Market and the applicable rules of the Securities and Exchange Commission. Messrs. Gabrieli and Perez and Dr. Fortune are in the class of directors whose initial term expires at the 2007 annual meeting of stockholders. Messrs. Phelps, Frank and Smith are in the class of directors whose initial term expires at the 2008 annual meeting of the stockholders. Mr. Leuchtenberger and Drs. Gilman and Kauffman are in the class of directors whose initial term expires at the 2009 annual meeting of stockholders. This classification of the our board of directors makes it more difficult for a third party to acquire control of EPIX.

***Board Committees***

Our board of directors has established three standing committees: the audit committee, the compensation committee and the corporate nominating and governance committee.

***Audit Committee.*** Our audit committee consists of Ian F. Smith CPA, ACA, Christopher F.O. Gabrieli and Gregory D. Phelps, each of whom are independent within the meaning of the director independence standards of The NASDAQ Global Market and the applicable rules of the Securities and Exchange Commission. Mr. Smith serves as Chairman of our audit committee and also qualifies as an audit committee financial expert, as that term is defined under the recently adopted Securities and Exchange Commission rules. Each member of our audit committee meets the current independence and financial literacy requirements promulgated by the Securities and Exchange Commission and by The NASDAQ Global Market. Our audit committee is responsible for preparing such reports, statements or charters as may be required by The NASDAQ Global Market or federal securities laws, as well as, among other things:

reviewing the engagement of independent accountants and retaining and terminating the services of independent accountants;

considering matters relating to accounting policy and internal controls and reviewing the scope of annual audits;

reviewing annual financial statements;

preparing the report that Securities and Exchange Commission rules require be included in its annual proxy statement;

overseeing and monitoring its independent registered public accounting firm's qualifications, independence and performance;

providing the board of directors with the results of its monitoring and recommendations; and

providing to the board of directors additional information and materials as it deems necessary to make the board of directors aware of significant financial matters that require the attention of the board of directors.

*Compensation Committee.* Our compensation committee is composed of Patrick J. Fortune, Ph.D., Mark Leuchtenberger and Michael Gilman, Ph.D., each of whom are independent within the meaning of the director independence standards of The NASDAQ Global Market and the applicable rules of the Securities and Exchange Commission. Mr. Leuchtenberger serves as Chairman of our compensation committee. The compensation committee is responsible for, among other things:

determining the compensation of our Chief Executive Officer, (conducting its decision making process with respect to that issue without the Chief Executive Officer present);

formulating, evaluating and approving the compensation of the our directors, other executive officers and key employees; and

administering our equity plans.



**Table of Contents**

*Corporate Nominating and Governance Committee.* Our corporate nominating and governance committee is composed of Frederick Frank, Mark Leuchtenberger and Gregory D. Phelps, each of whom are independent within the meaning of the director independence standards of The NASDAQ Global Market and the applicable rules of the Securities and Exchange Commission. Mr. Phelps serves as Chairman of our corporate nominating and governance committee. The corporate nominating and governance committee is responsible for, among other things, making recommendations to the full board of directors as to the size and composition of the board of directors and to make recommendations as to particular nominees. For all potential candidates, the corporate nominating and governance committee will consider all factors it deems relevant, such as a candidate's personal integrity and sound judgment, business and professional skills and experience, independence, knowledge of the industry in which the combined company operates, possible conflicts of interest, diversity, the extent to which the candidate would fill a present need on the board of directors, and concern for the long-term interests of our stockholders. In general, persons recommended by stockholders will be considered on the same basis as candidates from other sources. If a stockholder wishes to nominate a candidate to be considered for election as a director it must follow the procedures described in our by-laws. If a stockholder wishes simply to propose a candidate for consideration as a nominee by the corporate nominating and governance committee, it should submit any pertinent information regarding the candidate to the attention of the Chairman of the corporate nominating and governance committee, EPIX Pharmaceuticals, Inc., 4 Maguire Road, Lexington, Massachusetts 02421.

**Compensation Committee Interlocks and Insider Participation**

Each member of EPIX's compensation committee is an outside director as that term is defined in Section 162(m) of the Internal Revenue Code of 1986, as amended, and a non-employee director within the meaning of Rule 16b-3 of the rules promulgated under the Securities Exchange Act of 1934, as amended. None of EPIX's executive officers serve as a member of the board of directors or compensation committee of any entity that has one or more executive officers who serve on the EPIX board of directors or compensation committee.

