

REPLIDYNE INC
Form S-1/A
June 13, 2006

Table of Contents

As filed with the Securities and Exchange Commission on June 13, 2006

Registration No. 333-133021

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

**Amendment No. 2
to
FORM S-1
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933**

REPLIDYNE, INC.

(Exact name of registrant as specified in its charter)

Delaware

*(State or other jurisdiction of
incorporation or organization)*

2834

*(Primary Standard Industrial
Classification Code Number)*

84-1568247

*(I.R.S. Employer
Identification Number)*

**1450 Infinite Dr.
Louisville, CO 80027
(303) 996-5500**

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

**Kenneth J. Collins
President and Chief Executive Officer**

**Replidyne, Inc.
1450 Infinite Dr.
Louisville, CO 80027
(303) 996-5500**

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

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Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, check the following box.

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

registration statement for the same offering. o _____

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

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

If delivery of the prospectus is expected to be made pursuant to Rule 434, check the following box. o _____

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Aggregate Offering Price Per Share(2)	Proposed Maximum Aggregate Offering Price(2)	Amount of Registration Fee(3)(4)
Common Stock, \$0.001 par value per share	5,750,000	\$16.00	\$92,000,000	\$9,844

- (1) Includes 750,000 shares of common stock that may be purchased by the underwriters to cover over-allotments, if any.
- (2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(a) under the Securities Act of 1933, as amended.
- (3) Calculated pursuant to Rule 457(a) based on an estimate of the proposed maximum aggregate offering price.
- (4) A registration fee of \$10,700 has been paid previously in connection with this Registration Statement based on an estimate of the aggregate offering price

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

Table of Contents

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

PROSPECTUS (Subject to Completion)
Issued June 13, 2006

5,000,000 Shares
Common Stock

We are offering 5,000,000 shares of our common stock. This is our initial public offering and no public market currently exists for our shares. We anticipate that the initial public offering price will be between \$14.00 and \$16.00 per share.

Our common stock has been approved for quotation on the Nasdaq National Market under the symbol RDYN, subject to official notice of issuance.

Investing in our common stock involves risks. See Risk Factors beginning on page 7.

PRICE \$ A SHARE

	Per Share	Total
Price to Public	\$	\$
Underwriting Discounts and Commissions	\$	\$
Proceeds to Replidyne	\$	\$

We have granted the underwriters the right to purchase up to an additional 750,000 shares of common stock from us at the public offering price, less the underwriting discounts and commissions to cover over-allotments.

The Securities and Exchange Commission and state securities regulators have not approved or disapproved these securities, or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares to purchasers on or about _____, 2006.

Merrill Lynch & Co.

Morgan Stanley

Cowen and Company

Pacific Growth Equities, LLC

TABLE OF CONTENTS

	Page
<u>Prospectus Summary</u>	1
<u>Risk Factors</u>	7
<u>Forward-Looking Statements</u>	29
<u>Use of Proceeds</u>	30
<u>Dividend Policy</u>	31
<u>Capitalization</u>	32
<u>Dilution</u>	34
<u>Selected Financial Data</u>	36
<u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	39
<u>Business</u>	56
<u>Management</u>	80
<u>Related Party Transactions</u>	95
<u>Principal Stockholders</u>	99
<u>Description of Capital Stock</u>	102
<u>Shares Eligible for Future Sale</u>	107
<u>Underwriters</u>	109
<u>Legal Matters</u>	112
<u>Experts</u>	112
<u>Where You Can Find Additional Information</u>	113
<u>Index to Financial Statements</u>	F-1
<u>Form of Certificate of Amendment of Restated Certificate of Incorporation</u>	
<u>Form of Amended and Restated Certificate of Incorporation to be effective upon completion of this offering</u>	
<u>2006 Equity Incentive Plan</u>	
<u>2006 Employee Stock Purchase Plan</u>	
<u>Consent of KPMG LLP</u>	

You should rely only on the information contained in this prospectus. We have not, and the underwriters have not, authorized anyone to provide you with information different from or in addition to that contained in this prospectus. If anyone provides you with different or inconsistent information, you should not rely on it. We are offering to sell, and are seeking offers to buy, shares of common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of the common stock. Our business, financial conditions, results of operations and prospects may have changed since that date.

For investors outside the U.S.: Neither we nor any of the underwriters have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the U.S. You are required to inform yourselves about and to observe any restrictions relating to this offering and the distribution of this prospectus.

Through and including _____, 2006 (25 days after the date of this prospectus), all dealers that buy, sell or trade our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the obligation of dealers to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

Table of Contents**PROSPECTUS SUMMARY**

The following summary is qualified in its entirety by, and should be read together with, the more detailed information and financial statements and related notes thereto appearing elsewhere in this prospectus. Before you decide to invest in our common stock, you should read the entire prospectus carefully, including the risk factors and the financial statements and related notes included in this prospectus.

Our Company

We are a biopharmaceutical company focused on discovering, developing, in-licensing and commercializing innovative anti-infective products. Our lead product, Orapem, is a novel oral, community antibiotic, meaning that it is generally used to treat infections acquired in the community and not in a hospital setting. Forest Laboratories is our partner for the development and commercialization of Orapem in the U.S. Orapem is a member of the penem sub-class within the beta-lactam class of antibiotics. Beta-lactam antibiotics all share a core structural feature (a beta-lactam ring) and include antibiotics such as penicillins and cephalosporins. The penem sub-class of beta-lactam antibiotics has structural features that resemble a fusion of the penicillin and cephalosporin core structures and has an intrinsic ability to resist degradation by commonly encountered enzymes that inactivate some other beta-lactam antibiotics. Beta-lactams are generally characterized by their favorable safety and tolerability profiles, as well as their broad spectrum of activity, and as a result are typically used as first-line therapy in many respiratory and skin infections in adult and pediatric patients. In December 2005, we submitted a New Drug Application, or NDA, to the U.S. Food and Drug Administration, or FDA, for Orapem. If approved by the FDA, Orapem would be the first orally available penem in the U.S. Our NDA is based on 11 Phase III studies, conducted by Bayer AG when it was a previous licensee of Orapem, and safety data for over 5,000 patients who have been treated with Orapem. We believe that Orapem's safety profile and activity against many common bacterial infections suggest the potential for Orapem to become a leading branded oral beta-lactam antibiotic.

According to IMS Health, the annual worldwide market for antibiotics was \$25.0 billion in 2005, which includes U.S. sales of \$8.5 billion for oral antibiotics, consisting of \$7.0 billion in the adult market and \$1.5 billion in the pediatric market. IMS Health estimates that, in 2005, beta-lactams had a 42.7% market share of the adult oral antibiotic market representing over 90 million prescriptions and a 74.5% market share of the pediatric oral antibiotic market representing over 40 million prescriptions.

We submitted an IND for the clinical development of our second product candidate, REP8839, in May 2006. We are developing REP8839 for topical use for skin and wound infections and prevention of *Staphylococcus aureus*, or *S. aureus*, infections, including methicillin resistant *S. aureus*, or MRSA, infections in hospital settings. We are also pursuing the development of other novel anti-infective products using compounds we have selected from a library of proprietary compounds, as well as compounds identified in assays we have developed to identify compounds that inhibit bacterial DNA replication.

Our Product Candidates

We believe that our innovative product candidates offer advantages over existing antibiotics by virtue of better overall profiles in terms of activity, safety, tolerability and induction of bacterial resistance. We also believe that the markets these products address present us with significant commercial opportunities.

Orapem

We believe that Orapem, with its broad spectrum of activity, increased potency and safety and tolerability profile, would be appropriate for use as a first-line antibiotic. We have submitted an NDA for Orapem for four indications: acute bacterial sinusitis; community-acquired pneumonia; acute exacerbation of chronic bronchitis; and uncomplicated skin and skin structure infections. Community-acquired pneumonia refers to pneumonia acquired outside of the hospital setting. Although the efficacy data for acute exacerbation of chronic bronchitis and uncomplicated skin and skin structure infections may be

Table of Contents

adequate for FDA approval, we expect that the FDA will likely require additional clinical trials, including a placebo-controlled trial in the case of acute exacerbation of chronic bronchitis, before it will approve these indications. We are currently conducting a Phase III placebo-controlled clinical trial for acute exacerbation of chronic bronchitis for adult use.

We are also developing, together with Forest Laboratories, an oral liquid formulation of Orapem for the pediatric market and are currently conducting a Phase II clinical trial using a prototype oral liquid formulation among pediatric patients with acute otitis media. We intend to conduct Phase III clinical trials for the two largest pediatric indications: acute otitis media and tonsillitis/pharyngitis. Pediatric antibiotics compete primarily on safety, efficacy and taste. We believe Orapem's safety profile and broad spectrum of activity against bacteria that cause common infections in children make Orapem a promising product candidate for pediatric use. In addition, we believe that there will be fewer competitive branded pediatric oral antibiotics in the next several years. Under our agreement with Forest Laboratories, we have an option to exclusively promote Orapem to pediatricians. Assuming we successfully complete clinical development of an oral liquid formulation for Orapem, we currently intend to expand our sales force at our expense to promote Orapem to pediatricians, thereby increasing our economic interest in pediatric sales.

REP8839

REP8839 is an inhibitor of methionyl tRNA synthetase, which is an enzyme that plays an essential role in protein synthesis. Inhibition of methionyl tRNA synthetase results in reduced protein synthesis and attenuation of bacterial growth. We are developing REP8839 for topical use for skin and wound infections and prevention of *S. aureus* infections, including MRSA infections, in hospital settings. REP8839 has exhibited promising activity against *S. aureus*, including MRSA, in pre-clinical studies. We submitted an IND application in May 2006 for the clinical development of a REP8839/mupirocin combination product for topical use for skin and wound infections and prevention of *S. aureus* infections, including MRSA infections, in hospital settings. We believe that the distinctive mechanisms of action of the two drugs may greatly reduce the likelihood that *S. aureus* will develop resistance to this combination. We retain worldwide rights to REP8839.

Research and Discovery Programs

We are also pursuing the development of other novel anti-infective products based on our own research efforts. We have developed assays that identify compounds that inhibit bacterial DNA replication. The compounds may be useful to treat bacterial infections. We believe that bacterial DNA replication is an attractive target system for new antibacterial drugs because it is an essential cellular process and stalled DNA replication can trigger cell death. Our assays are designed to mimic the bacterial DNA replication systems of numerous bacteria. We have identified compounds that are able to inhibit bacterial DNA replication in these assays. We believe that the novel mechanism of action of our technology may reduce the risk that bacteria will develop resistance to drugs based on this technology. We are currently optimizing the initial inhibitors identified in the assays. We have also selected from a proprietary library several potential compounds for development to treat infections in hospital settings caused by *Clostridium difficile*, or *C. difficile*. We are currently in pre-clinical testing for these compounds. We retain worldwide rights to all of these programs.

Our Collaboration with Forest Laboratories

In February 2006, we entered into a collaboration and commercialization agreement with Forest Laboratories to co-develop and co-market Orapem in the U.S. We believe that Forest Laboratories' experience in successfully launching branded primary care products and the lack of competing community antibiotics in its current product portfolio make it a strong partner for us in the development and commercialization of Orapem. We have received \$60.0 million in upfront and milestone payments. We may receive up to an additional \$190.0 million in development and commercial milestones for both adult and pediatric indications. In addition, we will receive a royalty on all sales of Orapem. Forest Laboratories will be responsible for sales and marketing of Orapem to primary care physicians. We intend to build our

Table of Contents

own marketing and sales force to promote Orapem to otolaryngologists (ear, nose and throat specialists) in major metropolitan areas. Forest Laboratories will reimburse us for most of these marketing and sales force expenses. We and Forest Laboratories may conduct additional clinical trials for other indications, which may include higher dose therapies. Forest Laboratories has committed to pay a substantial portion of the costs for further development of Orapem.

Our Strategy

Our goal is to discover, in-license, develop and commercialize novel anti-infective compounds that address unmet medical needs resulting from growing resistance to existing drug products. Key elements of our strategy are:

Maximize commercial potential for Orapem as a leading community antibiotic and a preferred branded oral beta-lactam in adult and pediatric markets.

Develop specialty sales and marketing capabilities to target specialist physicians in major metropolitan areas, including otolaryngologists, if Orapem is approved for adult use, and pediatricians, if Orapem is approved for pediatric use. We plan to leverage this sales force to market other products that we may develop, acquire or in-license.

Develop REP8839/mupirocin combination for topical use in treatment of skin and wound infections and prevention of *S. aureus* infections, including MRSA infections, in hospital settings.

Discover and develop novel anti-infective products by continuing to pursue our discovery research programs in DNA replication inhibition and our program to develop a treatment for *C. difficile*.

Leverage our development, regulatory and commercial resources by acquiring or in-licensing additional products or product candidates.

Risks Related to Our Business

Our ability to implement our current business strategy is subject to numerous risks, as more fully described in the section entitled Risk Factors immediately following this prospectus summary. These risks include, among others, delays in obtaining, or a failure to obtain, regulatory approval for our product candidates, failure of any approved product to achieve significant commercial acceptance in the medical community or receive reimbursement by third-party payors, our dependence upon third parties under our licensing and collaboration agreements, unfavorable clinical trial results, delays in product launch, and failure to maintain and protect our proprietary intellectual property assets. All of our product candidates are subject to regulatory approval by the FDA and comparable agencies in other countries. Orapem is our only product candidate in clinical development. To date, we have not obtained regulatory approval of any product candidate. All of our other compounds or potential product candidates are in preclinical development or the discovery stage. Although the FDA has recently accepted the filing of our first NDA for use of Orapem in four clinical indications, we cannot give any assurance that it, or any of our other product candidates, will receive regulatory approval or be successfully commercialized.

While we have generated limited amounts of revenue from license and milestone payments under our collaboration agreements and payments for funded research and development, we have not generated any revenue to date from product sales. We have incurred significant operating losses since our inception in 2000. We incurred net losses of approximately \$14.0 million in 2003, \$19.2 million in 2004, \$33.7 million in 2005 and \$7.7 million in the three months ended March 31, 2006. As of March 31, 2006, we had an accumulated deficit of \$92.5 million, and we expect to incur losses for the foreseeable future. We are unable to predict the extent of future losses or when we will become profitable, if at all. Even if we succeed in developing and commercializing one or more of our product candidates, we may never generate sufficient revenue to achieve and sustain profitability.

Table of Contents

Corporate Information

We were incorporated under the laws of the state of Delaware on December 6, 2000. Our principal executive offices are located at 1450 Infinite Drive, Louisville, Colorado 80027, and our telephone number is (303) 996-5500. Our web site address is <http://www.replidyne.com>. The information contained in, or that can be accessed through, our website is not part of this prospectus and should not be considered part of this prospectus. Unless the context indicates otherwise, as used in this prospectus, the terms Replidyne, we, us and our refer to Replidyne, Inc.

The names Replidyne and Orapem are our trademarks. All other trademarks, trade names and service marks appearing in this prospectus are the property of their respective owners.

Table of Contents

THE OFFERING

Common stock offered by us 5,000,000 shares

Common stock to be outstanding after this offering 26,327,003 shares

Use of proceeds To fund clinical trials and other research and development activities; to fund activities in preparation for the potential commercial launch of Orapem; and for working capital, capital expenditures and other general corporate purposes.

Proposed Nasdaq National Market symbol RDYN

The number of shares of common stock that will be outstanding immediately after this offering is based on 21,327,003 shares of common stock outstanding as of May 31, 2006, giving effect to the issuance of 1,182,332 shares of common stock to the holders of our Series A, B, C and D convertible preferred stock upon the closing of this offering in satisfaction of accumulated dividends and excludes:

1,779,318 shares of common stock issuable upon the exercise of outstanding options, with a weighted average exercise price of \$3.11 per share;

111,375 shares of common stock reserved for future issuance under our benefit plans; and

53,012 shares of common stock issuable upon the exercise of outstanding warrants, with a weighted average exercise price of \$5.47 per share.

Except as otherwise indicated, all information in this prospectus assumes:

a one-for-4.904 reverse stock split of our common stock;

the conversion of all our outstanding shares of preferred stock into 18,067,322 shares of common stock;

the issuance of 1,182,332 shares of common stock to the holders of our Series A, B, C and D convertible preferred stock upon the closing of this offering in satisfaction of accumulated dividends, as required by the terms of the Series A, B, C and D convertible preferred stock, assuming for this purpose that the closing of this offering occurs on June 30, 2006 and the initial public offering price is \$15.00 per share, all of which is described more fully under the section of this prospectus entitled Capitalization;

the filing of our restated certificate of incorporation, which will occur immediately prior to the closing of this offering; and

no exercise of the underwriters' over-allotment option.

Table of Contents**SUMMARY FINANCIAL DATA**

We have derived the following summary of our statements of operations data for the years ended December 31, 2003, 2004 and 2005 from our audited financial statements appearing elsewhere in this prospectus. We have derived the following summary of our statements of operations data for the three months ended March 31, 2005 and 2006 and the balance sheet data as of March 31, 2006 from our unaudited financial statements appearing elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that may be expected in the future. The summary of our financial data set forth below should be read together with our financial statements and the related notes to those statements, as well as Management's Discussion and Analysis of Financial Condition and Results of Operations, appearing elsewhere in this prospectus.

The pro forma as adjusted balance sheet data reflects the balance sheet data at March 31, 2006 as adjusted for the sale of 5,000,000 shares of our common stock in this offering at an assumed initial offering price to the public of \$15.00 per share, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us and the automatic conversion of all preferred stock into common stock upon the completion of this offering.

	Year Ended December 31,			Three Months Ended March 31,	
	2003	2004	2005	2005	2006
	(unaudited) (unaudited)				
	(in thousands, except share and per share amounts)				
Statement of Operations Data:					
Revenue	\$ 726	\$ 834	\$ 441	\$ 267	\$ 2,877
Costs and expenses:					
Research and development	12,331	16,282	29,180	5,013	8,970
Sales, general and administrative	2,155	2,994	5,329	686	1,953
Total costs and expenses	14,486	19,276	34,509	5,699	10,923
Loss from operations	(13,760)	(18,442)	(34,068)	(5,432)	(8,046)
Other (expense) income, net	(190)	(797)	399	42	344
Net loss	(13,950)	(19,239)	(33,669)	(5,390)	(7,702)
Preferred stock dividends and accretion	(1,294)	(3,560)	(7,191)	(1,291)	(2,653)
Net loss attributable to common stockholders	\$ (15,244)	\$ (22,799)	\$ (40,860)	\$ (6,681)	\$ (10,355)
Basic and diluted net loss attributable to common stockholders per share(1):					
Historical	\$ (20.82)	\$ (30.55)	\$ (39.20)	\$ (8.13)	\$ (7.21)
Pro forma			\$ (2.24)		\$ (0.38)
Weighted average shares outstanding(1):					
Historical	732,044	746,306	1,042,388	821,757	1,435,726
Pro forma			15,031,566		20,508,603

As of March 31, 2006

	Actual	Pro Forma As Adjusted
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(in thousands)

Balance Sheet Data:

Cash, cash equivalents and short-term investments	\$ 109,900	\$ 178,050
Working capital	98,800	166,950
Total assets	116,112	184,262
Accumulated deficit	(93,060)	(93,060)
Preferred stock	139,568	
Total stockholders (deficit) equity	(92,539)	115,179

- (1) Please see Note 1 to our financial statements for an explanation of the method used to calculate the historical and pro forma net loss attributable to common stockholders per share and the number of shares used in the computation of the per share amounts.

Table of Contents

RISK FACTORS

You should carefully consider the risks described below, which we believe are the material risks of our business and this offering, before making an investment decision. Our business could be harmed by any of these risks. The trading price of our common stock could decline due to any of these risks, and you may lose all or part of your investment. In assessing these risks, you should also refer to the other information contained in this prospectus, including our financial statements and related notes.

Risk Related to our Business

We are dependent on the success of our lead product candidate, Orapem, and we cannot give any assurance that it will receive regulatory approval, which is necessary before it can be commercialized.

If we are not able to commercialize Orapem, we will not generate product revenues for several years, if at all, and we may never generate sufficient revenue to achieve and sustain profitability. We need approval from the FDA prior to marketing our product candidates in the U.S. In December 2005, we submitted our first NDA to the FDA for use of Orapem in four clinical indications, and the FDA accepted this NDA for filing in February 2006. Even if we obtain FDA approval for Orapem, it may not cover all of the clinical indications for which we are seeking approval and we expect that the FDA will likely require additional clinical trials, including a placebo-controlled trial in the case of acute exacerbation of chronic bronchitis. Also, an approval might contain significant limitations with respect to conditions of use in the form of narrow indications, warnings, precautions or contra-indications. We cannot predict if or when we might seek regulatory review of Orapem for any other indications or of any of our other product candidates.

The FDA has substantial discretion in the approval process and may either refuse to accept an application for substantive review or may conclude after review of our data that our application is insufficient to allow approval of a product candidate. If the FDA does not accept or approve our application, it may require that we conduct additional clinical, pre-clinical or manufacturing validation studies and submit that data before it will reconsider our application. Depending on the extent of these or any other studies, approval of any application that we submit may be delayed by several years, or may require us to expend more resources than we have available. It is also possible that additional studies, if performed and completed, may not be considered sufficient by the FDA to approve our application or any particular indication for which we are seeking approval. If any of these outcomes occur, we may be forced to abandon our application for approval, which might cause us to cease operations.

Our lead product candidate, Orapem, has been in-licensed from another pharmaceutical company, Daiichi Asubio Pharma Co., Ltd., or Daiichi Asubio. A previous licensee, Bayer AG, or Bayer, completed extensive pre-clinical studies and Phase II and Phase III clinical trials for a particular dosage of Orapem. We are relying on the data from these pre-clinical studies and clinical trials in our application to the FDA for approval to market Orapem. Any problems with these previous pre-clinical studies or clinical trials, including problems with the design or statistical analysis of such pre-clinical studies or clinical trials, could cause our application for regulatory approval to be delayed or rejected, in which case we might need to conduct additional trials. In addition, because these clinical trials were conducted using an active compound manufactured by Nippon Soda Co., Ltd., or Nippon Soda, at its facility in Takaoka, Japan, we expect the FDA will require us to demonstrate to its satisfaction the comparability of the active compound we are sourcing from Nippon Soda's new facility in Nihongi, Japan.

The FDA may change its approval policies or requirements, or apply interpretations to its policies or requirements, in a manner that could delay or prevent commercialization of Orapem for some or all indications that are the subject of our pending NDA.

Regulatory requirements for approval of antibiotics may change in a manner that requires us to conduct additional large-scale clinical trials, which may delay or prevent commercialization of Orapem for some or all indications. Historically, the FDA and foreign regulatory authorities have not required placebo-

Table of Contents

controlled clinical trials for approval of antibiotics but instead have relied on non-inferiority studies. In a non-inferiority study, a drug candidate is compared with an approved antibiotic treatment and it must be shown that the product candidate is not less effective than the approved treatment. All efficacy studies upon which our NDA is based were designed as non-inferiority studies after consultation with the FDA. In September 2005, the FDA indicated to us that it will likely require data from a placebo-controlled trial of Orapem before it will consider approving it for acute exacerbation of chronic bronchitis. In May 2006, the FDA requested an explanation of how our non-inferiority studies contained in our NDA for Orapem support efficacy in each of the indications for which we are seeking approval. We cannot assure you that the FDA will not require placebo-controlled trials, or other trials involving comparator antibiotics, to demonstrate the superiority of Orapem to placebo before considering the approval of Orapem for one or more of the indications that are the subject of our pending NDA. Conducting placebo-controlled trials for antibiotics can be time consuming and expensive and can be difficult to complete. Institutional review boards may not grant approval for placebo-controlled trials because of ethical concerns about denying some participating patients access to any antibiotic therapy during the course of the trial. It may be difficult to enroll patients in placebo-controlled trials even if institutional review board approval is obtained because certain patients would receive no therapy. Although we are currently conducting a placebo-controlled trial for acute exacerbation of chronic bronchitis, we have not completed any placebo-controlled trials for Orapem for any indications. We may not be able to show a statistically significant advantage over placebo in any trials that we are able to complete. These factors could delay for several years or ultimately prevent commercialization of Orapem for any indications for which the FDA requires placebo-controlled trials.

The efficacy of Orapem in subjects with uncomplicated skin and skin structure infections was evaluated in two Phase III studies. The results of one study met the protocol-specified criterion for non-inferiority of Orapem to amoxicillin/clavulanate. A second study did not demonstrate non-inferiority of Orapem to cephalexin. The FDA has informed us that evidence based on only a single trial will not provide adequate evidence for efficacy for this indication. Therefore, unless the FDA accepts our pooled clinical data compiled in two studies, we will likely need to complete additional trials in order to obtain approval for this indication. Even if we complete these additional trials, we may not be able to obtain adequate evidence of efficacy to support approval in uncomplicated skin and skin structure infections.

We may experience significant delays in the launch of Orapem for commercialization, which in turn could delay or prevent us from generating significant revenues from the sale of Orapem products.

We could experience potentially significant delays in the commercial launch of Orapem due to many factors, such as:

If any FDA approval of Orapem does not include approvals for at least two commercially viable respiratory indications, which must include both (i) acute sinusitis and (ii) either community-acquired pneumonia or acute exacerbation of chronic bronchitis, our partner, Forest Laboratories Holdings Limited, or Forest Laboratories, has the contractual right to delay launch of Orapem following such initial FDA approval.

If any FDA approval of Orapem does not include approval of Orapem having at least an 18 month shelf-life, then Forest Laboratories has the contractual right to delay launch of Orapem following such initial FDA approval until sufficient supplies of Orapem having at least an 18 month shelf-life are available. The FDA will make a decision regarding shelf-life based on ongoing real time and accelerated stability studies combined with data from prior stability studies conducted by Bayer and we cannot assure you that, at the time of initial FDA approval, the FDA will consider this data sufficient for an 18 month shelf-life labeling.

If the FDA's inspections of the manufacturing facilities for Orapem drug substance or Orapem tablets or the proposed packaging operations for Orapem products reveal problems with the manufacturer or the manufacturer's facilities, then the FDA may refuse to approve our pending NDA or issue a not

approvable letter or may require additional manufacturing validation studies

Table of Contents

or impose restrictions on operations, including new manufacturing requirements, any of which would be costly and time consuming and require further FDA review and approval.

The supply chain for Orapem for the U.S. market is a complex process with highly interactive components consisting of the manufacture of Orapem drug substance, the manufacture of Orapem tablets, the packaging and labeling of Orapem, and the distribution in the U.S. We rely on third parties for each of these activities, including management of the supply chain. Any failure in the complex execution that would influence the ability to establish or manage these manufacturing, packaging and distribution relationships in an effective or timely manner could prevent us from achieving or maintaining market acceptance of Orapem.

Any one or a combination of these events could significantly delay or prevent our ability to commercialize Orapem. If we are not successful in commercializing Orapem, or are significantly delayed in doing so, our business will be materially harmed.

The success of Orapem depends heavily on our collaboration with Forest Laboratories, which was established only in February 2006 and involves a complex sharing of decisions, responsibilities, costs and benefits. Any loss of Forest Laboratories as a partner, or any adverse developments in the collaboration, would materially harm our business.

In February 2006, we entered into a collaboration agreement with Forest Laboratories to develop and commercialize Orapem. We have granted Forest Laboratories an exclusive sublicense for the development and sale of Orapem for all indications in the U.S. We have also granted Forest Laboratories a right of first refusal to extend the territory to include Canada. Forest Laboratories is responsible for funding a substantial portion of the continued development of Orapem, including clinical trials and regulatory approval. If the FDA approves Orapem, Forest Laboratories will also have primary responsibility for the marketing and sales of the approved product and will share responsibility for compliance with regulatory requirements.

Although Forest Laboratories has an established sales force targeting primary care physicians, they do not have significant experience marketing antibiotics. We have limited control over the amount and timing of resources that Forest Laboratories will dedicate to the development, approval and marketing of Orapem. Although we share decision-making authority with respect to the marketing of Orapem through a joint marketing committee, Forest Laboratories generally has the right to make final decisions on this committee if the parties are unable to reach consensus.

We are subject to a number of additional risks associated with our dependence on our collaboration with Forest Laboratories, including:

We and Forest Laboratories could disagree as to development plans, including clinical trials or regulatory approval strategy, or as to which additional indications for Orapem should be pursued. Disputes regarding the collaboration agreement that delay or terminate the development, commercialization or receipt of regulatory approvals of Orapem would harm our business and could result in significant litigation or arbitration.

Forest Laboratories could fail to devote sufficient resources to the development, approval, commercialization, or marketing and distribution of Orapem. After the time periods stated in the collaboration agreement, Forest Laboratories could shift its research, development and commercialization resources to other product opportunities including those that might be competitive with Orapem.

Forest Laboratories has the contractual right to delay launch of Orapem following the initial FDA approval if that approval does not include both (i) acute sinusitis and (ii) either community-acquired pneumonia or acute exacerbation of chronic bronchitis.

Table of Contents

Forest Laboratories has the contractual right to delay launch of Orapem following the initial FDA approval until sufficient supplies of Orapem having at least an 18 month shelf-life are available, which we have not achieved to date.

Forest Laboratories could also fail to effectively manage its manufacturing relationship with its supplier of Orapem tablets, Tropon GmbH, or Tropon, or with our supplier of Orapem drug substance, Nippon Soda. Forest Laboratories is contractually bound to purchase all of its tablet requirements from Tropon, subject to certain exceptions. Tropon and Nippon Soda will be subject to ongoing periodic unannounced inspections by the FDA and corresponding state agencies for compliance with good manufacturing practices regulations, or cGMPs, and similar foreign standards. Neither we nor Forest Laboratories has control over compliance by Tropon and Nippon Soda with these regulations and standards.

