EPIX Pharmaceuticals, Inc.
Form 424B3
July 18, 2006

Table of Contents

Filed Pursuant to Rule 424(b)(3)
Registration No. 333-133513

ANNUAL AND SPECIAL MEETINGS OF STOCKHOLDERS
MERGER PROPOSED YOUR VOTE IS VERY IMPORTANT

The boards of directors of EPIX Pharmaceuticals, Inc. (EPIX) and Predix Pharmaceuticals Holdings, Inc. (Predix) have approved a merger combining EPIX and Predix.

If the merger is consummated, Predix will be merged with and into a wholly-owned subsidiary of EPIX. The terms of the merger agreement provide for the issuance of shares of EPIX common stock to Predix stockholders in exchange for all of the outstanding shares of Predix. At the effective time of the merger, EPIX stockholders will retain approximately 53%, and the former Predix stockholders will own approximately 47%, of the outstanding shares of EPIX s common stock as more fully described in the joint proxy statement/prospectus. EPIX will also assume all of Predix s stock options and warrants outstanding at the time of the merger. In addition, EPIX will make a milestone payment of $35 million to Predix stockholders, option holders and warrant holders upon the occurrence of certain events. EPIX may elect to make the milestone payment in cash or in shares of EPIX common stock, to the extent that the aggregate amount of EPIX common stock as a result of such milestone payment does not exceed 49.99% of the outstanding shares of EPIX common stock 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 assumed by EPIX in the merger. EPIX common stock is listed on The NASDAQ Global Market under the symbol EPIX. On July 17, 2006, the last trading day before the date of this joint proxy statement/prospectus, the closing sale price of EPIX common stock was $4.11 per share. The merger is intended to qualify for federal income tax purposes as a reorganization under the provisions of Section 368 of the Internal Revenue Code of 1986, as amended.

Stockholders of EPIX will be asked, at EPIX s annual meeting of stockholders, among other proposals, to approve the merger, to approve an amendment to EPIX s restated certificate of incorporation, to approve the issuance of shares of EPIX common stock to the stockholders of Predix in the merger and to approve authorizing the EPIX board of directors to effect a reverse stock split. Stockholders of Predix will be asked, at Predix s special meeting of stockholders, to approve and adopt the merger agreement and to approve the merger.

The dates, times and places of the meetings are as follows:

For EPIX stockholders:	For Predix stockholders:
August 15, 2006	August 15, 2006
10:00 a.m., local time	9:00 a.m., local time
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.	Goodwin Procter LLP
One Financial Center	Exchange Place
Boston, Massachusetts 02111	Boston, Massachusetts 02109

This joint proxy statement/prospectus provides you with information about EPIX, Predix and the proposed merger. You may obtain other information about EPIX and Predix from documents filed with the Securities and Exchange Commission. We encourage you to carefully read the entire joint proxy statement/prospectus.

Andrew C.G. Uprichard, M.D.	Michael G. Kauffman, M.D., Ph.D.
President and Chief Operating Officer	Chief Executive Officer
EPIX Pharmaceuticals, Inc.	Predix Pharmaceuticals Holdings, Inc.

FOR A DISCUSSION OF SIGNIFICANT MATTERS THAT SHOULD BE CONSIDERED BEFORE VOTING AT THE STOCKHOLDER MEETINGS, SEE RISK FACTORS BEGINNING ON PAGE 21.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES REGULATORS HAVE APPROVED OR DISAPPROVED THE EPIX COMMON STOCK TO BE ISSUED IN THE MERGER OR DETERMINED WHETHER THIS JOINT PROXY STATEMENT/PROSPECTUS IS

ACCURATE OR ADEQUATE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

This joint proxy statement/prospectus is dated July 18, 2006, and is first being mailed to stockholders of EPIX and Predix on or about July 18, 2006.

THIS JOINT PROXY STATEMENT/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.

Table of Contents

ADDITIONAL INFORMATION

This joint proxy statement/prospectus incorporates important business and financial information about EPIX and Predix from other documents that are not included in or delivered with the joint proxy statement/prospectus. This information is available to you without charge upon your written or oral request. You can obtain the documents incorporated by reference in this joint proxy statement/prospectus by requesting them in writing or by telephone or over the Internet from the appropriate company at one of the following addresses:

EPIX Pharmaceuticals, Inc.
Attn: Investor Relations
161 First Street
Cambridge, Massachusetts 02142
(617) 250-6000
E-mail: ahedison@epixpharma.com

Or:

Predix Pharmaceuticals Holdings, Inc.
Attn: Investor Relations
4 Maguire Road
Lexington, Massachusetts 02421
(781) 372-3260
E-mail: investors@predixpharm.com

IF YOU WOULD LIKE TO REQUEST ANY DOCUMENTS, PLEASE DO SO BY AUGUST 8, 2006, THE DATE THAT IS FIVE BUSINESS DAYS BEFORE THE ANNUAL AND SPECIAL MEETINGS, IN ORDER TO RECEIVE THEM BEFORE THE ANNUAL AND SPECIAL MEETINGS.

See Where You Can Find More Information beginning on page 243.

EXPLANATORY NOTE

Except as otherwise stated in this joint proxy statement/prospectus, all per share information and other information contained in this joint proxy statement/prospectus does not give effect to any reverse stock split of EPIX common stock described in EPIX s Proposal No. 3.

Table of Contents

EPIX Pharmaceuticals
161 First Street
Cambridge, Massachusetts 02142
(617) 250-6000

NOTICE OF ANNUAL MEETING OF EPIX STOCKHOLDERS
TO BE HELD ON AUGUST 15, 2006

To the Stockholders of EPIX Pharmaceuticals, Inc:

On behalf of the board of directors of EPIX Pharmaceuticals, Inc, a Delaware corporation, we are pleased to deliver this joint proxy statement/prospectus for the proposed merger combining EPIX and Predix Pharmaceuticals Holdings, Inc., a Delaware corporation. An annual meeting of stockholders of EPIX will be held on August 15, 2006 at 10:00 a.m., local time, at the offices of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., One Financial Center, Boston, Massachusetts, 02111 for the following purposes:

1. To consider and vote upon the issuance of shares of EPIX common stock in the merger as contemplated by the Agreement and Plan of Merger, dated as of April 3, 2006, as amended, by and among EPIX Pharmaceuticals, Inc., EPIX Delaware, Inc., a wholly-owned subsidiary of EPIX, and Predix Pharmaceuticals Holdings, Inc., and approve the merger of Predix Pharmaceuticals Holdings, Inc. with and into EPIX Delaware, Inc.;

2. To approve an amendment to EPIX s amended and restated certificate of incorporation to increase the number of authorized shares of common stock from 40,000,000 shares to 100,000,000 shares, representing an additional 60,000,000 shares, which may be necessary to provide EPIX with sufficient authorized shares of common stock to issue in connection with the merger and is described in the joint proxy statement/prospectus;

3. To authorize the EPIX board of directors to amend in its discretion EPIX s restated certificate of incorporation to effect a reverse stock split of EPIX s issued and outstanding shares of common stock, at such ratio between 1:1.25 to 1:4 to be determined by the EPIX board of directors, which may be necessary for EPIX to maintain its eligibility for trading on The NASDAQ Global Market after completion of the merger, which is a condition to consummate the merger, as described in this joint proxy statement/prospectus;

4. To elect two directors for a three-year term to expire at the 2009 annual meeting of stockholders and to elect one director for a one-year term to expire at the 2007 annual meeting of stockholders; provided, however, that, if the merger is completed, the EPIX board of directors will consist of the nine persons identified in the joint proxy statement/prospectus;

5. To ratify the selection of Ernst & Young LLP as EPIX s independent registered public accounting firm for the fiscal year ending December 31, 2006;

6. To consider and vote on a proposal to approve the adjournment of the annual meeting, if necessary, to solicit additional proxies, in the event that there are not sufficient votes at the time of the annual meeting to approve Proposal Nos. 1, 2 and 3; and

7. To transact such other business as may properly come before the annual meeting or any adjournment or postponement thereof.

The board of directors of EPIX has fixed June 28, 2006 as the record date for the determination of stockholders entitled to notice of, and to vote at, the annual meeting and any adjournment or postponement thereof. Only holders of record of shares of EPIX common stock at the close of business on the record date are entitled to notice of, and to vote at, the annual meeting. At the close of business on the record date, EPIX had 23,284,810 shares of common stock outstanding and entitled to vote.

Your vote is important. The affirmative vote of the holders of a majority of the shares present at the EPIX annual meeting is required for approval of Proposal Nos. 1, 5 and 6 above. The affirmative vote of the holders of a majority of the outstanding common stock on the record date is required for approval of Proposal Nos. 2 and 3. The affirmative vote of a plurality of the votes cast at the EPIX annual meeting is required for approval of Proposal No. 4. Even if you plan to attend the annual meeting in person, we request that you sign and return the enclosed proxy and thus ensure that your shares will be represented at the annual meeting if you are unable to attend. If you sign, date and mail your proxy card without indicating how you wish to vote, your proxy will be counted as a vote in favor of Proposal Nos. 1 through 7. If you fail to return your proxy card, the effect will be a vote against the adoption of Proposal Nos. 2 and 3 and your shares will not be counted for purposes of determining whether a quorum is present at the annual meeting. If you do attend the EPIX annual meeting and wish to vote in person, you may withdraw your proxy and vote in person.

By Order of the Board of Directors,

President and Chief Operating Officer
EPIX Pharmaceuticals, Inc.

Cambridge, Massachusetts
July 18, 2006

Table of Contents

THE EPIX BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT THE ISSUANCE OF SHARES OF EPIX COMMON STOCK IN THE MERGER IS ADVISABLE TO, AND IN THE BEST INTERESTS OF, EPIX AND ITS STOCKHOLDERS AND HAS APPROVED SUCH ISSUANCE. THE EPIX BOARD OF DIRECTORS RECOMMENDS THAT EPIX STOCKHOLDERS VOTE FOR PROPOSAL NO. 1 TO APPROVE THE ISSUANCE OF SHARES OF EPIX COMMON STOCK IN THE MERGER AND APPROVE THE MERGER.

THE EPIX BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT AN AMENDMENT TO EPIX S RESTATED CERTIFICATE OF INCORPORATION TO INCREASE THE NUMBER OF AUTHORIZED SHARES OF COMMON STOCK FROM 40,000,000 SHARES TO 100,000,000 SHARES, WHICH REPRESENTS AN ADDITIONAL 60,000,000 SHARES, IS ADVISABLE TO, AND IN THE BEST INTERESTS OF, EPIX AND ITS STOCKHOLDERS AND HAS APPROVED SUCH AMENDMENT. THE EPIX BOARD OF DIRECTORS RECOMMENDS THAT EPIX STOCKHOLDERS VOTE FOR PROPOSAL NO. 2 TO APPROVE AN AMENDMENT TO EPIX S RESTATED CERTIFICATE OF INCORPORATION TO INCREASE THE NUMBER OF AUTHORIZED SHARES OF COMMON STOCK FROM 40,000,000 SHARES TO 100,000,000 SHARES. THE APPROVAL OF PROPOSAL NO. 2 MAY BE NECESSARY TO ENABLE EPIX TO ISSUE THE REQUIRED NUMBER OF SHARES OF EPIX COMMON STOCK TO PREDIX STOCKHOLDERS, OPTION HOLDERS AND WARRANT HOLDERS IN CONNECTION WITH THE MERGER.

THE EPIX BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT AUTHORIZING THE EPIX BOARD OF DIRECTORS TO AMEND IN ITS DISCRETION EPIX S RESTATED CERTIFICATE OF INCORPORATION TO EFFECT A REVERSE STOCK SPLIT OF EPIX S ISSUED AND OUTSTANDING SHARES OF COMMON STOCK, AT SUCH RATIO TO BE DETERMINED BY THE EPIX BOARD OF DIRECTORS, IS ADVISABLE TO, AND IN THE BEST INTERESTS OF, EPIX AND ITS STOCKHOLDERS AND HAS APPROVED SUCH AUTHORIZATION. THE EPIX BOARD OF DIRECTORS RECOMMENDS THAT EPIX STOCKHOLDERS VOTE FOR PROPOSAL NO. 3 TO AUTHORIZE THE EPIX BOARD OF DIRECTORS TO AMEND IN ITS DISCRETION EPIX S RESTATED CERTIFICATE OF INCORPORATION TO EFFECT A REVERSE STOCK SPLIT OF EPIX S ISSUED AND OUTSTANDING SHARES OF COMMON STOCK, AT SUCH RATIO TO BE DETERMINED BY THE EPIX BOARD OF DIRECTORS. THE APPROVAL OF PROPOSAL NO. 3 MAY BE NECESSARY FOR EPIX TO MAINTAIN ITS ELIGIBILITY FOR TRADING ON THE NASDAQ GLOBAL MARKET AFTER COMPLETION OF THE MERGER, WHICH IS A CONDITION TO CONSUMMATION OF THE MERGER.

THE EPIX BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT THE ELECTION OF TWO DIRECTORS FOR A THREE-YEAR TERM TO EXPIRE AT THE 2009 ANNUAL MEETING OF STOCKHOLDERS AND THE ELECTION OF ONE DIRECTOR FOR A ONE-YEAR TERM TO EXPIRE AT THE 2007 ANNUAL MEETING OF STOCKHOLDERS IS ADVISABLE TO, AND IN THE BEST INTERESTS OF, EPIX AND ITS STOCKHOLDERS AND HAS APPROVED AND ADOPTED THE PROPOSAL. THE EPIX BOARD OF DIRECTORS RECOMMENDS THAT EPIX STOCKHOLDERS VOTE FOR PROPOSAL NO. 4 TO ELECT TWO DIRECTORS FOR A THREE-YEAR TERM TO EXPIRE AT THE 2009 ANNUAL MEETING OF STOCKHOLDERS AND TO ELECT ONE DIRECTOR FOR A ONE-YEAR TERM TO EXPIRE AT THE 2007 ANNUAL MEETING OF STOCKHOLDERS; PROVIDED, HOWEVER, THAT, IF THE MERGER IS COMPLETED, THE EPIX BOARD OF DIRECTORS WILL CONSIST OF THE NINE PERSONS IDENTIFIED IN THE ACCOMPANYING JOINT PROXY STATEMENT/PROSPECTUS

THE EPIX BOARD OF DIRECTORS HAS DETERMINED THAT THE RATIFICATION OF THE SELECTION OF ERNST & YOUNG LLP AS EPIX S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING DECEMBER 31, 2006 IS ADVISABLE TO, AND IN THE BEST INTERESTS OF, EPIX AND ITS STOCKHOLDERS AND HAS APPROVED SUCH RATIFICATION. THE EPIX BOARD OF DIRECTORS RECOMMENDS THAT EPIX STOCKHOLDERS

VOTE FOR PROPOSAL NO. 5 TO RATIFY THE SELECTION

Table of Contents

OF ERNST & YOUNG LLP AS EPIX S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING DECEMBER 31, 2006.

THE EPIX BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT ADJOURNING THE EPIX ANNUAL MEETING, IF NECESSARY, IF A QUORUM IS PRESENT, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF PROPOSAL NOS. 1, 2 AND 3 IS ADVISABLE TO, AND IN THE BEST INTERESTS OF, EPIX AND ITS STOCKHOLDERS AND HAS APPROVED AND ADOPTED THE PROPOSAL. THE EPIX BOARD OF DIRECTORS RECOMMENDS THAT EPIX STOCKHOLDERS VOTE FOR PROPOSAL NO. 6 TO ADJOURN THE EPIX ANNUAL MEETING, IF NECESSARY, IF A QUORUM IS PRESENT, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF PROPOSAL NOS. 1, 2 AND 3.

Table of Contents

4 Maguire Road
Lexington, Massachusetts 02421
(781) 372-3260

NOTICE OF SPECIAL MEETING OF PREDIX STOCKHOLDERS
TO BE HELD ON AUGUST 15, 2006

To the Stockholders of Predix Pharmaceuticals Holdings, Inc.:

On behalf of the board of directors of Predix Pharmaceuticals Holdings, Inc., a Delaware corporation, we are pleased to deliver this joint proxy statement/prospectus for the proposed merger combining EPIX Pharmaceuticals, Inc. and Predix. A special meeting of stockholders of Predix will be held on August 15, 2006 at 9:00 a.m., local time, at the offices of Goodwin Procter LLP, Exchange Place, Boston, Massachusetts, 02109 for the following purposes:

1. To consider and vote on a proposal to approve and adopt the Agreement and Plan of Merger, dated as of April 3, 2006, as amended, by and among EPIX Pharmaceuticals, Inc., EPIX Delaware, Inc., a wholly-owned subsidiary of EPIX, and Predix Pharmaceuticals Holdings, Inc., and approve the merger of Predix Pharmaceuticals Holdings, Inc. with and into EPIX Delaware, Inc.;

2. To consider and vote on a proposal to approve the adjournment of the special meeting, if necessary, to solicit additional proxies, in the event that there are not sufficient votes at the time of the special meeting to approve and adopt the merger agreement and to approve the merger; and

3. To transact such other business as may properly come before the special meeting or any adjournment or postponement thereof.