***Director Compensation***

We pay each non-employee director who serves on a committee of the board of directors an annual fee of \$25,000 for service as a director and as a committee member. We pay each non-employee director who does not also serve on a committee of the board of directors an annual fee of \$15,000 for service as a director. In addition, non-employee directors are eligible to participate in our Amended and Restated 1996 Director Stock Option Plan, or the Director Plan. Upon the appointment, election or reelection of a non-employee director, such director is automatically granted an option to purchase 16,666 shares of common stock. Such options become exercisable in equal installments over a three-year period on each anniversary of the grant, provided that the optionee is still a director at the opening of business on such applicable date. Commencing with grants made on or after the annual meeting of stockholders, this initial grant shall be subject to adjustment if a director receives stock options upon appointment to the board of directors between annual meetings of stockholders to fill a vacancy or newly elected directorship and any such option shall become exercisable in equal monthly installments from the date of grant until the first annual meeting of stockholders at which such director is nominated for election or reelection. In addition, each non-employee director is automatically granted an option to purchase 3,333 shares of common stock annually during the years in which such director is not up for reelection to the board of directors. Such options become exercisable in full on the first anniversary date of the grant, provided that the optionee is still a director at the opening of business on such date. Each option has a term of ten years and becomes vested in full in the event of a merger (in which EPIX does not survive) or liquidation of EPIX. The exercise price for each option is equal to the fair market value of our common stock on the date of grant.

**Table of Contents****SELLING STOCKHOLDERS**

On August 16, 2006, we issued 13,621,727 shares of our common stock (as adjusted for our recent reverse stock split) pursuant to our acquisition of Predix Pharmaceuticals Holdings, Inc ( Predix ). This prospectus relates to the resale from time to time of up to a total of 7,722,954 shares of our common stock by certain former affiliates of Predix and the chairman of our board of directors, the selling stockholders.

Pursuant to the terms of the merger, we filed a Registration Statement on Form S-3, of which this prospectus constitutes a part, to permit the selling stockholders to resell to the public the shares of our common stock issued in connection with the merger.

The following table, to our knowledge, sets forth information regarding the beneficial ownership of our common stock by the selling stockholders as of October 31, 2006 and the number of shares being offered hereby by each selling stockholder. For purposes of the following description, the term selling stockholder includes pledgees, donees, transferees or other successors in interest selling shares received after the date of this prospectus from each selling stockholder as a pledge, gift, partnership distribution or other non-sale related transfer. The information is based in part on information provided by or on behalf of the selling stockholders. Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission, and includes voting or investment power with respect to shares, as well as any shares as to which the selling stockholder has the right to acquire beneficial ownership within sixty (60) days after October 31, 2006 through the exercise or conversion of any stock options, warrants, convertible debt or otherwise. Unless otherwise indicated below, each selling stockholder has sole voting and investment power with respect to its shares of common stock. The inclusion of any shares in this table does not constitute an admission of beneficial ownership by the selling stockholder. We will not receive any of the proceeds from the sale of our common stock by the selling stockholders.

SELLING STOCKHOLDER	SHARES BENEFICIALLY OWNED BEFORE OFFERING (1)		SHARES BEING OFFERED	SHARES BENEFICIALLY OWNED AFTER OFFERING (2)	
	NUMBER	PERCENT		NUMBER	PERCENT
	Michael G. Kauffman, M.D., Ph.D. (3)	459,237		1.6%	123,293
Silvia Noiman, Ph.D. (4)	258,372	**	3,684	254,688	**
Oren Becker, Ph.D. (5)	175,316	**	3,684	171,632	**
Chen Schor (6)	167,173	**	68,937	98,236	**
Frederick Frank (7)	33,750	**	29,249	4,501	**
Ted Love, M.D. (8)	4,935	**	343	4,592	**
Christopher F.O. Gabrieli (9)	150,521	**	101,633	48,888	**
OrbiMed Advisors Entities (10)	3,272,360	11.2%	2,863,749	408,611	1.4%
Yozma II (Israel), L.P. Entities (11)	1,345,767	4.6%	1,345,767	0	0.0%
CMEA Ventures VI L.P. Entities (12)	966,071	3.3%	966,071	0	0.0%
Boston Millennia Partners Entities (13)	1,070,276	3.7%	1,070,276	0	0.0%
Forward Ventures V, L.P. (14)	1,146,268	3.9%	1,146,268	0	0.0%

\*\* Less than 1%

(1) Percentages prior to the offering are based on 29,157,147 shares of common stock

that were issued and outstanding as of November 1, 2006. We deem shares of common stock that may be acquired by an individual or group within 60 days of October 31, 2006 pursuant to the exercise of options or warrants to be outstanding for the purpose of computing the percentage ownership of such individual or group, but such shares are not deemed to be outstanding for the purpose of computing the percentage ownership of any other individual or entity shown in the table.