Furthermore, Forest Laboratories may terminate our collaboration agreement upon our material breach of the collaboration agreement or our bankruptcy. Forest Laboratories may also terminate our agreement upon 90 days notice in the event that Forest Laboratories reasonably determines the development program indicates issues of safety or efficacy that are likely to prevent or significantly delay the filing or approval of an NDA for Orapem or to result in labeling or indications that would significantly adversely affect the marketing of any product developed under the agreement.

We do not currently have the resources necessary to develop and market Orapem on our own. If either we or Forest Laboratories do not perform our respective obligations under, or devote sufficient resources to, our collaboration, or if we and Forest Laboratories do not work effectively together, Orapem may not be successfully commercialized. If our collaboration were to be terminated, we would need to establish an alternative collaboration and may not be able to do so on acceptable terms or at all.

We are at an early stage of development as a company, with limited sources of revenue, and we may never become profitable.

We are a development stage biopharmaceutical company with a limited operating history. Currently, we have no products approved for commercial sale and, to date, we have not generated any revenue from product sales. Our ability to generate revenue depends heavily on:

obtaining U.S. and foreign regulatory approvals for our lead product candidate, Orapem;

successfully developing and securing regulatory approval for our other product candidate, REP8839; and

successfully commercializing any product candidates for which we receive FDA approval.

Our existing product candidates will require extensive additional clinical evaluation, regulatory approval, significant marketing efforts and substantial investment before they can provide us with any revenue. If we do not receive regulatory approval for and successfully commercialize Orapem, we will be unable to generate any revenue from product sales for many years, if at all. If we are unable to generate revenue, we will not become profitable, and we may be unable to continue our operations.

We have incurred significant operating losses since inception and anticipate that we will incur continued losses for the foreseeable future.

We have experienced significant operating losses since our inception in 2000. At December 31, 2005, we had a deficit accumulated during the development stage of approximately \$83.1 million. We have generated no revenue from product sales to date. We have funded our operations to date principally from the sale of our securities and from payments by Forest Laboratories under our collaboration agreement. We expect to continue to incur substantial additional operating losses for the next several years as we pursue our clinical trials and research and development efforts. Because of the numerous risks and uncertainties associated with developing and commercializing antibiotics, we are unable to predict the extent of any future losses. We may never have any significant future revenue or become profitable.

Table of Contents

The commercial success of our product candidates will depend upon attaining significant market acceptance of these products among physicians, patients, health care payors and the medical community.

None of our product candidates has been commercialized for any indication. Even if approved for sale by the appropriate regulatory authorities, physicians may not prescribe our product candidates, in which case we would not generate revenue or become profitable. Market acceptance of our lead product candidate, Orapem, and any future product candidates by physicians, healthcare payors and patients will depend on a number of factors, including:

the clinical indications for which the product candidate is approved;

acceptance by physicians and patients of each product candidate as a safe and effective treatment;

perceived advantages over alternative treatments;

the cost of treatment in relation to alternative treatments, including numerous generic antibiotics;

the extent to which the product candidate is approved for inclusion on formularies of hospitals and managed care organizations;

the extent to which bacteria develop resistance to the product candidate, thereby limiting its efficacy in treating or managing infections;

whether the product candidate is designated under physician treatment guidelines as a first-line therapy or as a second- or third-line therapy for particular infections;

the availability of adequate reimbursement by third parties;

relative convenience and ease of administration; and

prevalence and severity of side effects.

If our product candidates are unable to compete effectively with generic and branded antibiotics, our commercial opportunity will be reduced or eliminated.

If approved, our lead product candidate, Orapem, will compete against both generic and branded community antibiotic therapies. The market for such products is very competitive and includes generic products, such as amoxicillin/clavulanate, and established branded products, such as Omnicef, Zithromax, Ketek and Levaquin, which are marketed by major pharmaceutical companies, all of which have significantly greater financial resources and expertise in research and development, pre-clinical testing, conducting clinical trials, obtaining regulatory approvals, manufacturing and marketing approved products than we do. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large, established companies.

Over the next several years, our products will face more competition in the form of generic versions of branded products of competitors that will lose their patent exclusivity. For example, Orapem will begin to face competition from generic Omnicef in 2008. Generic antibiotic therapies typically are sold at lower prices than branded antibiotics and are preferred by managed care providers of health services. If we are unable to demonstrate to physicians that, based on experience, clinical data, side-effect profiles and other factors, our products are preferable to these generic antibiotic therapies, we may never generate meaningful revenue. Our commercial opportunity will also be reduced or eliminated if our competitors develop and commercialize generic or branded antibiotics that are safer, more effective, have fewer side effects or are less expensive than our product candidates.

Daiichi Asubio owns a portfolio of patents related to faropenem compounds, including the faropenem parent compound, Orapem and other faropenem prodrugs. We have licensed from Daiichi Asubio the patents to Orapem and other faropenem prodrugs. These patents may not prevent competitors from developing other faropenem drugs that are

not covered by the Daiichi Asubio patents. Beginning in

11

Table of Contents

2008, when the Daiichi Asubio patents expire, competitors may submit NDAs seeking approval of antibiotics containing the faropenem parent compound as the active ingredient. These applications would have to contain full reports of safety and efficacy data conducted by or for the applicants and could not in any way rely upon the safety and efficacy data utilized in the approval of Orapem. In addition, as early as four years after the approval of the Orapem NDA, competitors could also file NDAs seeking approval of faropenem drugs that would likely require the applicant to conduct clinical trials in order to bring the product to market in the U.S., though the FDA may allow the applicant to rely in part on the FDA's prior findings of safety and efficacy of Orapem.

We have limited manufacturing capabilities and will depend on third parties to manufacture Orapem and future products. If these manufacturers fail to meet our or Forest Laboratories' requirements and strict regulatory standards, we may be unable to develop or commercialize our products.

We do not have the capability to manufacture commercial quantities of Orapem drug substance. We engaged a third party manufacturer, Nippon Soda, as our sole supplier of Orapem drug substance. We are contractually bound to purchase all of our requirements from this party and we expect Nippon Soda will be our and Forest Laboratories' sole supplier of Orapem drug substance for the foreseeable future. Nippon Soda may terminate our supply agreement for a number of reasons, such as:

an uncured material breach of the supply agreement by us;

our liquidation or insolvency; or

in some circumstances, following a change of control.

Nippon Soda has only a single facility located in Nihongi, Japan that can readily manufacture commercial quantities of Orapem. If that facility were to be damaged or destroyed, we would have no readily available source of supply. Nippon Soda has not yet manufactured Orapem at commercial scale on a consistent basis, nor has Nippon Soda completed the manufacturing process validations that are part of the regulatory requirements prior to obtaining marketing approval for Orapem.

Reliance on a third party manufacturer entails risks to which we would not be subject if we manufactured products ourselves, including:

reliance on the third party for regulatory compliance and quality assurance;

the possible breach of the manufacturing agreement by the third party because of factors beyond our control; and

the possibility of termination or nonrenewal of the agreement by the third party because of our breach of the manufacturing agreement or based on its own business priorities.

Any of these factors could cause delay or suspension of clinical trials, regulatory submissions, required approvals or commercialization of Orapem, cause us to incur higher costs and could prevent us from commercializing our product candidates successfully. Furthermore, if our contract manufacturers fail to deliver the required commercial quantities of bulk drug substance or finished product on a timely basis and at commercially reasonable prices and we are unable to find one or more replacement manufacturers capable of production at a substantially equivalent cost, in substantially equivalent volumes and quality, and on a timely basis, we would likely be unable to meet demand for Orapem and we would lose potential revenue. It may take several years to establish an alternative source of supply for Orapem and to have any such new source approved by the FDA.

Forest Laboratories has agreed to assume responsibility for supply chain management for Orapem and we anticipate that Forest Laboratories will enter into a direct relationship with Nippon Soda as its sole supplier of Orapem drug substance under similar terms as those currently in place between us and Nippon Soda.

Table of Contents

If the FDA does not approve Nippon Soda's facility, we may be unable to develop or commercialize Orapem.

We rely on Nippon Soda to manufacture Orapem drug substance and currently have no plans to develop our own manufacturing facility. The facilities used by our contract manufacturer to manufacture our product candidates must be approved by the FDA. Nippon Soda's facility has never been inspected by the FDA. If Nippon Soda cannot successfully manufacture material that conforms to our specifications and strict regulatory requirements, Nippon Soda will not be able to secure FDA approval for its manufacturing facility. If the FDA does not approve this facility for the manufacture of Orapem, we and Forest Laboratories may need to find alternative manufacturing facilities, which would result in significant delay of up to several years in obtaining approval for and manufacturing Orapem. In addition, our contract manufacturer will be subject to ongoing periodic unannounced inspections by the FDA and corresponding state and foreign agencies for compliance with cGMPs and similar regulatory requirements. These regulations cover all aspects of the manufacturing, testing, quality control and record keeping relating to our product candidates. We do not have control over Nippon Soda's compliance with these regulations and standards. Failure by Nippon Soda to comply with applicable regulations could result in sanctions being imposed on us, including fines, injunctions, civil penalties, failure to grant approval to market our product candidates, delays, suspension or withdrawals of approvals, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect our business. In addition, we have no control over Nippon Soda's ability to maintain adequate quality control, quality assurance and qualified personnel. Failure by our contract manufacturer to comply with or maintain any of these standards could adversely affect our ability to develop, obtain regulatory approval for or market our product candidates.

The success of our current business strategy will depend in part on our ability to obtain FDA approval of Orapem for pediatric use and, if FDA approval is obtained, to successfully market an oral liquid formulation for the pediatric market.

The development of Orapem for pediatric use is an important part of our current business strategy. We are developing Orapem for pediatric use in conjunction with our strategic partner, Forest Laboratories. We have developed a prototype oral liquid formulation, have initiated a Phase II trial in acute otitis media (middle ear infection) and are considering conducting studies in tonsillitis/pharyngitis. Our ability to successfully develop and market this product candidate for pediatric use is subject to various risks, including the following:

Pre-clinical testing and clinical trials are protracted, expensive and uncertain processes. It might take us and our partner several years to complete the testing process, and failure can occur at any stage of the process. Success in pre-clinical testing and early clinical trials does not ensure that later clinical trials will be successful. These risks are potentially more pronounced in clinical tests involving children.

We have not completed any clinical trials in children to date. A clinical trial conducted by Bayer for tonsillitis/pharyngitis in adults did not meet its primary end point.

Any regulatory approval we ultimately obtain may be limited or subject to post-approval commitments that render the product not commercially viable.

Any NDA or other marketing authorization applications that we may file might be denied by the FDA and analogous foreign regulators.

This product candidate, even if found to be safe and effective, might be difficult to develop into a commercially viable drug or to manufacture on a large scale or might be uneconomical to market commercially.

Third parties might market superior drugs or be more effective in marketing equivalent drugs.

Table of Contents

Even if this product candidate is successfully developed and effectively marketed, the size of the potential market might change such that our sales revenue is less than initially contemplated.

Because of our relationship with our partner, Forest Laboratories, we are dependent on Forest Laboratories to commercialize Orapem.

Any failure to obtain regulatory approval of Orapem for pediatric use or to effectively market an approved product would have a material and adverse impact on our ability to successfully execute our current business strategy and would significantly reduce the revenues that we might generate from Orapem.

Any of our product candidates that are in clinical trials or that we advance into clinical trials are subject to extensive regulation, which can be costly and time consuming, cause unanticipated delays, or prevent the receipt of the required approvals to commercialize our product candidates.

The clinical development, manufacturing, labeling, storage, record-keeping, advertising, promotion, export, marketing and distribution of any of our product candidates currently in clinical trials or that we advance into clinical trials are subject to extensive regulation by the FDA in the U.S. and by comparable governmental authorities in foreign markets. Currently, we are developing Orapem for pediatric use and for additional indications for adults and we are conducting pre-clinical testing of REP8839. In the U.S. and in many foreign jurisdictions, rigorous pre-clinical testing and clinical trials and an extensive regulatory review process must be successfully completed before a new drug can be sold. Satisfaction of these and other regulatory requirements is costly, time consuming, uncertain and subject to unanticipated delays. Clinical testing is expensive, can take many years to complete and its outcome is uncertain. Failure can occur at any time during the clinical trial process. The results of pre-clinical studies and early clinical trials of our product candidates may not be predictive of the results of later-stage clinical trials. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through initial clinical testing. The time required to obtain approval by the FDA is unpredictable but typically takes many years following the commencement of clinical trials, depending upon numerous factors. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change. We have not obtained regulatory approval for any product candidate.

Our product candidates may fail to receive regulatory approval for many reasons, including the following:

we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a product candidate is safe and effective for a particular indication;

the results of clinical trials may not meet the level of statistical significance required by the FDA or other regulatory authorities for approval;

the FDA or other regulatory authorities may disagree with the design of our clinical trials;

we may be unable to demonstrate that a product candidate's benefits outweigh its risks;

we may be unable to demonstrate that the product candidate presents an advantage over existing therapies, or over placebo in any indications for which the FDA requires a placebo-controlled trial;

the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from pre-clinical studies or clinical trials;

the data collected from clinical trials of our product candidates may not be sufficient to support the submission of a new drug application or to obtain regulatory approval in the U.S. or elsewhere;

Table of Contents

the FDA or comparable foreign regulatory authorities may fail to approve the manufacturing processes or facilities of third-party manufacturers with which we contract for clinical and commercial supplies; and

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

The FDA or comparable foreign regulatory authorities might decide that our data are insufficient for approval and require additional clinical trials or other studies. Furthermore, even if we do receive regulatory approval to market a commercial product, any such approval may be subject to limitations on the indicated uses for which we may market the product. It is possible that none of our existing product candidates or any product candidates we may seek to develop in the future will ever obtain the appropriate regulatory approvals necessary for us or our collaborators to begin selling them.

Also, recent events have raised questions about the safety of marketed drugs and may result in increased cautiousness by the FDA in reviewing new drugs based on safety, efficacy or other regulatory considerations and may result in significant delays in obtaining regulatory approvals and more stringent product labeling requirements. Any delay in obtaining, or inability to obtain, applicable regulatory approvals would prevent us from commercializing our product candidates.

If product liability lawsuits are successfully brought against us or our partner Forest Laboratories, we may incur substantial liabilities and may be required to limit commercialization of our product candidates.

We face an inherent risk of product liability lawsuits related to the testing of our product candidates, and will face an even greater risk if product candidates are introduced commercially. An individual may bring a liability claim against us if one of our product candidates causes, or merely appears to have caused, an injury. We have agreed to indemnify Nippon Soda from product liability claims under our commercial arrangement with them. We have also agreed to indemnify Forest Laboratories from claims arising from our development, manufacture, use, handling, storage, promotion, marketing or sale of any product, except as related to certain Orapem products in the U.S. with respect to which Forest Laboratories has agreed to bear a substantial portion of any product liability claims. If we cannot successfully defend ourselves against the product liability claim, we may incur substantial liabilities.

Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for our product candidates;
- injury to our reputation;
- withdrawal of clinical trial participants;
- significant litigation costs;
- substantial monetary awards to or costly settlement with patients;
- product recalls;
- loss of revenue; and
- the inability to commercialize our product candidates.

We are highly dependent upon consumer perceptions of us, the Orapem brand and the safety and quality of our products. We could be adversely affected if we or the Orapem brand is subject to negative publicity. We could also be adversely affected if any of our products or any similar products distributed by other companies prove to be, or are asserted to be, harmful to consumers. Also, because of our dependence upon consumer perceptions, any adverse publicity associated with illness or other adverse effects resulting from consumers' use or misuse of our products or any similar products distributed by other companies could have a material adverse impact on our results of operations.

Table of Contents

We have global clinical trial liability insurance that covers our clinical trials up to a \$5.0 million annual aggregate limit. Our current or future insurance coverage may prove insufficient to cover any liability claims brought against us. We intend to expand our insurance coverage to include the sale of commercial products if marketing approval is obtained for our product candidates. In addition, because of the increasing costs of insurance coverage, we may not be able to maintain insurance coverage at a reasonable cost or obtain insurance coverage that will be adequate to satisfy any liability that may arise.

We currently have no sales organization. If we are unable to establish a direct sales force in the U.S. to promote our product candidates, the commercial opportunity for our product candidates may be diminished.

We currently have no sales organization. If our lead product candidate, Orapem, is approved by the FDA for adult use, Forest Laboratories will market that product candidate directly to primary care physicians in the U.S. but will rely on us to market to physician specialists, such as otolaryngologists. If Orapem is approved by the FDA for pediatric use and if we exercise our option, we would be responsible for marketing Orapem to pediatricians in the U.S. Although Forest Laboratories will provide some funding, we will incur significant additional expenses and commit significant additional management resources to establish a pediatric sales force. We may not be able to establish a specialty sales force in a cost effective manner or realize a positive return on this investment. We will also have to compete with other pharmaceutical and biotechnology companies to recruit, hire, train and retain sales and marketing personnel. If we elect to rely on third parties, such as Forest Laboratories, to sell our product candidates in the U.S., we may receive less revenue than if we sold our product candidates directly. In addition, we may have little or no control over the sales efforts of those third parties. In the event we are unable to develop our own sales force or collaborate with a third party to sell our product candidates, we may not be able to commercialize our product candidates which would negatively impact our ability to generate revenue.

Delays in clinical testing could result in increased costs to us and delay our ability to generate revenue.

We may experience delays in clinical testing of our product candidates, including with respect to any clinical trials that may be conducted by Forest Laboratories. We do not know whether planned clinical trials will begin on time, will need to be redesigned or will be completed on schedule, if at all. Clinical trials can be delayed for a variety of reasons, including delays in obtaining regulatory approval to commence a trial, in reaching agreement on acceptable clinical trial terms with prospective sites, in obtaining institutional review board approval at each site, in recruiting patients to participate in a trial, or in obtaining sufficient supplies of clinical trial materials. Many factors affect patient enrollment, including the size and nature of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the trial, the design of the clinical trial, competing clinical trials, clinicians' and patients' perceptions as to the potential advantages of the drug being studied in relation to other available therapies, including any new drugs that may be approved for the indications we are investigating, and whether the clinical trial design involves comparison to placebo. Our antibiotics treat bacterial infections which tend to be seasonal in nature. As a result, during certain times of the year, it is difficult to find patients to enroll in our trials. Prescribing physicians would also face ethical issues associated with enrolling patients in clinical trials of our product candidates over existing antibiotics that have established safety and efficacy profiles or in placebo-controlled trials. These ethical issues may be even more pronounced in conducting clinical trials of antibiotics in children. Any delays in completing our clinical trials will increase our costs, slow down our product development and approval process and delay our ability to generate revenue.

We may be required to suspend or discontinue clinical trials due to side effects or other safety risks that could preclude approval of our product candidates.

Our clinical trials may be suspended at any time for a number of reasons. We may voluntarily suspend or terminate our clinical trials if at any time we believe that they present an unacceptable risk to participants. In addition, regulatory agencies may order the temporary or permanent discontinuation of our

Table of Contents

clinical trials at any time if they believe that the clinical trials are not being conducted in accordance with applicable regulatory requirements or that they present an unacceptable safety risk to participants.

Many antibiotics can produce significant side effects. Side effects associated with many current antibiotics include kidney and liver toxicities, heart rhythm abnormalities, photosensitivity, rash, excessive flushing of the skin and central nervous system toxicities, such as seizures. In clinical trials, side effects of Orapem have included gastrointestinal disorders (such as diarrhea, nausea and vomiting), nervous system disorders (such as dizziness and headaches), as well as infections and infestations (such as pneumonia and vaginal mucosis). Later clinical trials in a larger patient population could reveal other side effects. These or other side effects could interrupt, delay or halt clinical trials of our product candidates and could result in the FDA or other regulatory authorities stopping further development of or denying approval of our product candidates for any or all targeted indications. Even if we believe our product candidates are safe, our data is subject to review by the FDA, which may disagree with our conclusions. Moreover, we could be subject to significant liability if any volunteer or patient suffers, or appears to suffer, adverse health effects as a result of participating in our clinical trials.

If we fail to obtain additional financing, we may be unable to complete the development and commercialization of Orapem and other product candidates, or continue our research and development programs.

Our operations have consumed substantial amounts of cash since inception. We expect to continue to spend substantial amounts to:

complete the clinical development of Orapem and REP8839;

license or acquire additional product candidates;

launch and commercialize any product candidates for which we receive regulatory approval, including building our own sales force to address certain markets; and

continue our research and development programs.

We estimate that our net proceeds from this offering will be approximately \$68.8 million. We expect that the net proceeds from this offering, together with our existing capital resources, will be sufficient to fund our operations for at least the next 18 months. We may be required to raise additional capital to complete the development and commercialization of our current product candidates.

To date, our sources of cash have been limited primarily to the proceeds from the sale of our securities and payments by Forest Laboratories under our collaboration agreement. We cannot be certain that additional funding will be available on acceptable terms, or at all. To the extent that we raise additional funds by issuing equity securities, our stockholders may experience significant dilution. Any debt financing, if available, may involve restrictive covenants, such as limitations on our ability to incur additional indebtedness, limitations on our ability to acquire or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. If we are unable to raise additional capital when required or on acceptable terms, we may have to significantly delay, scale back or discontinue the development and/or commercialization of one or more of our product candidates. We also may be required to:

seek collaborators for our product candidates at an earlier stage than otherwise would be desirable and on terms that are less favorable than might otherwise be available; and

relinquish or license on unfavorable terms our rights to technologies or product candidates that we otherwise would seek to develop or commercialize ourselves.

Table of Contents

Our ability to pursue the development and commercialization of our product candidates depends upon the continuation of our licenses from third parties.

Our license agreement with Daiichi Asubio provides us with an exclusive license to develop and sell any products with the compound Orapem as an active ingredient for any indication in the U.S. and Canada, with a right to sublicense certain rights to Forest Laboratories under our collaboration with Forest Laboratories. Either we or Daiichi Asubio may terminate the license agreement immediately upon the bankruptcy or dissolution of the other party or upon a breach of any material provision of the agreement if the breach is not cured within 60 days following written notice. If our license agreement with Daiichi Asubio were terminated, we would lose our rights to develop and commercialize Orapem.

If we fail to gain and maintain approval for our product candidates in international markets, our market opportunities will be limited.

Sales of our product candidates outside of the U.S. will be subject to foreign regulatory requirements governing clinical trials and marketing approval. Even if the FDA grants marketing approval for a product candidate, comparable regulatory authorities of foreign countries must also approve the manufacturing or marketing of the product candidate in those countries. Approval in the U.S., or in any other jurisdiction, does not ensure approval in other jurisdictions. Obtaining foreign approvals could result in significant delays, difficulties and costs for us and require additional trials and additional expenses. Regulatory requirements can vary widely from country to country and could delay the introduction of our products in those countries. Clinical trials conducted in one country may not be accepted by other countries and regulatory approval in one country does not mean that regulatory approval will be obtained in any other country. None of our products is approved for sale in international markets and we do not have experience in obtaining regulatory approval in international markets. If we fail to comply with these regulatory requirements or to obtain and maintain required approvals, our target market will be reduced and our ability to generate revenue will be diminished.

We may not be able to enter into acceptable agreements to market and commercialize our product candidates in international markets.

If appropriate regulatory approvals are obtained, we intend to commercialize our product candidates in international markets through collaboration arrangements with third parties. Our collaboration with Forest Laboratories does not cover any markets outside of the U.S. and Canada. If we decide to sell our product candidates in international markets, we may not be able to enter into any arrangements on favorable terms or at all. In addition, these arrangements could result in lower levels of income to us than if we marketed our product candidates entirely on our own. If we are unable to enter into a marketing arrangement for our product candidates in international markets, we may not be able to develop an effective international sales force to successfully commercialize those products in international markets. If we fail to enter into marketing arrangements for our products and are unable to develop an effective international sales force, our ability to generate revenue would be limited.

If we fail to attract and keep senior management and key scientific personnel, we may be unable to successfully develop our product candidates, conduct our clinical trials and commercialize our product candidates.

Our success depends in part on our continued ability to attract, retain and motivate highly qualified management, clinical and scientific personnel and on our ability to develop and maintain important relationships with leading academic institutions, clinicians and scientists. We are highly dependent upon our senior management and scientific staff, particularly Kenneth Collins, our President and Chief Executive Officer, Roger Echols, M.D., our Chief Medical Officer, Peter Letendre, Pharm. D., our Chief Commercial Officer, and Nebojsa Janjic, Ph.D., our Chief Scientific Officer. The loss of services of any of Mr. Collins, Dr. Echols, Dr. Letendre or Dr. Janjic or one or more of our other members of senior management could delay or prevent the successful completion of our planned clinical trials or the commercialization of our product candidates. In addition, we only recently formed our clinical

Table of Contents

and regulatory group, which is based in Connecticut, the services of which we highly depend upon in order to conduct our clinical programs and obtain regulatory approvals.

Competition for qualified personnel in the biotechnology and pharmaceuticals field is intense. We will need to hire additional personnel as we expand our clinical development and commercial activities. We may not be able to attract and retain quality personnel on acceptable terms. We do not carry key person insurance covering any members of our senior management. Each of our officers and key employees may terminate his employment at any time without notice and without cause or good reason.

Even if we receive regulatory approval for our product candidates, we will be subject to ongoing significant regulatory obligations and oversight.

If we receive regulatory approval to sell our product candidates, the FDA and foreign regulatory authorities may impose significant restrictions on the indicated uses or marketing of such products, or impose ongoing requirements for post-approval studies. Following any regulatory approval of our product candidates, we and Forest Laboratories will be subject to continuing regulatory obligations, such as safety reporting requirements, and additional post-marketing obligations, including regulatory oversight of the promotion and marketing of our products. If we or Forest Laboratories become aware of previously unknown problems with any of our product candidates here or overseas or at our contract manufacturers facilities, a regulatory agency may impose restrictions on our products, our contract manufacturers or on us, including requiring us to reformulate our products, conduct additional clinical trials, make changes in the labeling of our products, implement changes to, or obtain re-approvals of, our contract manufacturers facilities, or withdraw the product from the market. In addition, Forest Laboratories may experience a significant drop in the sales of the affected products and our product royalty will be reduced, our reputation in the marketplace may suffer and we may become the target of lawsuits, including class action suits. Moreover, if we or Forest Laboratories fail to comply with applicable regulatory requirements, we may be subject to fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution. Any of these events could harm or prevent sales of the affected products and our royalties or could substantially increase the costs and expenses of commercializing and marketing these products.

Our corporate compliance program cannot guarantee that we are in compliance with all potentially applicable regulations.

The development, manufacturing, pricing, marketing, sales, and reimbursement of our product candidates, together with our general operations, are subject to extensive regulation by federal, state and other authorities within the U.S. and numerous entities outside of the U.S. If we or Forest Laboratories fail to comply with any of these regulations, we or they could be subject to a range of regulatory actions, including suspension or termination of clinical trials, the failure to approve a product candidate, restrictions on our product candidates or manufacturing processes, withdrawal of products from the market, significant fines, or other sanctions or litigation, and exclusion of our products from the Medicare/Medicaid payment system. Further, becoming a publicly traded company will subject us to significant additional regulations. If we fail to comply with these new regulations, we could face enforcement or other civil or criminal actions by the Securities and Exchange Commission or delisting by The Nasdaq National Market.

We rely on third parties to conduct our clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our product candidates.

We have agreements with third-party contract research organizations to provide monitors for and to manage data for our on-going clinical programs. We and our contract research organizations are required to comply with current Good Clinical Practices, or GCPs, regulations and guidelines enforced by the FDA for all of our products in clinical development. The FDA enforces GCPs through periodic inspections of trial sponsors, principal investigators and trial sites. If we or our contract research organizations fail to comply with applicable GCPs, the clinical data generated in our clinical trials may be

Table of Contents

deemed unreliable and the FDA may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that, upon inspection, the FDA will determine that any of our clinical trials comply with GCPs. In addition, our clinical trials must be conducted with product produced under cGMP regulations, and will require a large number of test subjects. Our failure to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process.

Our contract research organizations have the right to terminate their agreements with us in the event of an uncured material breach. In addition, some of our contract research organizations have an ability to terminate their respective agreements with us if it can be reasonably demonstrated that the safety of the subjects participating in our clinical trials warrants such termination, if we make a general assignment for the benefit of our creditors, or if we are liquidated. If any of our relationships with these third-party contract research organizations terminate, we may not be able to enter into arrangements with alternative contract research organizations. If contract research organizations do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced, or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, regulatory requirements, or for other reasons, our clinical trials may be extended, delayed or terminated, and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. As a result, our financial results and the commercial prospects for our product candidates would be harmed, our costs could increase and our ability to generate revenue could be delayed.

Reimbursement may not be available for our product candidates, which could diminish our sales or affect our ability to sell our products profitably.

Market acceptance and sales of our product candidates will depend on reimbursement policies and may be affected by future health care reform measures. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which drugs they will pay for and establish reimbursement levels. We cannot be sure that reimbursement will be available for any of our product candidates. Also, we cannot be sure that reimbursement amounts will not reduce the demand for, or the price of, our products. We have not commenced efforts to have our product candidates reimbursed by government or third party payors. If reimbursement is not available or is available only to limited levels, we may not be able to commercialize our products.