The board of directors of Predix has fixed June 28, 2006 as the record date for the determination of stockholders entitled to notice of, and to vote at, the special meeting and any adjournment or postponement thereof. Only holders of record of shares of Predix common stock and holders of record of shares of Predix preferred stock at the close of business on the record date are entitled to notice of, and to vote at, the special meeting. Holders of Predix preferred stock vote on an as-converted to Predix common stock basis. At the close of business on the record date, Predix had outstanding and entitled to vote (a) 1,097,357 shares of common stock and (b) 273,203,492 shares of preferred stock, consisting of 76,771,672 shares of Series AB preferred stock, which are convertible into 4,265,060 shares of Predix common stock and 196,431,820 shares of Series C preferred stock, which are convertible into 10,912,838 shares of Predix common stock.

Your vote is important. The affirmative vote of the holders of: (a) a majority of the common stock and the preferred stock voting as a single class (on an as-converted to Predix common stock basis); (b) 60% of the preferred stock voting as a single class (on an as-converted to Predix common stock basis), and (c) 66^{2}/3% of the shares of the Series C preferred stock (on an as-converted to Predix common stock basis), in each case, outstanding on the record date, is required for approval of Proposal No. 1 above. The affirmative vote of the holders of a majority of the outstanding common stock and the preferred stock voting as a single class on an as-converted to Predix common stock basis on the record date is required for approval of Proposal Nos. 2 and 3 above. Even if you plan to attend the special meeting in person, we request that you sign and return the enclosed proxy and thus ensure that your shares will be represented at the special meeting if you are unable to attend. If you sign, date and mail your proxy card without indicating how you wish to vote, your proxy will be counted as a vote in favor of the approval and adoption of the merger agreement and the approval of the merger and an adjournment of the Predix special meeting, if necessary, if a quorum is present, to solicit additional proxies if there are not sufficient votes in favor of Proposal No. 1. If you fail to return your proxy card,

Table of Contents

the effect will be a vote against the approval and adoption of the merger agreement and the approval of the merger and your shares will not be counted for purposes of determining whether a quorum is present at the Predix special meeting. If you do attend the Predix special meeting and wish to vote in person, you may withdraw your proxy and vote in person.

By Order of the Board of Directors,

President and Chief Executive Officer
Predix Pharmaceuticals Holdings, Inc.

Lexington, Massachusetts
July 18, 2006

THE PREDIX BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT THE MERGER IS ADVISABLE TO, AND IN THE BEST INTERESTS OF, PREDIX AND ITS STOCKHOLDERS AND HAS APPROVED THE MERGER AND THE MERGER AGREEMENT. THE PREDIX BOARD OF DIRECTORS RECOMMENDS THAT PREDIX STOCKHOLDERS VOTE FOR PROPOSAL NO. 1 TO APPROVE AND ADOPT THE MERGER AGREEMENT AND TO APPROVE THE MERGER AND FOR PROPOSAL NO. 2 TO ADJOURN THE SPECIAL MEETING, IF NECESSARY, IF A QUORUM IS PRESENT, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF PROPOSAL NO. 1.

Table of Contents

TABLE OF CONTENTS

Table of Contents

Page

Table of Contents

Page

Table of Contents

Table of Contents

QUESTIONS AND ANSWERS ABOUT THE MERGER

All references to the merger agreement contained throughout this joint proxy statement/prospectus shall refer to the merger agreement, as amended by amendment no. 1 thereto.

Except where specifically noted, the following information and all other information contained in this joint proxy statement/prospectus does not give effect to any reverse stock split described in EPIX s Proposal No. 3.

The following section provides answers to frequently asked questions about the effect of the merger on the holders of EPIX common stock and Predix common stock, preferred stock, warrants and stock options. EPIX and Predix urge you to read carefully the remainder of this joint proxy statement/prospectus, including the documents attached to this joint proxy statement/prospectus, because the information in this section does not provide all the information that might be important to you regarding the merger and the other matters being considered at the EPIX annual meeting and the Predix special meeting.

Q: Why are EPIX and Predix proposing the merger? (See pages 71 and 80)

A: EPIX and Predix are proposing the merger because they believe the resulting combined company will be a stronger, more diverse company with more growth potential than either company would have separately. EPIX and Predix believe that the merger may result in a number of benefits, including:

a broader, more balanced portfolio of product candidates, with significant market potential;

the opportunity for each company s stockholders to participate in the potential growth of the combined company after the merger; and

a seasoned management team and significant financial resources.

Q: Why am I receiving this joint proxy statement/prospectus?

A: You are receiving this joint proxy statement/prospectus because you have been identified as a stockholder of either EPIX or Predix, and thus you are entitled to vote at EPIX s annual meeting or Predix s special meeting, as the case may be. This document serves as both a joint proxy statement of EPIX and Predix, used to solicit proxies for the stockholder meetings, and as a prospectus of EPIX, used to offer shares of EPIX common stock in exchange for shares of Predix common stock and preferred stock pursuant to the terms of the merger agreement. This document contains important information about the merger and the stockholder meetings of EPIX and Predix, and you should read it carefully.

Q: What will a Predix stockholder receive in exchange for Predix stock in the merger? (See pages 62 and 89)

A: Each Predix stockholder will receive 1.239411 shares of EPIX common stock, subject to adjustment to account for the reverse stock split if implemented, for each share of Predix common stock or preferred stock (on an as-converted to Predix common stock basis) that they own, and cash in lieu of fractional shares. We refer to this as the exchange ratio. In approving the merger agreement, the holders of Predix preferred stock will be agreeing to accept the merger consideration as set forth in the merger agreement in lieu of any liquidation preferences that they would be entitled to under the Predix restated certificate of incorporation, as amended, prior to the consummation of the merger.

In addition, EPIX will make a milestone payment to Predix stockholders, option holders and warrant holders in an aggregate amount of $35 million upon the occurrence of certain events. EPIX may elect to make the milestone payment in cash or shares of EPIX common stock, or any combination thereof. The milestone payment will be allocated and paid to each holder of Predix shares, options and warrants at the time of the merger, on a pro rata basis assuming that each Predix warrant and option (whether or not vested) was exercised in full immediately

prior to the merger.

Table of Contents

In no event will the shares of EPIX common stock issuable at the effective time of the merger, including the shares of EPIX common stock issuable upon exercise of Predix options and warrants assumed by EPIX in the merger, exceed 49.99% of the outstanding EPIX common stock immediately after the effective time of the merger. In addition, in no event may the milestone be paid in shares of EPIX common stock to the extent that such shares would exceed 49.99% of the outstanding shares of EPIX common stock 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 assumed by EPIX in the merger.

Q: What events will trigger the milestone payment from EPIX? (See pages 62 and 90)

A: Predix stockholders, option holders and warrant holders will receive the milestone payment within 90 days following the occurrence, as determined by the non-Predix members of the combined company s board of directors, of any of the following events between the date of this joint proxy statement/ prospectus and June 30, 2008:

receipt of statistically significant final results from a randomized, placebo- or active comparator controlled, double-blinded Phase II or Phase III clinical trial of:

PRX-00023 for the treatment of generalized anxiety disorder, depression, attention-deficit hyperactivity disorder or other neuropsychiatric disorder with at least 100 patients;

PRX-03140 for the treatment of Alzheimer s disease or other cognitive disorders with at least 60 patients;

PRX-08066 for the treatment of pulmonary artery hypertension, chronic obstructive pulmonary disease or a different indication with at least 60 patients;

PRX-07034 for the treatment of obesity, cognitive disorders or a different indication with at least 60 patients; or

entering into a strategic partnership for any Predix drug candidate, which provides milestone and research funding payments of more than $50 million, of which $20 million must be in unrestricted cash received by June 30, 2008 through non-refundable license fees, research funding payments, and/or premiums paid in connection with an equity investment by the strategic partner within 60 days following entry into the strategic partnership.

Q: If triggered, when will the milestone payment be made? (See pages 62 and 90)

A: The milestone payment will be paid within 90 days after the achievement of a milestone event, at the option of the non-Predix members of the combined company s board of directors either:

in cash, shares of EPIX common stock or any combination thereof with the number of such shares to be issued determined based on the five-day average closing price of EPIX common stock on The NASDAQ Global Market ending on the trading day that is ten days prior to the payment date; or

$20 million payable in accordance with the preceding bullet and $15 million payable on the date that is 12 months after the payment of the initial $20 million in shares of EPIX common stock, with the number of such shares to be issued determined based on 75% of the 30-day average closing price of EPIX common stock on The NASDAQ Global Market ending on the trading day that is ten days prior to the payment date. If, as a result of the 49.99% limitation described below, the entire $15 million payment cannot be made in shares of EPIX common stock, the balance will be paid in cash plus interest calculated from the milestone payment date at the rate of 10% per year.

In no event may the milestone be paid in shares of EPIX common stock to the extent that such shares would exceed 49.99% of the outstanding shares of EPIX common stock 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 assumed by EPIX in the merger. As a result of this limitation, if the milestone payment is

triggered before EPIX issues a significant number of

Table of Contents

new shares of its capital stock or before consummation of the merger, all or a substantial portion of the milestone payment will be paid in cash. Additionally, the milestone will be paid in cash to the holders of Predix options and warrants assumed by EPIX in the merger.

Q: Who will be the directors of EPIX following the merger? (See page 103)

A: Following the merger, the board of directors of EPIX will consist of nine members, of which five will be designated by EPIX and four will be designated by Predix. The following individuals are expected to comprise the EPIX board of directors after the merger:

Christopher F.O. Gabrieli, Chairman
Patrick J. Fortune, Ph.D.
Frederick Frank
Michael Gilman, Ph.D.
Michael G. Kauffman, M.D., Ph.D.
Mark Leuchtenberger
Robert J. Perez
Gregory D. Phelps
Ian F. Smith, CPA, ACA

Mr. Perez will be the fifth person designated by EPIX to serve on the board of directors of EPIX after the merger.

Q: Who will manage EPIX following the merger? (See page 103)

A: Following the merger, the management team and key employees of EPIX will be comprised of certain key employees and members of both EPIX s and Predix s respective management teams prior to the merger and is expected to include the following individuals:

Name	Position in the Combined Company	Current Position
Michael G. Kauffman, M.D., Ph.D.	Chief Executive Officer and Director	Predix s President and Chief Executive Officer
Andrew C.G. Uprichard, M.D.	President	EPIX s President and Chief Operating Officer
Kimberlee C. Drapkin, CPA	Chief Financial Officer	Predix s Chief Financial Officer
Oren Becker, Ph.D.	Chief Scientific Officer	Predix s Chief Scientific Officer
Stephen R. Donahue M.D.	Vice President of Clinical & Regulatory Affairs	Predix s Vice President of Clinical and Regulatory Affairs
Philip Graham, Ph.D.	Vice President of Product Management and Imaging	EPIX s Vice President of Program Management
Silvia Noiman, Ph.D.	Senior Vice President of Pipeline Management, General Manager Israel	Predix s Senior Vice President of Pipeline Management, General Manager Israel
Chen Schor, CPA	Chief Business Officer	Predix s Chief Business Officer
Sharon Shacham, Ph.D.	Vice President of Preclinical Development and Product Leadership	Predix s Vice President of Preclinical Development and Product Leadership
Brenda Sousa	Vice President of Human Resources	EPIX s Vice President of Human Resources

Q: What stockholder approval is needed to complete the merger? (See pages 58 and 60)

A: To consummate the merger, EPIX stockholders must approve the issuance of shares of EPIX common stock in the merger and approve the merger, which requires the affirmative vote of the holders of a majority of the shares present at the EPIX annual meeting, whether in person or by proxy. In addition, to ensure EPIX has sufficient shares of EPIX common stock authorized to issue in connection with the merger and to enable EPIX to meet the listing requirements of The NASDAQ Global Market after the merger. EPIX is seeking stockholder approval of each of the following: (a) the amendment to

Table of Contents

EPIX s restated certificate of incorporation increasing the number of authorized shares of EPIX common stock, which requires the affirmative vote of the holders of a majority of the outstanding shares of EPIX common stock as of the record date and (b) the authorization of the EPIX board of directors to amend in its discretion EPIX s restated certificate of incorporation to effect a reverse stock split of the issued and outstanding shares of EPIX common stock at a ratio of between 1:1.25 to 1:4, which requires the affirmative vote of the holders of a majority of the outstanding shares of EPIX common stock as of the record date. As discussed in more detail in this joint proxy statement/prospectus, the approval of authorization to implement the reverse stock split will be necessary to complete the merger only if the trading price of EPIX common stock on The NASDAQ Global Market is below $5.00 per share upon closing of the merger. The EPIX board of directors, however, is seeking approval of both actions at the EPIX annual meeting to ensure that all actions necessary to consummate the merger are obtained at that time. Additionally, the EPIX board of directors expects to amend EPIX s restated certificate of incorporation to increase the number of authorized shares of EPIX common stock, if approved, whether or not it is necessary to consummate the merger.

In addition, Predix stockholders must vote to approve and adopt the merger agreement and to approve the merger, which requires the affirmative vote of the holders of: (a) a majority of the Predix common stock and preferred stock voting as a single class (on an as-converted to Predix common stock basis); (b) 60% of the Predix preferred stock voting as a single class (on an as-converted to Predix common stock basis), and (c) $66^2/3$% of the shares of Predix Series C preferred stock (on an as-converted to Predix common stock basis), in each case, outstanding on the record date for the Predix special meeting.

In addition to obtaining stockholder approval, each of the other closing conditions set forth in the merger agreement must be satisfied or waived. For a more complete description of the closing conditions under the merger agreement, we urge you to read the section entitled The Merger Agreement Conditions to the Completion of the Merger on page 97 of this joint proxy statement/prospectus.

Q: What do I need to do now? (See pages 55 and 59)

A: After carefully reading and considering the information contained in and incorporated into this joint proxy statement/ prospectus, please submit your proxy card according to the instructions on the enclosed proxy card as soon as possible. If you do not submit a proxy card or attend the special meeting and vote in person, your shares will not be represented or voted at the meeting.

Q: Will the merger trigger the recognition of gain or loss for U.S. federal income tax purposes for Predix stockholders? (See page 83)

A: The closing of the merger is conditioned upon the receipt by Predix and EPIX of opinions that the merger will constitute a reorganization for U.S. federal income tax purposes. Assuming the merger does constitute a reorganization, subject to the limitations and qualifications described in The Merger Material United States Federal Income Tax Consequences of the Merger, each Predix stockholder generally will recognize gain, but not loss, for federal income tax purposes under the installment method at the time of any cash milestone payment in the aggregate amount equal to the lesser of (a) the amount of cash such Predix stockholder receives in the merger or (b) the amount, if any, by which the sum of (i) the fair market value of any EPIX common stock such Predix stockholder receives, and (ii) the amount of cash such Predix stockholder receives in the merger, exceeds such Predix stockholder s adjusted tax basis in its shares of Predix common stock or preferred stock, as applicable, and will be required to include the amount of the gain in such stockholder s gross income for federal income tax purposes for the year in which the holder receives the cash milestone payment attributable to the gain. Under the installment method, a Predix stockholder will not recognize any gain in the merger until any cash milestone payment is made. However, a Predix stockholder electing out of the application of the installment method will be

required to recognize gain at the closing in the amount equal to the lesser of (a) the fair market value of the milestone payment obligation such Predix stockholder receives in the merger or (b) the amount, if any, by which the sum of (i) the fair market value of any EPIX common stock such Predix stockholder receives, and (ii) the fair market value of the milestone payment obligation such Predix stockholder receives, exceeds such Predix stockholder s adjusted tax basis in its shares of Predix stock surrendered in the merger. Any cash received in lieu of a fractional share of EPIX common stock will be treated separately for federal

Table of Contents

income tax purposes. The tax consequences to Predix stockholders will depend on each stockholder s own circumstances. Each Predix stockholder should consult with his, her or its tax advisor for a full understanding of the tax consequences of the merger to that stockholder.

Q: How does the EPIX Board of Directors recommend that I vote?