- (2) We do not know when or in what amounts the selling stockholders may offer for sale the shares of common stock pursuant to this offering. The selling stockholders may choose not to sell any of the shares offered

by this prospectus. Because the selling stockholders may offer all or some of the shares of common stock pursuant to this offering, and because there are currently no agreements, arrangements or undertakings with respect to the sale of any of the shares of common stock, we cannot estimate the number of shares of common stock that the selling stockholders will hold after completion of the offering. For purposes of this table, we have assumed that the selling stockholders will have sold all of the shares covered by this prospectus upon the

**Table of Contents**

completion of the offering.

- (3) Includes 335,944 shares issuable to Dr. Kauffman upon exercise of stock options.
- (4) Includes 254,688 shares issuable to Dr. Noiman upon exercise of stock options.
- (5) Includes 171,632 shares issuable to Dr. Becker upon exercise of stock options.
- (6) Includes 98,236 shares issuable to Mr. Schor upon exercise of stock options.
- (7) Includes 4,501 shares issuable to Mr. Frank upon exercise of stock options.
- (8) Includes 4,592 shares issuable to Dr. Love upon exercise of stock options.
- (9) Includes 48,888 shares issuable to Mr. Gabrieli upon exercise of stock options.
- (10) Includes 52,562 shares held by OrbiMed Associates LLC;

286,422 shares  
held by  
EatonVance  
Worldwide  
Health Sciences  
Portfolio;  
174,132 shares  
held by Hare and  
Company FAO:  
Finsbury  
Worldwide  
Pharma;  
2,159,438 shares  
held by Caduceus  
Private  
Investment, L.P.;  
and 599,806  
shares held by  
UBS PW Juniper  
Crossover Fund,  
LLC. Samuel D.  
Isaly, a natural  
person, owns a  
controlling  
interest in  
OrbiMed  
Advisors LLC  
and OrbiMed  
Capital LLC,  
which have  
investment  
management  
discretion over  
the shares held by  
OrbiMed  
Associates LLC,  
EatonVance  
Worldwide  
Health Sciences  
Portfolio, Hare  
and Company  
FAO: Finsbury  
Worldwide  
Pharma,  
Caduceus Private  
Investment, L.P.  
and UBS PW  
Juniper Crossover  
Fund, LLC. Mr.  
Isaly disclaims  
beneficial

ownership of such shares except to the extent of his pecuniary interest, if any.

- (11) The number of shares beneficially owned before the offering consists of 278,584 shares of common stock held by Yozma II (Israel), L.P.; 339,056 shares held by Yozma Venture Capital Ltd.; 474,865 shares held by YVC-Yozma Management & Investments Ltd., as trustee for Yozma (BVI) L.P.; and 253,262 shares held by PCM Venture Capital L.P. Voting and/or dispositive decisions with respect to the shares held by Yozma II (Israel), L.P., YVC-Yozma Management & Investments Ltd., as trustee for Yozma (BVI) L.P., and PCM Venture Capital L.P. are made by Yigal Erlich, managing partner and one of our directors, Boaz Goldschmidt,

general partner,  
and directors Udi  
Angel, Yoav  
Doppelt, Nir  
Bronstein and  
Eran Gersht.  
Voting and/or  
dispositive  
decisions with  
respect to the  
shares held by  
Yozma Venture  
Capital Ltd. are  
made by its  
directors,  
Mr. Angel and  
Mr. Doppelt.  
Each disclaims  
beneficial  
ownership of  
such shares  
except to the  
extent of their  
pecuniary  
interest, if any.