In both the U.S. and certain foreign jurisdictions, there have been a number of legislative and regulatory changes to the healthcare system that could impact our ability to sell our products profitably. In particular, the Medicare Modernization Act of 2003 added an outpatient prescription drug benefit to Medicare, which became effective on January 1, 2006. Drug benefits under this provision are administered through private plans that negotiate price concessions from pharmaceutical manufacturers. We cannot be certain that Orapem will successfully be placed on the list of drugs covered by particular health plans, plan formularies, nor can we predict the negotiated price for Orapem, which will be determined by market factors. With respect to Medicaid, the Deficit Reduction Act of 2005 made several changes to the way pharmacies are reimbursed under Medicaid, most of which go into effect on January 1, 2007. These changes could lead to reduced drug prices. Many states have also created preferred drug lists and include drugs on those lists only when the manufacturers agree to pay a supplemental rebate. If Orapem is not included on these preferred drug lists, physicians may not be inclined to prescribe it to their Medicaid patients.

As a result of legislative proposals and the trend towards managed health care in the U.S., third-party payors are increasingly attempting to contain health care costs by limiting both coverage and the level of reimbursement of new drugs. They may also refuse to provide any coverage of uses of approved products for medical indications other than those for which the FDA has granted market approvals. As a result, significant uncertainty exists as to whether and how much third-party payors will reimburse patients for their use of newly-approved drugs, which in turn will put pressure on the pricing of drugs. The availability of numerous generic antibiotics at lower prices than branded antibiotics, such as Orapem, if it

Table of Contents

were approved for commercial introduction, can also be expected to substantially reduce the likelihood of reimbursement for Orapem. We expect to experience pricing pressures in connection with the sale of our products due to the trend toward managed health care, the increasing influence of health maintenance organizations and additional legislative proposals.

We will need to increase the size of our organization, and we may experience difficulties in managing growth.

We are a small company with 61 employees as of March 31, 2006, approximately 30% of whom have joined us in the preceding 12 months. To continue our clinical trials and commercialize our product candidates, we will need to expand our employee base for managerial, operational, sales, financial and other resources, which we expect will result in our approximately doubling the number of employees we have by the end of 2006. Future growth will impose significant added responsibilities on members of management, including the need to identify, recruit, maintain and integrate additional employees. Our future financial performance and our ability to commercialize our product candidates and to compete effectively will depend, in part, on our ability to manage any future growth effectively. To that end, we must be able to:

- manage our development efforts effectively;
- manage our clinical trials effectively;
- integrate additional management, administrative, manufacturing and sales and marketing personnel;
- maintain sufficient administrative, accounting and management information systems and controls; and
- hire and train additional qualified personnel.

We may not be able to accomplish these tasks, and our failure to accomplish any of them could harm our financial results.

If we fail to identify, acquire and develop other products or product candidates, we may be unable to grow our business.

A key element of our strategy is to commercialize a portfolio of new anti-infective products in addition to Orapem. To date, we have in-licensed rights to each of our product candidates. As a significant part of our growth strategy, we intend to develop and commercialize additional products and product candidates through our discovery research program or by licensing or acquiring additional products from third parties. The success of this strategy depends upon our ability to identify, select and acquire the right pharmaceutical product candidates and products on terms that are acceptable to us.

Any product candidate we identify, license or acquire may require additional development efforts prior to commercial sale, including extensive clinical testing and approval by the FDA and applicable foreign regulatory authorities. All product candidates are prone to the risks of failure inherent in pharmaceutical product development, including the possibility that the product candidate will not be shown to be sufficiently safe and effective for approval by regulatory authorities. In addition, we cannot assure you that any such products that are approved will be manufactured or produced economically, successfully commercialized or widely accepted in the marketplace.

Proposing, negotiating and implementing an economically viable product acquisition or license is a lengthy and complex process. Other companies, including those with substantially greater financial,

Table of Contents

marketing and sales resources, may compete with us for the acquisition or license of product candidates and approved products. We may not be able to acquire or license the rights to additional product candidates and approved products on terms that we find acceptable, or at all.

A significant portion of the research that we are conducting involves new and unproven technologies. Research programs to identify new disease targets and product candidates require substantial technical, financial and human resources whether or not we ultimately identify any candidates. Our research programs may initially show promise in identifying potential product candidates, yet fail to yield product candidates for clinical development.

If we are unable to develop suitable potential product candidates through internal research programs or by obtaining rights to novel therapeutics from third parties, our business will suffer.

If we do not find collaborators for our future product candidates, we may have to reduce or delay our rate of product development and commercialization and/or increase our expenditures.

Our strategy to develop and commercialize our products includes entering into various relationships with pharmaceutical or biotechnology companies to advance our programs. We may not be able to negotiate any collaborations on acceptable terms. If we are not able to establish collaborative arrangements, we may have to reduce or delay further development of some of our programs and/or increase our expenditures and undertake the development activities at our own expense.

If we are able to identify and reach agreement with collaborators for our product candidates, those relationships will also be subject to a number of risks, including:

collaborators may not pursue further development and commercialization of compounds resulting from collaborations or may elect not to renew research and development programs;

collaborators may delay clinical trials, underfund a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials, or require the development of a new formulation of a product candidate for clinical testing;

a collaborator with marketing and distribution rights to one or more of our products may not commit sufficient resources to the marketing and distribution of our products, limiting our potential revenues from the commercialization of these products; and

disputes may arise delaying or terminating the research, development or commercialization of our product candidates, or result in significant litigation or arbitration.

Seasonal fluctuations in demand for our current product candidates may cause our operating results to vary significantly from quarter to quarter.

We expect physician and patient demand for our antibiotic products to be higher between October and February due to greater amounts of respiratory illness in North America during that time period. As a result, our shipments, and therefore revenues, are expected to be higher in the fourth calendar quarter and first calendar quarter reflecting higher demand through that season. We generally expect our revenues during the third calendar quarter to be lower than the other quarters. In addition, fluctuations in the peak and trough of respiratory illness incidence may cause our operating results to vary from year to year. Due to these seasonal fluctuations in demand, our operating results in any particular quarter may not be indicative of the results for any other quarter or for the entire year.

Risks Related to our Intellectual Property

It is difficult and costly to protect our proprietary rights, and we may not be able to ensure their protection.

Our commercial success will depend in part on obtaining and maintaining patent protection and trade secret protection of our product candidates, and the methods used to manufacture them, as well as

Table of Contents

successfully defending these patents against third-party challenges. Our ability to protect our product candidates from unauthorized making, using, selling, offering to sell or importation by third parties is dependent upon the extent to which we have rights under valid and enforceable patents or trade secrets that cover these activities.

As of March 31, 2006, we have exclusively licensed from Daiichi Asubio two issued U.S. patents, one issued foreign patent and one pending U.S. patent application covering Orapem, a prodrug of faropenem. The two issued U.S. patents covering Orapem also cover other potential prodrugs of faropenem but do not cover all potential faropenem-based antibiotic compounds. We do not and have not had any control over the filing or prosecution of these patents or patent applications. We cannot be certain that such prosecution efforts have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents. In addition, our enforcement of these Orapem patents or defense of any claims asserting the invalidity of these patents would be subject to the cooperation of Daiichi Asubio and Forest Laboratories. Although Daiichi Asubio and Forest Laboratories have agreed to cooperate with us in such efforts, if requested, we cannot be assured that Daiichi Asubio and Forest Laboratories would devote sufficient efforts to cooperate with us in these circumstances.

The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in biotechnology patents has emerged to date in the U.S. The biotechnology patent situation outside the U.S. is even more uncertain. Changes in either the patent laws or in interpretations of patent laws in the U.S. and other countries may diminish the value of our intellectual property. Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in our licensed patents, our patents or in third-party patents.

Daiichi Asubio owns a portfolio of patents related to faropenem compounds, including the faropenem parent compound, Orapem and other faropenem prodrugs. We have licensed from Daiichi Asubio the patents to Orapem and other faropenem prodrugs. These patents may not prevent competitors from developing other faropenem drugs that are not covered by the Daiichi Asubio patents. Beginning in 2008, when the Daiichi Asubio patents expire, competitors may submit NDAs seeking approval of antibiotics containing the faropenem parent compound as the active ingredient. These applications would have to contain full reports of safety and efficacy data conducted by or for the applicants and could not in any way rely upon the safety and efficacy data utilized in the approval of Orapem. In addition, as early as four years after the approval of the Orapem NDA, competitors could also file NDAs seeking approval of faropenem drugs that would likely require the applicant to conduct clinical trials in order to bring the product to market in the U.S., though the FDA may allow the applicant to rely in part on the FDA's prior findings of safety and efficacy of Orapem. To the extent that any competitor relies on any of the findings of safety or efficacy with respect to Orapem, the competitor will have to certify that its compound either does not infringe our patents or that our patents are invalid.

The degree of future protection for our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. For example:

others may be able to make compounds that are similar to our product candidates but that are not covered by the claims of our licensed patents, or for which we are not licensed under our license agreements;

we or our licensors might not have been the first to make the inventions covered by our pending patent application or the pending patent applications and issued patents of our licensors;

we or our licensors might not have been the first to file patent applications for these inventions;

Table of Contents

others may independently develop similar or alternative technologies or duplicate any of our technologies;

it is possible that our pending patent applications will not result in issued patents;

our issued patents and the issued patents of our licensors may not provide us with any competitive advantages, or may be held invalid or unenforceable as a result of legal challenges by third parties;

we may not develop additional proprietary technologies that are patentable; or

the patents of others may have an adverse effect on our business.

We also may rely on trade secrets to protect our technology, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. Although we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors, outside scientific collaborators and other advisors may unintentionally or willfully disclose our information to competitors. Enforcing a claim that a third party illegally obtained and is using any of our trade secrets is expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the U.S. are sometimes less willing to protect trade secrets. Moreover, our competitors may independently develop equivalent knowledge, methods and know-how.

We may incur substantial costs as a result of litigation or other proceedings relating to patent and other intellectual property rights and we may be unable to protect our rights to, or use, our technology.

If we choose to go to court to stop someone else from using the inventions claimed in our patents or our licensed patents, that individual or company has the right to ask the court to rule that these patents are invalid and/or should not be enforced against that third party. These lawsuits are expensive and would consume time and other resources even if we were successful in stopping the infringement of these patents. In addition, there is a risk that the court will decide that these patents are not valid and that we do not have the right to stop the other party from using the inventions. There is also the risk that, even if the validity of these patents is upheld, the court will refuse to stop the other party on the ground that such other party's activities do not infringe our rights to these patents.

Furthermore, a third party may claim that we or our manufacturing or commercialization partners are using inventions covered by the third party's patent rights and may go to court to stop us from engaging in our normal operations and activities, including making or selling our product candidates. These lawsuits are costly and could affect our results of operations and divert the attention of managerial and technical personnel. There is a risk that a court would decide that we or our commercialization partners are infringing the third party's patents and would order us or our partners to stop the activities covered by the patents. In addition, there is a risk that a court will order us or our partners to pay the other party damages for having violated the other party's patents. We have indemnified our commercial partners against patent infringement claims. The biotechnology industry has produced a proliferation of patents, and it is not always clear to industry participants, including us, which patents cover various types of products or methods of use. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform. If we are sued for patent infringement, we would need to demonstrate that our products or methods of use either do not infringe the patent claims of the relevant patent and/or that the patent claims are invalid, and we may not be able to do this. Proving invalidity, in particular, is difficult since it requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents.

Because some patent applications in the U.S. may be maintained in secrecy until the patents are issued, because patent applications in the U.S. and many foreign jurisdictions are typically not published until eighteen months after filing, and because publications in the scientific literature often lag behind actual discoveries, we cannot be certain that others have not filed patent applications for technology covered by our licensors' issued patents or our pending applications or our licensors' pending applications, or that we or our licensors were the first to invent the technology. Our competitors may have filed, and

Table of Contents

may in the future file, patent applications covering technology similar to ours. Any such patent application may have priority over our or our licensors' patent applications and could further require us to obtain rights to issued patents covering such technologies. If another party has filed a U.S. patent application on inventions similar to ours, we may have to participate in an interference proceeding declared by the U.S. Patent and Trademark Office to determine priority of invention in the U.S. The costs of these proceedings could be substantial, and it is possible that such efforts would be unsuccessful, resulting in a loss of our U.S. patent position with respect to such inventions.

Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise the funds necessary to continue our operations.

Risks Related to this Offering and Ownership of our Common Stock

The market price of our common stock may be highly volatile, and you may not be able to resell your shares at or above the initial public offering price.

Prior to this offering, there has not been a public market for our common stock. We cannot assure you that an active trading market for our common stock will develop following this offering. You may not be able to sell your shares quickly or at the market price if trading in our common stock is not active. The initial public offering price for the shares will be determined by negotiations between us and representatives of the underwriters and may not be indicative of prices that will prevail in the trading market.

The trading price of our common stock is likely to be highly volatile and could be subject to wide fluctuations in price in response to various factors, many of which are beyond our control, including:

announcement of FDA approval or non-approval of our product candidates, or specific label indications for their use, or delays in the FDA review process;

actions taken by regulatory agencies with respect to our product candidates, clinical trials, manufacturing process or sales and marketing activities;

changes in laws or regulations applicable to our products, including but not limited to clinical trial requirements for approvals;

the success of our development efforts and clinical trials;

the success of our efforts to acquire or in-license additional products or product candidates;

developments concerning our collaborations, including but not limited to those with our sources of manufacturing supply and our commercialization partners;

actual or anticipated variations in our quarterly operating results;

announcements of technological innovations by us, our collaborators or our competitors;

new products or services introduced or announced by us or our commercialization partners, or our competitors and the timing of these introductions or announcements;

actual or anticipated changes in earnings estimates or recommendations by securities analysts;

conditions or trends in the biotechnology and biopharmaceutical industries;

announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;

general economic and market conditions and other factors that may be unrelated to our operating performance or the operating performance of our competitors;

Table of Contents

changes in the market valuations of similar companies;

sales of common stock or other securities by us or our stockholders in the future;

additions or departures of key scientific or management personnel;

developments relating to proprietary rights held by us or our competitors;

disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;

trading volume of our common stock; and

sales of our common stock by us or our stockholders.

In addition, the stock market in general and the market for biotechnology and biopharmaceutical companies in particular have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. These broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance. In the past, following periods of volatility in the market, securities class-action litigation has often been instituted against companies. Such litigation, if instituted against us, could result in substantial costs and diversion of management's attention and resources, which could materially adversely affect our business and financial condition.

Our principal stockholders and management own a significant percentage of our stock and will be able to exercise significant influence over matters subject to stockholder approval.

Our executive officers, directors and principal stockholders, together with their respective affiliates, currently own approximately 81% of our voting stock, including shares subject to outstanding options, and we expect that upon completion of this offering that same group will continue to hold at least a majority of our outstanding voting stock. Accordingly, even after this offering, these stockholders will likely be able to determine the composition of our board of directors, retain the voting power to approve all matters requiring stockholder approval and continue to have significant influence over our operations. This concentration of ownership could have the effect of delaying or preventing a change in our control or otherwise discouraging a potential acquirer from attempting to obtain control of us, which in turn could have a material and adverse effect on the market value of our common stock.

We will incur significant increased costs as a result of operating as a public company, and our management will be required to devote substantial time to new compliance initiatives.

As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. In addition, the Sarbanes-Oxley Act, as well as rules subsequently implemented by the Securities and Exchange Commission and the Nasdaq National Market, have imposed various new requirements on public companies, including requiring establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. Our management and other personnel will need to devote a substantial amount of time to these new compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to incur substantial costs to maintain the same or similar coverage.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective internal controls for financial reporting and disclosure controls and procedures. In particular, commencing in fiscal 2007, we must perform system and process evaluation and testing of our internal controls over financial reporting to allow management and our independent registered public accounting firm to report on the effectiveness of our internal controls over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act. Our testing, or the subsequent testing by our independent registered public accounting firm, may reveal deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses.

Table of Contents

Our compliance with Section 404 will require that we incur substantial accounting expense and expend significant management efforts. We currently do not have an internal audit group, and we will need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge. Moreover, if we are not able to comply with the requirements of Section 404 in a timely manner, or if we or our independent registered public accounting firm identifies deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses, the market price of our stock could decline and we could be subject to sanctions or investigations by Nasdaq, the SEC or other regulatory authorities, which would require additional financial and management resources.

Future sales of our common stock in the public market could cause our stock price to fall.

Sales of a substantial number of shares of our common stock in the public market after this offering, or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. After this offering, we will have 26,327,003 shares of common stock outstanding.

Substantially all of our existing stockholders are subject to lock-up agreements with the underwriters of this offering that restrict the stockholders' ability to transfer shares of our common stock for at least 180 days from the date of this prospectus. The lock-up agreements, together with restrictions under the securities laws described in **Shares Eligible for Future Sale** limit the number of shares of common stock that may be sold immediately following the public offering.

All of the shares of common stock sold in this offering will be freely tradable without restrictions or further registration under the Securities Act of 1933, as amended, except for any shares purchased by our affiliates as defined in Rule 144 under the Securities Act. Rule 144 defines an affiliate as a person that directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, us and would include persons such as our directors and executive officers. The remaining 21,327,003 shares of common stock outstanding after this offering will be available for sale as described in the **Shares Eligible for Future Sale** section of this prospectus.

If you purchase shares of common stock sold in this offering, you will experience immediate dilution. You will experience further dilution if we issue shares in future financing transactions or upon exercise of options or warrants.

If you purchase shares of common stock in this offering, you will experience immediate dilution of \$10.50 per share because the price that you pay will be substantially greater than the net tangible book value per share of the shares you acquire. This dilution is due in large part to the fact that our earlier investors paid substantially less than the initial public offering price when they purchased their shares.

If we raise additional funds by issuing additional common stock, or securities convertible into or exchangeable or exercisable for common stock, our stockholders will experience additional dilution, and new investors could have rights superior to existing stockholders.

Pursuant to our 2006 Equity Incentive Plan, our management is authorized to grant stock options to our employees, directors and consultants, and following the completion of this offering, our employees will be eligible to participate in our 2006 Employee Stock Purchase Plan. In addition, we also have warrants outstanding to purchase shares of our common stock. You will incur dilution upon exercise of any outstanding stock options or warrants.

We are at risk of securities class action litigation.

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because biotechnology and biopharmaceutical companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business.

Table of Contents

We have broad discretion to use the net proceeds from this offering and our investment of these proceeds may not yield a favorable return.

Our management has broad discretion as to how to spend and invest the proceeds from this offering, and we may spend or invest these proceeds in ways with which our stockholders may not agree. Accordingly, you will need to rely on our judgment with respect to the use of these proceeds, and you will not have the opportunity as part of your investment decision to assess whether they are being used or invested appropriately. We plan to invest the net proceeds of this offering in short-term, investment-grade, interest-bearing securities. These investments may not yield a favorable return to our stockholders.

Our ability to utilize our net operating loss carryforwards and certain other tax attributes may be limited.

Under Section 382 of the Internal Revenue Code, if a corporation undergoes an ownership change (generally defined as a greater than 50% change (by value) in its equity ownership over a three-year period), the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes to offset its post-change income may be limited. We believe that, with our initial public offering, our most recent private placement and other transactions that have occurred over the past three years, we have triggered an ownership change limitation. We have performed an analysis to determine to what extent our ability to utilize our net operating loss carryforwards is limited. We may also experience ownership change in the future as a result of subsequent shifts in our stock ownership. As of December 31, 2005 we had net operating loss carryforwards of approximately \$24.9 million and \$2.2 million for federal and state income tax purposes, respectively.

Some provisions of our charter documents and Delaware law may have anti-takeover effects that could discourage an acquisition of us by others, even if an acquisition would be beneficial to our stockholders.

Provisions in our certificate of incorporation and bylaws, as well as provisions of Delaware law, could make it more difficult for a third party to acquire us, even if doing so would benefit our stockholders. These provisions include:

authorizing the issuance of blank check preferred stock, the terms of which may be established and shares of which may be issued without stockholder approval;

limiting the removal of directors by the stockholders;

prohibiting stockholder action by written consent, thereby requiring all stockholder actions to be taken at a meeting of our stockholders;

eliminating the ability of stockholders to call a special meeting of stockholders; and

establishing advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted upon at stockholder meetings.

In addition, we are subject to Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with an interested stockholder for a period of three years following the date on which the stockholder became an interested stockholder, unless such transactions are approved by our board of directors. This provision could have the effect of delaying or preventing a change of control, whether or not it is desired by or beneficial to our stockholders.

Table of Contents

FORWARD-LOOKING STATEMENTS

Some of the statements under Prospectus Summary, Risk Factors, Management's Discussion and Analysis of Financial Condition and Results of Operations, Business and elsewhere in this prospectus contain forward-looking statements. In some cases, you can identify forward-looking statements by the following words: may, will, could, would, should, expect, intend, plan, anticipate, believe, estimate, predict, project, potential, negative of these terms or other comparable terminology, although not all forward-looking statements contain these words. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus, we caution you that these statements are based on a combination of facts and factors currently known by us and our projections of the future, about which we cannot be certain. Many important factors affect our ability to achieve our objectives, including:

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

our ability to obtain and maintain regulatory approval of our product candidates and the labeling under any approval we may obtain;

our plans to develop and commercialize our product candidates;

the loss of key scientific or management personnel;

the size and growth of the potential markets for our product candidates and our ability to serve those markets;

regulatory developments in the U.S. and foreign countries;

the rate and degree of market acceptance of any future products;

our use of the proceeds from this offering;

the accuracy of our estimates regarding expenses, future revenues and capital requirements;

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

the successful development of our sales and marketing capabilities;

the success of competing drugs that are or become available; and

the performance of third party manufacturers.

In addition, you should refer to the Risk Factors section of this prospectus for a discussion of other important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all. The Private Securities Litigation Reform Act of 1995 and Section 27A of the Securities Act of 1933 do not protect any forward-looking statements that we make in connection with this offering.

You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with information that is different. We are offering to sell and seeking offers to buy shares of our common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of our common stock. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

Table of Contents

USE OF PROCEEDS

We estimate that the net proceeds from the sale of the shares of our common stock in this offering will be approximately \$68.2 million, or approximately \$78.6 if the underwriters exercise their over-allotment option in full, based upon an assumed initial public offering price of \$15.00 per share and after deducting underwriting discounts and commissions and estimated offering expenses. A \$1.00 increase (decrease) in the assumed initial public offering price of \$15.00 per share would increase (decrease) the net proceeds to us from this offering by \$5.0 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

We currently expect to use our net proceeds from this offering as follows:

approximately \$33.0 million to fund clinical trials and other research and development activities for Orapem;

approximately \$21.0 million to fund future clinical trials for REP8839;

approximately \$8.0 million to fund activities in preparation for the potential commercial launch of Orapem; and

the remainder, along with our available cash and cash equivalents, short-term investments and interest earned, to fund working capital and other general corporate purposes, including sales, general and administrative expenses and potential further expansion of our employee base and facilities, as well as amounts due to Daiichi Asubio under our license agreement, which amounts are uncertain as to timing and dependent on the achievement of milestones.

We may also use a portion of the proceeds for the potential acquisition of, or investment in, other product candidates, intellectual property rights or companies that complement our business, although we have no current understandings, commitments or agreements to do so.

This expected use of net proceeds of this offering represents our current intentions based upon our present plans and business conditions. As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering. Accordingly, our management will have broad discretion in the application of the net proceeds, and investors will be relying on the judgment of our management regarding the application of the proceeds of this offering. Pending their uses, we plan to invest the net proceeds of this offering in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

We do not expect the net proceeds from this offering alone to be sufficient to fully support commercial scale operations if we successfully commercialize Orapem or to fund the completion of development of our REP8839 product candidate, any product candidates generated from our discovery research program or our Orapem product candidate for certain indications. We intend to use our cash and cash equivalents, short-term investments, funding received or made available under our collaboration agreement with Forest Laboratories and interest earned on these balances toward the additional funding necessary to support these activities. If the funds provided by these sources are insufficient to satisfy our future capital needs, or if we develop additional products or pursue additional applications for our products, or conduct additional clinical trials beyond those currently contemplated, we may seek to sell additional equity or debt securities or acquire a credit facility. Any such required additional capital may not be available on reasonable terms, if at all. If we are unable to obtain additional financing, we may be required to modify our planned research, development and commercialization strategy, which could materially and adversely affect our business.

Table of Contents

The timing and costs to complete the successful development and commercialization of any of our product candidates are highly uncertain and therefore difficult to estimate. However, we expect that during the next 18 months we will be able to:

complete our Phase III placebo-controlled clinical trial for Orapem in the treatment of acute exacerbation of chronic bronchitis;

complete our Phase II clinical trials for an oral liquid formulation of Orapem among pediatric patients; and

initiate and advance a Phase I clinical trial for a REP8839/mupirocin combination product for topical use for skin and wound infections and prevention of *S. aureus* infections, including MRSA infections, in hospital settings.

The lengthy process of seeking regulatory approvals for our product candidates, and the subsequent compliance with applicable regulations, require the expenditure of substantial resources. The actual costs and timing of clinical trials are highly uncertain, subject to risk and may change depending upon the clinical indication targeted, the development strategy pursued and the results of preclinical studies and earlier clinical trials. The amounts and timing of other expenditures will depend upon numerous factors, including the status of our product development and commercialization efforts, timing and outcomes of regulatory approvals, competition, manufacturing, and any strategic partnership arrangements we may enter into. Because of these risks and uncertainties, we cannot predict when or whether we will successfully obtain regulatory approval for, or successfully commercialize, Orapem or complete the development of any of our other product candidates or the ultimate costs of such efforts. Whether we will need to raise additional funds to complete the development of any of our product candidates or market any products is directly affected by these risks and uncertainties, as well as a variety of factors discussed under Risk Factors elsewhere in this prospectus.

We believe that the net proceeds from this offering, together with our existing cash and cash equivalents, short-term investments, funding received from our collaboration agreements and interest earned on these balances, will be sufficient to satisfy our anticipated cash needs for working capital and capital expenditures through at least the next 18 months.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain all available funds and any future earnings to support our operations and finance the growth and development of our business. We do not intend to pay cash dividends on our common stock for the foreseeable future. Any future determination related to dividend policy will be made at the discretion of our board of directors.

Table of Contents**CAPITALIZATION**

The following table sets forth our capitalization as of March 31, 2006:

on an actual basis,

on a pro forma as adjusted basis to reflect:

the filing of a restated certificate of incorporation to authorize 100,000,000 shares of common stock and 5,000,000 shares of undesignated preferred stock;

the sale of 5,000,000 shares of common stock in this offering at an assumed initial offering price of \$15.00 per share, after deducting estimated underwriting discounts and commissions and estimated offering expenses;

the conversion of all of our outstanding shares of preferred stock into shares of common stock upon the closing of this offering; and

the issuance of 1,182,332 shares of common stock upon the closing of this offering in satisfaction of accumulated dividends on our Series A, B, C and D convertible preferred stock, assuming an initial public offering price of \$15.00 per share, and the closing of this offering occurs on June 30, 2006.

You should read the information in this table together with our financial statements and accompanying notes and Management's Discussion and Analysis of Financial Condition and Results of Operations appearing elsewhere in this prospectus.

	As of March 31, 2006	
	Actual	Pro Forma As Adjusted
	(in thousands, except share data)	
Cash, cash equivalents and short-term investments	\$ 109,900	\$ 178,050
Preferred stock, \$0.01 to \$0.001 par value: 88,862,226 authorized, 88,602,223 issued and outstanding shares, actual; 5,000,000 authorized, issued and outstanding shares, as adjusted	139,568	
Stockholders' equity (deficit):		
Common stock, \$0.001 par value: 115,000,000 authorized shares; 2,094,706 issued shares and 2,064,119 outstanding shares, actual; 100,000,000 authorized shares; 26,344,360 issued shares and 26,313,773 outstanding shares, as adjusted	2	26
Additional paid-in capital		207,694
Treasury stock, \$0.01 par value; 30,587 shares	(2)	(2)
Accumulated other comprehensive income	521	521
Deficit accumulated during the development stage	(93,060)	(93,060)
Total stockholders' (deficit) equity	(92,539)	115,179
Total capitalization	\$ 47,029	\$ 115,179

The outstanding share information in the table above excludes:

1,626,286 shares of common stock issuable upon the exercise of outstanding options, with a weighted average exercise price of \$2.59 per share;

227,708 shares of common stock reserved for future issuance under our benefit plans; and

32

Table of Contents

53,012 shares of common stock issuable upon the exercise of outstanding warrants, with a weighted average exercise price of \$5.47 per share.

We expect to complete a one-for-4.904 reverse stock split of our common stock before the completion of this offering. All share amounts have been retroactively adjusted to give effect to this stock split.

Between April 1, 2006 and May 31, 2006, we issued additional options to purchase up to 168,362 shares of common stock at a weighted average exercise price of \$7.93 per share, options to purchase 13,230 shares of common stock were exercised and options to purchase 2,100 shares of common stock were forfeited.

The terms of our existing Series A, B, C and D convertible preferred stock require us, upon the closing of this offering, to issue additional shares of common stock to the preferred stockholders in satisfaction of accumulated dividends on the preferred stock. The accumulated dividends were \$15.2 million at March 31, 2006 and continue to accumulate at the rate of approximately \$0.1 million per month thereafter. The common stock issued in satisfaction of those dividends will be valued at the public offering price per share in this offering. Accordingly, the actual amount of shares we issue upon the closing of this offering in satisfaction of the accumulated dividends will depend both upon the timing and the pricing of this offering.

A \$1.00 increase in the assumed initial public offering price above \$15.00 per share would decrease the number of shares of common stock to be issued to the holders of Series A, B, C and D convertible preferred stock in satisfaction of accumulated dividends as of March 31, 2006 on such preferred stock by approximately 73,882 shares and a \$1.00 decrease in the assumed initial public offering price below \$15.00 per share would increase the number of shares of common stock to be issued to the holders of Series A, B, C and D convertible preferred stock in satisfaction of accumulated dividends as of March 31, 2006 on such preferred stock by approximately 84,467 shares.