A: After careful consideration, the EPIX board of directors recommends that EPIX stockholders vote:

FOR Proposal No. 1 to approve the issuance of shares of EPIX common stock in the merger and approve the merger;

FOR Proposal No. 2 to approve an amendment to EPIX s amended and restated certificate of incorporation to increase the number of authorized shares of common stock from 40,000,000 shares to 100,000,000 shares;

FOR Proposal No. 3 to authorize the EPIX board of directors to amend in its discretion EPIX s restated certificate of incorporation to effect a reverse stock split of EPIX s issued and outstanding shares of common stock, at such ratio to be determined by the EPIX board of directors;

FOR Proposal No. 4 to elect two directors for a three-year term to expire at the 2009 annual meeting of stockholders and to elect one director for a one-year term to expire at the 2007 annual meeting of stockholders; provided, however, that if the merger is completed, the EPIX board of directors will consist of the nine persons identified in this joint proxy statement/prospectus;

FOR Proposal No. 5 to ratify the selection of Ernst & Young LLP as EPIX s independent registered public accounting firm for the fiscal year ending December 31, 2006; and

FOR Proposal No. 6 to adjourn the annual meeting, if necessary, if a quorum is present, to solicit additional proxies if there are not sufficient votes in favor of Proposal Nos. 1, 2 and 3.

Q: How does the Predix Board of Directors recommend that I vote?

A: After careful consideration, the Predix board of directors recommends that Predix stockholders vote:

FOR Proposal No. 1 to approve and adopt the merger agreement and to approve the merger; and

FOR Proposal No. 2 to adjourn the special meeting, if necessary, if a quorum is present, to solicit additional proxies if there are not sufficient votes in favor of Proposal No. 1.

Q: What risks should I consider in deciding whether to vote in favor of the share issuance, approval of the merger, the amendment to EPIX s restated certificate of incorporation, the approval and adoption of the merger agreement and the authorization of the EPIX board of directors to effect a reverse stock split?

A: You should carefully review the section of this joint proxy statement/prospectus entitled Risk Factors beginning on page 21, which sets forth certain risks and uncertainties related to the merger and risks and uncertainties to which the combined company s business will be subject, including the individual businesses of each of EPIX and Predix.

Q: What happens if I do not return a proxy card or otherwise provide proxy instructions?

A: If you are an EPIX stockholder, the failure to return your proxy card or otherwise provide proxy instructions could be a factor in establishing a quorum for the annual meeting of EPIX stockholders. In addition, the failure to return your proxy card or otherwise provide instructions will have the same effect as voting against Proposal No. 2, the amendment of EPIX s restated certificate of incorporation to increase the authorized shares of EPIX common stock, the approval of which may be necessary to enable EPIX to issue shares of EPIX common stock to Predix stockholders, option holders and warrant holders in connection with the merger, and Proposal No. 3, the

authorization of the EPIX board of directors to amend in its discretion EPIX s restated certificate of incorporation to effect a reverse stock split of EPIX s issued and outstanding shares of common stock, at such ratio to be determined by the EPIX board of directors, which may be necessary for EPIX to maintain its eligibility for trading on The NASDAQ Global Market after completion of the merger. If you are a Predix stockholder, the

failure to return your proxy card or otherwise provide proxy instructions will have the same effect as voting against the approval and adoption of the merger agreement and the approval of the merger, and could be a factor in establishing a quorum for the special meeting of Predix stockholders.

Q: May I vote in person?

A: If your shares of EPIX common stock on the record date are registered directly in your name with EPIX s transfer agent you are considered, with respect to those shares, the stockholder of record, and the proxy materials and proxy card are being sent directly to you by EPIX. If you are an EPIX stockholder of record, you may attend the annual meeting of EPIX stockholders to be held on August 15, 2006 and vote your shares in person, rather than signing and returning your proxy card or otherwise providing proxy instructions. Each Predix stockholder on the record date is a stockholder of record and may attend the special meeting of Predix stockholders to be held on August 15, 2006 and vote your shares in person, rather than signing and returning your proxy card or otherwise providing proxy instructions. All EPIX and Predix stockholders are requested to return their proxy cards, even if they intend to vote in person.

Q: May I change my vote after I have provided proxy instructions?

A: Yes. You may change your vote at any time before your proxy is voted at either the annual meeting of EPIX stockholders or the special meeting of Predix stockholders. You can do this in one of three ways. First, you can send a written notice stating that you would like to revoke your proxy. Second, you can submit new proxy instructions either on a new proxy card and if you are an EPIX stockholder also, by telephone or via the Internet. Third, you can attend the meeting and vote in person. Your attendance alone will not revoke your proxy. If you have instructed a broker to vote your shares of EPIX common stock, you must follow directions received from your broker to change those instructions.

Q: Have any Predix stockholders entered into lock-up agreements?

A: EPIX expects to obtain lock-up agreements from the officers, directors and certain stockholders of Predix covering an aggregate of approximately 9,049,530 Predix shares (on an as-converted to Predix common stock basis), or approximately 56% of Predix s outstanding shares, which agreements prohibit the sale, transfer, pledge or other disposition with respect to EPIX common stock for up to 180 days following the consummation of the merger as follows: (a) one-third (1/3) of such holder s restricted shares will be released from the lock-up after the 90th day following the consummation of the merger; (b) an additional one-third (1/3) of such holder s restricted shares will be released from the lock-up after the 120th day following the consummation of the merger; and (c) the remaining one-third (1/3) of such holder s restricted shares will be released from the lock-up after the 180th day following the consummation of the merger.

In addition, prior to the closing, EPIX expects to obtain affiliate agreements from the holders of approximately 9,049,530 Predix shares (on an as-converted to Predix common stock basis), representing approximately 56% of Predix outstanding shares (on an as-converted to Predix common stock basis) as of such date. These agreements prohibit the sale, transfer or other disposition with respect to EPIX s common stock in violation of the Securities Act of 1933, as amended, or the rules and regulations thereunder.

Q: Have any EPIX stockholders entered into lock-up agreements?

A: Yes. The chairman of the board of directors of EPIX, Christopher F.O. Gabrieli, has agreed to enter into the same lock-up agreement as certain Predix stockholders with respect to his shares of EPIX common stock.

Q:

Will Predix stockholders be able to trade the EPIX common stock that they receive in the merger? (See page 87)

A: EPIX has filed an initial listing application with The NASDAQ Global Market pursuant to the Reverse Merger rules of The NASDAQ Global Market. If such application is accepted, EPIX anticipates that its common stock will continue to be listed on The NASDAQ Global Market following the completion of the

Table of Contents

merger under its current trading symbol EPIX. It is a condition to Predix s consummation of the merger that EPIX maintain the listing of its common stock on The NASDAQ Global Market.

Subject to the lock-up agreements discussed herein, all shares of EPIX common stock issued to Predix stockholders, other than Predix stockholders who are deemed to be affiliates of Predix, will be freely tradable following the merger. EPIX has agreed to file a registration statement with respect to these shares of EPIX common stock to be issued in the merger to persons who are deemed to be affiliates of Predix. As a result, these shares will also be freely tradable upon the effectiveness of this registration statement, subject only to certain prospectus delivery requirements and the terms of the lock-up agreements described herein, if applicable.

Q: Who is paying for this proxy solicitation?

A: EPIX and Predix are conducting this proxy solicitation and will bear the cost of soliciting proxies, including the preparation, assembly, printing and mailing of this joint proxy statement/prospectus, the proxy card and any additional information furnished to stockholders of EPIX and Predix. EPIX may also reimburse brokerage houses and other custodians, nominees and fiduciaries for their costs of forwarding proxy and solicitation materials to beneficial owners.

Q: When do you expect the merger to be completed?

A: EPIX and Predix are working to complete the merger as quickly as possible. EPIX and Predix expect to complete the merger by the end of August 2006.

Q: Should Predix stockholders send in their stock certificates now? (See page 91)

A: No. After the merger is completed, EPIX will send you written instructions for exchanging your Predix stock certificates for EPIX stock certificates.

Q: Whom should I call with questions? (See page 243)

A: If you are an EPIX stockholder and would like additional copies, without charge, of this joint proxy statement/ prospectus or if you have questions about the merger, including the procedures for voting your shares, you should contact:

EPIX Pharmaceuticals, Inc.
Attn: Investor Relations
161 First Street
Cambridge, Massachusetts 02142
(617) 250-6000
E-mail: ahedison@epixpharma.com

If you are a Predix stockholder and would like additional copies, without charge, of this joint proxy statement/ prospectus or if you have questions about the merger, including the procedures for voting your shares, you should contact:

Predix Pharmaceuticals Holdings, Inc.
Attn: Investor Relations
4 Maguire Road
Lexington, Massachusetts 02421
(781) 372-3260
E-mail: investors@predixpharm.com

Table of Contents

SUMMARY OF THE JOINT PROXY STATEMENT/ PROSPECTUS

This summary highlights selected information from this joint proxy statement/prospectus and may not contain all of the information that is important to you.

You should carefully read this entire document and the other documents EPIX and Predix refer to for a more complete understanding of the merger. This summary and the balance of this document contain forward-looking statements about events that are not certain to occur, and you should not place undue reliance on those statements. Please carefully read Cautionary Information Regarding Forward-Looking Statements on page 20 of this document.

All references to the merger agreement contained throughout this joint proxy statement/prospectus shall refer to the merger agreement, as amended by amendment no. 1 thereto.

Except where specifically noted, the following information and all other information contained in this joint proxy statement/prospectus does not give effect to any reverse stock split described in EPIX s Proposal No. 3.

This joint proxy statement/prospectus contains trademarks, trade names, service marks and service names of EPIX, Predix and other companies.

The Companies (See pages 136 and 169)

EPIX Pharmaceuticals, Inc.

EPIX is a pharmaceutical company focused on the discovery and development of innovative specialty pharmaceuticals for imaging that are designed to transform the diagnosis, treatment and monitoring of disease. Using its proprietary Target Visualization Technology, EPIX creates imaging agents targeted at the molecular level. These agents are designed to enable physicians to use magnetic resonance imaging, or MRI, to obtain detailed information about specific disease processes. MRI has been established as the imaging technology of choice for a broad range of applications, including the identification and diagnosis of a variety of medical disorders. MRI is safe, relatively cost-effective and provides three-dimensional images that enable physicians to diagnose and manage disease in a minimally invasive manner.

EPIX s principal executive offices are located at 161 First Street, Cambridge, Massachusetts 02142, and its telephone number is (617) 250-6000. EPIX s website address is http://www.epixpharma.com. EPIX s website is a factual reference and it is not intended to be an active link to the website, and the information contained in the website is not a part of this joint proxy statement/prospectus.

EPIX Delaware, Inc.

EPIX Delaware, Inc. is a wholly-owned subsidiary of EPIX that was recently incorporated in Delaware solely for the purpose of the merger. It does not conduct any business and has no material assets. Its principal executive offices have the same address and telephone number as EPIX set forth above.

Predix Pharmaceuticals Holdings, Inc.

Predix is a privately-held pharmaceutical company focused on the discovery and development of novel, highly selective, small-molecule drugs that target G-Protein Coupled Receptors and ion channels. Predix has progressed four drug candidates into clinical trials, one of which commenced a Phase I clinical trial on June 2, 2006, and has five additional programs in pre-clinical development or discovery. Predix is expecting to complete the first of at least two pivotal Phase III clinical trials for generalized anxiety disorder, for its lead drug candidate, PRX-00023, and receive initial data for this trial in the second half of 2006. Predix completed a Phase IIa clinical trial of PRX-00023 in this indication in July 2005. Predix has two other clinical-stage drug candidates that have completed Phase I clinical trials: PRX-03140 for the treatment of Alzheimer s disease that is expected to enter Phase II clinical trials in the second half of 2006, and PRX-08066 for the treatment of two types of pulmonary hypertension, which are pulmonary

1

Table of Contents

hypertension associated with chronic obstructive pulmonary disease that is expected to enter Phase II clinical trials in the second half of 2006, and pulmonary arterial hypertension. In addition, on June 2, 2006, Predix commenced a Phase I clinical trial of its PRX-07034 drug candidate for the treatment of obesity and cognitive impairment (associated with Alzheimer s disease or schizophrenia).

Predix s principal executive offices are located at 4 Maguire Road, Lexington, Massachusetts 02421, and its telephone number is (781) 372-3260. Predix s website address is http://www.predixpharm.com. Predix s website is a factual reference and it is not intended to be an active link to the website, and the information contained in the website is not a part of this joint proxy statement/prospectus.

The Combined Company

At the effective time of the merger, EPIX stockholders will retain approximately 53% of the outstanding stock of the combined company, and the former Predix stockholders will own approximately 47% of the outstanding stock of the combined company, based on the number of shares of EPIX common stock and Predix common stock and preferred stock outstanding as of the date of the merger agreement. EPIX will also assume all outstanding Predix options and warrants in the merger. The combined company s board of directors is expected to consist of five directors designated by EPIX and four Predix directors designated by Predix. In addition, the management team of the combined company will consist of certain current members of both EPIX and Predix. Predix s principal executive office is expected to be the combined company s executive principal office.

Risks Associated with the Merger and the Combined Company, EPIX and Predix (See page 21)

The merger poses a number of risks to each company and its respective stockholders. In addition, both EPIX and Predix s businesses and industries are subject to various risks. These risks are discussed in detail under the caption Risk Factors beginning on page 21. You are encouraged to read and consider all of these risks carefully.

Stockholder Meetings

The EPIX Annual Meeting (See page 55)

Time, Date and Place. The annual meeting of the stockholders of EPIX will be held on August 15, 2006, at the offices of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., One Financial Center, Boston, Massachusetts, at 10:00 a.m., local time, to vote on Proposal No. 1 to approve the issuance of shares of EPIX common stock in the merger and approve the merger, Proposal No. 2 to approve an amendment to EPIX s restated certificate of incorporation to increase the number of authorized shares of common stock from 40,000,000 shares to 100,000,000 shares, Proposal No. 3 to authorize the EPIX board of directors to amend in its discretion EPIX s restated certificate of incorporation to effect a reverse stock split of EPIX s issued and outstanding shares of common stock, at such ratio to be determined by the EPIX board of directors, Proposal No. 4 to elect two directors for a three-year term to expire at the 2009 annual meeting of stockholders and to elect one director for a one-year term to expire at the 2007 annual meeting stockholders; provided, however, that, if the merger is completed, the EPIX board of directors will consist of the nine persons identified in this joint proxy statement/prospectus, Proposal No. 5 to ratify the selection of Ernst & Young LLP as EPIX s independent registered public accounting firm for the fiscal year ending December 31, 2006, and Proposal No. 6 to adjourn the annual meeting, if necessary, if a quorum is present, to solicit additional proxies if there are not sufficient votes in favor of Proposal Nos. 1, 2 and 3.

Record Date and Voting Power for EPIX. You are entitled to vote at the EPIX annual meeting if you owned shares of EPIX common stock at the close of business on June 28, 2006, the record date for the EPIX annual meeting. You will have one vote at the annual meeting for each share of EPIX common stock you owned at the close of business on the record date. There are 23,284,810 shares of EPIX common stock entitled to vote at the annual meeting.

Table of Contents

EPIX Required Vote. The affirmative vote of the holders of a majority of the shares present at the EPIX annual meeting, whether in person or by proxy, is required for approval of Proposal Nos. 1, 5 and 6 above. The affirmative vote of the holders of a majority of the outstanding shares of EPIX common stock on the record date is required for approval of Proposal Nos. 2 and 3. The affirmative vote of a plurality of the votes cast in person or by proxy at the EPIX annual meeting is required for approval of Proposal No. 4.

Share Ownership of Management. As of June 28, 2006, the current directors and executive officers of EPIX, together with their affiliates, beneficially owned approximately 1.83% of the shares entitled to vote at the EPIX annual meeting.

The Predix Special Meeting (See page 59)

Time, Date and Place. The special meeting of the stockholders of Predix will be held on August 15, 2006, at the offices of Goodwin Procter LLP, Exchange Place, Boston, Massachusetts, at 9:00 a.m., local time, to vote on Proposal No. 1 to approve and adopt the merger agreement and approve of the merger and Proposal No. 2 to adjourn the Predix special meeting, if necessary, if a quorum is present, to solicit additional proxies if there are not sufficient votes in favor of Proposal No. 1.

Record Date and Voting Power for Predix. You are entitled to vote at the Predix special meeting if you owned shares of Predix common stock or preferred stock at the close of business on June 28, 2006, the record date for the special meeting. You will have one vote at the special meeting for each share of Predix common stock you owned at the close of business on the record date. You will also have one vote at the special meeting for each share of Predix common stock issuable upon conversion of the shares of Predix preferred stock you owned at the close of business on the record date. There are 1,097,357 shares of Predix common stock and 15,177,898 shares of Predix preferred stock (on an as-converted to Predix common stock basis) entitled to vote at the Predix special meeting.

Predix Required Vote. The affirmative vote of the holders of (a) a majority of the Predix common stock and preferred stock voting as a single class (on an as-converted to Predix common stock basis), (b) 60% of the Predix preferred stock voting as a single class (on an as-converted to Predix common stock basis) and (c) $66^2/3\%$ of the shares of Predix series C preferred stock (on as as-converted to Predix common stock basis), in each case, outstanding on the record date, is required for approval of Proposal No. 1. The affirmative vote of the holders of a majority of the Predix common shares and preferred shares voting as a single class is required for approval of Proposal No. 2.