- (12) Includes 320,053  
shares held by  
CMEA Ventures  
Life Sciences  
2000, L.P.;  
19,242 shares  
held by CMEA  
Ventures Life  
Sciences 2000,  
Civil Law  
Partnership;  
612,600 shares  
held by CMEA  
Ventures VI,  
L.P.; and 14,176  
shares held by  
CMEA Ventures  
VI, GmbH & Co.  
K.G. David  
Collier, Thomas  
Baruch, Karl  
Handelsman and  
Gordon Hull are  
the general  
partners of



CMEA Ventures  
LS Management  
2000 L.P. and  
share voting  
and/or dispositive  
power over the  
shares held by  
CMEA Ventures  
Life Sciences  
2000, L.P. and  
CMEA Ventures  
Life Sciences  
2000, Civil Law  
Partnership. Each  
disclaims  
beneficial  
ownership of  
such shares  
except to the  
extent of their  
pecuniary  
interest, if any.  
CMEA Ventures  
VI Management  
L.P. is the general  
partner of CMEA  
Ventures VI, L.P.  
and CMEA  
Ventures VI,  
GmbH & Co.  
K.G. Dr. Collier,  
Mr. Baruch,  
Mr. Handelsman,  
Mr. Hull, Faysal  
Sohail and James  
Watson are the  
general partners  
of CMEA  
Ventures VI  
Management L.P.  
and share voting  
and/or dispositive  
power over the  
shares held by  
CMEA Ventures  
VI, L.P. and  
CMEA Ventures  
VI, GmbH & Co.  
K.G. Each  
disclaims  
beneficial

ownership of such shares except to the extent of their pecuniary interest, if any.

- (13) Includes 888,900 shares held by Boston Millennia Partners II Limited Partnership; 126,579 shares held by Boston Millennia Partners GmbH & Co. KG; 42,579 shares held by Boston Millennia Partners II-A Limited Partnership; 7,991 shares held by Strategic Advisors Fund Limited Partnership; and 4,227 shares held by Boston Millennia Associates II Partnership. A. Dana Callow, Robert S. Sherman and Martin J. Hernon are general partners of Boston Millennia Partners, as sponsor of these investment funds. Messrs. Callow, Sherman and Hernon may be deemed to have shared voting and dispositive power with respect to these shares. Each

disclaims  
beneficial  
ownership of  
such shares  
except to the  
extent of their  
pecuniary  
interest, if any.

- (14) Voting and/or  
dispositive  
decisions with  
respect to the  
shares held by  
Forward Ventures  
V, L.P. are made  
by its members,  
Joel Martin, one  
of our directors,  
Stuart J.M.  
Collinson,  
Standish M.  
Fleming, Ivor  
Royston and  
Maria C. Walker.  
Each disclaims  
beneficial  
ownership of  
such shares  
except to the  
extent of their  
pecuniary  
interest, if any

**Table of Contents**

**PLAN OF DISTRIBUTION**

The shares covered by this prospectus may be offered and sold from time to time by the selling stockholders. The term selling stockholder includes pledgees, donees, transferees or other successors in interest selling shares received after the date of this prospectus from each selling stockholder as a pledge, gift, partnership distribution or other non-sale related transfer. The number of shares beneficially owned by a selling stockholder will decrease as and when it affects any such transfers. The plan of distribution for the selling stockholders' shares sold hereunder will otherwise remain unchanged, except that the transferees, pledgees, donees or other successors will be selling stockholders hereunder. To the extent required, we may amend and supplement this prospectus from time to time to describe a specific plan of distribution.

The selling stockholders will act independently of us in making decisions with respect to the timing, manner and size of each sale. The selling stockholders may make these sales at prices and under terms then prevailing or at prices related to the then current market price. The selling stockholders may also make sales in negotiated transactions. The selling stockholders may offer their shares from time to time pursuant to one or more of the following methods:

ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;

one or more block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;

purchases by a broker-dealer as principal and resale by the broker-dealer for its account;

an exchange distribution in accordance with the rules of the applicable exchange;

public or privately negotiated transactions;

on the Nasdaq Global Market (or through the facilities of any national securities exchange or U.S. inter-dealer quotation system of a registered national securities association, on which the shares are then listed, admitted to unlisted trading privileges or included for quotation);

through underwriters, brokers or dealers (who may act as agents or principals) or directly to one or more purchasers;

a combination of any such methods of sale; and

any other method permitted pursuant to applicable law.

In connection with distributions of the shares or otherwise, the selling stockholders may:

enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the shares in the course of hedging the positions they assume;

sell the shares short and redeliver the shares to close out such short positions;

enter into option or other transactions with broker-dealers or other financial institutions which require the delivery to them of shares offered by this prospectus, which they may in turn resell; and

pledge shares to a broker-dealer or other financial institution, which, upon a default, they may in turn resell.