Table of Contents**DILUTION**

If you invest in our common stock in this offering, your ownership interest will be diluted to the extent of the difference between the initial public offering price per share and the pro forma net tangible book value per share of our common stock after this offering. The historical net tangible book value (deficit) of our common stock as of March 31, 2006 was approximately \$(92.5) million, or approximately \$(62.49) per share, based on the number of shares outstanding as of March 31, 2006 (excluding unvested restricted shares), as adjusted to reflect the one-for-4.904 reverse split of our common stock to be effected prior to the completion of this offering. Historical net tangible book value per share is determined by dividing the number of outstanding shares of our common stock (excluding unvested restricted shares) into our total tangible assets (total assets less intangible assets) less total liabilities.

Investors participating in this offering will incur immediate, substantial dilution. After giving effect to the sale of 5,000,000 shares of common stock in this offering at an assumed initial public offering price of \$15.00 per share, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, and after giving effect to the conversion of all outstanding shares of preferred stock into 18,067,322 shares of common stock upon completion of this offering and the assumed issuance of 1,182,332 shares of common stock upon the closing of this offering in satisfaction of accumulated dividends on our Series A, B, C and D convertible preferred stock, our pro forma as adjusted net tangible book value as of March 31, 2006 would have been approximately \$115.2 million, or approximately \$4.48 per share of common stock. This represents an immediate increase in pro forma as adjusted net tangible book value of \$2.21 per share to existing stockholders, and an immediate dilution of \$10.52 per share to investors participating in this offering. The following table illustrates this per share dilution:

Assumed initial public offering price per share	\$15.00
Historical net tangible book value per share as of March 31, 2006	\$(62.49)
Pro forma increase in net tangible book value per share attributable to conversion of convertible preferred stock and issuance of shares of common stock in satisfaction of accumulated dividends on convertible preferred stock	\$64.76
Pro forma net tangible book value per share as of March 31, 2006 before this offering	\$2.27
Increase in net tangible book value per share attributable to this offering	\$2.21
Pro forma as adjusted net tangible book value per share after this offering	\$4.48
Dilution per share to investors participating in this offering	\$10.52

A \$1.00 increase (decrease) in the assumed initial public offering price of \$15.00 per share would increase (decrease) the pro forma net tangible book value before this offering by \$0.01 per share, the pro forma net tangible book value after this offering by \$0.19 per share and the dilution to investors in this offering by \$0.81 per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

If the underwriters exercise their over-allotment option in full to purchase 750,000 additional shares of common stock in this offering, the pro forma as adjusted net tangible book value after the offering would be \$4.74 per share, the increase in the pro forma net tangible book value attributable to investors in this offering would be \$0.27 per share and the dilution to new investors purchasing common stock in this offering would be \$10.26 per share.

Table of Contents

The following table summarizes, on a pro forma as adjusted basis as of March 31, 2006, the differences between the number of shares of common stock purchased from us, the total consideration and the average price per share paid by stockholders and by investors participating in this offering, after deducting underwriting discounts and commissions and estimated offering expenses, at an assumed initial public offering price of \$15.00 per share:

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders before this offering	21,313,773	81.00%	\$ 144,829,740	65.88%	\$ 6.80
Investors participating in this offering	5,000,000	19.00	75,000,000	34.12	15.00
Total	26,144,999	100%	\$ 219,829,740	100%	

A \$1.00 increase (decrease) in the assumed initial public offering price of \$15.00 per share would increase (decrease) the total consideration paid by new investors by \$5.0 million, or increase (decrease) the percent of total consideration paid by new investors by 1.47%, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same.

The number of shares of common stock outstanding in the table above is based on the number of shares outstanding as of March 31, 2006 and assumes no exercise of the underwriters' over-allotment option. If the underwriters' over-allotment option is exercised in full, the number of shares of common stock held by existing stockholders will be reduced to 62.68% of the total number of shares of common stock to be outstanding after this offering and the number of shares of common stock held by investors participating in this offering will be increased to 5,750,000 shares or 21.25% of the total number of shares of common stock to be outstanding after this offering.

The above discussion and tables also assume no exercise of any outstanding stock options or warrants. As of March 31, 2006, there were:

1,626,286 shares of common stock subject to outstanding options, having a weighted average exercise price of \$2.59 per share;

277,708 shares of common stock reserved for future issuance under our benefit plans as of the completion of this offering; and

53,012 shares of common stock subject to outstanding warrants, having a weighted average exercise price of \$5.47 per share.

Effective upon the completion of this offering, an aggregate of 5,663,584 shares of our common stock will be reserved for issuance under our benefit plans, and these share reserves may be subject to annual increases in accordance with the terms of the plans. To the extent that any of these options or warrants are exercised, new options are issued under our benefit plans or we issue additional shares of common stock in the future, there will be further dilution to investors participating in this offering.

Table of Contents

SELECTED FINANCIAL DATA

The following selected financial data should be read together with our financial statements and accompanying notes and Management's Discussion and Analysis of Financial Condition and Results of Operations appearing elsewhere in this prospectus. The selected financial data in this section is not intended to replace our financial statements and the accompanying notes. Our historical results are not necessarily indicative of our future results.

The 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, 2003, 2004 and 2005 are derived from our audited financial statements appearing elsewhere in this prospectus, which have been audited by KPMG LLP. The statements of operations data for the period from December 6, 2000 (date of inception) to December 31, 2001 and for the year ended December 31, 2002 and the consolidated balance sheet data as of December 31, 2001 and 2002 are derived from our unaudited financial statements not included in this prospectus. The statement of operations data for the three months ended March 31, 2005 and 2006 and the balance sheet data as of March 31, 2006 have been derived from our unaudited financial statements included elsewhere in this prospectus. In the opinion of management, those unaudited financial statements have been prepared on a basis substantially consistent with the audited financial statements and include all adjustments, consisting of normal and recurring adjustments, necessary for the fair presentation of the results for these periods and as of such date. We adopted the provisions of SFAS 123(R) on January 1, 2006, and our results for the three months ended March 31, 2006 reflect \$0.1 million of stock-based compensation expense. Historical results are not necessarily indicative of operating results to be expected in the future.

The pro forma basic and diluted net loss per common share data for the year ended December 31, 2005 reflect the mandatory conversion, upon the closing of this offering, of the Series A, B, C and D convertible preferred stock at their respective conversion rates into our common stock and the issuance of shares of common stock in satisfaction of the accumulated dividends on the Series A, B, C and D convertible preferred stock through the end of the applicable period based on an assumed initial public offering price of \$15.00 per share, as if the conversion had occurred at March 31, 2006.

Table of Contents

	For the Period from December 6, 2000 (Date of Inception) to December 31, 2001				Three Months Ended			
	Years Ended December 31,				March 31,			
	2002	2003	2004	2005	2005	2006		
	(in thousands, except share and per share amounts)							
	(unaudited)				(unaudited)			
Statement of Operations Data:								
Revenue	\$ 49	\$ 726	\$ 834	\$ 441	\$ 267	\$ 2,877		
Costs and expenses:								
Research and development	125	2,517	12,331	16,282	29,180	5,013	8,970	
Sales, general and administrative	397	1,275	2,155	2,994	5,329	686	1,953	
Total costs and expenses	522	3,792	14,486	19,276	34,509	5,699	10,923	
Loss from operations	(473)	(3,792)	(13,760)	(18,442)	(34,068)	(5,432)	(8,046)	
Other (expense) income, net	(12)	30	(190)	(797)	399	42	344	
Net loss	(485)	(3,762)	(13,950)	(19,239)	(33,669)	(5,390)	(7,702)	
Preferred stock dividends and accretion		(915)	(1,294)	(3,560)	(7,191)	(1,291)	(2,653)	
Net loss attributable to common stockholders	\$ (485)	\$ (4,677)	\$ (15,244)	\$ (22,799)	\$ (40,860)	\$ (6,681)	\$ (10,355)	
Basic and diluted net loss attributable to common stockholders per share(1):								
Historical	\$ (0.72)	\$ (6.59)	\$ (20.82)	\$ (30.55)	\$ (39.20)	\$ (8.13)	\$ (7.21)	
					\$ (2.24)		\$ (0.38)	

Pro forma
(unaudited)

Weighted average shares outstanding(1):							
Historical	674,599	709,568	732,044	746,306	1,042,338	821,757	1,435,726
Pro forma (unaudited)					15,031,566		20,508,603

	As of December 31,					As of March 31,
	2001	2002	2003	2004	2005	2006
						(unaudited)
						(unaudited)
						(in thousands)
Balance Sheet Data:						
Cash, cash equivalents and short-term investments	\$ 80	\$ 8,549	\$ 692	\$ 27,018	\$ 59,420	\$ 109,900
Working capital	(498)	7,400	(1,657)	24,409	50,755	98,800
Total assets	412	11,988	4,169	30,067	63,579	116,112
Long-term debt, net of current portion and discount		1,688	1,208	84		
Accumulated deficit	(485)	(4,960)	(20,105)	(42,235)	(83,107)	(93,060)
Preferred stock		13,764	20,058	69,447	136,815	139,568
Total stockholders deficit	(428)	(4,918)	(20,115)	(42,202)	(82,632)	(92,539)

(1) Please see Note 1 to our financial statements for an explanation of the method used to calculate the historical and pro forma net loss attributable to common stockholders per share and the number of shares used in the computation of the per share amounts.

Effective April 12, 2005, KPMG LLP was engaged as our independent registered public accounting firm and replaced PricewaterhouseCoopers LLP, who were dismissed as our independent registered public accounting firm. The decision to change independent registered public accounting firms was approved by our Audit Committee of the Board of Directors. PricewaterhouseCoopers LLP reported on our financial statements as of and for the years ended December 31, 2002 and 2003, and cumulatively for the period from December 6, 2000 (date of inception) to December 31, 2003. Except for an explanatory paragraph expressing significant doubt about the ability of Replidyne to continue as a going

Table of Contents

concern, the report of PricewaterhouseCoopers LLP on those financial statements did not contain an adverse opinion or disclaimer of opinion and was not qualified or modified as to uncertainty, audit scope or accounting principles. During the years ended December 31, 2002 and 2003 and through April 12, 2005, we did not have any disagreements with PricewaterhouseCoopers LLP on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreements, if not resolved to their satisfaction, would have caused them to make reference thereto in connection with their report on the financial statements for such years. PricewaterhouseCoopers LLP has not audited or reported on any financial statements or information included in this prospectus. For purposes of this filing, the financial statements for the years ended December 31, 2003, 2004 and 2005 (and for the period from December 6, 2000 through December 31, 2005) have been audited by KPMG LLP. Prior to retaining KPMG LLP, we had not consulted with KPMG LLP on items that involved our accounting principles or the form of audit opinion to be issued on our financial statements. PricewaterhouseCoopers LLP's letter to the Securities and Exchange Commission stating its agreement with the statements in this paragraph is filed as an exhibit to the registration statement of which this prospectus is a part.

Table of Contents

**MANAGEMENT'S DISCUSSION AND ANALYSIS
OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

You should read the following discussion and analysis together with our financial statements and the notes to those statements included elsewhere in this prospectus. This discussion contains forward-looking statements that involve risks and uncertainties. As a result of many factors, such as those set forth under Risk Factors and elsewhere in this prospectus, our actual results may differ materially from those anticipated in these forward-looking statements.

Overview

We are a biopharmaceutical company initially focused on discovering, developing, in-licensing and commercializing innovative anti-infective products. Our lead product, Orapem, is a novel oral community antibiotic for which we have filed an NDA. In December 2005, we submitted to the FDA our NDA for Orapem for four indications: acute bacterial sinusitis, community-acquired pneumonia, acute exacerbation of chronic bronchitis and uncomplicated skin and skin structure infections. Although the efficacy data for acute exacerbation of chronic bronchitis and uncomplicated skin and skin structure infections may be adequate for FDA approval, we expect that the FDA will likely require additional clinical trials, including a placebo-controlled trial in the case of acute exacerbation of chronic bronchitis, before it will approve these indications. We have entered into a collaboration and commercialization agreement with Forest Laboratories to co-develop and co-market Orapem in the U.S. We and Forest Laboratories are currently conducting a Phase III placebo-controlled clinical trial for acute exacerbation of chronic bronchitis for adult use. We are also developing, together with Forest Laboratories, an oral liquid formulation of Orapem for the pediatric market and are currently conducting a Phase II clinical trial using a prototype oral liquid formulation among pediatric patients with acute otitis media. We intend to conduct Phase III clinical trials seeking clinical indications for the two largest pediatric indications: acute otitis media and tonsillitis/pharyngitis.

Our second product candidate is REP8839, which we are developing for topical use for skin and wound infections and prevention of *S. aureus* infections, including MRSA, in hospital settings. REP8839 is an inhibitor of methionyl tRNA synthetase and, in pre-clinical studies, has shown promising activity. We submitted an investigational new drug application, or IND, for the development of a REP8839/mupirocin combination product in May 2006.

We are also pursuing the development of other novel anti-infective products based on our own research efforts. We have developed an assay that identifies compounds that inhibit bacterial DNA replication. The compounds may be useful to treat bacterial infections. We have also selected from a proprietary library several potential compounds for development to treat infections in hospital settings caused by *C. difficile* and are in late pre-clinical testing.

We were incorporated on December 6, 2000 in Delaware. Prior to inception, we had not commenced any significant activity to develop our technology. On December 6, 2000, an affiliated entity contributed certain assets and liabilities to us, which we recorded at their historical cost at that time, and we commenced development activity. Since our inception, we have focused on the in-license and acquisition of technology and acquisition of our technology acquired as in-process research and development, the selection of pre-clinical testing of product candidates and the manufacture of clinical trial supplies. The majority of our activities have been in support of the development of Orapem and REP8839.

We have incurred significant operating losses since our inception on December 6, 2000, and, as of March 31, 2006, we had an accumulated net loss of \$78.8 million and accumulated net loss attributable to common stockholders of \$94.4 million. We have generated no revenue from product sales to date. We have funded our operations to date principally from the sale of our securities and, subsequent to December 31, 2005, from payments by Forest Laboratories under our collaboration and commercialization agreement. We expect to continue to incur substantial operating losses for the next several years as we pursue our clinical trials and research and development efforts.

Table of Contents**Our Collaboration with Forest Laboratories**

In February 2006, we entered into a collaboration and commercialization agreement with Forest Laboratories to be our exclusive partner for the development and marketing of Orapem in the U.S. We granted Forest Laboratories a right of first refusal to extend the territory to include Canada. We received an up-front payment of \$50.0 million in February 2006 and \$10.0 million in milestone payments in March 2006 from Forest Laboratories. We may receive up to an additional \$190.0 million in development and commercial milestones for both adult and pediatric indications, which will be reduced by \$25.0 million if we exercise our option to directly market and promote Orapem to pediatricians on an exclusive basis, which we expect to do. These milestone payments are largely dependent on the acceptance of additional NDA filings, FDA approvals and achieving certain sales levels of adult and pediatric formulations of Orapem. Forest Laboratories will book all Orapem sales and pay us a co-promotion fee, reimburse our marketing expenses and pay us royalties on all sales, milestones on development of the liquid oral formulation and, provided we exercise our option to market Orapem directly to pediatricians, a portion of the commercialization milestones. Product development activities under the agreement are a joint responsibility between us and Forest Laboratories, although Forest Laboratories is responsible for a substantial portion of development expenses. We maintain access to all data generated in our joint development efforts for use in territories outside the U.S. Forest Laboratories has agreed to assume responsibility for supply chain management in the territory for Orapem, and we anticipate that Forest Laboratories will enter into a direct relationship with Nippon Soda as its sole supplier of Orapem drug substance under similar terms as those currently in place between us and Nippon Soda. Forest Laboratories is responsible for sales and marketing activities and associated costs.

We will perform marketing and promotion activities directed toward targeted specialists, such as otolaryngologists (ear, nose and throat specialists). With respect to these activities, Forest Laboratories will reimburse us for our sales force expenses incurred during the one year period prior to commencement of these marketing and promotion activities, up to a maximum amount as provided in our agreement. For the five year period after commencement of such marketing and promotion activities, Forest Laboratories will reimburse us for certain marketing and sample expenses (subject to an approved annual budget) and for certain sales force expenses. As to sales forces expenses during this period, Forest Laboratories will reimburse us for all of such expenses incurred during the first two years after commencement of our marketing and promotion activities up to a maximum amount as provided in our agreement, and for the remaining three years Forest Laboratories will reimburse us for such sales force expenses up to a certain percentage of the maximum amount as provided in our agreement. We have the right to retain the majority of the sales margin, defined as net sales less cost of goods and marketing expenses, from the oral liquid formulation of Orapem prescribed by pediatricians, provided we exercise this option at least six months before this formulation is submitted for regulatory approval. If the sales margin is negative, we will bear the majority of the losses in the period they are generated. If we exercise this option, we and Forest Laboratories will jointly determine the product launch and marketing and selling strategies for the oral liquid formulation of Orapem. Further, if we exercise this option, Forest Laboratories will extend us a \$60.0 million line of credit to support our promotional efforts to pediatricians.

In accordance with our revenue recognition policy for up-front and milestone payments received under collaboration and commercialization agreements, we intend to recognize revenue for the payments received to date on a straight-line basis over a period of 13.5 years, which is the period of estimated benefit to us. The up-front payment and milestone payment received are non-refundable. We anticipate accounting for amounts received as reimbursements from Forest Laboratories for research and development and sales and marketing activities as revenue. This treatment reflects our role as principal in these transactions whereby we are responsible for selecting vendors, performing significant duties and bearing credit risk.

Financial Operations Overview

Revenue. Through December 31, 2005, we have generated revenue from a research and license agreement. Under the terms of this agreement, to date, we have received up-front license payments and

Table of Contents

periodic, non-refundable milestone payments. As of December 31, 2005, we have no additional obligations under this agreement and no further milestone payments are currently due. As a result of our collaboration agreement with Forest Laboratories, we began to recognize revenue from Forest Laboratories during the three months ended March 31, 2006.

Research and Development Expense. Research and development expense consists primarily of expenses incurred to acquire in-process research and development and to develop and test our product candidates. Such expenses include:

external research and development expenses, including the costs of materials relating to our pre-clinical studies and clinical trials;

third party supplier, consultant and employee related expenses, including compensation and benefits;

license fees associated with acquiring in-process research and development; and

facilities, depreciation and other allocated expenses, which include direct and allocated expenses for rent, maintenance of facilities, information technology, laboratory and office supplies and depreciation of capital assets used to research and develop our product candidates.

Through December 31, 2005, we have incurred approximately \$60.4 million in research and development expenses. Prior to 2003, all research and development activities were related to discovery research activities.

In March 2004, we licensed all rights to Orapem from Daiichi Asubio in the U.S. and Canada. In addition, we have the sole negotiation right to license such rights for the rest of the world, except Japan. Orapem was in development at the time we entered into the license and we accounted for the license of the technology as acquired in-process research and development. Since March 2004, we have focused our efforts on completing the clinical program, establishing commercial scale manufacturing capability and completing other regulatory steps to support the NDA for Orapem that we submitted to the FDA in December 2005. We are in the process of conducting an additional Phase III clinical trial using a higher dose therapy to treat acute exacerbation of chronic bronchitis. We are also seeking to expand the expected labeled indication of Orapem into pediatric markets for treatment of acute otitis media using an oral liquid formulation. To be accepted in the pediatric market, in addition to an excellent safety and efficacy profile, an oral liquid formulation must have a taste that is acceptable to children. We are continuing development work to improve the taste of our oral liquid formulation of Orapem.

We acquired the worldwide rights to the methionyl tRNA synthetase inhibitor program from GlaxoSmithKline PLC, or GSK, in June 2003 in exchange for 4,000,000 shares of our Series B convertible preferred stock at a deemed fair value of \$1.25 per share. Because this program was in pre-clinical development at the time we acquired the worldwide rights, we accounted for the acquisition as acquired in-process research and development in 2003. Using this acquired technology, we have continued the development of our product candidate REP8839 for the treatment of skin and wound infections and eradication of *S. aureus* in the hospital setting. We submitted an IND for REP8839 in combination with mupirocin in May 2006, and if the IND is approved, we anticipate commencing a Phase I clinical trial of REP8839/mupirocin in late 2006. Mupirocin is a widely used generic antibiotic that is indicated for treatment of skin infections and nasal decolonization of *S. aureus*.

Our 2005 and current year research and development activities are primarily focused on the clinical development of Orapem. We expect our research and development expense to increase as we advance Orapem, REP8839 and new product candidates into further clinical and pre-clinical development. We are unable to estimate with any certainty the costs we will incur in the continued development of Orapem, REP8839 and our other product candidates. We expect to continue to expand our research and development activities relating to the clinical development of our product candidates and pre-clinical research of treatments in the anti-infective area. If we acquire or in-license additional technologies or

Table of Contents

product candidates in the clinical or pre-clinical development stage, we also expect to expand our research and development activities to develop these technologies or product candidates.

Clinical development timelines, likelihood of success and associated costs are uncertain and therefore vary widely. Although we are currently focused primarily on Orapem for the treatment of community-acquired respiratory tract and skin infections and have commenced the clinical trials program for an oral liquid formulation of Orapem for treatment of acute otitis media in pediatric patients, we anticipate that we will make determinations as to which research and development projects to pursue and how much funding to direct toward each project on an on-going basis in response to the scientific and clinical success of each product candidate and each additional indication for Orapem.

Due to the risks inherent in the clinical trial process, development completion dates and costs will vary significantly for each product candidate and are difficult to estimate. The lengthy regulatory approval process requires substantial additional resources. Any failure by us to obtain, or any delay in obtaining, regulatory approvals for our product candidates could cause the costs of our research and development to increase and have a material adverse effect on our results of operations. We cannot be certain when any cash flows from our current product candidates will commence.

Sales, General and Administrative Expense. Sales, general and administrative expense consist principally of compensation and related costs for personnel in executive, sales, marketing, corporate development, legal, finance, accounting and human resource functions. Other sales, general and administrative costs include professional fees, costs of insurance and market research.

Interest and Other Income. Interest income consists of interest earned on our cash and cash equivalents and short-term investments. Other income consists primarily of realized gains on short-term investments available-for-sale.

Interest Expense. Interest expense consists of interest incurred on equipment loans and convertible promissory notes.

Loss on Extinguishment of Convertible Notes Payable. Loss on extinguishment of convertible notes payable represents a charge equal to the difference between the carrying amount of our convertible promissory notes on the date the notes were converted to Series C redeemable convertible preferred stock and the fair value of the stock received on conversion in 2004.

Preferred Stock Dividends and Accretion. Preferred stock dividends and accretion consists of cumulative but undeclared dividends payable and accretion of issuance costs on preferred stock. The issuance costs on the shares of Series A, C and D redeemable convertible preferred stock were recorded as a reduction to the carrying amount of the stock when issued, and are accreted to preferred stock ratably through July 31, 2014 by a charge to additional paid-in capital and loss attributable to common stockholders. Upon the completion of this offering, the cumulative but unpaid dividends on Series A, B, C and D preferred stock are payable in shares of common stock at the price of the common stock sold in the offering. Upon closing of this offering, we will no longer record preferred dividends and accretion on the preferred stock, which will convert into common shares upon completion of this offering. As of March 31, 2006, the cumulative dividends payable on our preferred stock totaled \$15.2 million.

Critical Accounting Policies and Estimates

This discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with accounting principles generally accepted in the U.S. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues, expenses and related disclosures. Actual results may differ from these estimates. Our significant accounting policies are described in the Note 1 of Notes to Financial Statements appearing elsewhere in this prospectus. We believe the following accounting policies affect our more significant judgments and estimates used in the preparation of our financial statements.

Table of Contents

Revenue Recognition. We generate revenue through research, license, collaboration and commercialization agreements. These agreements can contain multiple elements, including non-refundable up-front fees, payments for reimbursement of research and commercialization costs, non-refundable payments associated with achieving specific milestones, promotion fees based on marketing margins defined in our agreement with Forest Laboratories and royalties based on specified percentages of net product sales.

In determining when to recognize revenue related to up-front and milestone payments under these agreements we apply the revenue recognition criteria as outlined in EITF Issue 00-21, *Revenue Arrangements with Multiple Deliverables* (EITF 00-21). In applying these criteria, we consider a variety of factors to determine the appropriate method of revenue recognition, including whether the elements of the agreement are separable, whether payments received are subject to refund or forfeiture, whether there are determinable fair values and whether there is a unique earnings process associated with each element of an agreement.

When a payment is specifically tied to a separate earnings process and the amount to be received is fixed and determinable, revenue is recognized when the performance obligation associated with the payment is completed. Performance obligations typically consist of significant and substantive milestones. Revenues from milestone payments may be considered separable from funding for research, development or commercial activities because of the uncertainty surrounding the achievement of the milestones. Accordingly, these payments could be recognized as revenue when the performance milestone is achieved as described in EITF 00-21. In circumstances where we cannot identify a separate earnings process related to an upfront or milestone payment, we record deferred revenue and recognize revenue ratably over the period of expected benefit, which is generally the unexpired contract term.

Revenues derived from reimbursement of expenses for research, development and commercial activities under our collaboration and commercialization agreements are recorded in compliance with EITF Issue 99-19, *Reporting Revenue Gross as Principal Versus Net as an Agent* (EITF 99-19). In accordance with the criteria established by EITF 99-19, in transactions where we act as principal, with discretion to choose suppliers, bear credit risk and perform a substantive part of the services, revenue is recorded at the gross amount of the reimbursement. Costs associated with these reimbursements are reflected as a component of operating expenses in our statements of operations.

Under our agreement with Forest Laboratories entered into in February 2006, we intend to record the initial \$50 million upfront payment received in February 2006 as deferred revenue and recognize this amount into revenue ratably over a 13.5 year period. In addition, we have and may continue to receive payments upon the achievement of certain development and commercial milestones. The first milestone was achieved and a payment of \$10 million was received in March 2006. Due to this milestone being achieved within one month of entering into the collaboration and commercialization agreement with Forest Laboratories, we could not identify a separate earnings process related to this milestone payment and will recognize revenue related to this payment over 13.5 years, the expected term of the agreement. In assessing the remaining milestone payments contemplated in our agreement with Forest Laboratories we have reviewed the criteria for achievement of future milestones. Based on this review, we believe that achievement is uncertain and dependent upon a number of factors which will involve substantive effort. We further believe that a unique earnings process has been identified for each of the remaining development and commercial milestones, the amounts received will be fixed and determinable and, therefore, we intend to recognize revenue related to these milestones upon achievement.

We also anticipate receiving amounts from Forest Laboratories as reimbursement for certain research and development and sales and marketing activities under our agreement. We believe that, as it relates to these activities, we will act as the principal, performing a substantive part of the services directly, having the discretion to choose our suppliers and bearing all credit risk associated with the performance of these activities. We therefore intend to record these amounts as revenue in accordance with our revenue recognition policy. See Note 1 to our financial statements for more information about our revenue recognition policies.

Table of Contents

Stock-Based Compensation. Through December 31, 2005, we have accounted for employee stock options using the intrinsic-value method in accordance with Accounting Principles Board (APB), Opinion No. 25, *Accounting for Stock Issued to Employees*, Financial Accounting Standards Board (FASB), Interpretation No. 44, *Accounting for Certain Transactions Involving Stock Compensation, an interpretation of APB No. 25*, and related interpretations. For periods prior to December 31, 2005, we have adopted the disclosure-only provisions of Statement of Financial Accounting Standards (SFAS), No. 123, *Accounting for Stock-Based Compensation*, as amended.

Under APB No. 25, we recognized stock-based compensation expense, which is a non-cash charge, when we issued employee stock option grants at exercise prices that, for financial reporting purposes, are deemed to be below the estimated fair value of the underlying common stock on the date of grant. Because shares of our common stock have not been publicly traded, the fair value of our common stock for financial accounting purposes has been determined by our board of directors on the dates of grant based on several factors, including:

- pricing of private sales of our convertible preferred stock;
- comparative rights and preferences of our common stock compared to the rights and preferences of our other outstanding equity securities;
- progress against clinical and product development milestones;
- the risks and uncertainties of obtaining FDA approval for Orapem;
- progress towards establishing a collaborative development and commercialization partnership for Orapem;
- the status of our efforts to build our management team;
- changes in valuations of comparable publicly-traded companies and acquisitions of companies similar to ours;
- the likelihood of achieving a liquidity event such as an initial public offering or sale of our company;
- the inherent risks associated with the Company's business at the time; and
- overall equity market conditions and general economic trends.

Based on these factors, during 2005 we valued our common stock and set exercise prices for common stock options at each date of grant within the range of \$0.64 to \$2.21. If our estimates of the deemed fair value of these equity instruments are too low, it would have the effect of understating our expenses.

The fair value of the common stock underlying grants of options for common stock issued to employees prior to our consideration of a public offering of securities has historically been determined by our board of directors based upon information available to it on the grant dates. However, in December 2005, we engaged an unrelated valuation specialist to perform a retrospective analysis to determine the deemed fair market value of our common stock for accounting purposes at various points in time in 2005. This retrospective analysis addressed the deemed fair market value of our common stock utilizing a probability-weighted expected return method, as detailed in a practice aid issued by the American Institute of Certified Public Accountants entitled *Valuation of Privately Held Company Equity Securities Issued as Compensation*. This valuation methodology evaluates the probability of various potential liquidity events and the value of the common stock in each scenario. Changes in the factors described above result in changes to the probabilities of, and the valuations for, various liquidity events. These independent valuations supported the fair value of our common stock established by our board of directors during the year ended December 31, 2005. Since December 2005, we have obtained multiple contemporaneous valuations from this valuation specialist utilizing the

same valuation methodology to determine the fair market value of our common stock for accounting purposes at various points in time in 2006.