Share Ownership of Management. As of June 28, 2006, the directors and executive officers of Predix, together with their affiliates, beneficially owned approximately 56% of the shares of Predix common stock and preferred stock, on an as-converted Predix common stock basis, entitled to vote at the Predix special meeting. Stockholders of Predix beneficially owning approximately 40% of the outstanding voting stock of Predix have agreed to vote their shares in favor of the approval and adoption of the merger agreement and the approval of the merger. Certain of these stockholders are affiliated with directors of Predix.

Recommendation to Stockholders

To EPIX Stockholders (See page 73). The EPIX board of directors has determined and believes that the issuance of shares of EPIX common stock in the merger and the merger and the other proposals described in this joint proxy statementprospectus are advisable to and in the best interest of EPIX and its stockholders. The EPIX board of directors recommends that the holders of EPIX common stock vote FOR Proposal Nos. 1 through 6 at the annual meeting of stockholders of EPIX.

To Predix Stockholders (See page 82). The Predix board of directors has determined and believes that the merger is advisable to, and in the best interest of, Predix and its stockholders. The Predix board

Table of Contents

of directors recommends that the Predix stockholders vote FOR Proposals No. 1 and 2 at the special meeting of stockholders of Predix.

Fairness Opinion Received by EPIX (See page 74)

Needham & Company, LLC delivered its opinion to the EPIX board of directors that, as of March 30, 2006, and based on and subject to the factors and assumptions set forth therein, the consideration to be paid by EPIX in the merger is fair to EPIX and the holders of EPIX common stock from a financial point of view.

The full text of the written opinion of Needham & Company, LLC, dated March 30, 2006, which sets forth the assumptions made, procedures followed, matters considered and limitations on the review undertaken in connection with the opinion, is attached to this joint proxy statement/prospectus as Annex C. Needham & Company, LLC provided its opinion for the information and assistance of the EPIX board of directors in connection with its consideration of the merger. The written opinion of Needham & Company, LLC is not a recommendation as to how any holder of EPIX common stock should vote with respect to the issuance of shares of EPIX common stock in the merger, the approval of the merger or the amendment to EPIX s restated certificate of incorporation. **EPIX urges you to read the entire opinion of Needham & Company, LLC carefully.**

Voting Agreements (See page 102)

The following stockholders of Predix entered into voting agreements with EPIX on April 3, 2006: Caduceus Private Investment, L.P., UBS PW Juniper Crossover Fund, L.L.C., Hare and Company FAO: Finsbury Worldwide Pharma, Yozma II (Israel) L.P., Yozma Venture Capital Ltd, YVC-Yozma Management & Investments Ltd., as trustee for Yozma II (B.V.I.) L.P., PCM Venture Capital L.P., Yamanouchi Venture Capital and PA International Limited. These entities represent an aggregate of approximately 40% of the outstanding voting shares of Predix (on an as-converted to Predix common stock basis). Each has agreed in the voting agreements to vote all shares of Predix common stock and preferred stock beneficially owned by each as of the record date in favor of the approval and adoption of the merger agreement and the approval of the merger. Each also granted EPIX an irrevocable proxy to vote their shares of Predix common stock and preferred stock in favor of the adoption of the merger agreement and the approval of the merger. Certain of these stockholders are affiliated with directors of Predix.

Interests of EPIX s Directors and Management (See page 87)

Some directors and management of EPIX have interests in the merger that are different from, and in addition to, the interests of EPIX stockholders generally.

Upon completion of the merger, Christopher F.O. Gabrieli, Michael Gilman, Ph.D., Mark Leuchtenberger and Gregory D. Phelps, each of whom is a current director of EPIX, are expected to remain members of the EPIX board of directors. In addition, certain executive officers and key employees of EPIX are expected to serve as executive officers or key employees of EPIX after the effective time of the merger and certain officers of EPIX will be entitled to bonuses upon completion of the merger and/or severance payments after completion of the merger.

Upon completion of the merger and the issuance of EPIX common stock in the merger, the directors and officers of EPIX will collectively beneficially own approximately 0.9% of the outstanding stock of EPIX, calculated on the basis set forth under EPIX Principal Stockholders.

Interests of Predix s Directors and Management (See page 87)

Some directors and management of Predix have interests in the merger that are different from, and in addition to, the interests of Predix stockholders generally.

Upon completion of the merger, Patrick J. Fortune, Ph.D, Frederick Frank, Michael G. Kauffman, M.D., Ph.D. and Ian F. Smith, CPA, ACA, each of whom is a current director of Predix, are

Table of Contents

expected to be members of the EPIX board of directors. In addition, certain executive officers and key employees of Predix are expected to serve as executive officers or key employees of EPIX at the effective time of the merger.

Moreover, Mr. Frank, the Chairman of Predix s board of directors, is also the Vice Chairman and a director of Lehman Brothers Inc., Predix s financial advisor in connection with the merger. In connection with the merger, Lehman Brothers is entitled to a fee of $2.0 million from Predix, the entire amount of which is contingent upon consummation of the transaction.

Certain of the stockholders of Predix who have entered into voting agreements with EPIX, agreeing to vote all of the shares beneficially owned by them in favor of approval and adoption of the merger agreement and approval of the merger, are affiliated with directors of Predix.

Pursuant to the merger agreement, upon completion of the merger, the combined company will honor Predix s existing obligations to indemnify its present and former directors, officers and employees to the same extent as provided in Predix s certificate of incorporation, by-laws or any applicable contract or agreement. The certificate of incorporation and by-laws of the combined company will provide for the indemnification and limitation of liability to the same extent as set forth in Predix s certificate of incorporation and by-laws and the combined corporation will indemnify and hold harmless each present and former director, officer or employee of Predix in respect of acts or omissions occurring prior to the completion of the merger, including in connection with the merger agreement and the transactions contemplated thereby.

Upon completion of the merger and the issuance of EPIX common stock in the merger, the directors and officers of Predix will collectively beneficially own approximately 28.2% of the outstanding stock of EPIX, calculated on the basis set forth under Predix Principal Stockholders.

The NASDAQ Global Market Listing (See page 88)

EPIX has filed an initial listing application with The NASDAQ Global Market pursuant to the Reverse Merger rules of The NASDAQ Global Market. If such application is accepted, EPIX anticipates that its common stock will continue to be listed on The NASDAQ Global Market following the completion of the merger under its current trading symbol EPIX. It is a condition to Predix s consummation of the merger that EPIX maintain the listing of its common stock on The NASDAQ Global Market.

Completion and Effectiveness of the Merger (See pages 89 and 97)

EPIX and Predix expect to complete the merger when all of the conditions to completion of the merger contained in the merger agreement have been satisfied or waived. The merger will become effective upon the filing of a certificate of merger with the Secretary of State of the State of Delaware.

EPIX and Predix are working toward satisfying the conditions to the merger, and expect to complete the merger promptly following the stockholder meetings.

Restrictions on Solicitation of Alternative Transactions by EPIX and Predix (See page 93)

EPIX and Predix have each agreed, and have further agreed to ensure that their representatives do not, prior to the consummation of the merger, directly or indirectly, solicit, encourage, have negotiations with respect to (including furnishing information) or take any action that could reasonably be expected to result in the initiation or submission of any inquiries, proposals or offers regarding, or approve, endorse or recommend, any acquisition, merger, take-over bid, sale of substantial assets, sale of shares of capital stock (including without limitation by way of a tender offer) or similar transactions. EPIX and Predix have also agreed to notify each other upon receipt of any alternative acquisition proposal or any inquiry that would reasonably be expected to lead to an alternative acquisition proposal, including the terms of the alternative acquisition proposal or inquiry and the identity of the person making the alternative acquisition proposal or inquiry. However, if EPIX or Predix receives an unsolicited bona fide written acquisition proposal that is a

Table of Contents

superior acquisition proposal prior to the EPIX annual meeting or Predix special meeting, respectively, then EPIX or Predix may provide nonpublic information to, and engage in discussions and negotiations with, the third party making the acquisition proposal so long as certain conditions are satisfied.

Conditions to the Completion of the Merger (See page 97)

EPIX and Predix s obligations to complete the merger are subject to certain conditions described under the heading The Merger Agreement Conditions to the Completion of the Merger beginning on page 97.

Termination of the Merger Agreement and Payment of Certain Termination Fees (See pages 99 and 100)

EPIX and Predix may terminate the merger agreement by mutual agreement and under certain other circumstances. EPIX and Predix have agreed that if the merger agreement is terminated under the circumstances described under The Merger Agreement Fees and Expenses on page 100, a termination fee of $4.5 million may be payable by either EPIX or Predix to the other party upon the termination of the merger agreement.

United States Federal Tax Consequences of the Merger (See page 83)

The closing of the merger is conditioned upon the receipt by EPIX and Predix of opinions that the merger will constitute a reorganization for U.S. federal income tax purposes. As discussed in detail in the section entitled The Merger Material United States Federal Income Tax Consequences of the Merger beginning on page 83, Predix stockholders will be required to pay U.S. federal income taxes on the amount of any gain such stockholder recognizes as a result of the merger. Determining the actual tax consequences of the merger to you may be complex and will depend on the facts of your own situation. You should consult your own tax advisors to fully understand the tax consequences to you of the merger, including estate, gift, state, local or non-U.S. tax consequences of the merger.

Accounting Treatment of the Merger (See page 82)

EPIX, the acquirer, will account for the merger as a purchase.

Appraisal Rights (See page 86)

Under Delaware law, Predix stockholders are entitled to appraisal rights in connection with the merger. Please see the section entitled The Merger Appraisal Rights on page 86 for more information. As EPIX s common stock is quoted on The NASDAQ Global Market, EPIX stockholders will not be entitled to appraisal rights.

Exchange of Predix Stock Certificates (See page 91)

Following the effective time of the merger, EPIX will cause a letter of transmittal to be mailed to all holders of Predix common stock and preferred stock containing instructions for surrendering their certificates. Certificates should not be surrendered until the letter of transmittal is received, fully completed and returned as instructed in the letter of transmittal.

Regulatory Approvals (See page 95)

EPIX and Predix have made the required filings under the Hart-Scott Rodino Antitrust Improvement Act of 1976, as amended, or the HSR Act, with the Federal Trade Commission and the Department of Justice. On May 30, 2006, the waiting period under the HSR Act expired. However, the Federal Trade Commission or the Department of Justice, as well as a foreign regulatory agency or government, state or private person, may challenge the merger at any time before or after its completion. EPIX must also comply with applicable federal and state securities laws and the rules and regulations of The NASDAQ

Table of Contents

Global Market, including the approval of an initial listing application, in connection with the issuance of shares of EPIX common stock in the merger and the filing of this joint proxy statement/prospectus with the Securities and Exchange Commission.

Restrictions on the Ability to Sell EPIX Common Stock (See page 87)

Subject to the lock-up agreements described in this joint proxy statement/prospectus, all shares of EPIX common stock that Predix stockholders receive in connection with the merger will be freely transferable for the purposes of the Securities Act of 1933, as amended, unless you are considered an affiliate of Predix at the time the merger agreement is submitted to Predix stockholders for approval and adoption, in which case you will be permitted to sell the shares of EPIX common stock you receive in the merger only pursuant to an effective registration statement or an exemption from the registration requirements of the Securities Act of 1933, as amended. The registration statement of which this joint proxy statement/ prospectus forms a part does not register the resale of stock received by affiliates of Predix in the merger. EPIX has agreed to file a registration statement with respect to the shares of EPIX common stock received by the affiliates of Predix. As a result, these shares will be freely transferable upon the effectiveness of the registration statement, subject only to certain prospectus delivery requirements and the terms of the lock-up agreements, if applicable.

Comparison of EPIX and Predix Stockholder Rights (See page 219)

Upon completion of the merger, Predix stockholders will become stockholders of EPIX. The internal affairs of EPIX are governed by EPIX s restated certificate of incorporation and amended and restated by-laws. The internal affairs of Predix are currently governed by Predix s restated certificate of incorporation, as amended, and amended and restated by-laws. Due to differences between the governing documents of EPIX and Predix, the merger will result in Predix stockholders having different rights once they become EPIX stockholders.

Table of Contents

EPIX SELECTED HISTORICAL FINANCIAL INFORMATION

The following EPIX selected historical financial information is only a summary and you should read the following financial information together with EPIX Management s Discussion and Analysis of Financial Condition and Results of Operations and EPIX s financial statements and the notes thereto included elsewhere in this joint proxy statement/prospectus.

The following tables present EPIX s selected statements of operations and balance sheet data for the years ended December 31, 2001, 2002, 2003, 2004 and 2005 and the three months ended March 31, 2005 and 2006. EPIX has derived the following statements of operations data for the years ended December 31, 2003, 2004 and 2005 and the balance sheet data as of December 31, 2004 and 2005 from EPIX s audited financial statements which are included in this joint proxy statement/prospectus. EPIX has derived the following consolidated statements of operations data for the three months ended March 31, 2005 and 2006 and the consolidated balance sheet data as of March 31, 2006 from EPIX s unaudited consolidated financial statements which are included in this joint proxy statement/prospectus. EPIX has derived the following statements of operations data for the years ended December 31, 2001 and 2002 and the balance sheet data as of December 31, 2001, 2002 and 2003 from EPIX s audited financial statements, which are not included in this joint proxy statement/prospectus. EPIX s historical results for any prior period are not necessarily indicative of results to be expected for any future period.

	Year Ended December 31,					Three Months Ended March 31,	
	2001	2002	2003	2004	2005	2005	2006
	(In thousands, except per share data)						
Statement of Operations Data:							
Revenues	$ 9,569	$ 12,270	$ 13,525	$ 12,259	$ 7,190	$ 2,086	$ 1,702
Operating loss	(18,841)	(22,816)	(21,083)	(20,111)	(24,802)	(6,191)	(4,919)
Loss before provision for income taxes	(18,156)	(22,098)	(20,714)	(20,281)	(24,269)	(6,256)	(4,484)
Provision for income taxes	1,092	94	80	100	42		44
Net loss	(19,248)	(22,191)	(20,795)	(20,381)	(24,311)	(6,256)	(4,527)
Weighted average common shares outstanding:							
Basic and diluted	14,007	16,878	19,056	22,889	23,258	23,227	23,285
Net loss per share, basic and diluted	$ (1.38)	$ (1.31)	$ (1.09)	$ (0.89)	$ (1.05)	$ (0.27)	$ (0.19)

	December 31,					March 31,
	2001	2002	2003	2004	2005	2006
	(In thousands)					
Balance Sheet Data:						
Cash, cash equivalents and marketable securities	$ 24,966	$ 28,112	$ 79,958	$ 164,440	$ 124,728	$ 118,846

Working capital	8,277	12,364	57,011	136,653	113,098	109,229
Total assets	26,911	30,155	81,875	171,287	130,716	125,022
Long-term liabilities	12,844	7,829	4,331	101,210	100,756	100,699
Total stockholders equity (deficit)	(3,210)	5,887	54,157	41,382	17,833	14,131

Table of Contents

PREDIX SELECTED HISTORICAL CONSOLIDATED FINANCIAL INFORMATION

The following Predix selected historical financial information is only a summary and you should read the following financial information together with Predix Management s Discussion and Analysis of Financial Condition and Results of Operations and Predix s consolidated financial statements and the notes thereto included elsewhere in this joint proxy statement/prospectus.

The following tables present Predix s selected consolidated statements of operations and balance sheet data for the years ended December 31, 2001, 2002, 2003, 2004 and 2005 and the three months ended March 31, 2005 and 2006. Predix has derived the following consolidated statements of operations data for the years ended December 31, 2003, 2004 and 2005 and the consolidated balance sheet data as of December 31, 2004 and 2005 from Predix s audited consolidated financial statements which are included in this joint proxy statement/prospectus. Predix has derived the following consolidated statements of operations data for the three months ended March 31, 2005 and 2006 and the consolidated balance sheet data as of March 31, 2006 from Predix s unaudited consolidated financial statements which are included in this joint proxy statement/prospectus. Predix has derived the following consolidated statements of operations data for the years ended December 31, 2001 and 2002 and the consolidated balance sheet data as of December 31, 2001, 2002 and 2003 from Predix s audited consolidated financial statements, which are not included in this joint proxy statement/prospectus. Predix s historical results for any prior period are not necessarily indicative of results to be expected for any future period.