In addition to the foregoing methods, the selling stockholders may offer their shares from time to time in transactions involving principals or brokers not otherwise contemplated above, in a combination of such methods or described above or any other lawful methods. The selling stockholders may also transfer, donate or assign their shares to lenders, family members and others and each of such persons will be deemed to be a selling stockholder for

purposes of this prospectus. The selling stockholders or their successors in interest may from time to time pledge or grant a security interest in some or all of the shares of common stock, and if the selling stockholders default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock from to time under this prospectus; provided however in the event of a pledge or then default on a secured obligation by the selling stockholder, in order for the shares to be sold under this registration statement, unless permitted by law, we must distribute a prospectus supplement and/or amendment to this registration statement amending the list of selling stockholders to include the pledgee, secured party or other successors in interest of the selling stockholder under this prospectus.

The selling stockholders may also sell their shares pursuant to Rule 144 under the Securities Act of 1933, as amended, which permits limited resale of shares purchased in a private placement subject to the satisfaction of certain conditions, including, among other things, the availability of certain current public information concerning the issuer, the resale occurring following the required holding period under Rule 144 and the number of shares being sold during any three-month period not exceeding certain limitations.

Sales through brokers may be made by any method of trading authorized by any stock exchange or market on which the shares may be listed or quoted, including block trading in negotiated transactions. Without limiting the foregoing, such brokers may

**Table of Contents**

act as dealers by purchasing any or all of the shares covered by this prospectus, either as agents for others or as principals for their own accounts, and reselling such shares pursuant to this prospectus. The selling stockholders may effect such transactions directly, or indirectly through underwriters, broker-dealers or agents acting on their behalf. In effecting sales, broker-dealers or agents engaged by the selling stockholders may arrange for other broker-dealers to participate. Broker-dealers or agents may receive commissions, discounts or concessions from the selling stockholders, in amounts to be negotiated immediately prior to the sale (which compensation as to a particular broker-dealer might be in excess of customary commissions for routine market transactions).

In offering the shares covered by this prospectus, the selling stockholders, and any broker-dealers and any other participating broker-dealers who execute sales for the selling stockholders, may be deemed to be underwriters within the meaning of the Securities Act of 1933, as amended, in connection with these sales. Any profits realized by the selling stockholders and the compensation of such broker-dealers may be deemed to be underwriting discounts and commissions.

We are required to pay all fees and expenses incident to the registration of the shares.

We have agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act of 1933, as amended.

**LEGAL MATTERS**

The validity of the common stock offered in this prospectus will be passed upon for us by Goodwin Procter LLP, Boston, Massachusetts.

**EXPERTS**

The consolidated financial statements of EPIX Pharmaceuticals, Inc. appearing in EPIX Pharmaceuticals, Inc.'s Annual Report (Form 10-K) for the year ended December 31, 2005 and EPIX Pharmaceuticals, Inc. management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2005 included therein, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their reports thereon included therein, and incorporated herein by reference. Such financial statements and management's assessment are, and audited financial statements and EPIX Pharmaceuticals, Inc. management's assessments of the effectiveness of internal control over financial reporting to be included in subsequently filed documents will be, incorporated herein in reliance upon the reports of Ernst & Young LLP pertaining to such financial statements and management's assessments (to the extent covered by consents filed with the Securities and Exchange Commission) given on the authority of such firm as experts in accounting and auditing.

The consolidated financial statements of Predix Pharmaceuticals Holdings, Inc. at December 31, 2005 and 2004, and for each of the three years in the period ended December 31, 2005, included in the joint proxy statement of Predix Pharmaceuticals Holdings, Inc. dated July 18, 2006 and in the current report on Form 8-K/A of EPIX Pharmaceuticals, Inc. filed on October 27, 2006 which are incorporated herein by reference, have been audited by Ernst and Young LLP, independent auditors, as set forth in their report (which contains an explanatory paragraph describing conditions that raise substantial doubt about the company's ability to continue as a going concern as described in Note 1 to the consolidated financial statements), appearing therein, and are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

**Table of Contents**

**WHERE YOU CAN FIND MORE INFORMATION**

We are a public company and file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission. You may read and copy any document we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference room. Our SEC filings are also available to the public at the SEC's web site at <http://www.sec.gov>, or at our web site at <http://www.epixpharma.com>. In addition, our stock is listed for trading on The Nasdaq Global Market. You can read and copy reports and other information concerning us at the offices of the National Association of Securities Dealers, Inc. located at 1735 K Street, Washington, D.C. 20006.