Table of Contents

While our financial statements through December 31, 2005, account for stock option grants pursuant to APB No. 25, in accordance with SFAS No. 123, we disclose in the notes to our financial statements the pro forma impact on our net loss had we accounted for stock option grants using the fair value method of accounting. This information is presented as if we had accounted for our employee stock options at fair value using the minimum value option-pricing model. Our use of the minimum value model was primarily due to our determination as to its appropriateness as well as its general acceptance as an option valuation technique for private companies. We will not utilize the minimum value method subsequent to our adoption of SFAS 123(R) on January 1, 2006, and the fair value of our options will be higher as a result. Stock-based compensation expense under APB No. 25 for stock options granted to employees and directors has been determined as the difference between the exercise price and the fair value of our common stock on the date of grant, as estimated by us for financial reporting purposes, on the date those options were granted. It also includes stock-based compensation for options granted to consultants that has been determined in accordance with SFAS No. 123, and Emerging Issues Task Force (EITF) Issue No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring or in Conjunction with Selling Goods and Services*, as the fair value of the equity instruments issued and is periodically revalued as the options vest. Stock-based compensation expense depends on the amount of stock options and other equity compensation awards we grant to our employees, consultants and directors and the exercise price of those options. See Notes 1 and 9 to our financial statements.

Adoption of SFAS No. 123(R)

Effective January 1, 2006, we adopted Statement of Financial Accounting Standards No. 123(R), *Share-Based Payment* (SFAS 123(R)), which requires compensation costs related to share-based transactions, including employee stock options, to be recognized in the financial statements based on fair value. SFAS 123(R) revises SFAS 123, as amended, *Accounting for Stock-Based Compensation* (SFAS 123), and supersedes Accounting Principles Board (APB) Opinion No. 25, *Accounting for Stock Issued to Employees* (APB 25). We adopted SFAS 123(R) using the prospective method. Under this method, compensation cost is recognized for all share-based payments granted subsequent to December 31, 2005. Prior to January 1, 2006, we used the minimum value method, to determine values of our pro forma stock-based compensation disclosures.

We selected the Black-Scholes option pricing model as the most appropriate valuation method for option grants with service and/or performance conditions. The fair value of these option grants is estimated as of the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions for options granted during the three month period ended March 31, 2006. For options granted in 2006, we separated optionees into two groups: grants with early exercise provisions and grants without early exercise provisions. We have determined that the exercise behavior of the two option groups is distinct and, therefore, the assumptions are different for purposes of valuing the options. The expected lives (net of forfeitures) for options with and without early exercise provisions are estimated to be 4.00 years and 4.40 years, respectively. Expected volatility for the two groups is estimated to be 75%. The risk free interest rate is 4.44% for both groups and the dividend yield is 0%. An expected life of 7.01 years was derived from the model.

During the three month period ended March 31, 2006, we also issued options which vest over the earlier to be achieved service or market condition. In determining the estimated fair value of these option awards on the date of grant, we elected to use a binomial lattice option pricing model together with Monte Carlo simulation techniques using the following weighted average assumptions during the three months ended March 31, 2006: risk-free interest rate of 5.08%, expected dividend yield of 0%, expected volatility of 75%, forfeiture rate of 6.97%, suboptimal exercise factor of 2, and post-vesting exit rate of 6.97%.

Table of Contents

The Black-Scholes model requires inputs for risk-free interest rate, dividend yield, volatility and expected lives of the options. Since the Company has a limited history of stock activity, expected volatility is based on historical data from several public companies similar in size and value to us. We will continue to use a weighted average approach using historical volatility and other similar public entity volatility information until our historical volatility is relevant to measure expected volatility for future option grants. We estimate the forfeiture rate based on historical data. Based on an analysis of historical forfeitures, we applied an annual forfeiture rate of 6.97% to all options granted in the three months ended March 31, 2006. This analysis will be re-evaluated quarterly and the forfeiture rate will be adjusted as necessary. The risk-free rate for periods within the contractual life of the option is based on the U.S. Treasury yield curve in effect at the time of the grant. The expected lives (net of forfeitures) for options granted represents the period of time that options granted are expected to be outstanding and is derived from the contractual terms of the options granted.

The lattice model requires inputs for risk-free interest rate, dividend yield, volatility, contract term, average vesting period, post-vest exit rate and suboptimal exercise factor. Both the fair value and expected life are outputs from the model. The risk-free interest rate was determined based on the yield available on U.S. Treasury Securities over the life of the option. The dividend yield and volatility factor was determined in the same manner as described above for the Black-Scholes model. The lattice model assumes that employees' exercise behavior is a function of the option's remaining vested life and the extent to which the option is in-the-money. The lattice model estimates the probability of exercise as a function of the suboptimal exercise factor and the post-vesting exit rate. The suboptimal exercise factor and post-vesting exit rate were based on actual historical exercise behavior.

We had a choice of two attribution methods for allocating compensation costs under SFAS No. 123(R): the straight-line method, which allocates expense on a straight-line basis over the requisite service period of the last separately vesting portion of an award, or the graded vesting attribution method, which allocates expense on a straight-line basis over the requisite service period for each separately vesting portion of the award as if the award was, in-substance, multiple awards. We chose the latter method (i.e. graded vesting). We amortize the fair value of each option over each option's vesting period (requisite service period).

Deferred Tax Asset Valuation Allowance. In establishing an allowance on the valuation of our deferred tax assets we are required to make significant estimates and judgments about our future operating results. Our ability to realize deferred tax assets depends on our future taxable income as well as limitations on utilization primarily of net operating losses and tax credits. We are required to reduce our deferred tax assets by a valuation allowance if it is more likely than not that some portion or all of our deferred tax asset will not be realized. As we have historically incurred significant operating losses, it is difficult to conclude with certainty that any of our deferred tax assets will be realized. Accordingly, we have recorded a full valuation allowance on our net deferred tax assets since inception due to uncertainties related to our ability to realize deferred tax assets in the foreseeable future. See Note 10 to our financial statements.

Results of Operations***Comparison of Three Months Ended March 31, 2006 and 2005***

Revenue. Revenue was \$2.9 million for the three months ended March 31, 2006 compared to \$0.3 million for the three months ended March 31, 2005. The increase was primarily due to revenue generated from our collaboration and commercialization agreement with Forest Laboratories, which we entered into on February 10, 2006. Revenue recognized during the three months ended March 31, 2006 includes \$0.6 million of license revenue, representing a portion of the upfront and milestone payments totaling \$60 million that were received in February 2006, which is being recognized as revenue over the estimated period of performance of 13.5 years, and \$2.3 million of contract revenue for funded activity under our collaboration and commercialization agreement with Forest Laboratories. Revenue recognized in the three months ended March 31, 2005 consists solely of license revenue generated from a research and development project that was completed in 2005.

Table of Contents

Research and Development Expense. Research and development expenses were \$9.0 million for the three months ended March 31, 2006, as compared to \$5.0 for the corresponding period in 2005. The increase was primarily due to:

increased clinical trial costs and related expenses including continued clinical trials for an Orapem placebo controlled Phase III clinical trial among patients with acute exacerbation of chronic bronchitis and a Phase II clinical trial using an oral liquidation formulation targeted for pediatric use; and

expense of \$1.1 million payable to Daiichi Asubio in accordance with the February 2006 amended license agreement due to acceptance of the NDA by the FDA.

Research and development expenditures made to advance our product candidates and other research efforts during the three months ended March 31, 2006 and 2005 were as follows:

	Three Months Ended March 31,		Change	
	2005	2006	\$	%
	(unaudited)			
	(in thousands)			
Orapem	\$ 4,322	\$ 6,199	\$ 1,877	43%
REP8839	625	1,245	620	99%
Other research and development	66	1,526	1,460	2212%
	\$ 5,013	\$ 8,970	\$ 3,957	79%

Overall, our total external clinical trial and research services development expenditures increased by \$0.5 million and \$0.7 million, respectively, during the three months ended March 31, 2006 as compared to the corresponding period in 2005 related to our clinical trial activity. The cost of internal research and development personal and related costs increased by \$0.8 million in the three month period ended March 31, 2006 as compared to the corresponding period in 2005 as we increased our research and development head count in support of our expanded clinical development activities.

Research and development expenses are expected to increase substantially during 2006 and in future periods as we:

advance our Phase III placebo controlled clinical trial for Orapem in the treatment of acute exacerbation of chronic bronchitis;

complete our Phase II clinical trials for an oral liquid formulation of Orapem among pediatric patients; and

advance REP8839 into clinical trials.

Selling, General and Administrative Expenses. Selling, general and administrative expenses were \$2.0 million for the three months ended March 31, 2006, as compared to \$0.7 million for the corresponding period in 2005. The increase was primarily due to increased personnel and related costs of \$0.8 million representing additional staff required to support our growth, costs of recruiting and relocating personnel, costs associated with the initial adoption of FAS 123(R), Share-based Payment, as well as professional service expenses of \$0.2 million, principally legal

expenses related to patent filings and general corporate and licensing activities.

Marketing and sales costs are expected to increase substantially during 2006 and in future periods as we expand our sales and marketing organization to support the potential commercialization of Orapem. General and administrative costs are expected to increase as a result of increased compensation costs, as well as higher legal, accounting, insurance and other professional costs relating to the compliance obligations associated with being a public company.

Table of Contents

Interest and Other Income. Interest and other income was \$0.7 million for the three months ended March 31, 2006, as compared to \$0.1 million for the corresponding period in 2005. The increase was primarily due to higher overall cash available for investing throughout the three month period ended March 31, 2006 as compared to the corresponding period in 2005. We completed our \$62.5 million Series D redeemable convertible preferred stock financing in August 2005 and received \$60.0 million under our collaboration and commercialization agreement with Forest Laboratories increasing the average balances of cash and short term investments available for investment during the three month period ended March 31, 2006 compared to the corresponding period in 2005.

Interest and Other Expense. Interest expense was \$0.3 million for the three months ended March 31, 2006, as compared to \$35,000 for the corresponding period in 2005. The increase was due to \$0.3 million in other expenses associated with adjusting the value of our stock purchase warrants to fair value which became a required accounting policy in July 2005.

Comparison of Years Ended December 31, 2005 and 2004

Revenue. Revenue was \$0.4 million for the year ended December 31, 2005, as compared to \$0.8 million for the year ended December 31, 2004. The decrease was primarily due to the completion of a research and development project in 2005.

Research and Development Expense. Research and development expenses were \$29.2 million for the year ended December 31, 2005 compared to \$16.3 million for the year ended December 31, 2004. The increase was primarily due to:

the commencement of clinical trials for Orapem higher dose therapy for acute exacerbation of chronic bronchitis and an oral liquid formulation for pediatric use;

activities related to completing our NDA for Orapem that was submitted in December 2005;

expenses of \$2.1 million payable to Daiichi Asubio upon submission of our NDA for Orapem in accordance with the terms of our license agreement; and

expanded pre-clinical development spending on REP8839.

Other research and development costs included personnel and related costs of \$0.2 million, a decrease of \$0.1 million from 2004, to support our pre-clinical studies as we allocated more internal resources to our Orapem and REP8839 programs. Outside laboratory testing and pre-clinical research totaling \$0.4 million in support of our pre-clinical testing of our pre-clinical programs comprising our discovery research projects, including our DNA replication inhibitors and *C. difficile* programs were essentially the same in 2004 and 2005.

Research and development expenditures made to advance our product candidates and other research efforts during the years ended December 31, 2005 and 2004 were as follows:

	Years Ended December 31,		Change	
	2004	2005	\$	%
	(in thousands)			
Orapem	\$ 12,626	\$ 24,689	\$ 12,063	96%
REP8839	2,629	3,634	1,005	38
Other research and development	1,027	857	(170)	(17)
	\$ 16,282	\$ 29,180	\$ 12,898	79%

Overall, our total external clinical trial and pre-clinical development expenditures increased by \$7.4 million and \$1.3 million, respectively, in 2005 compared to 2004 related to our clinical and pre-clinical trial activity. The cost of our internal research and development personnel and related costs increased by \$3.5 million in 2005 compared to 2004 as we increased our clinical and regulatory head count

Table of Contents

in support of our clinical development activities. During 2004, our clinical and pre-clinical efforts were focused primarily on preparing to file our Orapem NDA in 2005 and designing clinical studies on Orapem in additional areas, including a placebo controlled Phase III study for treatment of acute exacerbation of chronic bronchitis.

Research and development expenses are expected to increase in 2006 as we:

advance our placebo controlled Phase III clinical trial for use of adult Orapem therapy in the treatment of acute exacerbation of chronic bronchitis;

complete our Phase II clinical trials for an oral liquid formulation of Orapem among pediatric patients; and

initiate clinical development of REP8839.

Selling, General and Administrative Expenses. Selling, general and administrative expenses were \$5.3 million for the year ended December 31, 2005, as compared to \$3.0 million for the year ended December 31, 2004. The increase was primarily due to increased personnel and related costs of \$0.6 million related to staffing necessary to support our growth, costs of recruiting and relocating personnel and conducting market research of \$0.7 million, as well as professional service expenses of \$0.4 million, principally legal expenses related to patent filings and general corporate and licensing activities.

Marketing and sales costs are expected to increase substantially in 2006 as we expand our sales and marketing organization to support the potential commercialization of Orapem. General and administrative costs are expected to increase as a result of increased compensation costs, as well as higher legal, accounting, insurance and other professional service costs relating to compliance obligations associated with being a public company.

Interest and Other Income. Interest and other income was \$0.7 million for the year ended December 31, 2005, as compared to \$0.2 million for the year ended December 31, 2004. The increase was due to higher overall cash available for investing throughout 2005 as compared to 2004. We sold shares of our Series C redeemable convertible preferred stock in preferred stock financings that were completed in April, August, September and November 2004 with net proceeds of \$38.8 million and therefore did not have a full year of interest and other income on the proceeds from that financing in 2004. We sold shares of our Series D redeemable convertible preferred stock in a preferred stock financing that we completed in August 2005 with net proceeds of \$60.2 million, which increased our average cash balance available for investment in 2005 compared to 2004.

Interest and Other Expense. Interest expense was \$0.3 million for the year ended December 31, 2005, as compared to \$0.5 million for the year ended December 31, 2004. The decrease was due to a lower overall debt balance throughout 2004 as compared to 2005. Additionally, we ceased to incur interest expense on our convertible notes payable when the notes were converted to Series C redeemable convertible preferred stock in 2004.

Loss on Extinguishment of Convertible Notes Payable. In 2004, our convertible notes payable were converted into Series C redeemable convertible preferred stock. We recorded a loss of \$0.5 million, which amount is equal to the difference between the carrying value of the convertible notes payable and the fair value of the Series C redeemable convertible preferred stock received on conversion.

Comparison of Years Ended December 31, 2004 and 2003

Revenue. Revenue was \$0.8 million for the year ended December 31, 2004, as compared to \$0.7 million for the year ended December 31, 2003. The increase was primarily due to the timing of scheduled milestone payments under a research and development project.

Research and Development Expense. Research and development expenses were \$16.3 million for the year ended December 31, 2004, as compared to \$12.3 million for the year ended December 31, 2003. The increase was primarily due to the in-license of Orapem in 2004 and related costs. In 2004, we

Table of Contents

incurred expenditures of \$3.2 million to complete the acquisition of the U.S. and Canadian rights to Orapem and the sole negotiation right to acquire rights to Orapem from Daiichi Asubio for the rest of the world, except Japan. In 2003, we initiated discussions with Daiichi Asubio for these Orapem product rights and incurred expenditures of \$0.6 million to enter into a letter of intent. As Orapem was in clinical development at the time we entered into the license agreement, we accounted for the acquisition of the license as in-process research and development. In addition, once we acquired the rights to Orapem, we began preparations to file our NDA for Orapem and design clinical studies to pursue additional indications including higher dose therapies for treatment of acute exacerbation of chronic bronchitis and pediatric indications. In 2003, we acquired the rights that included technology used in our REP8839 program in exchange for 4,000,000 shares of our Series B convertible preferred stock valued at \$5.0 million. The full amount was accounted for as acquisition of in-process research and development expenses in 2003.

Research and development expenditures made to advance our product candidates and other research efforts during the years ended December 31, 2004 and 2003 were as follows:

	Years Ended December 31,		Change	
	2003	2004	\$	%
	(in thousands)			
Orapem	\$ 634	\$ 12,626	\$ 11,992	1,891%
REP8839	6,239	2,629	(3,610)	(58)
Other research and development	5,458	1,027	(4,431)	(81)
	\$ 12,331	\$ 16,282	\$ 3,951	33%

Prior to the acquisition of the in-process research and development programs that provided us with Orapem and REP8839, our research and development efforts were focused principally on discovery.

Selling, General and Administrative Expenses. Selling, general and administrative expenses were \$3.0 million for the year ended December 31, 2004, as compared to \$2.2 million for the year ended December 31, 2003. The increase was primarily due to increased personnel and related costs to support our increased research and business development activities, including market research related to assessing the market potential of our product candidates, and professional service expenses, principally legal expenses related to patent filings and general corporate governance and licensing activities.

Interest and Other Income. Interest and other income was \$0.2 million for the year ended December 31, 2004, as compared to \$0.1 million for the year ended December 31, 2003. This increase was due to higher overall cash available for investing throughout 2004 as compared to 2003. We sold shares of our Series C redeemable convertible preferred stock in financings that we completed in April, August, September and November 2004 with net proceeds of \$38.8 million, increasing our cash and cash equivalents and short term investments balances available for investment.

Interest and Other Expense. Interest expense was \$0.5 million for the year ended December 31, 2004, as compared to \$0.3 million for the year ended December 31, 2003. The increase was due primarily to interest expense on our convertible notes payable that ceased during 2004 upon conversion of the notes into Series C redeemable convertible preferred stock.

Loss on Extinguishment of Convertible Notes Payable. In 2004, outstanding convertible notes were converted into Series C redeemable convertible preferred stock, in connection with which we recorded a loss of \$0.5 million, equal to the difference between the carrying value of the convertible notes and the fair value of the Series C redeemable convertible preferred stock issued upon conversion.

Liquidity and Capital Resources

We have incurred losses since our inception in 2000. As of March 31, 2006, we had an accumulated deficit of \$93.1 million. We have funded our operations to date principally from private placements of equity securities and convertible notes totaling \$121.5 million through December 31, 2005

Table of Contents

and, subsequent to December 31, 2005, from payments by Forest Laboratories under our collaboration and commercialization agreement. As of March 31, 2006, we had \$109.5 million in cash, cash equivalents and short-term investments classified as securities available-for-sale.

In February 2006, we entered into a collaboration and commercialization agreement with Forest Laboratories for the right to be our development and marketing partner of Orapem in the U.S. We also granted Forest Laboratories a right of first refusal to extend the territory to include Canada. Under our agreement, in February 2006 we have received an up-front payment of \$50.0 million and in March 2006 we received a \$10.0 million development milestone payment from Forest Laboratories. We may receive up to an additional \$190.0 million in development and commercial milestones for both adult and pediatric indications, which will be reduced by \$25.0 million if we exercise our option to directly market and promote Orapem products to pediatricians, which we currently expect to do. These milestone payments are largely dependent on the acceptance of additional NDA filings, FDA approvals and achieving certain sales levels of adult and pediatric formulations of Orapem. Product development activities under the agreement are a joint responsibility between us and Forest Laboratories although Forest Laboratories is responsible for the substantial portion of development expenses. We will perform marketing and promotion activities directed toward targeted specialists, such as otolaryngologists, for which we will be reimbursed by Forest Laboratories up to established limits in the first year of the agreement. For the following five years, we will be reimbursed up to established limits in accordance with our direct marketing and selling activities. We have the right to retain the majority of the sales margin, defined as net sales less cost of goods and marketing expense, from the oral liquid formulation of Orapem prescribed by pediatricians, provided we exercise this option at least six months before this formulation is submitted for regulatory approval. If we exercise this option, we and Forest Laboratories will jointly determine the product launch and marketing and selling strategies for any approved pediatric formulation of Orapem. Further, if we exercise this option, Forest Laboratories will extend us a \$60.0 million line of credit to support our promotional efforts to pediatricians.

In 2002, we entered into an equipment loan and security agreement that provided a line of credit of up to \$3.5 million for the purchase of equipment, tenant improvements and software licenses. Through December 31, 2005, we borrowed \$3.4 million under this arrangement. The line of credit bears interest at a weighted-average rate of 8.97% and is collateralized by the assets purchased with borrowed funds. As of December 31, 2005, we had \$0.2 million in payments remaining on our equipment loan, which was repaid in full by March 31, 2006, and no amounts remain available for additional borrowing under this facility.

In 2005, we entered into interest bearing loans with two of our officers for the purpose of exercising stock options in accordance with the provisions of our equity incentive plan and their option agreements. The loans plus accrued interest, which totaled \$0.4 million and bore interest at a market rate, were repaid in full in cash on February 28, 2006.

In 2004, we entered into a license agreement with Daiichi Asubio to develop and commercialize Orapem in the U.S. and Canada and we have the sole negotiation right to license such rights for the rest of the world except Japan. In consideration for the license, we paid an initial license fee of \$3.8 million comprising \$0.6 million paid in 2003 and paid in \$3.2 million in 2004. In December 2005, we recorded research and development expense for a milestone payable of \$2.1 million in accordance with the terms of the license agreement following submission of the NDA to the FDA in December 2005. In February 2006, in conjunction with our entering into the license agreement with Forest Laboratories, this milestone payment was increased to ¥375 million (approximately \$3.2 million using the U.S. dollar to Japanese yen exchange rate as of March 31, 2006). The increased milestone amount was accounted for as research and development expense in 2006 when the modified terms of the license were finalized. Under the modified license agreement we are further obligated to future payments of (i) up to ¥375 million (approximately \$3.2 million as of March 31, 2006) upon initial FDA approval, (ii) ¥500 million (approximately \$4.3 million as of March 31, 2006) upon a product launch and (iii) up to ¥750 million (approximately \$6.4 million as of March 31, 2006) in subsequent milestone payments for Orapem. Additionally, we are responsible for royalty payments to Daiichi Asubio based upon net sales of Orapem. The license term extends to the later of: (i) the expiration of the last to expire of the licensed patents owned or controlled

Table of Contents

by Daiichi Asubio or (ii) 12 years after the first commercial launch of Orapem. We have recorded payments made to date as research and development expense, as Orapem has not yet been approved by the FDA.

Under a supply agreement entered into in December 2004 between Daiichi Asubio, Nippon Soda and us, we are obligated to purchase, and Nippon Soda is obligated to supply, all our commercial requirements of the Orapem active pharmaceutical ingredient. At the time of full commercial launch, we are obligated to make certain annual minimum purchase commitments. If the full commercial launch is delayed, we may be obligated for certain delay compensation to Nippon Soda up to ¥280 million (approximately \$2.4 million as of March 31, 2006) per year. Under the agreement with Forest Laboratories entered into in February 2006, we are responsible for only the delay compensation that may accrue for any period ending on or prior to December 31, 2007. Thereafter, Forest Laboratories will be responsible for any delay compensation. After consideration of the agreement with Forest Laboratories, our maximum potential delay compensation obligation is ¥105 million (\$0.9 million at March 31, 2006). If we terminate the Orapem program, under certain circumstances we may be obligated to reimburse Nippon Soda for up to ¥65 million (approximately \$0.6 million as of March 31, 2006) in engineering costs.

In April 2005, we entered into a supply agreement for production of adult tablets of Orapem with Tropon, which was amended as to certain terms in March 2006. Beginning in 2006, we are obligated to make minimum purchases of Tropon's product of 2.3 million (approximately \$2.8 million as of March 31, 2006) annually. If in any year the Company has not satisfied its minimum purchase commitments, the Company is required to pay Tropon the shortfall amount. Fifty percent (50%) of the shortfall amount, if applicable, may be credited against future drug product purchases. We are required to buy all of our requirements for adult oral Orapem tablets from Tropon until cumulative purchases exceed 22 million (\$26.6 million at March 31, 2006). If the agreement is terminated, under certain circumstances we may be obligated to pay up to 1.7 million (approximately \$2.1 million as of March 31, 2006) in facility decontamination costs. In March 2006 when the agreement was amended, Replidyne's obligations with respect to all purchase commitments and facility decontamination costs were suspended and deemed satisfied by Forest Laboratories pursuant to an agreement between Tropon and Forest Laboratories. Under our agreement with Forest Laboratories, we remain responsible for only any shortfall amount in 2006 that may not be credited against future drug product purchases.

In June 2003, we acquired certain intellectual property and supporting material from GSK in exchange for the issuance of 4,000,000 shares of our Series B convertible preferred stock at a fair value of \$5.0 million. The acquisition was accounted for as a research and development expense. Under this agreement, we have an obligation to pay GSK \$1.5 million by July 4, 2006.

In 2006, we anticipate that capital expenditures will total approximately \$4.0 million.

We have not yet commercialized our products or achieved profitability. We anticipate that we will continue to incur substantial net losses for the next several years as we develop our products, conduct and complete clinical trials, pursue additional product candidates, expand our clinical development team and corporate infrastructure and prepare for the potential commercial launch of Orapem. We do not anticipate generating any product related revenue until we obtain FDA approval for Orapem and Forest Laboratories launches the product.

We believe that the net proceeds from this offering, together with our current cash and cash equivalents, securities available-for-sale, funding received from our collaboration agreement with Forest Laboratories and interest earned on these balances, will be sufficient to satisfy our anticipated cash needs for working capital and capital expenditures through at least the next 18 months. This forecast of the period in which our financial resources will be adequate to support operations is a forward-looking statement and involves risks, uncertainties and assumptions. Our actual results and the timing of selected events may differ materially from those anticipated as a result of many factors, including but not limited to those discussed under "Risk Factors" and elsewhere in this prospectus.

Table of Contents

Our future capital uses and requirements depend on a number of factors, including but not limited to the following:

the rate of progress and cost of our pre-clinical studies, clinical trials and other research and development activities;

the scope and number of clinical development and research programs we pursue;

the costs, timing and outcomes of regulatory approvals;

the costs of establishing or contracting for marketing and sales capabilities, including the establishment of our own sales force;

the extent to which we acquire or in-license new products, technologies or businesses;

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

the terms and timing of any additional collaborative, strategic partnership or licensing agreements that we may establish.

If our available cash and cash equivalents, securities available-for-sale, funding received or made available under our collaboration agreement with Forest Laboratories, net proceeds from this offering and interest earned on these balances are insufficient to satisfy our liquidity requirements, or if we develop additional products or pursue additional applications for our products or conduct additional clinical trials beyond those currently contemplated, we may seek to sell additional equity or debt securities or acquire an additional credit facility. The sale of additional equity and debt securities may result in additional dilution to our stockholders. If we raise additional funds through the issuance of debt securities, these securities could have rights senior to those of our common stock and could contain covenants that would restrict our operations. We may require additional capital beyond our currently forecasted amounts. Any such required additional capital may not be available on reasonable terms, if at all. If we are unable to obtain additional financing, we may be required to modify our planned research, development and commercialization strategy, which could adversely affect our business.

Our future contractual obligations, including financing costs, at December 31, 2005, include the following:

	Payments Due by Period				
	Total	Less than 1 Year	1-3 Years	3-5 Years	Over 5 Years
	(in thousands)				
Operating lease obligations	\$ 3,592	\$ 712	\$ 1,213	\$ 1,256	\$ 411
Equipment financing obligations	172	172			
	\$ 3,764	\$ 884	\$ 1,213	\$ 1,256	\$ 411

The table above reflects only payment obligations that are fixed and determinable. Our commitments for operating leases primarily relate to the lease for our office and laboratory facilities in Colorado and Connecticut.

The table above does not include information with respect to the following contractual obligations because the amounts of the obligations are not currently determinable:

contractual obligations for clinical trials that are payable on a per patient basis;

royalty obligations, which would be payable based on sales of Orapem in future periods;

amounts due to Daiichi Asubio and GSK under our license agreements, which amounts are uncertain as to timing and dependent on the achievement of milestones; and

contingent amounts that may become due under supply agreements.

Table of Contents

We enter into agreements with clinical sites that conduct our clinical trials. We make payments to sites based upon the number of patients enrolled. For the three months ended March 31, 2006 and the year ended December 31, 2005, we incurred costs of approximately \$2.6 million and \$11.3 million, respectively, associated with payments to these clinical sites. At this time, due to the variability associated with these agreements, we are unable to estimate the future patient enrollment costs we will incur and therefore have excluded these costs from the table above.

Under our license agreement with Daiichi Asubio, we are obligated to make future payments of (i) up to ¥375 million (approximately \$3.2 million as of March 31, 2006) upon initial FDA approval, (ii) ¥500 million (approximately \$4.3 million as of March 31, 2006) upon a product launch and (iii) up to ¥750 million (approximately \$6.4 million as of March 31, 2006) in subsequent milestone payments for Orapem. Additionally, we are responsible for royalty payments to Daiichi Asubio based upon net sales of Orapem. Because we have not yet obtained regulatory approval of Orapem for any indication, we are currently unable to estimate the amount or timing of any of these other potential payments.

We have no royalty or other ongoing financial obligations to GSK, except for a \$1.5 million milestone payment due by July 4, 2006, or ten days after the IND for REP8839 is considered filed with the FDA. We submitted an IND for REP8839 in combination with mupirocin in May 2006.