	Year Ended December 31,					Three Months Ended March 31,	
	2001	2002	2003(1)	2004	2005	2005	2006
	(In thousands, except per share data)						
Statement of Operations Data:							
Revenues	$	$ 551	$ 1,068	$ 13	$ 2,300	$ 153	$ 784
Operating loss(2)	(12,978)	(11,206)	(24,696)	(19,502)	(34,287)	(7,560)	(7,757)
Income tax benefit		258					
Net loss	(11,189)	(11,241)	(24,560)	(19,392)	(33,703)	(7,417)	(7,721)

	As of December 31,					March 31,
	2001	2002	2003	2004	2005	2006
	(In thousands)					
Balance Sheet Data:						
Cash, cash equivalents and marketable securities	$ 33,097	$ 21,976	$ 10,999	$ 13,813	$ 7,413	$ 7,939
Working capital (deficit)	31,713	21,671	9,409	11,798	1,314	(5,486)
Total assets	39,568	27,098	13,462	16,717	11,799	12,476
Capital lease obligations, net of current portion	50	32	219	127	109	100
Lease abandonment liability, net of current portion			1,331	1,068	1,109	1,056
Total stockholders equity (deficit)	37,623	26,140	9,906	12,470	1,248	(5,395)

(1) In August 2003, Predix acquired all of the capital stock of Predix Pharmaceuticals Ltd., an Israeli corporation. The transaction was recorded as a purchase for accounting purposes and Predix s consolidated statements of operations data include the operating results of Predix Pharmaceuticals Ltd. from the date of acquisition.

(2) As a result of the acquisition of Predix Pharmaceuticals Ltd., Predix consolidated facilities and reduced headcount resulting in restructuring charges in 2003 of $5.4 million.

Table of Contents

EPIX AND PREDIX
UNAUDITED PRO FORMA CONDENSED
CONSOLIDATED FINANCIAL STATEMENTS

The following unaudited pro forma condensed consolidated financial statements give effect to the merger of EPIX and Predix in a transaction to be accounted for as a purchase by EPIX. The unaudited pro forma condensed consolidated balance sheet combines the historical consolidated balance sheets of EPIX and Predix as of March 31, 2006, giving effect to the merger as if it occurred on March 31, 2006. The unaudited pro forma condensed consolidated statement of operations for the year ended December 31, 2005 and the three months ended March 31, 2006 give effect to the merger as if it occurred on January 1, 2005 and reflect only pro forma adjustments expected to have a continuing impact on the combined results. The following information does not give effect to any reverse stock split of EPIX common stock described in EPIX s Proposal No. 3.

These unaudited pro forma condensed consolidated financial statements are for informational purposes only. They do not purport to indicate the results that would have actually been obtained had the merger been completed on the assumed date or for the periods presented, or that may be realized in the future. To produce the unaudited pro forma financial information, EPIX preliminarily allocated the purchase price using its best estimates of fair value. These estimates are based on the most recently available information in preparing a preliminary value. To the extent there are significant changes to Predix s business, the assumptions and estimates herein could change significantly. Furthermore, the parties may have reorganization and restructuring expenses as well as potential operating efficiencies as a result of combining the companies. The pro forma financial information does not reflect these potential expenses and efficiencies. The unaudited pro forma condensed consolidated financial statements should be read in conjunction with EPIX Management s Discussion and Analysis of Financial Condition and Results of Operations, Predix Management s Discussion and Analysis of Financial Condition and Results of Operations, the historical financial statements, including the related notes, of EPIX and the historical consolidated financial statements, including the related notes, of Predix, covering these periods, included elsewhere in this joint proxy statement/prospectus.

Table of Contents

UNAUDITED PRO FORMA CONDENSED CONSOLIDATED BALANCE SHEET
As of March 31, 2006

	EPIX	Predix	Pro Forma Adjustments	Note Reference	Pro Forma Combined
			(In thousands)		
ASSETS					
Current Assets:					
Cash and cash equivalents	$ 75,964	$ 7,939	(6,602)	(G)	$ 77,301
Marketable securities	42,882				42,882
Accounts receivable	95				95
Prepaid expenses and other current assets	480	2,196	(708)	(H)	1,968
Total current assets	119,421	10,135	(7,310)		122,246
Restricted cash		934			934
Property and equipment, net	2,108	1,368			3,476
Other assets	3,493	39	(638)	(B)	2,894
Total assets	$ 125,022	$ 12,476	(7,948)		$ 129,550
LIABILITIES AND STOCKHOLDERS EQUITY (DEFICIT)					
Current liabilities:					
Accounts payable	$ 541	$ 3,456			$ 3,997
Accrued expenses	3,895	4,019	$ 2,139	(B)	10,053
Contract advances	5,425				5,425
Current portion of deferred revenue	331	1,303			1,634
Current portion of capital lease obligations		61			61
Current portion of lease abandonment liability		180			180
Notes payable		6,602	(6,602)	(G)	
Total current liabilities	10,192	15,621	(4,463)		21,350
Accrued rent		483			483
Convertible debt	100,000				100,000
Capital lease obligations, net of current portion		100			100
Lease abandonment liability, net of current portion		1,056			1,056
Deferred revenue, net of current portion	699	611			1,310
Total liabilities	110,891	17,871	(4,463)		124,299
Stockholders equity:					
Preferred stock		2,732	(2,732)	(C)	

Common stock	233	10	204	(A)	437
			(10)	(C)	
Additional paid-in capital	198,104	120,983	81,023	(A)	283,694
			4,567	(A)	
			(120,983)	(C)	
Accumulated other comprehensive income	(34)				(34)
Accumulated deficit	(184,172)	(129,120)	129,120	(C)	(278,846)
			(708)	(H)	
			(93,966)	(D)	
Total stockholders equity (deficit)	14,131	(5,395)	(3,485)		5,251
Total liabilities and stockholders equity	$ 125,022	$ 12,476	$ (7,948)		$ 129,550

Table of Contents

UNAUDITED PRO FORMA CONDENSED CONSOLIDATED STATEMENT OF OPERATIONS
Three Months Ended March 31, 2006

	EPIX	Predix	Pro Forma Adjustments	Note Reference	Pro Forma Combined
			(In thousands, except per share data)		
Revenues:					
Product development revenue	$ 1,083	$ 597			$ 1,680
Royalty revenue	458				458
License fee revenue	162	187			349
Total revenues:	1,703	784			2,487
Costs and expenses:					
Research and development	3,993	7,036	242	(F)	11,271
General and administrative	2,338	1,475	60	(F)	3,873
Restructuring	290	30			320
Total costs and expenses	6,621	8,541	302		15,464
Loss from operations	(4,918)	(7,757)	(302)		(12,977)
Other income (expense):					
Investment income, net	1,304	42			1,346
Interest expense	(869)	(6)			(875)
Loss before provision for income tax	(4,483)	(7,721)	(302)		(12,506)
Provision for income tax	44				44
Net loss	$ (4,527)	$ (7,721)	(302)		$ (12,550)
Amounts per common share:					
Net loss per share, basic and diluted	$ (0.19)				$ (0.29)
Weighted average shares, basic and diluted	23,285		20,409	(E)	43,694

Table of Contents

UNAUDITED PRO FORMA CONDENSED CONSOLIDATED STATEMENT OF OPERATIONS
Year Ended December 31, 2005

	EPIX	Predix	Pro Forma Adjustments	Note Reference	Pro Forma Combined
		(In thousands, except per share data)			
Revenues:					
Product development revenue	$ 4,196	$ 1,737			$ 5,933
Royalty revenue	2,333				2,333
License fee revenue	661	563			1,224
Total revenues:	7,190	2,300			9,490
Costs and expenses:					
Research and development	20,776	29,351	784	(F)	50,911
General and administrative	10,244	7,031	196	(F)	17,471
Restructuring	972	205			1,177
Total costs and expenses	31,992	36,587	980		69,559
Loss from operations	(24,802)	(34,287)	(980)		(60,069)
Other income (expense):					
Investment income, net	4,146	614			4,760
Interest expense	(3,613)	(30)			(3,643)
Loss before provision for income tax	(24,269)	(33,703)	(980)		(58,952)
Provision for income tax	42				42
Net loss	$ (24,311)	$ (33,703)	(980)		$ (58,994)
Amounts per common share:					
Net loss per share, basic and diluted	$ (1.05)				$ (1.35)
Weighted average shares, basic and diluted	23,258		20,409	(E)	43,667

Table of Contents

NOTES TO UNAUDITED PRO FORMA CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

1. Description of Transaction and Basis of Presentation

On April 3, 2006, EPIX Pharmaceuticals, Inc. (EPIX) and Predix Pharmaceuticals Holdings, Inc. (Predix) signed an Agreement and Plan of Merger, which was amended on July 10, 2006 by Amendment No. 1 thereto, (collectively, the Merger Agreement), under which Predix will merge with and into EPIX Delaware, Inc., a wholly-owned subsidiary of EPIX, in a transaction to be accounted for as a purchase by EPIX. The assets and liabilities of Predix will be recorded as of the acquisition date at their estimated fair values. The reported consolidated financial condition and results of operations of EPIX after completion of the merger will reflect these values, but will not be restated retroactively to reflect historical consolidated financial position or results of operations of Predix. The transaction is expected to qualify as a reorganization within the meaning of Section 386(a) of the Internal Revenue Code.

Under the terms of the merger agreement, each share of Predix common stock and preferred stock (on an as-converted to Predix common stock basis) outstanding at the closing of the merger will be exchanged for 1.239411 shares of EPIX common stock, subject to adjustment to account for the reverse stock split if implemented, plus cash in lieu of fractional shares. In addition, options to purchase Predix capital stock that are outstanding on the closing date will be assumed by EPIX and will thereafter constitute an option to acquire the number of shares of EPIX common stock determined by multiplying the number of shares of Predix capital stock subject to the option immediately prior to the merger by 1.239411, subject to adjustment to account for the reverse stock split if implemented, rounded down to the nearest whole share, with an exercise price equal to the exercise price of the assumed Predix option divided by 1.239411, subject to adjustment to account for the reverse stock split if implemented, rounded up to the nearest whole cent. Each of these options will be subject to the same terms and conditions that were in effect for the related Predix options. In addition, EPIX will make a milestone payment to Predix stockholders and option holders upon the occurrence of certain events. In no event will the shares of EPIX common stock issuable at the effective time of the merger, including the shares issuable upon exercise of Predix options assumed by EPIX in the merger, exceed 49.99% of the outstanding EPIX common stock immediately after the effective time of the merger. In addition, in no event may the milestone be paid in shares of EPIX common stock to the extent that such shares would exceed 49.99% of the outstanding shares of EPIX common stock 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 assumed by EPIX in the merger.

If the milestone is achieved, EPIX will account for the contingent consideration milestone payment as additional purchase price in accordance with Paragraph 27 of Statement of Financial Accounting Standards, or SFAS, No. 141, *Business Combinations*, or SFAS 141. As the valuation of Predix is not final, EPIX does not know, at this time, if the additional purchase price will result in goodwill, or in process research and development expense, or both. If achieved, the milestone will be accounted for when earned. If any EPIX shares are issued, they will be valued based on the closing price of the Company s common stock on the two full trading days immediately preceding the measurement date (the date the milestone is earned), the measurement date and the two full trading days immediately following the measurement date. Any change in the fair value of the stock from the milestone achievement date and the value of the stock based on the terms of the merger agreement, if any, will have no effect on the accounting. The value of the contingent consideration is fixed at $35 million, while the number of shares actually issued on the subsequent payment date may be different than the number of shares that would be issued if calculated on the measurement date.

The merger is subject to customary closing conditions, including approval by EPIX and Predix shareholders.

Table of Contents

NOTES TO UNAUDITED PRO FORMA CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. Purchase Price

A preliminary estimate of the purchase price is as follows (in thousands):

Fair value of EPIX shares issued	$ 81,227
Estimated fair value of vested Predix stock options exchanged for EPIX stock options	4,567
Subtotal	85,794
Estimated transaction costs incurred by EPIX	2,777
Estimated purchase price	$ 88,571

For pro forma purposes, the fair value of the EPIX common stock used in determining the purchase price was $3.98 per share, which is the implied price of EPIX common stock based on (a) the average closing price of EPIX common stock on the two full trading days immediately preceding the public announcement of the merger, the trading day the merger was announced and the two full trading days immediately following such public announcement and (b) the exchange ratio of 1.239411, which is subject to adjustment to account for the reverse stock split if implemented. The fair value of the EPIX stock options exchanged was determined by using the Black-Scholes option pricing model with the following assumptions: stock price of $3.98, which is the value ascribed to the EPIX common stock in determining the purchase price; volatility of 70%; risk-free interest rate of 4.62%; and an expected life of 4.9 years.

For pro forma purposes, the estimated purchase price has been allocated based on a preliminary valuation of Predix s tangible and intangible assets and liabilities based on their estimated fair values as of March 31, 2006 (in thousands):

Net tangible assets acquired	$ (5,395)
In-process research and development	93,966
Total	$ 88,571

The allocation of the purchase price is preliminary. The final determination of the purchase price allocation will be based on the fair values of assets acquired, including the fair values of in-process research and development, other identifiable intangibles and the fair values of liabilities assumed as of the date that the merger is consummated.

The purchase price allocation will remain preliminary until EPIX completes a valuation of significant identifiable intangible assets acquired (including in-process research and development) and determines the fair values of the other assets and liabilities acquired. The final determination of the purchase price allocation is expected to be completed as soon as practicable after completion of the merger. The final amounts allocated to assets and liabilities acquired could differ significantly from the amounts presented in the unaudited pro forma condensed consolidated financial statements.

The estimated fair value attributed to in-process research and development represents an estimate of the fair value of purchased in-process technology for research projects that, as of the expected closing date of the merger, will not have reached technological feasibility and have no alternative future use. Only those research projects that had advanced to a stage of development where management believed reasonable net future cash flow forecasts could be prepared and a reasonable likelihood of technical success existed were included in the estimated fair value. Accordingly, the in-process research and development primarily represents the estimated fair value of PRX-00023, Predix s drug candidate currently in Phase III clinical trials for the treatment of generalized anxiety disorder,

PRX-03140, Predix s drug candidate that has completed Phase I clinical trials for the treatment of Alzheimer s disease, and PRX-08066, Predix s drug candidate that has completed Phase I clinical trials for the treatment of pulmonary hypertension. The estimated fair value of the in-process research and development was determined based on a discounted

Table of Contents

NOTES TO UNAUDITED PRO FORMA CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

forecast of the estimate net future cash flows for each project, adjusted for the estimated probability (for these purposes) of technical success and U.S. Food and Drug Administration or European Agency for Evaluation of Medicinal Products approval for each research project. In-process research and development will be expensed immediately following completion of the merger.

In determining the fair value to attribute to intangible assets, EPIX considered several categories of intangible assets including contract-based and technology-based intangible assets. In accordance with paragraph 39 and Appendix A of SFAS 141 identifiable intangible assets will be recognized if they arise from contractual or legal rights or if they are otherwise separable. Intangible assets that are not specifically identifiable, have indeterminate lives or are inherent in continuing business and related to the enterprise as a whole will be classified as goodwill provided it is appropriate to record goodwill relative to the valuation of the write off of in-process research and development.

Contract-based intangible assets (licensing arrangements): Predix s contractual relationship with Cystic Fibrosis Foundation Therapeutics, Inc. The terms of the agreement were considered to be ostensibly fair to both parties thus having no value separable from goodwill.

Technology-based intangible assets (technology platform, existing product candidates and patents, in-process research and development): Existing products and patents were determined to be separable from goodwill and will be valued as in-process research and development. The technology platform was determined to still be in-process and not complete, thus not separable from goodwill.

In identifying the acquired in-process research and development, the developmental projects were evaluated in the context of interpretation 4 and paragraph 11 of SFAS No. 2, *Accounting for Research and Development Costs*, along with reference to the American Institute of Certified Public Accountants Guide, *Assets Acquired in a Business Combination to be Used in Research and Development Activities: A Focus on Software, Electronic Devices and Pharmaceutical Industries.*

Based upon the preliminary valuation, there are no intangible assets other than in-process research and development that are separable from goodwill. Once the valuation is completed, the excess of the purchase price of Predix, if any, over the fair value of the net tangible and identifiable assets will be recorded as goodwill. It is, however, not currently anticipated that there will be goodwill.

3. Pro Forma Adjustments

(A) To record the value of the EPIX common stock and vested stock options issued in the merger. Cash paid in lieu of fractional shares will be from existing cash balances and cannot be estimated at this time.

(B) To record the estimated EPIX transactions costs not included in the March 31, 2006 balance sheet of $2.1 million. Transaction costs incurred by Predix will be expensed as incurred.

(C) To eliminate Predix s historical stockholders equity accounts.

(D) To record the estimated fair value of in-process research and development acquired in the merger. Because this expense is directly attributable to the acquisition and will not have a continuing impact, it is not reflected in the pro forma condensed statement of operations. However, this item will be recorded as an expense immediately following the completion of the merger.