This prospectus is only part of a Registration Statement on Form S-3 that we have filed with the SEC under the Securities Act of 1933, as amended, and therefore omits certain information contained in the Registration Statement. We have also filed exhibits and schedules with the Registration Statement that are excluded from this prospectus, and you should refer to the applicable exhibit or schedule for a complete description of any statement referring to any contract or other document. You may:

inspect a copy of the Registration Statement, including the exhibits and schedules, without charge at the public reference room;

obtain a copy from the SEC upon payment of the fees prescribed by the SEC; or

obtain a copy from the SEC web site.

**INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE**

The SEC allows us to incorporate by reference information from other documents that we file with them, which means that we can disclose important information in this prospectus by referring to those documents. The information incorporated by reference is considered to be part of this prospectus, and information that we file later with the SEC will automatically update and supersede the information in this prospectus. We incorporate by reference the documents listed below and any future filings made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended. The documents we are incorporating by reference as of their respective dates of filing are:

Our Annual Report on Form 10-K for the fiscal year ended December 31, 2005, as filed on March 1, 2006, and amended on April 28, 2006.

Our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2006, June 30, 2006 and September 30, 2006.

The Registrant's Current Reports on Form 8-K, filed with the Commission on January 10, 2006, February 1, 2006, February 16, 2006, March 9, 2006, April 3, 2006, April 26, 2006, May 8, 2006, May 24, 2006, July 5, 2006, July 12, 2006, July 13, 2006, July 20, 2006, July 26, 2006, July 28, 2006, July 31, 2006, August 15, 2006, August 17, 2006 (as amended on August 18, 2006 and October 27, 2006), September 7, 2006, September 21, 2006, September 22, 2006, October 23, 2006 and October 26, 2006.

The information included in the joint proxy statement/prospectus we filed pursuant to Rule 424(b)(3) of the Securities Act of 1933, as amended, with the SEC on July 18, 2006 (Reg. No. 333-133513) under the headings "Predix Selected Historical Consolidated Financial Information," "EPIX and Predix Unaudited Pro Forma Condensed Consolidated Financial Statements" and "Predix Management's Discussion and Analysis of Financial Condition and Results of Operations" and Predix's consolidated financial statements and the notes thereto contained therein; and

The description of our common stock contained in "Description of Capital Stock" in the registration statement on Form S-4 filed with the SEC on April 25, 2006 (File No. 333-33513) and any amendments or reports filed to

update such description.

You may request, orally or in writing, a copy of these filings, which will be provided to you at no cost, by contacting Kimberlee C. Drapkin, Chief Financial Officer, at our principal executive offices, which are located at 4 Maguire Road, Lexington, Massachusetts 02421; Telephone: (781) 761-7600.

All documents subsequently filed by us pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, and prior to the termination of this offering are incorporated by reference and become a part of this prospectus from the date such documents are filed.

To the extent that any statements contained in a document incorporated by reference are modified or superseded by any statements contained in this prospectus, such statements shall not be deemed incorporated in this prospectus except as so modified or superseded.



**Table of Contents**

**PART II**  
**INFORMATION NOT REQUIRED IN PROSPECTUS**

**Item 14. Other Expenses of Issuance and Distribution**

The following table sets forth the Company's estimates (other than the SEC registration fees) of the expenses in connection with the issuance and distribution of the shares of common stock being registered. None of the following expenses are being paid by the selling stockholders.

Registration fee	\$ 3,479
Legal fees and expenses	\$ 50,000
Accounting fees and expenses	\$ 25,000
Printing fees and expenses	\$ 2,000
Miscellaneous	\$ 1,000
Total	\$ 81,479

**Item 15. Indemnification of Directors and Officers**

The Company's Restated Certificate of Incorporation, as amended (the Restated Certificate) provides that the Company shall indemnify to the fullest extent authorized by the Delaware General Corporation Law ( DGCL ), each person who is involved in any litigation or other proceeding because such person is or was a director or officer of the Company or is or was serving as an officer or director of another entity at the request of the Company, against expenses (including attorney's fees), judgments, fines and amounts reasonably incurred in connection therewith. The Restated Certificate provides that the right to indemnification includes the right to be paid expenses incurred in defending any proceeding in advance of its final disposition; provided, however, that such advance payment will only be made upon delivery to the Company of an undertaking, by the director or officer, to repay all amounts so advanced if it is ultimately determined that such director or officer is not entitled to indemnification.