Under a supply agreement entered into in December 2004 between Daiichi Asubio, Nippon Soda and us, we are obligated to purchase, and Nippon Soda is obligated to supply, all our commercial requirements of the Orapem active pharmaceutical ingredient in bulk form. At the time of full commercial launch, we are obligated to make minimum purchase commitments of quantities of drug substance to be determined initially by us with Nippon Soda at the time of launch. If the full commercial launch is delayed beyond January 1, 2007, we may be obligated to pay Nippon Soda delay compensation up to ¥280 million (approximately \$2.4 million as of March 31, 2006) annually beginning July 1, 2007. Under the agreement with Forest Laboratories entered into in February 2006, we are responsible for only the delay compensation that may accrue for any period ending on or prior to December 31, 2007. Thereafter, Forest Laboratories is primarily liable for any delay compensation. After consideration of the agreement with Forest Laboratories, the Company's maximum potential delay compensation obligation is ¥105 million (\$0.9 million at March 31, 2006). If the agreement is terminated as a result of our material breach, bankruptcy, abandonment of the development or commercialization of Orapem or significant delay in launch, as defined in the agreement, and fail to launch Orapem we will be obligated to reimburse Nippon Soda for up to ¥65 million (approximately \$0.6 million as of March 31, 2006) in engineering costs. As of March 31, 2006, payments under the delay compensation and engineering cost provisions are not deemed to be probable.

In April 2005, we entered into a supply agreement for production of adult tablets of Orapem with Tropon, which was amended as to certain terms in March 2006. Beginning in 2006, we are obligated to make minimum purchases of Tropon's product of 2.3 million (approximately \$2.8 million as of March 31, 2006) annually. If in any year we have not satisfied our minimum purchase commitments, we are required to pay Tropon the short fall amount. An amount equal to 50% of the short fall amount, if applicable, may be credited against future drug product purchases. We are required to buy all of our requirements for adult oral Orapem tablets from Tropon until cumulative purchases exceed 22 million (approximately \$26.6 million as of March 31, 2006). If the agreement is terminated, under certain circumstances we may be obligated to pay up to 1.7 million (approximately \$2.1 million as of March 31, 2006) in facility decontamination costs. In March 2006 when the agreement was amended, our obligations with respect to all purchase commitments and facility decontamination costs were suspended and deemed satisfied by Forest Laboratories pursuant to an agreement between Tropon and Forest Laboratories. Under our agreement with Forest Laboratories, we remain responsible for only any shortfall in the minimum purchase commitments in 2006 that may not be credited against future purchases. As of March 31, 2006, payments under the purchase commitment and facility decontamination cost provisions described above are not deemed to be probable.

Table of Contents**Redeemable Convertible Preferred Stock**

Our redeemable convertible preferred stock is classified on the balance sheet between liabilities and stockholders' deficit as the holders of the redeemable convertible preferred stock have the right to request redemption in the future if certain classes of stockholders vote in favor of such redemption. Our Series B convertible preferred stock is also classified on the balance sheet between liabilities and stockholders' deficit as the holders of Series B convertible preferred stock have certain rights in liquidation. Immediately prior to the closing of this offering, all of our outstanding shares of preferred stock will convert into shares of common stock and the redemption right and rights in liquidation will terminate.

Recent Accounting Pronouncements

In December 2004, the FASB issued SFAS No. 123(R), *Share-based Payment*. SFAS No. 123(R) revises SFAS No. 123, supersedes APB No. 25 and amends SFAS No. 95, *Cash Flows*. SFAS No. 123(R) applies to transactions in which an entity exchanges its equity instruments for goods or services and also applies to liabilities an entity may incur for goods or services that are based on the fair value of those equity instruments. Under SFAS No. 123(R), we will be required to follow a fair value approach using an option valuation model, such as the Black-Scholes option-pricing model, at the date of stock option grants. The deferred compensation amount calculated under the fair value method will then be recognized over the respective vesting period of the stock options.

We adopted the provisions of SFAS No. 123(R) as of January 1, 2006. Due to our use of the minimum value method for valuing employees' stock options during prior periods, we are required to adopt SFAS No. 123(R) using the prospective method. Pursuant to the prospective method of adoption, we will continue to account for options granted before adoption under the current APB No. 25 accounting. All grants issued or modified subsequent to adoption will be accounted for pursuant to SFAS No. 123(R). Since the adoption of SFAS No. 123(R) relates only to future grants or modifications under the prospective method of adoption, the adoption of the new guidance will only impact future periods to the extent we grant or modify options in the future. As such, the impact of the adoption of SFAS No. 123(R) cannot be predicted at this time because it will depend on levels of share based payments granted or modified in the future.

Off-Balance Sheet Arrangements

Since inception, we have not engaged in material off-balance sheet activities, including the use of structured finance, special purpose entities or variable interest entities.

Qualitative and Quantitative Disclosures About Market Risk

Our exposure to market risk is confined to our cash, cash equivalents that have original maturities of less than three months and investment securities. The primary objective of our investment activities is to preserve our capital for the purpose of funding operations while at the same time maximizing the income we receive from our investments without significantly increasing risk. To achieve these objectives, our investment policy allows us to maintain a portfolio of cash equivalents and investments in a variety of marketable securities, including U.S. government and mortgage backed securities, money market funds and under certain circumstances, derivative financial instruments. Our cash and cash equivalents as of December 31, 2005 included liquid money market accounts. The securities in our investment portfolio are classified as available for sale and are, due to their short-term nature, subject to minimal interest rate risk. We currently hedge exposure to foreign currency fluctuations on current and forecasted expenses denominated in Japanese Yen. The risk that counterparties to our derivative contracts will default and not settle according to the terms of the agreements is a credit risk. Although these instruments are considered derivatives, their economic risks have historically been insignificant and managed on the same basis as risks of other securities we hold.

Table of Contents**BUSINESS****Overview**

We are a biopharmaceutical company focused on discovering, developing, in-licensing and commercializing innovative anti-infective products. Our lead product, Orapem, is a novel oral, community antibiotic for which we have submitted an NDA. Orapem is a member of the penem family within the beta-lactam class of antibiotics. Beta-lactams are generally characterized by their favorable safety and tolerability profiles, as well as their broad spectrum of activity, and as a result are often used as first-line therapy in many respiratory and skin infections in adult and pediatric patients. If approved by the FDA, Orapem would be the first orally available penem in the U.S. Our NDA is based on 11 Phase III studies in the indications for which we are seeking approval and safety data for over 5,000 patients who have been treated with Orapem. We submitted an IND for the clinical development of our second product candidate, REP8839, in May 2006. REP8839 is being developed for topical use for skin and wound infections and prevention of *S. aureus* infections, including MRSA infections, in hospital settings. We are also pursuing the development of other novel anti-infective products using compounds we have selected from a library of proprietary compounds, as well as compounds identified in assays we have developed to identify compounds that inhibit bacterial DNA replication.

According to IMS Health, the annual worldwide market for antibiotics was \$25.0 billion in 2005, which includes \$8.5 billion of U.S. sales for oral antibiotics, consisting of \$7.0 billion in the adult market and \$1.5 billion in the pediatric market. IMS Health estimates that, in 2005, beta-lactams had a 42.7% market share of the adult oral antibiotic market representing over 90 million prescriptions and a 74.5% market share of the pediatric oral antibiotic market representing over 40 million prescriptions. We believe that Orapem's safety profile and activity against many common bacterial infections suggest the potential for Orapem to become a leading branded oral beta-lactam antibiotic.

In December 2005, we submitted our NDA for Orapem for four indications: acute bacterial sinusitis; community-acquired pneumonia; acute exacerbation of chronic bronchitis; and uncomplicated skin and skin structure infections. Although the efficacy data for acute exacerbation of chronic bronchitis and uncomplicated skin and skin structure infections may be adequate for FDA approval, we expect that the FDA will likely require additional clinical trials, including a placebo-controlled trial in the case of acute exacerbation of chronic bronchitis, before it will approve these indications. We are currently conducting a Phase III placebo-controlled clinical trial for acute exacerbation of chronic bronchitis for adult use.

We have licensed all rights to Orapem from Daiichi Asubio in the U.S. and Canada. In addition, we have the sole negotiation right to license such rights for the rest of the world, except Japan. In February 2006, we entered into a collaboration and commercialization agreement with Forest Laboratories to co-develop and co-market Orapem in the U.S. We granted Forest Laboratories a first refusal right to market Orapem in Canada. We believe that Forest Laboratories' experience in successfully launching branded primary care products and the fact that Forest Laboratories has no competing community antibiotics in its current product portfolio make it a strong partner for us in the development and commercialization of Orapem. We received an upfront payment of \$50.0 million in February 2006 and a milestone payment of \$10.0 million March 2006. We may receive up to an additional \$190.0 million in development and commercial milestones for both adult and pediatric indications. In addition, we will receive a royalty on all sales of Orapem. Forest Laboratories will be responsible for sales and marketing of Orapem to primary care physicians. We intend to build our own marketing and sales force to promote Orapem to otolaryngologists (ear, nose and throat physicians) in major metropolitan areas. Forest Laboratories will reimburse us for most of these marketing and sales force expenses. We and Forest Laboratories may conduct additional clinical trials for other indications, which may include higher dose therapies. Forest Laboratories has committed to pay a substantial portion of the costs for further development of Orapem.

We are also developing, together with Forest Laboratories, an oral liquid formulation of Orapem for the pediatric market and are currently conducting a Phase II clinical trial using a prototype oral liquid

Table of Contents

formulation among pediatric patients with acute otitis media. We intend to conduct Phase III clinical trials seeking clinical indications for the two largest pediatric indications: acute otitis media and tonsillitis/ pharyngitis. Pediatric antibiotics compete primarily on safety, efficacy and taste. We believe Orapem's safety profile and broad spectrum of activity against bacteria that cause common infections in children make Orapem a promising product candidate for pediatric use. In addition, we believe that there will be fewer competitive branded pediatric oral antibiotics in the next several years. Under our agreement with Forest Laboratories, we have an option to exclusively promote Orapem to pediatricians. Assuming we successfully complete clinical development of an oral liquid formulation for Orapem, we currently intend to expand our sales force at our expense to promote Orapem to pediatricians, thereby increasing our economic interest in pediatric sales.

Our second product candidate, REP8839, has exhibited promising activity in pre-clinical studies against *S. aureus*, including MRSA. We are developing REP8839 for topical use for skin and wound infections and prevention of *S. aureus* infections, including MRSA infections, in hospital settings. We submitted an IND application for the clinical development of a REP8839/mupirocin combination product in May 2006. Mupirocin is a widely used topical antibiotic. We believe that the distinctive mechanisms of action of the two drugs may greatly reduce the likelihood that *S. aureus* will develop resistance to this combination. We retain worldwide rights to REP8839.

We are also pursuing the development of other novel anti-infective products based on our own research efforts. We have developed assays that identify compounds that inhibit bacterial DNA replication. The compounds may be useful to treat bacterial infections. We believe that bacterial DNA replication is an attractive target system for new antibacterial drugs because it is an essential cellular process and stalled DNA replication can trigger cell death. Our assays are amenable to efficient screening of large libraries of small molecules and are designed to mimic the bacterial DNA replication systems of numerous bacteria, with the goal of identifying novel inhibitors of bacterial DNA replication. We have identified compounds that are able to inhibit bacterial DNA replication in these assays. We believe that the novel mechanism of action of our technology may reduce the risk that bacteria will develop resistance to drugs based on this technology. We are currently optimizing the initial inhibitors identified in the assays. We have also selected from a proprietary library several potential compounds for development to treat infections in hospital settings caused by *C. difficile*. We are currently in pre-clinical testing for these compounds. We retain worldwide rights to all of these programs.

Strategy

Our goal is to discover, in-license, develop and commercialize novel anti-infective compounds that address unmet medical needs resulting from growing resistance to existing drug products. Key elements of our strategy are:

Maximize commercial potential for Orapem as a leading community antibiotic. If approved, we intend to establish Orapem as a leading community antibiotic and a preferred branded oral beta-lactam in adult and pediatric markets. We believe that Orapem's safety profile and spectrum of activity make it suitable for use against a wide variety of common bacterial infections. Forest Laboratories will market Orapem in the U.S. to primary care physicians using its established primary care sales force. We will seek to commercialize Orapem outside the U.S. and Canada through additional strategic collaborations.

Develop specialty sales and marketing capabilities. We intend to build our own sales and marketing capabilities to target specialist physicians in major metropolitan areas. If Orapem is approved for adult use, we intend to promote Orapem directly to otolaryngologists (ear, nose and throat physicians) and Forest Laboratories will reimburse us for most of the related marketing and sales force costs. If Orapem is approved for pediatric use, we intend to expand our sales force to market Orapem to pediatricians. We plan to leverage this sales force to market other products that we may develop, acquire or in-license.

Table of Contents

Develop REP8839 to treat S. aureus infections. We are developing REP8839 for topical use in treatment of skin and wound infections and prevention of *S. aureus* infections, including MRSA infections, in hospital settings. Our pre-clinical studies have shown promising activity in each of these target indications. We submitted an IND application for the development of a REP8839/mupirocin combination product in May 2006 and plan to aggressively pursue clinical development if the IND is approved.

Discover and develop novel anti-infective products. We intend to expand our pipeline of novel anti-infective product candidates by continuing to pursue our discovery research programs. We plan to use our DNA replication inhibitor expertise to develop anti-infective products with novel mechanisms of action based on inhibition of bacterial DNA replication, which we believe may limit development of resistance to those products. We also have an active program to develop a treatment for *C. difficile*, a growing medical problem in hospital settings for which existing therapies have significant limitations, and are conducting pre-clinical testing of several small molecules to treat *C. difficile*.

Acquire or in-license additional products or product candidates. We plan to leverage our development, regulatory and commercial resources by acquiring or in-licensing additional products or product candidates. These may include anti-infective products or other products that are prescribed by the physicians targeted by our sales force.

Antibiotic Market Background and Opportunity

Bacterial infections occur when bacteria that naturally exist in the body or that are inhaled, ingested or otherwise acquired are not controlled by our immune systems. The antibiotics used to treat these infections are classified as either broad spectrum or narrow spectrum. The broad spectrum antibiotics are typically oral antibiotics used to treat community-acquired infections, whereas the narrow spectrum antibiotics are typically intravenous antibiotics used to treat specific bacteria in the hospital setting with the exception of penicillin. According to IMS Health, the annual worldwide market for antibiotics was \$25.0 billion in 2005, which includes U.S. sales of \$8.5 billion for oral antibiotics, consisting of \$7.0 billion in the adult market and \$1.5 billion in the pediatric market.

The two primary factors that drive a physician's choice of a particular oral antibiotic to treat community-acquired infections are the drug's effectiveness against a particular type of bacterial infection and the safety profile of the drug. We believe that an antibiotic with good efficacy and an excellent safety profile may be used in preference to a more powerful antibiotic that has the risk of serious side effects, especially in non life-threatening infections. As a patient's condition becomes more serious, the physician may be more willing to expose a patient to a potentially increased risk of side effects and safety issues in order to obtain the benefit of a drug that may be more potent against the bacteria that caused that infection.

Oral antibiotics are classified as either first- or second-line therapies for each disease state by the key opinion leader physicians who write the adult and pediatric antibiotic treatment guidelines, such as those published by the Sinus and Allergy Health Partnership and American Academy of Pediatrics. First-line therapy includes both branded and generic antibiotics and constitutes a larger market than second-line therapy which currently includes primarily branded products.

According to IMS Health, over 90% of all bacterial infections that occurred in 2005 were classified as upper respiratory tract infections, lower respiratory tract infections and uncomplicated skin and skin structure infections. There are three primary classes of oral antibiotics that are prescribed to treat respiratory tract and skin infections. These include the beta-lactam, macrolide/ketolide and quinolone classes. Each class has a distinctive chemical structure that is shared by the various antibiotics included in that class.

Beta-lactam antibiotics have been the most widely prescribed antibiotics for more than 50 years. This class of antibiotics is well known for favorable efficacy, safety and tolerability. Since the introduction

Table of Contents

of penicillin in 1942, only two other sub-classes of beta-lactams have been introduced: cephalosporins (1974) and carbapenems (1985). Carbapenems are only available in intravenous form for use in the hospital setting. Therefore, if approved, the introduction of the penem sub-class will represent the first oral community beta-lactam sub-class introduction in the past 30 years.

The penem sub-class of beta-lactam antibiotics have structural features that resemble a fusion of the penicillin and cephalosporin core structures. An advantage of penems is their ability to resist degradation by commonly encountered beta-lactamase enzymes. Bacteria commonly become resistant to beta-lactam antibiotics by producing beta-lactamase enzymes which inactivate the antibiotic. Beta-lactamase enzymes are known to destroy some of the penicillin and cephalosporin antibiotics, which can result in resistance to those sub-classes of beta-lactam antibiotics.

Beta-lactam antibiotics are effective against a range of common bacterial infections and do not exhibit many of the safety issues common with the macrolide/ketolide and quinolone classes. The beta-lactam class is recommended as first-line therapy and is the leading antibiotic class for treating acute bacterial sinusitis and uncomplicated skin and skin structure infections in adults. According to the Infectious Disease Society of America macrolides are a preferred treatment for acute exacerbation of chronic bronchitis while quinolones are a preferred treatment for community-acquired pneumonia. In more serious conditions, the benefit of using antibiotics with greater potency may outweigh the risks of increased side effects and safety issues.

The following table shows the prescriptions and percentage use of each class of oral antibiotics in 2005 for common adult indications:

Bacterial Infection Type	Indication	Adult Oral Market Prescriptions (in millions)	Drug Class Share of Indication			
			Beta-Lactams	Macrolides/ Ketolides	Quinolones	Other Antibiotics
Upper Respiratory Tract Infections	Acute Bacterial Sinusitis	34.4	49.3%	32.7%	13.2%	4.8%
	Acute Otitis Media	9.0	68.2%	21.4%	6.8%	3.6%
	Tonsillitis/ Pharyngitis	19.0	70.8%	25.4%	2.4%	1.3%
Lower Respiratory Tract Infections	Acute Exacerbation of Chronic Bronchitis	33.5	21.5%	50.5%	19.2%	8.9%
	Community-Acquired Pneumonia	6.6	11.5%	35.5%	49.6%	3.4%
Skin Infections	Uncomplicated Skin & Skin Structure Infections	34.2	62.8%	6.7%	14.3%	16.1%
Total			42.9%	26.1%	19.9%	11.1%

Source: IMS Health

The safety profile of the beta-lactam class has been particularly important in the pediatric market. The beta-lactam class is recommended by the American Academy of Pediatrics as first-line therapy for acute otitis media, tonsillitis/pharyngitis and acute bacterial sinusitis in the pediatric market. Ketolides and quinolones are not currently approved for pediatric indications.

Table of Contents

The following table shows the prescriptions and percentage use of each class of oral antibiotics in 2005 for common pediatric indications:

Bacterial Infection Type	Indication	Pediatric Oral Market Prescriptions (in millions)	Drug Class Share of Indication			
			Beta-Lactams	Macrolides	Quinolones	Other Antibiotics
Upper Respiratory Tract Infections	Acute Bacterial Sinusitis	4.8	84.8%	14.0%	0.0%	1.1%
	Acute Otitis Media	22.7	88.9%	9.2%	0.0%	1.9%
	Tonsillitis/Pharyngitis	9.3	89.0%	10.0%	0.0%	1.0%
Lower Respiratory Tract Infections	Acute Exacerbation of Chronic Bronchitis	3.5	43.0%	53.7%	0.0%	3.3%
	Community-Acquired Pneumonia	1.5	49.3%	50.7%	0.0%	0.0%
Skin Infections	Uncomplicated Skin & Skin Structure Infections	2.8	81.8%	8.6%	0.0%	9.6%
Total			82.0%	14.6%	0.0%	3.4%

Source: IMS Health

We believe that in addition to efficacy and safety, the prescribing decisions in the pediatric market are also significantly affected by the tolerability and taste of the antibiotic. Diarrhea is the leading tolerability issue for the currently marketed oral antibiotics in the pediatric market which can cause therapy to be discontinued early. Because the efficacy of many antibiotics depends on the patient taking the full course of therapy at the prescribed times, a patient's discontinuation of therapy or refusal to take the drug can result in prolongation of the infection and possibly serious complications.

We believe that three key factors are creating significant opportunities for new branded antibiotics that are more effective, better tolerated and safer than existing therapies:

Emergence of Drug-resistant Bacteria. Over the past several decades, many of the most prevalent bacteria that cause adult and pediatric respiratory and skin infections have developed resistance to currently marketed antibiotics. If bacteria are resistant, the infection can become difficult or impossible to treat and may lead to serious complications, including death. The two most prevalent bacteria in respiratory infections include *Streptococcus pneumoniae*, or *S. pneumoniae* and *Haemophilus influenzae*, or *H. influenzae*. According to the 2006 PROTEKT U.S. surveillance study, designed to track antibiotic resistance, more than 29% of the Streptococcus species are resistant to at least one of the drugs most commonly used to treat these infections. The rate of *H. influenzae* resistance to at least one of the drugs most commonly used to treat infections caused by this bacteria has reached 30%, as reported in the 2005 Journal of Clinical Infectious Disease. The U.S. Centers for Disease Control has stated that antibiotic resistance is now among that organization's top concerns.

Tolerability Issues. Many current oral antibiotics have been associated with tolerability issues that cause patients extreme discomfort and compliance issues that can lead to product failures. The most

widely reported adverse event among leading oral antibiotics is diarrhea. The prescribing label for two of the leading oral beta-lactam antibiotics for use in adults, Augmentin and Omnicef, list diarrhea incidence levels that are approximately 15%.

Safety Issues. Many of the common oral antibiotics in the quinolone and macrolide/ketolide classes are burdened with safety issues such as hepatotoxicity (drug related liver damage), heart rhythm abnormalities, photosensitivity (increased sensitivity to sunlight), hypoglycemia (low blood sugar), hyperglycemia (high blood sugar) or rash. Macrolide and ketolide class antibiotics are also associated with clinically meaningful drug

Table of Contents

interaction issues with frequently prescribed drugs such as cholesterol lowering agents. To date, four of the nine quinolone antibiotics that have been marketed have been withdrawn from the market due to safety issues.

Our Product Candidates

We believe that our innovative product candidates offer advantages over existing antibiotics by virtue of better overall profiles in terms of activity, safety, tolerability and induction of bacterial resistance. We also believe that the markets these products address present us with significant commercial opportunities. Our current product candidate portfolio consists of the following:

Product Candidate (Dosage Form)	Target Indications	Development Status	Commercial Rights	
			Replidyne	Partner
Orapem 300 mg tablet	Acute bacterial sinusitis Community-acquired pneumonia Acute exacerbation of chronic bronchitis Uncomplicated skin and skin structure infections	NDA submitted December 2005; currently under review	U.S.: specialists; co-promote option to exclusively promote to pediatricians Canada Sole negotiation right in rest of world, except Japan	Forest: U.S. primary care physicians and other non- specialists First refusal right in Canada
600 mg tablet	Acute exacerbation of chronic bronchitis	Phase III		
Oral liquid formulation	Acute otitis media (pediatric)	Phase II		
REP8839	Skin and wound infections Prevention of <i>S. aureus</i> infections, including MRSA infections, in hospital settings	Pre-clinical	Worldwide	Not applicable

Orapem Program

Orapem is a member of the penem class of beta-lactam antibiotics. If approved by the FDA, it would be the first oral penem available outside of Japan. We believe that with its broad spectrum of activity, increased potency and safety and tolerability profile, Orapem would be appropriate for use as a first-line therapy. Promotional efforts by us and Forest Laboratories will be concentrated on this market.

We believe that, if approved, Orapem will be well-positioned to capitalize on market opportunities within the oral antibiotic arenas of adult and pediatric community-acquired respiratory tract and skin infections. The following

characteristics differentiate Orapem from existing beta-lactam antibiotics:

First oral penem available in the U.S. If approved by the FDA, Orapem would represent the first new sub-class of beta-lactams (penems) to be introduced in oral form for community use in more than 30 years. According to IMS Health, beta-lactams are the most widely used first-line therapy; however, over the years many bacteria have developed resistance to older beta-lactam antibiotics. Penems are intrinsically able to resist degradation by beta-lactamase enzymes. Because Orapem is a first product in a new class of antibiotics, its introduction should not be burdened with the resistance issues at the levels associated with other existing antibiotics.

Table of Contents

Potency Profile. *In vitro* studies have indicated that Orapem is four times more active than Augmentin (amoxicillin/clavulanate) against *S. pneumoniae*, including those strains that have evolved resistance to penicillin or amoxicillin. Orapem is also generally twice as active as Augmentin against *H. influenzae*, including those strains that have evolved resistance to other beta-lactam antibiotics. *In vitro* potency does not always correlate to clinical efficacy.

Safety profile consistent with other beta-lactam antibiotics. Due to its safety profile, we believe that Orapem would be appropriate as a first-line treatment for common respiratory and skin infections in the primary care setting. We believe that Orapem would allow physicians to reserve quinolones for second-line therapy, reducing quinolone resistance and improving the risk-to-benefit ratio for individual patients. Unlike carbapenems, Orapem has a low potential for neurotoxicity. In Phase III clinical testing, Orapem did not exhibit the potentially serious safety issues that affect the macrolide/ketolide and quinolone classes of antibiotics. Due to the safety issues previously listed for the ketolide and quinolone antibiotics, we do not anticipate competitive activity from products in these classes in the leading pediatric disease states (i.e. acute otitis media).

Tolerability Profile. In the Phase II and Phase III clinical studies referenced in our NDA, the overall incidence of diarrhea was less than 5% in over 5,000 patients treated with Orapem. This rate of incidence compares favorably with the incidence of diarrhea reported in other commonly used beta-lactam antibiotics. Further, in two Phase III clinical studies in which Orapem was compared directly to Augmentin, the incidence of diarrhea was two to three times lower in the Orapem-treated patients.

Orapem (faropenem medoxomil) is a prodrug form of the parent compound faropenem and was initially discovered by Suntory Limited, now known as Daiichi Asubio. Faropenem medoxomil is metabolized by the body to release faropenem sodium, a drug that has been approved and sold in Japan by Daiichi Asubio since 1997. Since then, it is estimated that approximately 68.5 million prescriptions have been written. Prodrugs are designed to improve the amount of drug reaching the bloodstream in which the prodrug molecule is separated by the body's natural metabolic enzymes into its active component and an inactive component. In clinical pharmacology studies, approximately 72% to 84% of an orally administered dose of Orapem was absorbed into the bloodstream and then rapidly converted to the active parent compound faropenem, resulting in three to four times greater bioavailability compared to faropenem sodium.

Pre-clinical Data

In pre-clinical studies, Orapem has exhibited broad spectrum activity that includes bacteria commonly associated with respiratory infections (*S. pneumoniae*, *H. influenzae* and *Moraxella catarrhalis*, or *M. Catarrhalis*) and uncomplicated skin structure and skin infections (methicillin-susceptible *S. aureus* and *Streptococcus pyogenes*, or *S. pyogenes*).

The following table shows the antibacterial activities of Orapem and other antibiotics against these common respiratory and skin bacterial pathogens in *in vitro* studies. The MIC₉₀ value shown is the minimum inhibitory concentration of drug required to inhibit growth of 90% of the bacterial isolates within a given population. The lower the MIC₉₀ value for a given drug the more potent it is against the population of bacteria. In these studies, Orapem was the most active agent against *S. pneumoniae*, including penicillin-resistant isolates, where it was four-fold more active than Augmentin. Among *H. influenzae*, the activity of Orapem did not appear to be compromised by the ability of the bacteria to produce beta-lactamase enzymes. Orapem showed equivalent activity to Augmentin against beta-lactamase producing strains of *M. catarrhalis* and was active against methicillin-susceptible *S. aureus* but was inactive against methicillin-resistant isolates. *S. pyogenes*, the other major skin pathogen, was also susceptible to Orapem. Collectively, these data indicate the potent activity of Orapem against the important respiratory and skin pathogens.

Table of Contents

	MIC ₉₀ (Ug/mL)				
	Orapem	Augmentin	Omnicef	Zithromax	Levaquin
Respiratory Pathogens					
<i>S. pneumoniae</i>					
Penicillin-susceptible	0.008	0.03	0.12	0.25	1
Penicillin-intermediate	0.25	1	4	≥512	1
Penicillin-resistant	1	4	>4	≥512	1
<i>H. influenzae</i>					
β -Lactamase-positive	0.5	2	0.5	4	0.015
β -Lactamase-negative	1	1	1	4	0.015
<i>M. catarrhalis</i>					
β -Lactamase-positive	0.5	0.5	0.25	≤0.06	0.06
β -Lactamase-negative	0.12	0.03	0.12	≤0.06	0.06
Skin Pathogens					
<i>S. aureus</i>					
Methicillin-susceptible	0.12	1	0.5	>64	0.25
Methicillin-resistant	>32	>32		>64	
<i>S. pyogenes</i>	0.03	≤0.015	≤0.03	0.25	1

Orapem for the Adult Market

We submitted our NDA for Orapem to the FDA in December 2005 and requested approval for four indications: acute bacterial sinusitis, community-acquired pneumonia, acute exacerbation of chronic bronchitis and uncomplicated skin and skin structure infections. The FDA accepted the NDA for review in February 2006. The anticipated 10 month review period by the FDA will include among other data, review of the clinical data and manufacturing related issues. Unless there is a regulatory extension of the review period, we expect that the FDA will provide us with an assessment of the NDA by the end of October 2006. We believe that the Phase III studies used to support regulatory approval that were designed and carried out by Bayer after conferring with the appropriate FDA review division met all the applicable clinical trial guidelines that were in place at the time the studies were conducted.