(E) To record the issuance of EPIX shares to Predix shareholders to effect the merger.

(F) To record amortization of deferred compensation relating to unvested Predix options exchanged for unvested EPIX options.

(G) To record the repayment of Predix notes payable upon the closing of the merger.

Table of Contents

NOTES TO UNAUDITED PRO FORMA CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(H) To record the amortization of the value of the warrants issued in connection with the Predix notes issued. Because this expense is directly attributable to the acquisition and will not have a continuing impact, it is not reflected in the pro forma condensed statement of operations.

The pro forma condensed consolidated financial statements at March 31, 2006 do not include $2.9 million of the bridge financing debt Predix entered into after March 31, 2006. At March 31, 2006, $6.6 million of the total notes issued of $9.5 million had been issued. See Note 15 to Predix s consolidated financial statements included elsewhere in this joint proxy statement/prospectus.

4. The Pro Forma Condensed Consolidated Statement of Operations

Other than the adjustment to reflect the amortization of deferred compensation, the pro forma condensed consolidated statement of operations does not include any pro forma adjustments as the expense associated with the fair value of the In Process Research and Development acquired in the merger will not have a continuing impact, therefore, it is not reflected above. In addition, the historical costs of the assets and liabilities acquired in the merger approximate their fair value as they are the result of fairly recent transactions. As such, there are no pro forma adjustments to the pro forma condensed consolidated statement of operations. The final amounts allocated to assets and liabilities acquired could differ significantly from the amounts presented in these unaudited pro forma condensed financial statements.

Table of Contents

COMPARATIVE PER SHARE DATA

The following table sets forth selected historical share, net loss per share and book value per share information of EPIX and unaudited pro forma share, net loss per share and book value per share information after giving effect to the merger between EPIX and Predix, assuming that an aggregate of 20,408,767 shares of EPIX common stock had been issued in exchange for outstanding shares of Predix common stock and preferred stock (on an as-converted to Predix common stock basis). You should read this information in conjunction with the selected historical financial information included elsewhere in this joint proxy statement/prospectus. The unaudited pro forma share, net loss per share and book value per share information is derived from, and should be read in conjunction with, the unaudited pro forma condensed consolidated financial statements and related notes included elsewhere in this joint proxy statement/ prospectus. The historical share, net loss per share and book value per share information is derived from financial statements of EPIX as of and for the three months ended March 31, 2006. The amounts set forth below are in thousands, except per share amounts and does not give effect to any reverse stock split of EPIX common stock.

	March 31, 2006	
	EPIX	
	Historical	Pro Forma
Basic and diluted net loss per share	$ (0.19)	$ (0.29)
Book value per share	0.61	0.12
Shares used in calculating basic and diluted net loss per share	23,285	43,694
Shares used in calculating book value per share	23,285	43,694

Table of Contents

MARKET PRICE AND DIVIDEND INFORMATION

EPIX

EPIX s common stock currently trades on The NASDAQ Global Market under the symbol EPIX. The following table shows the high and low sales price for the common stock by quarter, as reported by The NASDAQ Global Market for the periods indicated:

	Price Range	
Period	**High**	**Low**
Fiscal Year Ending December 31, 2006		
First Quarter	$ 5.17	$ 3.33
Second Quarter (through July 17, 2006)	4.95	2.70
Fiscal Year Ended December 31, 2005		
First Quarter	$ 18.18	$ 6.80
Second Quarter	9.80	6.26
Third Quarter	10.79	7.07
Fourth Quarter	8.47	3.78
Fiscal Year Ended December 31, 2004		
First Quarter	$ 23.40	$ 15.94
Second Quarter	26.37	20.34
Third Quarter	22.58	15.80
Fourth Quarter	20.00	15.28

On March 31, 2006, the last full trading day immediately preceding the public announcement of the merger, and on July 17, 2006, the most recent practicable date prior to the mailing of this joint proxy statement/ prospectus, the last reported sales prices of EPIX s common stock, as reported by The NASDAQ Global Market, were $3.50 and $4.11 per share, respectively. You are encouraged to obtain current trading prices for EPIX s common stock in considering whether to vote to approve the merger. As of June 28, 2006, there were approximately 76 holders of record of EPIX s common stock. EPIX has not paid cash dividends on its common stock and has no intention to do so in the foreseeable future.

Predix

Predix s common stock and preferred stock are not listed for trading on any securities exchange, and Predix does not currently file reports with the Securities and Exchange Commission. As of June 28, 2006, there were approximately 120 holders of record of Predix s common stock and 63 holders of record of Predix s preferred stock.

Predix has never declared or paid cash dividends on its capital stock. Predix does not anticipate paying any cash dividends on its capital stock in the foreseeable future. Predix currently intends to retain all available funds and any future earnings to fund the development and growth of its business.

The NASDAQ Global Market Listing

EPIX has filed an initial listing application with The NASDAQ Global Market pursuant to the Reverse Merger rules of The NASDAQ Global Market. If such application is accepted, EPIX anticipates that its common stock will continue to be listed on The NASDAQ Global Market following the completion of the merger under its current trading symbol EPIX.

Table of Contents

CAUTIONARY INFORMATION REGARDING FORWARD-LOOKING STATEMENTS

This joint proxy statement/prospectus includes statements with respect to EPIX which constitute forward-looking statements within the meaning 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, in potential, predicts, project, should, will and similar expressions are intended to identify such forward-looking statements. Forward-looking statements in this joint proxy statement/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 joint proxy statement/prospectus. Such risk factors include, among others:

- difficulties encountered in integrating merged businesses;
- uncertainties as to the timing of the merger, approval of the transaction by the stockholders of the companies and the satisfaction of closing conditions to the transaction, including the receipt of regulatory approvals, if any;
- the competitive environment in the life sciences industry;
- whether the companies 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;
- the companies ability to obtain and maintain regulatory approval for their product candidates and the timing of such approvals;
- the companies ability to research, develop and commercialize their product candidates;
- regulatory developments in the United States and foreign countries; and
- the companies ability to obtain and maintain intellectual property protection for their product candidates.

Actual results may differ materially from those contained in the forward-looking statements in this joint proxy statement/prospectus. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this joint proxy statement/prospectus. All prior and subsequent written and oral forward-looking statements concerning the merger and other matters addressed in this joint proxy statement/prospectus and attributable to EPIX 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, EPIX does not undertake any obligation to republish revised forward-looking statements to reflect events and circumstances after the date of this joint proxy statement/ prospectus or to reflect the occurrence of unanticipated events.

Table of Contents

RISK FACTORS

You should consider the following risk factors in evaluating whether to vote for the approval and adoption of the merger agreement, the approval of the merger, the approval of the issuance of the EPIX common stock in the merger and/or the approval of the amendment to EPIX s restated certificate of incorporation. These factors should be considered in conjunction with the other information included in this joint proxy statement/prospectus. References to we, us, our and other first person declarations in these risk factors refer to the operations of the combined company following the completion of the merger. Where we use the words describing either EPIX or Predix, as the case may be, we are referring to such entity as a stand alone company or their respective lines of business and industry as they relate to the combined company.

RISKS RELATING TO THE MERGER

If we are not successful in integrating our organizations, we may not be able to operate efficiently after the merger.

Achieving the benefits of the merger 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, manufacturing 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. The combination of EPIX and Predix s organizations may result in greater competition for resources and the elimination of research and development programs that might otherwise be successfully completed. If we cannot successfully integrate our operations and personnel, we may not realize the expected benefits of the merger.

Integrating our companies may divert management s attention away from our operations.

Successful integration of our operations, product candidates and personnel may place a significant burden on our management and our internal resources. The integration will require efforts from each company, including the coordination of their general and administrative functions. For example, integration of administrative functions includes coordinating employee benefits, payroll, financial reporting, purchasing and disclosure functions. Delays in successfully integrating and managing employee benefits could lead to dissatisfaction and employee turnover. Problems in integrating purchasing and financial reporting could result in control issues, including unplanned costs. In addition, the combination of EPIX s and Predix s 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 EPIX s current imaging focus and Predix s current therapeutic focus. 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 expect to incur significant costs in connection with the merger and in integrating the companies into a single business.

We estimate that EPIX and Predix will incur aggregate direct transaction costs of approximately $5.8 million associated with the merger. In addition, we expect to incur significant costs integrating our operations, product candidates and personnel, which cannot be estimated accurately at this time. These costs may include costs for:

- severance;
- conversion of information systems;
- combining development, regulatory, manufacturing and commercial teams and processes;

Table of Contents

reorganization of facilities; and

relocation or disposition of excess equipment.

If the total costs of the merger exceed our estimates, or benefits of the merger do not exceed the total costs of the merger, the financial results of the combined company could be adversely affected.

We may be unable to repay, repurchase or redeem EPIX s 3.0% Convertible Senior Notes due 2024 if, and when, required.

The entire $100 million outstanding principal amount of EPIX s 3.0% Convertible Senior Notes will become due and payable at maturity in 2024. In addition, 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 EPIX or termination of trading of EPIX 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 the merger does not constitute a change of control of EPIX 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 this merger. Based on the current trading price of EPIX s 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 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 EPIX s other debt. If we are required to repurchase or redeem these notes prior to their maturity, whether as a result of this 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.

EPIX s failure to comply with the initial listing standards of The NASDAQ Global Market will subject its stock to delisting from The NASDAQ Global Market, which listing is a condition to the consummation of the merger.

EPIX s common stock is currently listed for trading on The NASDAQ Global Market. Immediately prior to the consummation of the merger, EPIX will be required to meet the initial listing requirements to maintain the listing and continued trading of its shares on The NASDAQ Global Market. These initial listing requirements are more difficult to achieve than the continued listing requirements under which EPIX is now trading. Based on information currently available to EPIX, EPIX anticipates that it will be unable to meet the $5.00 minimum bid price initial listing requirement at the closing of the merger unless it effects a reverse stock split as discussed in EPIX s Proposal No. 3. If EPIX is unable to satisfy these requirements, NASDAQ will notify EPIX that its stock will be subject to delisting from The NASDAQ Global Market. It is a condition to Predix s obligation to consummate the merger that EPIX maintain the listing of its common stock on The NASDAQ Global Market. In addition, oftentimes a reverse stock split will not result in a trading price for the affected common stock that is proportional to the ratio of the split. EPIX believes that a reverse stock split is in the best interest of the combined company and its stockholders. However, EPIX cannot assure you that the implementation of the reverse stock split will have a positive impact on the price of its common stock.

If we fail to retain key employees, the benefits of the merger could be diminished.

The successful combination of EPIX and Predix will depend in part on the retention of key personnel, including Michael G. Kauffman, M.D., Ph.D, Andrew C.G. Uprichard, M.D. and Kimberlee C. Drapkin, the expected Chief Executive Officer, President and Chief Financial Officer of the combined company, respectively. There can be no assurance that we will be able to retain our key management and scientific personnel. Although Dr. Kauffman and Ms. Drapkin are subject to employment agreements with Predix, the employment agreements may be terminated by either party for any reason and there is no guarantee

Table of Contents

that Dr. Kauffman, Dr. Uprichard or Ms. Drapkin will remain with the combined company. If we fail to retain such key employees, particularly those identified in this joint proxy statement/prospectus as the expected management of the combined company, we may not realize the anticipated benefits of the merger. The business of each of EPIX and Predix is also subject to risks associated with the retention of key employees which are discussed in greater detail below.

If one or more of the product candidates in the combined company cannot be shown to be safe and effective in clinical trials, is not approvable or not commercially successful, then the benefits of the merger may not be realized.

The combined company will have five product candidates in the clinic and several additional product candidates planned to enter clinical testing in the next several years. All of these product candidates must be rigorously tested in clinical trials, and shown to be safe and effective before the U.S. Food and Drug Administration, or FDA, or its foreign counterparts, will consider them for approval. Failure to demonstrate that one or more of the product candidates is safe and effective, or significant delays in demonstrating safety and efficacy, could diminish the benefits of the merger. All of these product candidates must be approved by a government authority such as the FDA before they can be commercialized. Failure of one or more of the product candidates to obtain such approval, or significant delays in obtaining such approval, could diminish the benefits of the merger. Even if approved for sale, these product candidates must be successfully commercialized. Failure to commercialize successfully one or more of these product candidates could diminish the benefits of the merger.

Because Predix stockholders will receive a fixed number of shares of EPIX common stock in the merger, rather than a fixed value, if the market price of EPIX common stock declines, Predix stockholders will receive consideration in the merger of lesser value and if the market price of EPIX common stock increases, EPIX will pay consideration in the merger of greater value.

The aggregate number of shares of common stock of EPIX to be issued to Predix stockholders is fixed. Accordingly, the aggregate number of shares that Predix stockholders will receive in the merger will not change, even if the market price of EPIX common stock changes. In recent years, the stock market in general, and the securities of biotechnology companies in particular, including EPIX s securities, have experienced extreme price and volume fluctuations. These market fluctuations may adversely affect the market price of EPIX common stock. The market price of EPIX common stock upon and after the consummation of the merger could be lower than the market price on the date of the merger agreement or the current market price, which would decrease the value of the consideration to be received by Predix stockholders in the merger. Predix stockholders should obtain recent market quotations of EPIX common stock before they vote on the merger.

In addition, the market price of EPIX common stock upon and after the consummation of the merger could be higher than the market price on the date of the merger agreement or the current market price. As a result of the fixed number of shares of EPIX common stock issuable in the merger, increases in the market price of the EPIX common stock would increase the value of the consideration payable by EPIX in the merger. EPIX stockholders should obtain recent market quotations of EPIX common stock before they vote on the matters set forth in this joint proxy statement/prospectus.

The merger may fail to qualify as a reorganization for U.S. federal income tax purposes, resulting in recognition of taxable gain or loss by Predix stockholders in respect of their Predix stock.

EPIX and Predix intend for the merger to qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended. Although the Internal Revenue Service, or IRS, will not provide a ruling on the matter, both EPIX and Predix will, as a condition to closing, obtain a legal opinion from their respective tax counsel that the merger will constitute a reorganization for U.S. federal income tax purposes. These opinions do not bind the IRS, nor do they prevent the IRS from adopting a contrary position. If the merger fails to qualify as a reorganization, each Predix stockholder generally will be treated as exchanging its Predix stock in a fully taxable transaction for

Table of Contents

EPIX common stock and the milestone payment obligation. In addition, the merger would be treated as a sale of all of the assets of Predix to EPIX, with a corporate level tax liability owed by EPIX for the period in which the merger occurs. Such a tax liability may be significant and could have a material adverse effect on the financial position of the combined company.

Failure to complete the merger could adversely affect EPIX s stock price and EPIX s and Predix s future business and operations.

The merger is subject to the satisfaction of various closing conditions, including the approval by both EPIX and Predix stockholders, and neither EPIX nor Predix can guarantee that the merger will be successfully completed. In the event that the merger is not consummated, EPIX and Predix will be subject to many risks, including the costs related to the merger, such as legal, accounting and advisory fees, which must be paid even if the merger is not completed, or the payment of a termination fee under certain circumstances. If the merger is not consummated, the market price of EPIX common stock could decline.

Certain directors and management of EPIX and Predix may have interests that are different from, or in addition to, those of the respective EPIX and Predix stockholders generally.

The directors and management of EPIX and Predix may have interests in the merger that are different from, or are in addition to, those of the respective EPIX and Predix stockholders generally, including the following:

Upon the closing of the merger, Christopher F.O. Gabrieli, Michael Gilman, Ph.D., Mark Leuchtenberger and Gregory D. Phelps, each of whom is a current director of EPIX, is expected to be a member of the combined company s board of directors.

It is anticipated that certain current officers and key employees of EPIX, including Andrew C.G. Uprichard, M.D., Philip Graham, Ph.D., and Brenda Sousa, will be executive officers or key employees of the combined company.

Upon completion of the merger, Brenda Sousa, EPIX s Vice President of Human Resources, is entitled to a bonus of $47,500. In addition, Philip Chase, EPIX s Vice President and General Counsel, is entitled to a bonus of $72,000 upon completion of the merger.

Upon the closing of the merger, the executive officers of Predix, including Michael G. Kauffman, M.D., Ph.D., Silvia Noiman, Ph.D., Oren Becker, Ph.D., Chen Schor and Kimberlee C. Drapkin will become executive officers of the combined company.

EPIX will maintain all rights to indemnification existing in favor of Predix directors and officers for their acts and omissions occurring prior to the completion of the merger and will maintain the directors and officers liability insurance to cover any such liabilities for six years following the completion of the merger.