Section 145 of the DGCL permits a corporation to indemnify any director or officer of the corporation against expenses (including attorney's fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with any action, suit or proceeding brought by reason of the fact that such person is or was a director or officer of the corporation, if such person acted in good faith and in a manner that he or she reasonably believed to be in, or not opposed to, the best interests of the corporation, and, with respect to any criminal action or proceeding, if he or she had no reason to believe his or her conduct was unlawful. In a derivative action, (i.e., one brought by or on behalf of the corporation), indemnification may be made only for expenses, actually and reasonably incurred by any director or officer in connection with the defense or settlement of such an action or suit, if such person acted in good faith and in a manner that he reasonably believed to be in, or not opposed to, the best interests of the corporation, except that no indemnification shall be made if such person shall have been adjudged to be liable to the corporation, unless and only to the extent that the court in which the action or suit was brought shall determine that the defendant is fairly and reasonably entitled to indemnity for such expenses despite such adjudication of liability.

Pursuant to Section 102(b)(7) of the DGCL, the Restated Certificate eliminates the liability of a director or the corporation or its stockholders for monetary damages for such breach of fiduciary duty as a director, except for liabilities arising (i) from any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) from acts or missions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL, or (iv) from any transaction from which the director derived an improper personal benefit. The Company has obtained insurance policies insuring the directors and officers of the Company against certain liabilities that they may incur in their capacity as directors and officers.

The Company has entered, or intends to enter, into indemnification agreements (the Indemnification Agreements), with each of its directors and certain of its officers. The Indemnification Agreements provide that the Company will, to the fullest extent permitted by law, pay any attorneys' fees and all other costs, expenses and obligations paid or incurred by the indemnitee in connection with claims against him or her related to the fact that he or she was a director

or officer of the Company or serving at the request of the Company in such capacity with another corporation, partnership, joint venture, employee benefit plan, trust or other enterprise. The payments to be made under the Indemnification Agreements include expenses, judgments, fines, penalties and amounts paid in settlement (including all interest, assessments and other judgments, fines, penalties or amounts paid in settlement) of such claims. If requested by the indemnitee, the Company shall advance all expenses to the indemnitee. Any payments made by the Company under the Indemnification Agreements are subrogated to all of the rights of recovery of the indemnitee. The rights of the indemnitee are in addition to such rights the indemnitee may have under the Company's Restated Certificate, the Company's by-laws and the DGCL.

**Table of Contents**

Pursuant to the Agreement and Plan of Merger by and among the Company, Predix Pharmaceuticals Holdings, Inc. ( Predix ) and EPIX Delaware, Inc. dated as of April 3, 2006, as amended, the Company agreed to fulfill and honor the obligations of Predix which existed prior to the merger to indemnify Predix s present and former directors and officers. The certificate of incorporation and by-laws of EPIX Delaware, Inc. after the merger provide for the indemnification and elimination of liability for monetary damages to the same extent as set forth in Predix s certificate of incorporation and by-laws and such provision may not be amended, repealed or otherwise modified for a period of six years after the completion of the merger in any manner that would adversely affect the rights of the directors or officers of Predix at the time of the completion of the merger. The Company has agreed to guarantee the timely payment of all funds owing by, and the timely performance of all obligations of EPIX Delaware, Inc. relating to these indemnification obligations.

**Item 16. Exhibits**

**EXHIBIT  
NUMBER**

**DESCRIPTION OF DOCUMENT**

- |      |   |
|------|---|
| 2.1  | Agreement and Plan of Merger dated as of April 3, 2006 by and among EPIX Pharmaceuticals, Inc., EPIX Delaware, Inc., and Predix Pharmaceuticals Holdings, Inc. (filed as Exhibit 2.1 to EPIX Pharmaceuticals, Inc. s Current Report on Form 8-K dated April 3, 2006 and incorporated herein by reference) |
| 2.2  | Amendment No. 1 to by and among EPIX Pharmaceuticals, Inc., EPIX Delaware, Inc., and Predix Pharmaceuticals Holdings, Inc., dated July 10, 2006 (filed as Exhibit 99.1 to EPIX Pharmaceuticals Inc. s Current Report on Form 8-K dated July 12, 2006 and incorporated herein by reference)                |
| 5.1  | Opinion of Goodwin Procter LLP as to the legality of the shares being registered.   |
| 23.1 | Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm of EPIX Pharmaceuticals, Inc.   |
| 23.2 | Consent of Ernst & Young LLP, Independent Auditors of Predix Pharmaceuticals Holdings, Inc.   |
| 23.3 | Consent of Goodwin Procter LLP (included in opinion of counsel filed as Exhibit 5.1).   |
| 24.1 | Power of Attorney (included on the signature page of this Registration Statement).  |