One study submitted in the NDA in uncomplicated skin and skin structure infections showed statistical non-inferiority to a FDA-approved comparator treatment regimen, while a second study did not show statistical non-inferiority. The definition of statistical non-inferiority was met if there was less than 5% probability (a 95% confidence interval, or CI) that Orapem was 10% worse than the standard treatment. The choice of a delta of 10% conforms to current FDA standards for establishing non-inferiority of antimicrobial agents. When we pool the data from the two studies, clinical outcomes were similar and microbiological eradication rates were similar and greater than 90%. When presented with the data at a meeting in April 2005, the FDA review division advised that these data would be carefully scrutinized but that an additional Phase III clinical trial will likely be required for approval of this indication.

Regulatory requirements for approval of new drugs can change over time. Historically, the FDA and foreign regulatory authorities have not required placebo-controlled clinical trials for approval of antibiotics but instead have relied on non-inferiority studies. In a non-inferiority study, a drug candidate is compared with an approved antibiotic treatment and it must be shown that the product candidate is not significantly less effective than the approved

treatment. All efficacy studies upon which our NDA is based were designed as non-inferiority studies after consultation with the FDA. In September 2005, the FDA informed us that it will likely require a placebo-controlled trial prior to approving Orapem for acute exacerbation of chronic bronchitis. Nevertheless, the FDA agreed to review our application for this

Table of Contents

indication and accepted the NDA for filing. In May 2006, the FDA requested an explanation of how our non-inferiority studies contained in our NDA for Orapem support efficacy in each of the indications for which we are seeking approval. We cannot assure you that the FDA will not require placebo-controlled trials, or other trials involving comparator antibiotics, to demonstrate the superiority of Orapem to placebo before considering the approval of Orapem for one or more of the indications that are the subject of our pending NDA.

Clinical Overview. The trials that supported our NDA filing were conducted by Bayer when it was a previous licensee of Orapem and were generally designed to support approval in the U.S. and also in major international markets other than Japan. As has been the norm in antimicrobial drug development, the primary study objective in most of these studies was to demonstrate that Orapem was non-inferior to a control antibiotic treatment approved for use in the U.S. Orapem was demonstrated to be non-inferior in eight of the nine randomized controlled studies and similar efficacy was demonstrated in the two uncontrolled studies. The definition of statistical non-inferiority was met if there was less than 5% probability (a 95% CI) that Orapem was 10% worse than the standard treatment. The choice of a delta of 10% conforms to current standards for establishing non-inferiority of antimicrobial agents. Efficacy evaluation, including clinical and microbiological responses, was determined by physician assessment and bacterial cultures. The clinical outcome analysis was first conducted for subjects who met all the protocol defined criteria or rules (the clinically evaluable population) and subsequently on all treated subjects (the intent-to-treat population). The references to N/N in the tables below represent the number of patients who had a clinical response compared to the total number of patients included in the study population. For all non-inferiority studies, the intent-to-treat analysis supported the per protocol analysis. In this extensive Phase III clinical testing, Orapem exhibited the activity and safety profile typical of beta-lactam antibiotics with improved tolerability.

Clinical Studies for Acute Bacterial Sinusitis. The efficacy of Orapem in subjects with acute bacterial sinusitis was evaluated in three Phase III studies. In two comparative studies, where seven-day and 10-day courses of Orapem were compared to cefuroxime axetil, the primary endpoints were met and statistical non-inferiority was demonstrated. The third study (Study 100287) was an open-label (no comparative control treatment) trial in which all subjects received Orapem after undergoing a needle aspiration of the sinus cavity in order to obtain a direct sinus specimen to culture for bacterial pathogens. The clinical and microbiological outcomes were consistent with the comparative studies and we believe the microbiological results support approval of Orapem to treat acute bacterial sinusitis caused by all three of the major respiratory pathogens. We believe the results of the three studies demonstrate that seven-day

Table of Contents

treatment with Orapem is effective in the treatment of subjects with acute bacterial sinusitis. The following table summarizes the clinical results of the acute bacterial sinusitis studies:

Study	Orapem 300 mg 2x/day	Orapem 300 mg 2x/day	Cefuroxime Axetil 250 mg 2x/day	Statistical Result 95% CI %
Population	n/n	n/n	n/n	%
Study 100288	7 days	10 days	10 days	Clinically Non-Inferior
Clinically Evaluable	237/295(80%)	229/280(82%)	213/286(74%)	0.1, 13.6 (7 day) 1.7, 15.2 (10 day)
Intent-to-Treat	262/366(72%)	255/363(70%)	250/370(68%)	-2.7, 10.5 (7 day) -3.9, 9.5 (10 day)
Study 10186	7 days		7 days	Clinically Non-Inferior
Clinically Evaluable	203/228(89%)		198/224(88%)	-5.2, 6.4
Intent-to-Treat	237/274(86%)		239/273(88%)	-7.0, 4.0
Study 100287	7 days			Open Label
Clinically Evaluable	246/300(82%)			Not relevant
Intent-to-Treat	269/353(76%)			Not relevant

Clinical Studies for Community-Acquired Pneumonia. Community-acquired pneumonia is the most serious type of bacterial respiratory infection and can be life threatening. The efficacy of Orapem in subjects with community-acquired pneumonia was evaluated in four Phase III studies. In the three comparative studies, the primary endpoints were met and non-inferiority was demonstrated for 10-day therapy with Orapem compared to 10-day therapy with amoxicillin/clavulanate, 14-day therapy with cefpodoxime and 10-day therapy with amoxicillin. The fourth study (Study 100289) was an open-label (no comparative control treatment) trial in which bacterial samples were collected for culture. The clinical and microbiological outcomes were consistent with the comparative studies and we believe the results of this study support approval of Orapem for community-acquired pneumonia caused by all three major respiratory pathogens. Overall, we believe the results of the four studies demonstrate that 10-day treatment with Orapem is effective in the treatment of subjects with community-acquired pneumonia. The following table summarizes the clinical results of the community-acquired pneumonia studies:

Study	Orapem 300 mg 2x/day 10 days	Comparator	Statistical Result 95% CI %
Population	n/n	n/n	%
Study 10188		Amoxicillin 1g 3x/day 10 days	Clinically Non-Inferior
Clinically Evaluable	260/284 (92%)	237/268 (88%)	-1.9, 8.1
Intent-to-Treat	289/314 (92%)	270/304 (89%)	-1.4, 7.8
Study 10189		Amoxicillin/Clavulanate 625 mg 3x/ day 10 days	Clinically Non-Inferior
Clinically Evaluable	222/257 (86%)	223/253 (88%)	-7.6, 3.9

Intent-to-Treat	242/305(79%)	242/309(78%)	-5.4, 5.9
Study 100290		Cefpodoxime	Clinically
Clinically Evaluable	205/229 (90%)	200 mg 2x/day 14 days	Non-Inferior
Intent-to-Treat	223/304 (73%)	203/229 (89%)	-4.1, 7.1
		224/298 (75%)	-7.4, 6.3
Study 100289			Open Label
Clinically Evaluable	252/294 (86%)		Not relevant
Intent-to-Treat	287/388 (74%)		Not relevant

Clinical Studies for Acute Exacerbation of Chronic Bronchitis. The efficacy of Orapem in acute exacerbation of chronic bronchitis was evaluated in two comparative, non-inferiority Phase III studies. The

Table of Contents

primary endpoints were met in both studies and statistical non-inferiority was demonstrated for five-day Orapem compared to five-day azithromycin and seven-day clarithromycin, both macrolide antibiotics. Overall, we believe the results of both studies demonstrate that five-day treatment with Orapem is effective in the treatment of subjects with acute exacerbation of chronic bronchitis. The following table summarizes the clinical results of the acute exacerbation of chronic bronchitis studies:

Study Population	Orapem 300 mg 2x/day 5 days n/n	Comparator n/n	Statistical Result 95% CI %
Study 100291		Azithromycin 500 mg 1 day, 200 mg 4 days	Clinically Non-Inferior
Clinically Evaluable	225/278 (81%)	236/279 (85%)	-9.5, 2.6
Intent-to-Treat	277/410 (68%)	283/405 (70%)	-8.5, 4.0
Study 10187		Clarithromycin 500 mg 2x/day 7days	Clinically Non-Inferior
Clinically Evaluable	262/299 (88%)	288/318 (91%)	-7.9, 2.0
Intent-to-Treat	316/369 (86%)	337/379 (89%)	-7.2, 2.0

Clinical Studies for Uncomplicated Skin and Skin Structure Infections. The efficacy of Orapem in subjects with uncomplicated skin and skin structure infections was evaluated in two Phase III studies. The results of one study met the protocol-specified criterion for non-inferiority of Orapem to amoxicillin/clavulanate. A second study did not demonstrate non-inferiority of Orapem to cephalexin. When we pooled the data from the two studies, results indicated that Orapem was not less effective than the control treatments. The eradication rates for the key pathogens in this indication, *S. aureus* and *S. pyogenes*, were high (greater than 90%) and were similar for Orapem and the comparators. We believe that these findings show that Orapem is effective in the treatment of subjects with uncomplicated skin and skin structure infections. The following table summarizes the clinical results of the uncomplicated skin and skin structure infections studies:

Study Population	Orapem 300 mg 2x/day 7 days n/n	Comparator n/n	Statistical Result 95% CI %
Study 100292		Cephalexin 500 mg 2x/day 7 days	Clinically Inferior
Clinically Evaluable	210/246 (85%)	226/246 (92%)	-12.3, -1.3
Intent-to-Treat	220/290 (76%)	228/283 (81%)	-11.5, 2.1
Study 10190		Amoxicillin/Clavulanate 625 mg 3x/day 7 days	Clinically Non-Inferior
Clinically Evaluable	224/246 (91%)	207/227 (91%)	-5.1, 5.3
Intent-to-Treat	258/298 (87%)	254/295 (86%)	-4.7, 6.4

Other Studies. Three Phase III studies for other indications were also initiated, two in tonsillitis/pharyngitis and one in uncomplicated urinary tract infections. One study in each indication did not meet the primary efficacy criteria

for non-inferiority, and the second study in tonsillitis/pharyngitis was halted shortly after enrollment began. Although the safety data from all treated subjects are included in the overall safety analysis of Orapem submitted with the NDA, we are not seeking approval of the specific treatment indications explored in these studies.

The efficacy of five-day treatment with Orapem in subjects with tonsillitis/pharyngitis was evaluated in one Phase III study. The comparator was 10-day treatment with penicillin VK. Another study was discontinued shortly after enrollment began. In the completed study, a five-day treatment with Orapem did not demonstrate non-inferiority relative to the comparator. The bacteriological cure rate was 87% in the Orapem treated patients and 94% in the penicillin VK patients. We believe that this difference may be related to the shorter course of therapy in the Orapem arm. Multiple published reports suggest that shorter course therapy with penicillin is associated with lower bacteriological cure rates in this

Table of Contents

indication. We currently do not intend to conduct additional studies in adults for this indication and are not seeking approval of this indication in our pending NDA.

The efficacy of five-day treatment with Orapem in subjects with uncomplicated urinary tract infections was studied in one Phase III study. The comparator was five-day treatment with trimethoprim-sulfamethoxazole. In this study, five-day treatment with Orapem did not demonstrate non-inferiority relative to the comparator. The clinical cure rate was 86% in the Orapem treated patients and 96% in the trimethoprim-sulfamethoxazole patients. We believe that this difference may be related at least in part to factors specific to the kidneys. There is an enzyme in the kidneys known to degrade carbapenem antibiotics and also Orapem, resulting in decreased drug concentrations in the region of the infection. We do not consider this indication to be an important commercial opportunity for a beta-lactam antibiotic such as Orapem. We currently do not intend to conduct additional studies in this indication and we are not seeking approval of this indication in our pending NDA.

Safety and Tolerability Data

We believe that Orapem has a favorable safety and tolerability profile. The pharmacokinetics of faropenem following oral administration of Orapem were evaluated in 27 Phase I studies, three Phase II studies and one Phase III study. Orapem was well absorbed, rapidly converted to faropenem and reached maximum plasma concentrations approximately one hour after administration. Single doses of Orapem up to 3,000 mg and multiple doses up to 3,750 mg per day were administered without notable safety issues.

At the request of the FDA, we evaluated Orapem in a Phase I study to determine whether there was any potential of Orapem to prolong QT interval, a measure of electrocardiac function, which has been problematic for the quinolone and macrolide (including telithromycin) classes of antibiotics. This Thorough QT study, now required for all new drug applications, demonstrated that Orapem does not cause any electrocardiographic abnormalities, including QT interval prolongation.

In Phase III clinical testing, Orapem exhibited the activity and safety profile typical of beta-lactam antibiotics with improved tolerability. The Phase III studies have accrued a safety database comprising 3,461 patients in respiratory tract infection indications and 4,863 patients in all Phase III studies. Orapem has been administered to over 5,000 people including all Phase I, Phase II and Phase III studies. The most common adverse events involved the gastrointestinal tract, including diarrhea, nausea or abdominal pain, or the central nervous system, including headaches and dizziness.

We believe that the safety profile of Orapem is similar to that of penicillins and cephalosporins. Unlike some carbapenems, Orapem showed no proconvulsant effects in animal models. There was only one incident of convulsion in the Orapem clinical studies (a rate of 0.02%), which the treating physician did not attribute to Orapem. In comparison with amoxicillin/clavulanate, Orapem produced lower rates of adverse events, including gastrointestinal events and liver enzyme abnormalities. Unlike macrolides/ketolides and quinolones, Orapem was not associated with hepatotoxicity, heart rhythm abnormalities, photosensitivity, hypoglycemia or hyperglycemia.

In the Phase II and Phase III clinical studies referenced in our NDA, the overall incidence of diarrhea was less than 5% in over 5,000 patients treated with Orapem. Further, in two Phase III clinical studies in which Orapem was compared directly to Augmentin, the incidence of diarrhea was two to three times lower in the Orapem-treated patients. We believe the safety and tolerability profile of Orapem make it a promising agent to be used as a first-line antibiotic in the community setting.

Ongoing Clinical Development. We and Forest Laboratories are committed to conducting additional clinical studies to expand the indications for which we will seek approval, including higher dose therapy and pediatric indications.

Placebo-controlled Acute Exacerbation of Chronic Bronchitis Study. We are currently conducting another Phase III trial in acute exacerbation of chronic bronchitis. The comparators include both placebo and Ketek (telithromycin), an approved ketolide antibiotic. Our primary purpose in conducting this study

Table of Contents

is to demonstrate the benefit of treatment with Orapem over placebo because the FDA has communicated to us that it may begin requiring such data before approving an antibiotic for this indication.

In this study, we are using a higher dose of Orapem than in previous Phase III studies; 600 mg twice per day rather than 300 mg twice per day. Study subjects are taking two 300 mg tablets at each dose. However, we may develop a single 600 mg tablet for commercial use, which will require that we demonstrate bioequivalence of the two dosage forms. The duration of therapy is five days, as it was in previous studies in this indication. We believe that this higher dose may offer the potential for even greater efficacy than the current dose, particularly in short course therapy. Beta-lactam antibiotics have typically been used for seven to 14 days for acute exacerbation of chronic bronchitis.

We have corresponded with the FDA regarding our ongoing development work in this indication. Based on this correspondence, we believe that the results of this single study may support filing for approval of the higher dose to treat this indication. Because the FDA has not issued formal guidance regarding the design or conduct of placebo-controlled studies for this indication, there can be no assurance that the FDA will accept such a filing or grant approval even if the results obtained from our study meet the primary endpoint(s) defined in our protocol.

We have previously evaluated the potential for adverse events with the 600 mg dose in a Phase I study and a Phase II study conducted in 2005. In the Phase I study, the 600 mg twice per day dose was directly compared to a 300 mg two times per day regimen, both administered for seven days. In the Phase II study, a 300 mg two times per day seven day treatment course was compared to a 600 mg two times per day regimen in patients with acute bacterial sinusitis. In both trials, the adverse events were similar in both type and frequency. Based on the results of these two studies, together with prior Phase I studies that included increased doses of Orapem, we believe that the incidence and severity of adverse events may prove not to be substantially higher with the 600 mg two times per day dose than previously observed with the 300 mg two times per day dose.

We currently anticipate that enrollment in the ongoing Phase III acute exacerbation of chronic bronchitis study will continue into 2007.

Orapem for the Pediatric Market

We are developing an Orapem oral liquid formulation for pediatric use in conjunction with our strategic partner, Forest Laboratories. Under our agreement with Forest Laboratories, we have an option to exclusively promote to pediatricians. Assuming we successfully complete clinical development of an oral liquid formulation for Orapem, we currently intend to expand our sales force at our expense to promote Orapem to pediatricians, thereby increasing our economic interest in pediatric sales.

Orapem has performed well *in vitro* against many common pediatric pathogens. We believe that the well-known safety of beta-lactam antibiotics and the tolerability profile of Orapem demonstrated in extensive clinical testing in adults make Orapem a promising candidate for the pediatric market.

Interactions with the FDA. We met with the FDA on January 18, 2006 to discuss the filing of our IND in the U.S. for the oral liquid formulation for pediatric use and our ongoing Phase II clinical trial. We also began a discussion with the FDA regarding pediatric Phase III clinical design. We will have ongoing interactions with the FDA to finalize the design of our Phase III clinical trials.

Formulation Development. For pediatric indications, it is important that Orapem be available as an oral liquid formulation since the majority of patients being treated for acute otitis media are less than three years old. Any oral liquid formulation should have both a competitive taste profile and the requisite stability. Like many other medications, the active ingredient in Orapem is bitter. We have developed a prototype oral liquid formulation that has been used to complete a bioavailability study in healthy adults. We have also initiated a Phase II trial in acute otitis media described further below. Additional work to optimize the taste and stability of the oral liquid formulation is ongoing.

Table of Contents

Clinical Studies Completed or Ongoing. We have completed a bioavailability study in healthy adults that showed similar drug absorption for the tablet and oral liquid formulation. We also have a Phase II clinical trial that began enrolling patients in January 2006 for acute otitis media. The Phase II trial is designed to determine the dosage for our planned Phase III clinical trials. We anticipate that the results of the Phase II clinical trial will be available in early 2007.

Clinical Studies Planned or Under Consideration. We expect to conduct additional bioavailability studies with an improved oral liquid formulation. Upon successful completion of such bioavailability studies and following assessment of the Phase II clinical trial, we and Forest Laboratories plan to conduct Phase III clinical trials to support an NDA for two pediatric indications, acute otitis media and tonsillitis/pharyngitis. The details of the study design will be determined through an interactive process involving the FDA, Forest Laboratories and external advisors.

REP8839 Program

We are developing REP8839 for topical use for skin and wound infections and prevention of *S. aureus* infections, including MRSA infections, in hospital settings. REP8839 is an inhibitor of methionyl tRNA synthetase, which is an enzyme that plays an essential role in protein synthesis. Inhibition of methionyl tRNA synthetase results in reduced protein synthesis and attenuation of bacterial growth. Mupirocin, an isoleucyl tRNA synthetase inhibitor, has proved to be a successful topical antibiotic with activity against both *S. aureus* and *S. pyogenes* and serves as a precedent for the development of aminoacyl tRNA synthetases as topical antibiotics. REP8839 is a member of a novel group of structurally-related molecules that selectively inhibit the activity of methionyl rRNA synthetase. Methionyl and isoleucyl tRNA synthetase are each a specific aminoacyl tRNA synthetase responsible for the attachment of the amino acid methionine (or isoleucine) to its cognate tRNA. Aminoacyl tRNA synthetases are enzymes that play an essential role in protein biosyntheses by attaching amino acids to specific carrier molecules, called tRNAs, that then carry the amino acid to the ribosome and donate it to the growing polypeptide chain. Pre-clinical studies have indicated that REP8839 exhibits potent activity against major skin pathogens such as *S. aureus* and *S. pyogenes*, including strains of *S. aureus* that are resistant to methicillin, vancomycin, linezolid or mupirocin.

We acquired the worldwide rights to the methionyl tRNA synthetase inhibitor program from GSK in June 2003 in exchange for 4,000,000 shares of our Series B convertible preferred stock at a deemed fair value of \$1.25 per share. As part of this asset purchase, we acquired certain patents and patent applications and other program intellectual property, supporting material and related license rights. Using this acquired technology, we have continued the development of our product candidate REP8839 for the treatment of skin and wound infections and prevention of *S. aureus* infections, including MRSA infections, in hospital settings. We have no royalty or other ongoing financial or other obligations to GSK, except for a \$1.5 million milestone payment due by July 4, 2006, which is payable in either cash or equity, at our option.

We are currently conducting pre-clinical testing of REP8839 to evaluate its suitability for use in humans. We submitted an IND application for the development of a REP8839/mupirocin combination product in May 2006. Mupirocin is a widely used topical antibiotic. We believe that the distinctive mechanisms of action of the two drugs greatly reduce the likelihood that *S. aureus* will develop resistance to this combination. We retain worldwide rights to REP8839.

Market Opportunity

MRSA is a significant and growing public health threat. The Infectious Disease Society of America has published a series of reports entitled *Bad Bugs, No Drugs* that highlights the severity of this and other infectious disease concerns related to increasing bacterial resistance to antibiotics and decreasing investment in antibiotic development by the pharmaceutical industry. MRSA infections have been a recognized problem in hospitals for a number of years. Recently, MRSA has become a significant concern in the community setting, appearing in groups such as sports teams and child care facilities. There

Table of Contents

are a number of approved antibiotics to treat MRSA in the hospital and more are in development. However, as indicated in the March 2006 update of Infectious Disease Society of America's report, a need exists for oral or topical antibiotics that can be used for MRSA infection prevention, where infection may be suspected but not confirmed.

Mupirocin is the most widely prescribed topical antibiotic, indicated for the treatment of skin infections, wound infection prevention and eradications of *S. aureus* in hospital outbreaks of MRSA. Some strains of MRSA have also begun to exhibit resistance to mupirocin. It is well documented that widespread use of mupirocin can lead to a marked rise in the number of mupirocin-resistant strains of *S. aureus*, including MRSA strains. For example, mupirocin was made available without a prescription in the early 1990s in New Zealand. Resistance increased dramatically within just a few years and the product was taken off the over-the-counter market. We believe there is a need in the medical community for an antibiotic that offers the advantages of mupirocin, is effective against mupirocin-resistant strains and is less likely to develop resistance when used widely in the community or as a prophylactic.

Oral antibiotics also can be used to treat skin infections. The leading oral antibiotic used to treat skin infections has been cephalexin for many years. The limitations associated with cephalexin include a requirement for dosing three or four times per day and concerns regarding resistance, efficacy and the treatment of a skin infection with a systemic agent that has the potential to cause adverse events. We believe an opportunity exists to convert some use of oral cephalexin in this indication to a new and more effective topical agent.

Differentiating Characteristics

We observed the following characteristics that we believe may make the combination of REP8839 and mupirocin a promising topical treatment option for bacterial skin and wound infections and prevention of *S. aureus* infections, including MRSA infections, in hospital settings:

Novel mechanism of action. REP8839 is a synthetic antibiotic with a distinct mechanism of action from mupirocin and other marketed antibiotics. REP8839 is an inhibitor of methionyl tRNA synthetase, a previously unexploited drug target. REP8839 showed potent antibacterial activity *in vitro* against important skin pathogens such as *S. aureus* and *S. pyogenes* and is more potent than mupirocin *in vitro* against these skin pathogens.

Low rate of spontaneous resistance emergence. Antibiotics are sometimes used in combination to prevent or delay the emergence of drug-resistant strains of bacteria. When drugs that act on different molecular targets are used in combination, the probability of emergence of strains resistant to both drugs is substantially reduced. Since REP8839 and mupirocin act on two distinct essential enzymes (tRNA synthetases), the probability that bacterial resistance will develop during therapy is low.

REP8839/mupirocin combination is unlikely to compromise the effectiveness of antibiotics used for the treatment of systemic infections. Because REP8839 and mupirocin have different mechanisms of action from the systemic antibacterial agents that are commonly used to treat more serious hospital infections, development of resistance to mupirocin or REP8839 would not jeopardize the efficacy of these systemic agents.

Pre-Clinical Data and Clinical Development Strategy

In pre-clinical studies, REP8839 has exhibited low dermal irritancy potential, low genotoxicity potential, low systemic toxicity following intravenous administration and low systemic exposure following application to skin. Taken together, the pre-clinical studies we have conducted to date suggest a safety profile that is suitable for the initiation of Phase I clinical trials.

Table of Contents

We plan to pursue the following clinical indications for the combination of REP8839 and mupirocin:

treatment of uncomplicated skin and wound infections, including secondarily infected traumatic skin lesions caused by *S. aureus*, MRSA and *S. pyogenes*; and

prevention of *S. aureus* infections, including MRSA infections, in hospital settings.

A pre-IND meeting with the FDA was held on April 12, 2006 to discuss our plans for the clinical development of a REP8839/mupirocin combination product. We submitted an IND for the REP8839/mupirocin combination product in May 2006. Four Phase I studies are proposed to be carried out in the second half of 2006 to support further clinical development of all these indications. FDA approval of a combination drug product requires demonstration that the combination is superior to the individual components. We expect that our clinical strategy will evolve as our discussions with the FDA continue.

Research Capabilities and Discovery Programs

We maintain an active internal research effort that is currently focused on identifying novel antibiotics. We have built a research organization that includes expertise in biochemistry, microbiology, medicinal chemistry, process chemistry, pharmacology and toxicology. We believe it is important to have expertise in these areas not only for discovery programs, but also for developing later stage products and evaluating new product opportunities. Our research organization was initially responsible for evaluating the Orapem and REP8839 programs as in-license opportunities and has continued with the development of both programs. The research organization also pursues our own internal discovery activities. Our discovery activities at this time include the following programs:

DNA Replication Inhibitors Program. Bacterial DNA replication is an attractive target system for new antibacterial drugs since it is an essential process and stalled DNA replication can trigger cell death. However, to date, this is an underexploited drug target. Our high-throughput assays are designed to mimic the bacterial DNA replication systems from the following bacteria: *Escherichia coli*, *S. pyogenes*, *Pseudomonis aeruginosa*, *S. aureus* and *Bacillus subtilis*. Each high-throughput assay includes at least six protein components and many include twelve or more proteins that constitute the replication system of bacteria that need to work together in highly cooperative DNA replication reactions. These assays simultaneously target multiple sites that are amenable to inhibition by small molecules. We have screened a library of approximately 250,000 compounds assembled from various sources and are currently optimizing the initial inhibitors identified from the assays.

Clostridium difficile Program. Another one of our discovery programs is focused on the identification of novel antibacterial drugs that are active against *C. difficile*. In recent years, *C. difficile* associated diarrhea has emerged as a major public health threat among elderly patients in health care or long-term care institutions. Oral vancomycin is the only antibiotic that is currently approved by the FDA for the treatment of *C. difficile* associated diarrhea. Metronidazole is also used extensively in clinical practice following early reports of its efficacy in *C. difficile* associated diarrhea. However, recent studies have noted relatively high and growing incidence of treatment failure and relapse following both vancomycin and metronidazole therapy. Furthermore, widespread vancomycin use raises resistance concerns. Overall, options for the treatment of *C. difficile* associated diarrhea are currently limited and a need exists for the development of new agents to address this emerging problem. An ideal drug for treating *C. difficile* associated diarrhea would have good activity against *C. difficile* but limited activity against normal intestinal flora, low oral bioavailability and a mechanism-of-action that is distinct from antibiotics currently used for the treatment of systemic infections. We have recently identified a class of compounds with *in vitro* activity against *C. difficile* that may meet the above criteria. To date, we have synthesized and

Table of Contents

tested approximately 140 structurally related compounds and identified several compounds that have considerably improved antibacterial activity against *C. difficile*. We are currently studying pharmacology, toxicology and animal efficacy of several representative compounds.

Our Collaboration with Forest Laboratories

In February 2006, we entered into a collaboration and commercialization agreement with Forest Laboratories to be our exclusive partner for the development and marketing of Orapem in the U.S. We believe that Forest Laboratories is particularly well suited to help us develop and commercialize Orapem in the U.S. for a number of reasons. In recent years, Forest Laboratories has successfully launched new products into primary care markets, particularly mature markets with many product alternatives. We believe that Forest Laboratories' commercial success with Celexa®, Lexapro® and Benicar®, for example, are indicative of its strong capabilities in this area. We also believe that the timing of an Orapem launch complements Forest Laboratories' portfolio of other products. Forest Laboratories presently has no competing community antibiotics in their product portfolio. Finally, we believe that Forest Laboratories' core competencies complement ours by combining their strength in executing major launches with our expertise in antibacterial development and marketing.

Forest Laboratories will make payments to us upon the achievement of certain development and commercial milestones and royalty payments to us based upon Orapem sales. We have received \$60.0 million in upfront and milestone payments. We may receive up to an additional \$190.0 million in development and commercial milestones, which will be reduced by \$25.0 million if we exercise our option to directly market and promote Orapem to pediatricians on an exclusive basis, which we expect to do. We will oversee the development and regulatory approval of the products through a joint development committee with Forest Laboratories. A substantial portion of development and regulatory expenses are paid by Forest Laboratories.

Under the collaboration and commercialization agreement, Forest Laboratories is required, subject to certain conditions, to launch Orapem within six to nine months after approval of our NDA by the FDA, provided that the FDA approval includes at least two respiratory tract infection indications, the approved products have a shelf life of at least 18 months and that adequate product supply is available. Forest Laboratories is generally responsible for all sales and marketing activities related to primary care physicians and has agreed to certain minimum commitments for sales and marketing efforts. We have the right to promote to targeted specialists, such as otolaryngologists. Forest Laboratories will reimburse us for most expenses associated with such marketing and selling efforts. We may terminate our promotion activities upon 12 months notice to Forest Laboratories. Similarly, Forest Laboratories may terminate our specialist promotion to target specialists if it ceases to promote Orapem entirely, or if our sales force fails to substantially perform as provided in the marketing plan for two consecutive years.