In addition, you should be aware that Frederick Frank, Michael G. Kauffman, M.D., Ph.D., Patrick J. Fortune, Ph.D. and Ian F. Smith, CPA, ACA will have a relationship with both EPIX and Predix due to their positions as current directors of Predix and future directors of EPIX. Moreover, Mr. Frank, the Chairman of the Predix board of directors, is also the Vice Chairman and a director of Lehman Brothers Inc., Predix s financial advisor in connection with the merger. Lehman Brothers is entitled to a fee of $2.0 million from Predix, all of which is contingent upon consummation of the merger, as well as reimbursement of up to $50,000 of its expenses. Please see the sections entitled The Merger Interests of Predix s Directors and Management in the Merger and Current Management of Predix and Related Information Certain Transactions with Management and Affiliates.

In addition, options, with exercise prices ranging from $0.81 to $2.99, held by each of Michael G. Kauffman, M.D., Ph.D., Silvia Noiman, Ph.D., Oren Becker, Ph.D., Chen Schor and Kimberlee C. Drapkin to purchase 594,679, 308,096, 261,376, 251,213, and 144,996 shares, respectively, will become

Table of Contents

immediately exercisable in full if, within 12 months after the merger, the officer is terminated without cause or terminates his or her employment due to a material change in duties, authority or responsibilities.

These interests may influence these directors in making their recommendation that you vote in favor of the approval and adoption of the merger agreement, the approval of the merger and/or the approval of the amendment to EPIX s restated certificate of incorporation. You should be aware of these interests when you consider the respective Predix and EPIX boards of directors recommendations that you vote in favor of the approval and adoption of the merger agreement, the approval of the merger and/or the approval of the amendment to EPIX s restated certificate of incorporation.

EPIX and Predix stockholders will have a reduced ownership and voting interest after the merger and will exercise less influence over management of the combined company following the merger.

After the merger, the stockholders of each of EPIX and Predix will own a significantly smaller percentage of the combined company than their respective ownership of Predix and EPIX. At the effective time of the merger, EPIX stockholders will collectively own approximately 53% of the outstanding shares of the combined company and Predix stockholders will collectively own approximately 47% of the outstanding shares of the combined company, based on the number of shares of EPIX common stock and Predix common stock and preferred stock outstanding as of the date of the merger agreement. Consequently, stockholders of EPIX and Predix will be able to exercise less influence over the management and policies of the combined company that they currently exercise over the management and policies of their respective companies.

Future sales of common stock by existing EPIX and Predix stockholders may cause the stock price of the combined company to fall.

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

Table of Contents

RISKS RELATING TO THE COMBINED COMPANY

Risks Relating to the Business of EPIX and the Combined Company

Research and Development Risks

EPIX may never receive marketing approval for any of its product candidates in the United States, including Vasovist and EP-2104R.

EPIX is not able to market any of its product candidates in the United States, Europe or in any other jurisdiction without marketing approval from the FDA, the European Commission, or any equivalent foreign regulatory agency. The regulatory process to obtain marketing approval for a new drug or biologic takes many years and requires the expenditure of substantial resources. This process can vary substantially based on the type, complexity, novelty and indication of the product candidate involved.

Although the European Medicines Agency, or the EMEA, granted approval of Vasovist for all 25 member states of the E.U. in October 2005, Vasovist has not been approved in the United States. In December 2003, EPIX submitted a new drug application, or NDA, for Vasovist to the FDA, and in June 2004, EPIX s development partner Schering AG submitted a Marketing Authorization Application, to the EMEA. In January 2005, EPIX received an approvable letter from the FDA for Vasovist in which the FDA requested additional clinical trials prior to approval. In May 2005, EPIX submitted a response to the FDA approvable letter, which was accepted by the FDA as a complete response in June 2005. In November 2005, the FDA provided EPIX 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 III trials will be necessary before the FDA could approve Vasovist. EPIX believes that these trials would require a substantial period of time to complete. EPIX has had two 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, EPIX 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. The approval, timeliness of approval or labeling of Vasovist are subject to significant uncertainties related to a number of factors, including the outcome of the appeal, 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 III trials by a new group of radiologists, the timing and process of conducting any clinical trials that may be ultimately required if the appeal is denied, obtaining the desired outcomes of any required clinical trials and the FDA s review process and conclusions regarding any additional Vasovist regulatory submissions. EPIX cannot assure you that its appeal will be successful or that EPIX 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 III trials that may be required if the appeal is denied. Further, EPIX cannot assure you that any such agreed upon clinical trials will be feasible for EPIX 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 EPIX will not receive revenues based on sales of Vasovist in the United States. Even if ultimately approved, EPIX does not expect revenues from the commercial sales of any of its product candidates, other than Vasovist, for at least several years.

EPIX completed a Phase IIa clinical trial of EP-2104R. Schering AG had an option to exclusively license EP-2104R, which it declined to exercise. As a result of Schering AG deciding not to exercise this option, EPIX intends to pursue a collaboration for the continued development of EP-2104R with other potential partners. The future clinical development plan of EP-2104R is uncertain at this time, and the timing and number of future clinical trials depends upon many factors, including EPIX s ability to enter into a collaboration to continue the development of EP-2104R. If EPIX is unable to find a new collaborative partner, EPIX may bear the expenses of further clinical development itself, which expenses would be significant. Regardless, the FDA, the EMEA and other regulatory agencies to which EPIX or its

Table of Contents

partners submit applications for marketing authorization may not agree that EPIX s product candidate is safe and effective and may not approve EPIX s product candidate, in which case EPIX s ability to receive any revenues, milestone payments or royalty payments related to EP-2104R will be significantly reduced.

The relevant regulatory authorities may not approve any of EPIX s applications for marketing authorization relating to any of its product candidates, including Vasovist and EP-2104R, or additional applications for or variations to marketing authorizations that EPIX may make in the future as to these or other product candidates. Among other things, EPIX has 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 EPIX is unable to maintain its approval, EPIX s business may be materially harmed.

EPIX is currently focusing its development efforts on only two product candidates and one research program and will have limited prospects for successful operations if its two lead product candidates do not prove successful in clinical trials or if its only research program does not produce another product candidate suitable for clinical trials.

As a result of the FDA s second approvable letter regarding Vasovist, EPIX eliminated approximately 50% of its workforce in January 2006. As part of this reorganization, EPIX plans to focus its resources primarily on the development of its lead product candidates, Vasovist and EP-2104R. Accordingly, EPIX has decided to cease work on the majority of its research projects related to imaging. EPIX continues to allocate resources to one high-priority research project. EPIX s efforts may not lead to commercially successful 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 EPIX seeks, inadequate financial resources to complete the development and commercialization of EPIX s product candidates or their lack of acceptance in the marketplace. Given EPIX s limited focus on two lead product candidates and only one research program, if Vasovist and EP-2104R do not prove successful in clinical trials or are not commercialized for any reason, EPIX will have only one operational research program from which to seek additional product candidates. If EPIX is not able to identify additional product candidates from this single research program, it may be required to suspend or discontinue its operations and you could lose your entire investment in EPIX.

If EPIX s clinical trials are not successful, EPIX may not be able to develop and commercialize its product candidates.

To obtain regulatory approvals for the commercial sale of EPIX s potential products, EPIX and its partners will be required to complete extensive clinical trials in humans to demonstrate the safety and efficacy of its product candidates. Vasovist and EP-2104R are currently EPIX s only product candidates that have undergone human clinical trials and EPIX cannot be certain that any of its other research projects will yield a product candidate suitable for substantial human clinical testing.

With respect to both EPIX s current product candidates in human clinical trials and its research product candidates which may be suitable for testing in human clinical trials at some point in the future, EPIX may not be able to commence or complete the required clinical trials in any specified time period, or at all, either because the FDA or other regulatory agencies object, because EPIX is unable to attract or retain clinical trial participants, or for other reasons.

Even if EPIX completes a clinical trial of one of its potential products, the data collected from the clinical trial may not demonstrate that its product candidate is safe or effective to the extent required by the FDA, the EMEA, or other regulatory agencies to approve the potential product candidate, or at all. For example, in January and November 2005, the FDA informed EPIX that the clinical efficacy data for Vasovist that EPIX submitted in connection with its NDA was not adequate for approval.

Table of Contents

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. Furthermore, EPIX, one of its collaborators, or a regulatory agency with jurisdiction over the trials may suspend clinical trials at any time if the patients participating in such trials are being exposed to unacceptable health risks, or for other reasons.

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 EPIX fails to accrue and maintain the number of patients into one of its 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.

Regulatory authorities, clinical investigators, institutional review boards, data safety monitoring boards and the hospitals at which EPIX s clinical trials are conducted all have the power to stop EPIX s clinical trials prior to completion. If EPIX s trials are not completed, EPIX would be unable to show the safety and efficacy required to obtain marketing authorization for its product candidates.

EPIX must receive government regulatory approval for its product candidates before they can be marketed and sold in the United States or in other countries and this approval process is uncertain, time-consuming and expensive.

Vasovist and EP-2104R are regulated by the FDA as drugs. Under the Food, Drug and Cosmetic Act and the FDA s implementing regulations, the FDA regulates the research, development, manufacture and marketing, among other things, of pharmaceutical products. The process required by the FDA before Vasovist and EPIX s other product candidates may be marketed in the United States typically involves the performance of pre-clinical laboratory and animal tests; submission of an investigational new drug application, or IND; completion of human clinical trials; submission of an NDA to the FDA; and FDA approval of an NDA.

This regulatory approval process is lengthy and expensive. Although some of EPIX s employees have experience in obtaining regulatory approvals, EPIX has only limited experience in filing or pursuing applications necessary to gain regulatory approvals. Pre-clinical testing of EPIX s product development candidates is subject to good laboratory practices, as prescribed by the FDA, and the manufacture of any products developed by EPIX will be subject to current good manufacturing practices, as prescribed by the FDA, or cGMP. EPIX may not obtain the necessary FDA approvals and subsequent approvals in a timely manner, if at all. EPIX cannot be sure as to the length of the clinical trial period or the number of patients that will be required to be tested in the clinical trials in order to establish the safety and efficacy of Vasovist for regulatory approval in the United States or any of its future product candidates. For example, EPIX has received two approvable letters from the FDA and has had two meetings with the FDA to discuss the path forward for Vasovist in the United States and EPIX has filed a formal appeal of the FDA s decision not to approve Vasovist without data from additional clinical trials. EPIX cannot predict whether the appeal or additional trials would be completed timely or successfully. EPIX s clinical trials may not be successful and EPIX may not complete them in a timely manner. EPIX could report serious side effects as the clinical trials proceed. EPIX s results from early clinical trials may not predict results that it obtains in later clinical trials, even after promising results in earlier trials. The rate of completion of EPIX s clinical trials depends upon, among other things, the rate of patient enrollment and subsequent blinded reading of images and data analysis.

Furthermore, EPIX, or the FDA or other regulatory authorities may suspend or terminate clinical trials at any time, including terminating clinical trials for safety reasons. In addition, the FDA may suggest

Table of Contents

or require alterations to clinical trials at any time. For example, in September 2001, after discussions with the FDA, EPIX expanded its 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 EPIX to add two new clinical trials to its then existing Phase III clinical trial program; one to determine the efficacy of Vasovist-enhanced magnetic resonance angiography for the detection of vascular disease in the renal arteries, and another to determine the efficacy of Vasovist-enhanced magnetic resonance angiography for the detection of vascular disease in the pedal arteries. Although providing EPIX with greater market potential for the sale of Vasovist upon approval, this change to the Phase III clinical trial program and the associated delay in the startup of new clinical centers resulted in an approximate 15-month delay in EPIX s NDA submission and an increase in costs associated with the program. If EPIX does not successfully complete clinical trials for its product candidates, it will not be able to market these product candidates.

In addition, EPIX may encounter unanticipated delays or significant costs in its efforts to secure necessary approvals. EPIX s analysis of data obtained from pre-clinical and clinical activities is subject to confirmation and interpretation by regulatory authorities which could delay, limit or prevent FDA regulatory approval. In addition, the FDA may require EPIX to modify its future clinical trial plans or to conduct additional clinical trials in ways that it cannot currently anticipate, resulting in delays in its obtaining regulatory approval. Delays in obtaining government regulatory approval could adversely affect EPIX s, or its partner s, marketing as well as the ability to generate significant revenues from commercial sales.

Future U.S. legislative or administrative actions also could prevent or delay regulatory approval of EPIX s product candidates. Even if EPIX obtains regulatory approvals, they may include significant limitations on the indicated uses for which EPIX may market a product. A marketed product also is subject to continual FDA and other regulatory agency review and regulation. Later discovery of previously unknown problems or failure to comply with the applicable regulatory requirements may result in restrictions on the marketing of a product or withdrawal of the product from the market as well as possible civil or criminal sanctions. Further, many academic institutions and companies conducting research and clinical trials in the magnetic resonance imaging, or MRI, contrast agent field are using a variety of approaches and technologies. If researchers obtain any adverse results in pre-clinical studies or clinical trials, it could adversely affect the regulatory environment for MRI contrast agents in general. In addition, if EPIX obtains marketing approval, the FDA may require post-marketing testing and surveillance programs to monitor the product s efficacy and side effects. Results of these post-marketing programs may prevent or limit the further marketing of the monitored product. If EPIX, or its partners, such as Schering AG, cannot successfully market EPIX s product candidates, EPIX will not generate sufficient revenues to achieve or maintain profitability.

EPIX and its strategic partners are also subject to numerous and varying foreign regulatory requirements governing the design and conduct of clinical trials and the manufacturing and marketing of EPIX s product candidates. The foreign regulatory approval process may include all of the risks associated with obtaining FDA approval set forth above and EPIX may not obtain foreign regulatory approvals on a timely basis, if at all, thereby compromising its ability to market its product candidates abroad.

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

EPIX s 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 EPIX has reviewed its safety databases for Vasovist and

Table of Contents

EP-2104R and has found no instances of this rare skin disease, its 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 affect on EPIX s ability to obtain marketing approval for Vasovist and/or EP-2104R or any such approval for use may be revoked, or could materially harm EPIX s and its partners ability to successfully market Vasovist and/or EP-2104R.

If EPIX fails to comply with the extensive regulatory requirements to which it and its product candidates are subject, EPIX s product candidates could be subject to restrictions or withdrawal from the market and EPIX could be subject to penalties.

EPIX is subject to extensive U.S. and foreign governmental regulatory requirements and lengthy approval processes for its product candidates. The development and commercial use of EPIX s product candidates will be regulated by numerous federal, state, local and foreign governmental authorities in the United States, including the FDA and foreign regulatory agencies. The nature of EPIX s research and development and manufacturing processes requires the use of hazardous substances and testing on certain laboratory animals. Accordingly, EPIX is 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. If EPIX fails to comply or if an accident occurs, EPIX may be exposed to legal risk and be required to pay significant penalties or be held liable for any damages that result. Such liability could exceed EPIX s financial resources. Furthermore, current laws could change and new laws could be passed that may force EPIX to change its policies and procedures, an event which could impose significant costs on EPIX.

EPIX is required to maintain pharmacovigilance systems for collecting and reporting information concerning suspected adverse reactions to its product candidates. In response to pharmacovigilance reports, regulatory authorities may initiate proceedings to revise the prescribing information for EPIX s product candidates or to suspend or revoke its 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, EPIX and its contract manufacturers will need to continue to expend time, funds, and effort in the area of production and quality control to maintain cGMP compliance.

In addition to regulations adopted by the EMEA, the FDA, and other foreign regulatory authorities, EPIX is 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.

In addition, the testing, manufacturing, labeling, advertising, promotion, export and marketing, among other things, of EPIX s product candidates, both before and after approval, are subject to extensive regulation by governmental authorities in the United States, Europe and elsewhere throughout the world. Failure to comply with the laws administered by the FDA, the EMEA, or other governmental authorities could result in any of the following:

delay in approval or refusal to approve a product candidate;

product candidate recall or seizure;

interruption of production;

operating restrictions;

warning letters;

injunctions;

Table of Contents

criminal prosecutions; and

unanticipated expenditures.

EPIX s research and development efforts may not result in product candidates appropriate for testing in human clinical trials.

EPIX has 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, EPIX s 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 EPIX s recent restructuring, it postponed or terminated several research and development programs, and it 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 EPIX s ability to advance product candidates into human clinical testing and ultimately, negatively impact its ability to market and sell products.

EPIX has have a limited manufacturing capability and it intends to outsource manufacturing of Vasovist to third parties, who may not perform as EPIX expects.

EPIX does not have, nor does it currently have plans to develop, full-scale manufacturing capability for Vasovist. While EPIX has manufactured small amounts of Vasovist for research and development efforts, it relies on, and it intends 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, 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. 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 EPIX experiences a delay in manufacturing, it could result in a delay in the approval or commercialization of Vasovist and have a material adverse effect on its business, financial condition and results of operations.