**Item 17. Undertakings**

(a) The undersigned registrant hereby undertakes as follows:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or any decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the Calculation of Registration Fee table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in this registration statement;



**Table of Contents**

*provided, however*, paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) If the registrant is relying on Rule 430B:

(A) each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as a part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or

(ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(6) The undersigned registrant hereby undertakes to deliver or cause to be delivered with the prospectus, to each person to whom the prospectus is sent or given, the latest annual report to security holders that is incorporated by reference in the prospectus and furnished pursuant to and meeting the requirements of Rule 14a-3 or rule 14c-3 under the Securities Exchange Act of 1934; and, where interim financial information required to be presented by Article 3 of Regulation S-X are not set forth in the prospectus, to deliver, or cause to be delivered to each person to whom the prospectus is sent or given, the latest quarterly report that is specifically incorporated by reference in the prospectus to

provide such interim financial information.

**Table of Contents**

(7) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

**Table of Contents****SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the Town of Lexington, Commonwealth of Massachusetts, on November 14, 2006.

## EPIX PHARMACEUTICALS, INC.

By: /s/ Michael G. Kauffman

Name:

Michael G. Kauffman, M.D., Ph.D.

Title: Chief Executive Officer

The registrant and each person whose signature appears below constitutes and appoints Michael G. Kauffman and Kimberlee C. Drapkin and each of them singly, his, her or its true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him, her or it and in his, her or its name, place and stead, in any and all capacities, to sign and file any and all amendments (including post-effective amendments) to this Registration Statement, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as he, she, or it might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<b>Signature</b>	<b>Title</b>	<b>Date</b>
/s/ Michael G. Kauffman Michael G. Kauffman, M.D., Ph.D.	Chief Executive Officer (Principal Executive Officer) and Director	November 14, 2006
/s/ Kimberlee C. Drapkin Kimberlee C. Drapkin	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	November 14, 2006
/s/ Christopher F.O. Gabrieli Christopher F.O. Gabrieli	Chairman of the Board of Directors	November 14, 2006
/s/ Patrick J. Fortune Patrick J. Fortune	Director	November 14, 2006
/s/ Frederick Frank Frederick Frank	Director	November 14, 2006
/s/ Michael Gilman	Director	November 14, 2006



Michael Gilman

/s/ Mark Leuchtenberger

Director

November 14, 2006

Mark Leuchtenberger

/s/ Robert J. Perez

Director

November 14, 2006

Robert J. Perez

**Table of Contents**

<b>Signature</b>	<b>Title</b>	<b>Date</b>
/s/ Gregory D. Phelps Gregory D. Phelps	Director	November 14, 2006
/s/ Ian F. Smith Ian F. Smith	Director	November 14, 2006

**Table of Contents**

**EXHIBIT INDEX**

<b>EXHIBIT NUMBER</b>	<b>DESCRIPTION OF DOCUMENT</b>
2.1	Agreement and Plan of Merger dated as of April 3, 2006 by and among EPIX Pharmaceuticals, Inc., EPIX Delaware, Inc., and Predix Pharmaceuticals Holdings, Inc. (filed as Exhibit 2.1 to EPIX Pharmaceuticals, Inc.'s Current Report on Form 8-K dated April 3, 2006 and incorporated herein by reference)
2.2	Amendment No. 1 to by and among EPIX Pharmaceuticals, Inc., EPIX Delaware, Inc., and Predix Pharmaceuticals Holdings, Inc., dated July 10, 2006 (filed as Exhibit 99.1 to EPIX Pharmaceuticals Inc.'s Current Report on Form 8-K dated July 12, 2006 and incorporated herein by reference)
5.1	Opinion of Goodwin Procter LLP as to the legality of the shares being registered.
23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm of EPIX Pharmaceuticals, Inc.
23.2	Consent of Ernst & Young LLP, Independent Auditors of Predix Pharmaceuticals Holdings, Inc.
23.3	Consent of Goodwin Procter LLP (included in opinion of counsel filed as Exhibit 5.1).
24.1	Power of Attorney (included on the signature page of this Registration Statement).