Technology Risks

If MRI manufacturers are not able to enhance their hardware and software sufficiently, EPIX will not be able to complete development of its 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 EPIX s initial target indication, EPIX believes that the technology is not as advanced for cardiac applications. EPIX s initial NDA filing for Vasovist is related to non-coronary vascular disease. Based on feasibility studies EPIX 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, EPIX initiated Phase II 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 EPIX has not resolved the technical issues related to this use of Vasovist. EPIX has 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. EPIX does 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, EPIX will not be able to

Table of Contents

complete its development activities of Vasovist for that application, thereby reducing the potential market for a product in this area.

EPIX depends on exclusively licensed technology from the Massachusetts General Hospital and if EPIX loses this license, it is unlikely it could obtain this technology elsewhere, which would have a material adverse effect on EPIX s business.

Under the terms of a license agreement that EPIX has with the Massachusetts General Hospital, or MGH, EPIX is the exclusive licensee to certain technology, which relate to royalties it receives and to Vasovist. The license agreement imposes various commercialization, sublicensing, royalty and other obligations on EPIX. 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 EPIX fails to comply with these and other requirements, its license could convert from exclusive to nonexclusive, or terminate entirely. It is unlikely that EPIX would be able to obtain this technology elsewhere. Any such event would mean that EPIX would not receive royalties from Bracco for MultiHance or Schering AG for Primovist, and that EPIX or Schering AG could not sell Vasovist, either of which would have a material adverse effect on EPIX s business, financial condition and results of operations. Currently, EPIX believes it is in compliance with the terms of the license agreement and its does not have any reason to believe that this license may be terminated.

EPIX depends on patents and other proprietary rights, and if they fail to protect its business, EPIX may not be able to compete effectively.

The protection of EPIX s proprietary technologies is material to its business prospects. EPIX pursues patents for its product candidates in the United States and in other countries where it believes that significant market opportunities exist. EPIX owns or has an exclusive license to patents and patent applications on aspects of its core technology as well as many specific applications of this technology. These patents relate to MRI signal generation technology, Vasovist, EP-2104R and EPIX s other research projects and include method of use patents. Some of EPIX s 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 EPIX s 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. Even though EPIX holds numerous patents and has made numerous patent applications, because the patent positions of pharmaceutical and biopharmaceutical firms, including EPIX s patent positions, generally include complex legal and factual questions, EPIX s patent positions remain uncertain. For example, because most patent applications are maintained in secrecy for a period after filing, EPIX cannot be certain that the named applicants or inventors of the subject matter covered by its patent applications or patents, whether directly owned or licensed to EPIX, 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 EPIX. A court or other agency with jurisdiction may find EPIX s patents invalid, not infringed or unenforceable and EPIX cannot be sure that patents will be granted with respect to any of its pending patent applications or with respect to any patent applications filed by it in the future. Even if EPIX has valid patents, these patents still may not provide sufficient protection against competing products or processes. If EPIX is unable to successfully protect its proprietary methods and technologies, or if its patent applications do not result in issued patents, EPIX may not be able to prevent other companies from practicing its technology and, as a result, its competitive position may be harmed.

Table of Contents

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

EPIX may need to bring costly and time-consuming litigation against third parties in order to enforce its issued patents, protect its 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 EPIX s patents or forfeiture of the rights associated with its patents or pending patent applications. EPIX 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 EPIX s stock to decline. In addition, the cost of such litigation could have a material adverse effect on EPIX s business and financial condition.

Other rights and measures that EPIX relies upon to protect its intellectual property may not be adequate to protect its products and services and could reduce its ability to compete in the market.

In addition to patents, EPIX relies on a combination of trade secrets, copyright and trademark laws, non-disclosure agreements and other contractual provisions and technical measures to protect its intellectual property rights. While EPIX requires 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;

EPIX may have inadequate remedies for any breach;

proprietary information could be disclosed to EPIX s competitors; or

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

If, as a result of the foregoing or otherwise, EPIX s intellectual property is disclosed or misappropriated, it would harm EPIX s ability to protect its rights and its competitive position. Moreover, several of EPIX s 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 EPIX. As a result, EPIX, as well as these individuals, could be subject to claims of violation of trade secrets and similar claims.

EPIX s success will depend partly on its ability to operate without infringing the intellectual property rights of others, and if EPIX is unable to do so, it may not be able to sell its products.

EPIX s commercial success will depend, to a significant degree, on its 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 EPIX relating to technologies EPIX uses in the development or use of certain of its contrast agents. If any judicial or administrative proceeding upholds these or any third- party patents as valid and enforceable, EPIX 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 its product candidates or processes to avoid infringement. For example, in November 2003, EPIX 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 EPIX certain discharges, licenses and releases in connection with the historic and

Table of Contents

future use of Vasovist by EPIX and agreed not to sue EPIX for intellectual property infringement related to the use of Vasovist. In consideration of Dr. Prince entering into the agreement, EPIX 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 EPIX s common stock, with a value of approximately $2.3 million based on the closing price of EPIX s common stock on the date of the agreement. In addition, EPIX agreed to supply Dr. Prince with approximately $140,000 worth of Vasovist. If EPIX is unable to obtain a required license on acceptable terms, or are unable to design around these or any third-party patents, it may be unable to sell its products, which would have a material adverse effect on its business.

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

EPIX believes that reimbursement in the future will be subject to increased restrictions, both in the United States and in foreign markets. EPIX believes 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 it. 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 EPIX s product candidates or its ability to sell its product candidates on a profitable basis, particularly if MRI exams enhanced with EPIX s contrast agents are more expensive than competing vascular imaging techniques that are equally effective. The unavailability or inadequacy of third-party payor coverage or reimbursement could have a material adverse effect on EPIX s business, financial condition and results of operations.

EPIX 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 its product candidates would be used. Failure by physicians, hospitals and other users of EPIX s product candidate to obtain sufficient reimbursement from third-party payors for the procedures in which EPIX s 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 EPIX s ability to market its product candidate and, consequently, it could have an adverse effect on EPIX s business, financial condition and results of operations. If EPIX obtains the necessary foreign regulatory approvals, market acceptance of its 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. EPIX and its strategic partners intend to seek international reimbursement approvals, although EPIX 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 EPIX s product candidate in the international markets in which such approvals are sought.

If EPIX is unable to attract and retain key management and other personnel, it would hurt EPIX s ability to compete.

EPIX s future business and operating results depend in significant part upon its ability to attract and retain qualified directors, senior management and key technical personnel. In September 2005, the EPIX board of directors appointed Michael J. Astrue as Interim Chief Executive Officer. Mr. Astrue replaced Michael Webb, who resigned from EPIX and its board of directors in September 2005. Mr. Astrue resigned as Interim Chief Executive Officer on May 5, 2006. In addition, EPIX s Chief Financial Officer resigned in July 2005. Andrew C.G. Uprichard, M.D., EPIX s President and Chief Operating Officer, is currently acting as EPIX s principal executive officer and EPIX currently has no Chief Financial Officer

Table of Contents

and its Executive Director, Finance, is currently serving as its principal financial and accounting officer. In addition, Mr. Pelletier and EPIX have agreed that Mr. Pelletier will resign as EPIX s Executive Director of Finance in August 2006. Christopher F.O. Gabrieli, the Chairman of the EPIX board of directors, is a candidate for the Governor of the Commonwealth of Massachusetts, the general election for which is scheduled in November 2006. If elected, Mr. Gabrieli will step down from the EPIX board of directors. EPIX s inability to attract and retain qualified individuals to these positions and others, the loss of any of EPIX s key management and other personnel, or their failure to perform their current positions could have a material adverse effect on EPIX s business, financial condition and results of operations, and its ability to achieve its business objectives or to operate or compete in its industry may be seriously impaired. Competition for personnel is intense and EPIX may not be successful in attracting or retaining such personnel. If EPIX were to lose these employees to its competition, it could spend a significant amount of time and resources to replace them, which would impair its research and development or commercialization efforts. If the merger is not consummated, EPIX must compete with companies that have greater resources and/or superior product candidates or products to rebuild its senior management team and attract other personnel.

Business Risks

EPIX currently depends on its strategic collaborators for support in product development and the regulatory approval process and, in the future, will depend on them for product marketing support as well. These efforts could be materially harmed if EPIX experiences problems with its collaborators.

EPIX depends on strategic collaborators for support in product development and the regulatory approval process as well as a variety of other activities including manufacturing, marketing and distribution of its product candidate in the United States and abroad, when, and if, the FDA and corresponding foreign agencies approve its product candidates for marketing. To date, EPIX has entered into strategic alliances and collaborations with Schering AG, Tyco/ Mallinckrodt, GE Healthcare, Philips Medical Systems and Siemens Medical Systems. Three of EPIX s key agreements include two collaboration agreements with Schering AG to perform joint research and to develop and commercialize Vasovist and other MRI vascular agents worldwide, and an agreement with Tyco/ Mallinckrodt granting Tyco/ Mallinckrodt rights to enter into an agreement with Schering AG to manufacture Vasovist for clinical development and commercial use. EPIX may not receive milestone payments from these alliances should Vasovist fail to meet certain performance targets in development and commercialization. On July 12, 2006, Schering AG notified EPIX that it decided not to exercise its option to exclusively license EP-2104R. As a result, EPIX intends to pursue a collaboration for the continued development of EP-2104R with new potential partners. Further, EPIX s receipt of revenues from strategic alliances is affected by the level of efforts of its collaborators. EPIX s collaborators may not devote the resources necessary to complete development and commence marketing of Vasovist, EP-2104R or other product candidates in their respective territories, or they may not successfully market Vasovist, EP-2104R or other product candidates. In addition, Schering AG 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 EPIX. EPIX s failure to receive future milestone payments, or a reduction or discontinuance of efforts by its partners would have a material adverse effect on EPIX s business, financial condition and results of operations.

Furthermore, EPIX s collaboration agreement with Schering AG may be terminated early under certain circumstances, including if there is a material breach of the agreement by either party. In October 2005, EPIX announced that it had entered into an amendment to its research collaboration agreement with Schering AG. This amendment narrowed the definition of the field of collaboration to exclude from the research collaboration certain specific types of imaging technology, including certain nanotechnology-based imaging agents. This research collaboration concluded in May 2006. EPIX is in discussions, and expects to continue discussions, with Schering AG regarding the disposition of the research products under this research collaboration. While the research agreement is separate from EPIX s agreement with

Table of Contents

Schering AG relating to Vasovist, EPIX cannot predict how the disposition or winding down of the individual research programs will occur, or whether it will be able to take forward any of these research programs itself or find alternative partners for these programs.

In addition, EPIX intends to seek additional collaborations with third parties, particularly for the continued development of EP-2104R, who may negotiate provisions that allow them to terminate their agreements with EPIX prior to the expiration of the negotiated term under certain circumstances. EPIX is substantially dependent upon Schering AG to commercialize Vasovist, EPIX s lead product candidate, in the United states and Europe. If Schering AG or any other third-party collaborator were to terminate its agreements with EPIX, if EPIX is unable to negotiate an acceptable agreement with Schering AG relating to a new research agreement or if Schering AG or any other third-party collaborator otherwise fail to perform its obligations under EPIX s collaboration or to complete them in a timely manner, EPIX could lose significant revenue. If EPIX is unable to enter into future strategic alliances with capable partners on commercially reasonable terms, it may delay the development and commercialization of future product candidates and could possibly postpone them indefinitely.

In addition, Bayer AG recently extended an offer to acquire all of the outstanding shares of Schering AG. Although EPIX has not yet determined the impact this acquisition may have on its relationship with Schering AG or the marketing of Vasovist, 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, EPIX s expectations regarding the marketing of Vasovist could be negatively impacted which could have a material adverse effect on EPIX s business.

In addition, EPIX relies on certain of its collaborators, such as GE Healthcare, Siemens Medical Systems and Philips Medical Systems, to develop software that can be used to enhance or suppress veins or arteries from Vasovist-enhanced magnetic resonance angiography images. Although not required for clinical use of Vasovist, the ability to separate veins from arteries using Vasovist-enhanced magnetic resonance angiography may be useful to clinicians in reading Vasovist-enhanced images for the evaluation of vascular disease. Therefore, if EPIX s collaborators do not develop or implement the required software successfully, some clinicians may not be able to easily interpret the information provided from Vasovist-enhanced images and may not be inclined to use the product candidate. EPIX s inability to market Vasovist successfully to clinicians would have a material adverse effect on EPIX s business.

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

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

- actual or anticipated fluctuations in EPIX s operating results;
- announcements of technological innovation or new commercial products by EPIX or its competitors;
- new collaborations entered into by EPIX or its competitors;
- developments with respect to proprietary rights, including patent and litigation matters;
- results of pre-clinical studies and clinical trials;
- the timing of EPIX s 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

Table of Contents

degree of trading liquidity in EPIX s common stock and general market conditions.

During the period from January 1, 2006 through July 17, 2006, the closing price of EPIX s common stock ranged from $5.02 to $2.77. The last reported closing price for EPIX s common stock on March 31, 2006, the last trading day before the public announcement of the merger, was $3.50 and it was $4.11 on July 17, 2006. Significant declines in the price of EPIX s common stock could impede EPIX s ability to obtain additional capital, attract and retain qualified employees and reduce the liquidity of its 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 EPIX s 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 EPIX and certain of its officers on behalf of persons who purchased EPIX s common stock between July 10, 2003 and January 14, 2005. The complaint alleged that EPIX 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 EPIX s securities. In January 2006, the U.S. District Court for the District of Massachusetts granted EPIX s Motion to Dismiss for Failure to Prosecute the shareholder class action lawsuit against EPIX. The dismissal was issued without prejudice after a hearing, which dismissal does not prevent another suit to be brought based on the same claims.

EPIX has never generated revenues from commercial sales of its product candidates.

EPIX currently has one product for sale in Europe and it cannot guarantee that it will ever have additional marketable product candidates. Vasovist was approved for commercial sale in Europe in October 2005 and is currently being marketed in Europe by EPIX s partner, Schering AG. If Schering AG fails to launch Vasovist in all European countries or fails to achieve significant sales, EPIX s revenues could be materially harmed and EPIX may receive even less royalty income than it currently expects to receive. EPIX expects to receive a typical pharmaceutical royalty based on the sale of Vasovist by Schering AG in Europe. Even if Schering AG continues its launch of Vasovist and it is able to successfully market and sell Vasovist throughout Europe, EPIX does not expect any significant royalties for 2006 sales.

EPIX has never generated positive cash flow, and if EPIX fails to generate revenue, it will have a material adverse effect on its business.

To date, EPIX has received revenues from payments made under licensing, royalty arrangements and product development and marketing agreements with strategic collaborators. In particular, EPIX s revenue for the three months ended March 31, 2006 was $1.7 million and consisted of $1.1 million of product development revenue from Schering AG, $458,000 of royalty revenue related to the Bracco and Schering AG agreements, and $162,000 of license fee revenue related to the Schering AG, Tyco/ Mallinckrodt strategic collaborations and Bracco agreements. In addition to these sources of revenue, EPIX has financed its operations to date through public stock and debt offerings, private sales of equity securities and equipment lease financings.

Although EPIX believes that it is currently in compliance with the terms of its collaboration and licensing agreements, the revenues derived from them are subject to fluctuation in timing and amount. EPIX may not receive anticipated revenue under its 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, EPIX, alone or with others, must successfully develop, obtain regulatory approval for, introduce, market and sell products. EPIX may

Table of Contents

not receive revenue from the sale of any of its product candidates for the next several years because it, and its partners, may not:

- successfully complete EPIX s product development efforts;
- obtain required regulatory approvals in a timely manner, if at all;
- manufacture EPIX s product candidates at an acceptable cost and with acceptable quality; or
- successfully market any approved products.

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

EPIX anticipates future losses and may never become profitable.

EPIX s future financial results are uncertain. EPIX has experienced significant losses since it commenced operations in 1992. EPIX s accumulated net losses as of March 31, 2006 were approximately $184.2 million. These losses have primarily resulted from expenses associated with EPIX s research and development activities, including pre-clinical studies and clinical trials, and general and administrative expenses. EPIX anticipates that its research and development expenses will remain significant in the future and it expects to incur losses over at least the next several years as it continues its research and development efforts, pre-clinical testing and clinical trials and as it implements manufacturing, marketing and sales programs. In particular, EPIX may be required to conduct additional clinical trials in order to achieve FDA approval of Vasovist, which trials would be expensive and which could contribute to EPIX continuing to incur losses. As a result, EPIX cannot predict when it will become profitable, if at all, and if it does, it may not remain profitable for any substantial period of time. EPIX s expenses after the merger may increase significantly as a result of the addition of Predix s research and development and commercialization efforts. In addition, Predix s independent accountants raised substantial doubts about Predix s ability to continue as a going concern and EPIX will assume approximately $9.5 million in debt in connection with its acquisition of Predix. Therefore, the merger may also result in losses to be sustained over a longer period of time than EPIX would experience on its own without the acquisition of Predix and require EPIX to raise additional funds