We also have an option to market and promote Orapem products to pediatricians on an exclusive basis in the U.S. for the life of the products. This option must be exercised at least six months before an NDA for a liquid oral formulation is projected to be submitted. If we exercise this option, all joint marketing committee decisions with respect to the liquid oral formulation will be by mutual agreement, including the approval of launch strategy and commitments by each party for marketing and selling efforts. Forest Laboratories will extend us a line of credit in the amount of \$60.0 million which we may elect to draw against to support our promotional efforts. Forest Laboratories will book all Orapem sales and, under certain circumstances, pay us a co-promotion fee, reimburse our marketing expenses and pay us royalties on all sales, milestones on development of the liquid oral formulation and a portion of the commercialization milestones. We may terminate our promotion activities to pediatricians upon 18 months notice to Forest Laboratories. Similarly, Forest Laboratories may terminate our promotion to pediatricians if it ceases to promote Orapem entirely, or if we fail to meet our promotional commitments under the agreement. Unless terminated earlier, the term of the pediatrician promotion option ends upon the earlier of the expiration of the last to expire of the applicable patents regarding the liquid oral formulation, including extended commercial exclusivity, and the commercial introduction by a third party of a generic liquid oral formulation containing faropenem medoxomil.

Table of Contents

We have a reciprocal agreement with Forest Laboratories that restricts either of us from developing, marketing or selling certain competing products for a period of time. Forest Laboratories has no rights to other of our current product candidates or to our future products, if any. Forest Laboratories has a right of first refusal to extend the territory for Orapem to include Canada if we decide to commercialize Orapem in Canada through a third party.

The agreement with Forest Laboratories extends until the later of (a) the expiration of the last to expire of the applicable patents, including extended commercial exclusivity, (b) 12 years after the first commercial sale of a product under the agreement and (c) the commercial introduction by a third party of a generic product, unless terminated earlier. Forest Laboratories may also terminate our agreement upon 90 days written notice if safety or efficacy issues arise that could prevent or materially delay regulatory approval of Orapem or substantially negatively impact Orapem's marketing potential. Each party has the right to terminate the agreement upon 60-days prior written notice in the case of the other party's bankruptcy or dissolution or a material breach of the agreement.

We have agreed to a reciprocal standstill provision whereby neither we nor Forest Laboratories will acquire any interest in the other without the party's consent. Either we or Forest Laboratories may assign this agreement to an affiliate or in connection with a transfer or sale of the business related to Orapem, provided that the third party has no competing products or a firewall is created to protect promotion and sales of Orapem.

Sales and Marketing

Our collaboration agreement with Forest Laboratories provides that Forest Laboratories will be responsible for the sales and marketing efforts of Orapem within the U.S. primary care market, which includes the family practice, general practice and internal medicine physicians, physician assistants and nurse practitioners.

We plan to build an initial sales organization of 50 to 75 specialty representatives geographically-focused in major metropolitan areas to promote Orapem tablets to relevant specialists, principally otolaryngologists. We are also currently building a marketing group to initially market this product to all relevant specialists, including key opinion leaders in the infectious disease and otolaryngology communities and other physician groups. Forest Laboratories will reimburse us for a majority of the expenses we incur for our sales force and marketing activity relating to specialists promotion in the near term. In addition, we intend to evaluate additional products for in-licensing or acquisition that our specialty sales organization could promote and sell outside the context of our collaboration with Forest Laboratories.

We plan to grow the size of our specialty sales organization if and when additional Orapem indications are approved by the FDA or if our other product candidates are successfully developed, approved and launched. In particular, we may elect to exercise our option to promote Orapem to pediatricians if an oral liquid formulation can be successfully developed. In this case, we plan to substantially increase the size of our specialty sales organization to address this physician group. Sales organizations designed to market to pediatricians are typically comprised of 200 to 400 representatives. If we make the election to promote Orapem to pediatricians, we plan to acquire or develop additional pediatric products for such an organization to promote and sell to pediatricians.

We do not anticipate building sales capabilities outside the U.S. and expect to enter into strategic collaborations with respect to any of these sales activities.

Our License Agreement with Daiichi Asubio

We entered into a license agreement with Daiichi Suntory Pharma (now Daiichi Asubio Pharma Co., Ltd.) that was effective in March 2004. Under this agreement, we have an exclusive license to, with the right to sublicense, Daiichi Asubio's patent rights and know-how to develop and commercialize all forms of Orapem for adult and pediatric use in the U.S. and Canada. The license includes rights to all clinical and other data related to Orapem generated by Daiichi Asubio and prior licensees, other than

Table of Contents

rights to manufacture Orapem. Bayer was a prior licensee of Orapem and conducted Phase III studies in multiple indications, including the studies that form the basis of our pending NDA.

We also have a sole negotiation right to develop and commercialize Orapem in the rest of the world, excluding Japan, until two years following the commercial introduction of Orapem in the U.S. or Canada. Our license does not include the rights to other forms of faropenem, such as faropenem sodium, but Daiichi Asubio has agreed not to license or market any other form of faropenem for use in the U.S. or Canada.

In consideration for our licenses, we paid Daiichi Asubio an initial license fee of \$3.8 million comprised of \$0.6 million paid in 2003 and \$3.2 million paid in 2004. In December 2005, we submitted our first NDA for adult use of Orapem and, at that time, we recorded research and development expense in the amount of ¥250 million (approximately \$2.1 million) for the first milestone due to Daiichi Asubio under this agreement. In February 2006, in conjunction with our entering into the license agreement with Forest Laboratories, this milestone payment was increased to ¥375 million (approximately \$3.2 million using the U.S. dollar to Japanese yen exchange rate as of March 31, 2006). The increased milestone amount was accounted for as research and development expense in 2006 when the modified terms of the license were finalized. Under the modified license agreement we are further obligated to make future payments of (i) up to ¥375 million (approximately \$3.2 million as of March 31, 2006) upon initial FDA approval, (ii) ¥500 million (approximately \$4.3 million as of March 31, 2006) upon a product launch and (iii) up to ¥750 million (approximately \$6.4 million as of March 31, 2006) in subsequent milestone payments for Orapem. Additionally, we are responsible for royalty payments to Daiichi Asubio based upon net sales of Orapem.

Our license agreement with Daiichi Asubio extends until the last relevant patent expires or 12 years after the first commercial sale of a Orapem in the territory, whichever is later. Each party has the right to terminate the agreement in the event of the bankruptcy or dissolution of the other party or a material breach of the agreement. We may also terminate the license agreement upon six months written notice in the event that the development program indicates significant issues of safety or efficacy for an indication or it becomes no longer commercially reasonable to commercialize the product.

If we substantially fail to meet our goals under our sales and marketing plan over a period of two years, then we must make certain payments to Daiichi Asubio or Daiichi Asubio may convert our license to a non-exclusive license, in which case we would be required to grant Daiichi Asubio a license to use the information and know-how we have developed under this agreement. Under certain circumstances, we may be required to make certain payments to Daiichi Asubio upon termination of the agreement.

Manufacturing

We obtain the drug substance, or active pharmaceutical ingredient, faropenem medoxomil, from Nippon Soda and the finished Orapem tablet from Tropon. These contract manufacturers are the sole manufacturing sources for Orapem. Under our collaboration agreement with Forest Laboratories, Forest Laboratories will assume sole responsibility for managing the supply chain for Orapem for the U.S. market. We will cooperate with Forest Laboratories and manage the supply of Orapem for the rest of the world. As a penem antibiotic, Orapem requires dedicated manufacturing facilities for the manufacture of drug substance and drug product. For many years, beta-lactams have been produced separately in segregated facilities due to concerns about allergic reactions to these types of antibiotics. During development, faropenem medoxomil was manufactured by Nippon Soda in a segregated building at its Takaoka facility in Japan and Bayer manufactured the Orapem tablet internally for its clinical studies.

In anticipation of commercial production, Nippon Soda expanded and equipped a new facility located in Nihongi, Japan. The Nihongi facility is presently being used for the manufacture of faropenem sodium for the Japanese market. Faropenem medoxomil is produced from faropenem sodium by converting it into an ester prodrug form. We have a requirements contract for the supply of faropenem medoxomil at the Nihongi facility. Nippon Soda is obliged to supply all of our requirements of faropenem medoxomil and we and Forest Laboratories are obligated to purchase all faropenem medoxomil requirements from

Table of Contents

Nippon Soda. We have the right to transfer manufacturing to a third party, with Nippon Soda's cooperation, if Nippon Soda cannot assure supply and in certain other circumstances. In the case of such a transfer, Nippon Soda will be required to grant us the necessary licenses, including the right to sublicense, under its intellectual property to manufacture faropenem medoxomil. Nippon Soda has patent protection for certain aspects of the manufacturing process through 2014. Nippon Soda has agreed to complete preparations necessary at its Nihongi facility for FDA regulatory approval and launch of Orapem in accordance with an agreed timeline. Nippon Soda recently added a quality control facility at its Nihongi plant specifically for GMP compliant products, including Orapem. After launch, the parties have agreed to certain minimum purchase requirements and pricing. The term of this agreement is for the life of the Daiichi Asubio patents on faropenem medoxomil or 12 years after launch, whichever is longer. We believe that the capacity of this plant is sufficient to provide commercial quantities of faropenem medoxomil for the next several years.

Forest Laboratories has contracted with Tropon to complete and equip an existing building as a commercial drug product facility for Orapem. The facility consists of a stand-alone building encompassing all aspects of the tablet manufacturing process including manufacturing, packaging, labeling and warehousing. This facility was built specifically for the manufacture of Orapem tablets. We believe that the capacity of this plant will be sufficient to supply all requirements for adult tablet dosage forms of Orapem to Forest Laboratories for the next several years. The parties have agreed to certain minimum purchase requirements and pricing. The initial term of Forest Laboratories agreement with Tropon is 10 years. If our agreement with Forest Laboratories terminates for any reason, the Tropon obligations will revert to us directly.

We have built a small scale drug product manufacturing facility at our Louisville, Colorado site. The facility is used for the manufacture of development batches (oral tablets and liquid suspensions) and for the manufacture of clinical supplies. The facility is dedicated exclusively for Orapem manufacturing and will not be used for other product classes.

We currently have a small internal manufacturing group that we intend to expand to manage both internal manufacturing and external contract manufacturers. For the REP8839 program and other discovery programs, we generally conduct research and development scale manufacturing in-house or use contract manufacturers. We use contract manufacturers for scale up of pre-clinical and clinical quantities of product. We anticipate using contract manufacturers for commercial scale quantities of product when this is commercially feasible.

Government Regulation and Product Approval

Regulation by governmental authorities in the U.S. and other countries is a significant factor in the development, manufacture and marketing of pharmaceuticals and antibiotics. All of our products will require regulatory approval by governmental agencies prior to commercialization. In particular, pharmaceutical drugs are subject to rigorous preclinical testing and clinical trials and other premarketing approval requirements by the FDA and regulatory authorities in other countries. In the U.S., various federal, and, in some cases, state statutes and regulations, also govern or impact the manufacturing, safety, labeling, storage, record-keeping and marketing of pharmaceutical products. The lengthy process of seeking required approvals and the continuing need for compliance with applicable statutes and regulations require the expenditure of substantial resources. Regulatory approval, if and when obtained for any of our product candidates, may be limited in scope, which may significantly limit the indicated uses for which our product candidates may be marketed. Further, approved drugs and manufacturers are subject to ongoing review and discovery of previously unknown problems that may result in restrictions on their manufacture, sale or use or in their withdrawal from the market.

Before testing any compounds with potential therapeutic value in human subjects in the U.S., we must satisfy stringent government requirements for pre-clinical studies. Pre-clinical testing includes both *in vitro* and *in vivo* laboratory evaluation and characterization of the safety and efficacy of a drug and its formulation. Pre-clinical testing results obtained from studies in several animal species, as well as data

Table of Contents

from *in vitro* studies, are submitted to the FDA as part of an IND and are reviewed by the FDA prior to the commencement of human clinical trials. These pre-clinical data must provide an adequate basis for evaluating both the safety and the scientific rationale for the initial trials in human volunteers.

In order to test a new drug in humans in the U.S., an IND must be filed with the FDA. The IND will become effective automatically 30 days after receipt by the FDA, unless the FDA raises concern or questions about the conduct of the trials as outlined in the IND prior to that time. In this case, the IND sponsor and the FDA must resolve any outstanding concerns before clinical trials can proceed.

Clinical trials are typically conducted in three sequential phases, phases I, II and III, with phase IV trials potentially conducted after initial marketing approval. These phases may be compressed, may overlap or may be omitted in some circumstances.

Phase I. After an IND becomes effective, Phase I human clinical trials may begin. These trials evaluate a drug's safety profile and the range of safe dosages that can be administered to healthy volunteers and/or patients, including the maximum tolerated dose that can be given to a trial subject with the target disease or condition. Phase I trials also determine how a drug is absorbed, distributed, metabolized and excreted by the body and the duration of its action.

Phase II. Phase II clinical trials are typically designed to evaluate the potential effectiveness of the drug in patients and to further ascertain the safety of the drug at the dosage given in a larger patient population.

Phase III. In Phase III clinical trials, the drug is usually tested in one or more controlled, randomized trials comparing the investigational new drug to an approved form of therapy or placebo in an expanded and well defined patient population and at multiple clinical sites. The goal of these trials is to obtain definitive statistical evidence of safety and effectiveness of the investigational new drug regimen as compared to a placebo or an approved standard therapy in defined patient populations with a given disease and stage of illness.

Phase IV. Clinical trials are studies required of or agreed to by a sponsor that are conducted after the FDA has approved a product for marketing. These studies are used to gain additional experience from the treatment of patients in the intended therapeutic indication and to document a clinical benefit in the case of drugs approved under accelerated approval regulations. If the FDA approves a product while a company has ongoing clinical trials that were not necessary for approval, a company may be able to use the data from these clinical trials to meet all or part of any Phase IV clinical trial requirement. These clinical trials are often referred to as Phase III/IV post approval clinical trials. Failure to promptly conduct Phase IV clinical trials could result in withdrawal of approval for products approved under accelerated approval regulations.

After completion of Phase I, II and III clinical trials, if there is substantial evidence that the drug is safe and effective, an NDA is prepared and submitted for the FDA to review. The NDA must contain all of the essential information on the drug gathered to that date, including data from preclinical and clinical trials, and the content and format of an NDA must conform to all FDA regulations and guidelines. Accordingly, the preparation and submission of an NDA is a significant undertaking for a company.

The FDA reviews all submitted NDAs before it accepts them for filing and may request additional information from the sponsor rather than accepting an NDA for filing. In this case, the NDA must be re-submitted with the additional information and, again, is subject to review before filing. Once the submission is accepted for filing, the FDA begins an in-depth review of the NDA. Most NDAs are reviewed by the FDA within 10 months of submission. The review process is often significantly extended by the FDA through requests for additional information and clarification. The FDA may refer the application to an appropriate advisory committee, typically a panel of clinicians, for review, evaluation and a recommendation as to whether the application should be approved. The FDA is not bound by the recommendation but typically gives it great weight. If the FDA evaluations of both the NDA and the manufacturing facilities are favorable, the FDA may issue either an approval letter or an approvable letter,

Table of Contents

the later of which usually contains a number of conditions that must be satisfied in order to secure final approval. If the FDA's evaluation of the NDA submission or manufacturing facility is not favorable, the FDA may refuse to approve the NDA or issue a not approvable letter.

Any products we manufacture or distribute under FDA approvals are subject to pervasive and continuing regulation by the FDA, including record-keeping requirements and reporting of adverse experiences with the products. Drug manufacturers and their subcontractors are required to register with the FDA and, where appropriate, state agencies, and are subject to periodic unannounced inspections by the FDA and state agencies for compliance with cGMPs regulations which impose procedural and documentation requirements upon us and any third party manufacturers we utilize.

The FDA closely regulates the marketing and promotion of drugs. A company can make only those claims relating to safety and efficacy that are approved by the FDA. Failure to comply with these requirements can result in adverse publicity, warning letters, corrective advertising and potential civil and criminal penalties. Physicians may prescribe legally available drugs for uses that are not described in the product's labeling and that differ from those tested by us and approved by the FDA. Such off-label uses are common across medical specialties. Physicians may believe that such off-label uses are the best treatment for many patients in varied circumstances. The FDA does not regulate the behavior of physicians in their choice of treatments. The FDA does, however, restrict manufacturer's communications on the subject of off-label use.

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

We will also be subject to a wide variety of foreign regulations governing the development, manufacture and marketing of our products. Whether or not FDA approval has been obtained, approval of a product by the comparable regulatory authorities of foreign countries must still be obtained prior to manufacturing or marketing the product in those countries. The approval process varies from country to country and the time needed to secure approval may be longer or shorter than that required for FDA approval. We cannot assure you that clinical trials conducted in one country will be accepted by other countries or that approval in one country will result in approval in any other country.

The Drug Price Competition and Patent Term Restoration Act of 1984, also known as the Hatch-Waxman Act, provides five years of new chemical entity, or NCE, marketing exclusivity, to the first applicant who obtains approval of an NDA for a product that does not contain an active ingredient found in any other FDA approved product. If the FDA approves our NDA for Orapem, we will likely be entitled to five years of NCE exclusivity for Orapem. This exclusivity period would not prevent the submission by a competitor of an abbreviated new drug application, or a new drug application under Section 505(b)(2) of the Federal Food, Drug and Cosmetic Act, for a compound that contains faropenem as the active ingredient as early as four years following the FDA's approval of our NDA for Orapem. Such a competitor would likely be required to conduct clinical trials in order to bring a faropenem product, other than Orapem, to market in the U.S., though the competitor may be able to rely in part on the FDA's prior findings of safety and efficacy of Orapem. Similarly, data exclusivity in Europe provides a period of up to 10 years from the date a product is granted marketing approval, during which the regulatory authorities are not permitted to cross-refer to the data submitted by the original applicant for approval when reviewing an application from a generic manufacturer of the same approved product. Data exclusivity does not prevent a generic manufacturer from filing for regulatory approval of the same or similar drug, even in the same indication for which that drug was previously approved in Europe, based upon data generated independently by that manufacturer.

Table of Contents**Intellectual Property**

The proprietary nature of, and protection for, our product candidates, processes and know-how are important to our business. We seek patent protection in the U.S. and internationally for our product candidates and other technology. Our policy is to patent or in-license the technology, inventions and improvements that we consider important to the development of our business. In addition, we use license agreements to selectively convey to others rights to our own intellectual property. We also rely on trade secrets, know-how and continuing innovation to develop and maintain our competitive position. We cannot be sure that patents will be granted with respect to any of our pending patent applications or with respect to any patent applications filed by us in the future, nor can we be sure that any of our existing patents or any patents granted to us in the future will be commercially useful in protecting our technology.

We have licensed two U.S. patents from Daiichi Asubio covering the faropenem medoxomil composition of matter and a process for making faropenem medoxomil. Both of these patents expire on November 3, 2015. The Canadian and European equivalents of these patents expire in August 2011. The U.S. and Canadian patents are licensed to us and we have the sole negotiation right to license such rights in the rest of the world, excluding Japan. We believe that patent term extension under Hatch-Waxman Act should be available to extend our patent exclusivity for faropenem medoxomil to at least 2018 in the U.S. In Europe, we believe that patent term extension under a supplementary protection certificate should be available for an additional five years to 2016. We plan to pursue development of alternative formulations of faropenem medoxomil, such as a pediatric formulation. We have not controlled and do not control the prosecution of the patents licensed from Daiichi Asubio. We cannot be certain that such prosecution efforts have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents.

Daiichi Asubio also owns patents related to faropenem sodium composition of matter that expire in 2008 in the U.S. and have expired in the rest of the world. We do not have a license to the faropenem sodium patents but our agreement with Daiichi Asubio specifies that it will not license any form of faropenem for use in the U.S. or Canada.

We acquired worldwide rights to the methionyl tRNA synthetase inhibitor program from GSK in June 2003. Our agreement with GSK included the assignment of patents and patent applications to us relating to small molecule MRS inhibitors and the targets initially used to identify the inhibitors. We have filed additional patent applications directed to small molecule methionyl tRNA synthetase, uses, production methods and the like. We have two issued U.S. patents that cover REP8839 and additional patent applications directed to REP8839 and combinations of REP8839 and mupirocin. As of March 31, 2006, we have eight issued U.S. patents, 10 pending U.S. patent applications and 23 pending foreign patent applications related to the REP8839 program. These patents expire from 2017 to 2025.

We have begun to file patent applications directed to compounds that inhibit DNA replication that have been identified through our in-house screening efforts. We also own a portfolio of patents related to the DNA replication targets and drug screening methods to identify inhibitors of DNA replication. As of March 31, 2006, we have one issued U.S. patent, five pending U.S. patent applications and 14 pending foreign patent applications related to our bacterial DNA replication program. These patents expire from 2021 to 2025.

Competition

The oral anti-infective marketplace has traditionally been one of the most competitive within the pharmaceutical industry due to the large number of products competing for market share and significant levels of commercial resources being utilized to promote brands. In addition, our ability to compete may be affected because in some cases insurers and other third-parties may seek to encourage the use of generic products. This may have the effect of making branded products less attractive, from a cost perspective, to buyers. Among the products with which we will directly compete, we expect to differentiate on the basis of greater potency, improved resistance profile, enhanced safety and tolerability. Although we expect to face competition in the future, we do not expect the level of competition from branded products

Table of Contents

to be as intense as it has been in prior years due to the recent and ongoing exclusivity expiration of many major brands. Furthermore, we believe the pipeline of new oral antibiotics to treat community-acquired respiratory tract infections in development is weak, with a limited number of products currently in Phase III development. Several pharmaceutical and biotechnology companies are actively engaged in research and development related to new generations of antibiotics. We cannot predict the basis upon which we will compete with new products marketed by others. Many of our competitors have substantially greater financial, operation, sales and marketing and research and development resources than we have.

Legal Proceedings

We are not currently a party to any legal proceeding.

Facilities

Our facilities currently consist of approximately 42,000 square feet of laboratory and office facilities located at our headquarters in Louisville, Colorado, which is leased until September 2011, and approximately 8,000 square feet of office facilities for our clinical and regulatory group located in Milford, Connecticut, which is leased until May 2010.

We believe that these facilities are adequate to meet our current needs. We have an option to lease more space at our Louisville, Colorado facility should we need additional space. We believe that if additional space beyond that is needed in the future, such space will be available on commercially reasonable terms as needed.

Employees

As of March 31, 2006, we employed 61 persons, 18 of whom hold Ph.D., M.D. or Pharm.D. degrees. 28 employees were engaged in discovery research, 15 in clinical research and regulatory affairs, eight in commercial and corporate development and 10 in support administration, including finance, information systems, facilities and human resources. We consider our relationship with our employees to be good.

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

Our directors and executive officers and their respective ages and positions are as follows:

Name	Age	Position
Kenneth J. Collins(1)	59	President, Chief Executive Officer and Director
Roger M. Echols, M.D.(1)	58	Chief Medical Officer
Nebojsa Janjic, Ph.D.(1)	46	Chief Scientific Officer and Secretary
Peter W. Letendre, Pharm.D.(1)	48	Chief Commercial Officer
Donald J. Morrissey, Jr.(1)	40	Senior Vice President, Corporate Development
Mark L. Smith(1)	44	Chief Financial Officer and Treasurer
Kirk K. Calhoun(2)	62	Director
Ralph E. Christoffersen, Ph.D.(4)	68	Director
Geoffrey Duyk, M.D., Ph.D.(3)	47	Director
Christopher D. Earl, Ph.D.(2)	50	Director
Augustine Lawlor(2)(3)	49	Director
Daniel J. Mitchell(3)(4)	49	Director
Henry Wendt(4)	72	Director

(1) Executive officer.

(2) Member of the audit committee.

(3) Member of the compensation committee.

(4) Member of the corporate governance and nominating committee.

Executive Officers

Kenneth J. Collins has served as our President, Chief Executive Officer and a member of the board of directors since January 2002. From 1997 to 2001, Mr. Collins served as President of Pegasus Technology Ventures, a firm that advised and raised seed capital for early stage life sciences companies. From 1995 to 1996, Mr. Collins served as Chief Financial Officer and a member of the board of directors of Quark, Inc., a developer of desktop publishing software. Mr. Collins served as an Executive Vice President from 1992 to 1994 and Chief Financial Officer from 1983 to 1994 of Synergen, Inc., a biotechnology company. Mr. Collins holds a B.S. from the University of Notre Dame and an M.B.A. from the Harvard Business School.

Roger M. Echols, M.D. has served as our Chief Medical Officer since January 2005. From 1997 to 2004, Dr. Echols served as Vice President of Infectious Disease Clinical Research and Development at Bristol Myers Squibb. He served as Medical Director at Immunex Corporation from 1996 to 1997 and as Medical Director at Bayer Corporation from 1989 to 1996. Prior to joining the pharmaceutical industry, Dr. Echols was Head of the Division of Infectious Diseases at Albany Medical College and an attending physician at Albany Medical College. Dr. Echols holds a B.A. from Yale University and an M.D. from Tufts University School of Medicine and trained in internal medicine and infectious diseases at the University of New Mexico.

Nebojsa Janjic, Ph.D. has served as our Secretary since December 2000 and as our Chief Scientific Officer since June 2005. Dr. Janjic joined us at inception and served as our Vice President, Research and Development until June 2005. From 1992 to 1999, Dr. Janjic served as Senior Director, Drug Discovery at NeXstar Pharmaceuticals, Inc., a biotechnology company. Dr. Janjic holds B.S. and Ph.D. degrees from the University of Washington and completed postdoctoral training at the Scripps Research Institute.

Table of Contents

Peter W. Letendre, Pharm.D. has served as our Chief Commercial Officer since March 2005. From October 2002 until February 2005, Dr. Letendre held various positions at Abbott Laboratories, most recently as Vice President and General Manager of the anti-infective division from October 2002 until July 2004. From August 1990 to September 2002, Dr. Letendre held a number of marketing positions with SmithKline Beecham and GlaxoSmithKline Pharmaceuticals, including marketing director for the diabetes and metabolism division from 1998 to 2000. From 1988 to 1990, Dr. Letendre served as the Associate Dean of Clinical Practice at Southeastern University of the Health Sciences. Dr. Letendre holds B.S. and Doctor of Pharmacy degrees from the Massachusetts College of Pharmacy and Allied Health Sciences.

Donald J. Morrissey, Jr. has served as our Senior Vice President, Corporate Development since March 2006 and, prior to that, as Vice President, Corporate Development since 2002. From 1997 to 2002, Mr. Morrissey held various positions with Caliper Technologies, most recently as Vice President, Legal Affairs and Business Development from September 2001 to November 2002. From 1992 to 1997, Mr. Morrissey was a business attorney with Cooley Godward llp . Mr. Morrissey holds a B.A. from the University of Colorado and a J.D. from the University of Southern California Law School.

Mark L. Smith has served as our Chief Financial Officer and Treasurer since March 2006. From August 1999 to March 2006, Mr. Smith held financial executive capacities at Nabi Biopharmaceuticals, including serving as Senior Vice President, Finance, Chief Financial Officer and Chief Accounting Officer from 2001 to March 2006. From 1998 to 1999, Mr. Smith served as Vice President of Finance and Administration and Chief Financial Officer of Neuromedical Systems, Inc. From 1996 to 1998, Mr. Smith served in various financial executive capacities at Genzyme Corporation. From 1991 to 1996, Mr. Smith held various positions at Genetrix, Inc., most recently as its Chief Financial Officer. Before joining Genetrix, Inc., Mr. Smith practiced with the accounting firm of PricewaterhouseCoopers LLP in both the U.S. and Australia. Mr. Smith holds a B.A. in Accounting from the Canberra College of Advanced Education in Australia.

Directors

Kirk K. Calhoun has served as a Director since March 2006. Mr. Calhoun joined Ernst & Young, LLP, a public accounting firm, in 1965 and served as a partner of the firm from 1975 until his retirement in 2002. His responsibilities included both area management and serving clients in a variety of industries, including biotechnology. Mr. Calhoun is a Certified Public Accountant with a background in auditing and accounting. He is currently on the Board of Directors of Adams Respiratory Therapeutics, Inc., Abraxis Bioscience, Inc., Aspreva Pharmaceuticals Corporation and Myogen, Inc. and the Board of Governors of the California State University Foundation. Mr. Calhoun received a B.S. in Accounting from the University of Southern California.

Ralph E. Christoffersen, Ph.D. has served as a Director since December 2003. Dr. Christoffersen has been a partner at Morgenthaler Ventures since August 2001. From 1992 to 2001, Dr. Christoffersen was the President and Chief Executive Officer of Ribozyme Pharmaceuticals, Inc. From 1981 to 1992, he was the Senior Vice President of Research at SmithKline Beecham, Vice President of Discovery Research at The Upjohn Company, and President of Colorado State University. Dr. Christoffersen is a member of the Board of Directors of Serologicals Corp. Dr. Christoffersen holds a B.S. from Cornell College and a Ph.D. from Indiana University.

Geoffrey Duyk, M.D., Ph.D. has served as a Director since June 2004. Dr. Duyk is a partner at Texas Pacific Group Ventures. From 1996 to 2003, Dr. Duyk was President of Research & Development and a director of Exelixis Inc. From 1993 to 1996, he was one of the founding scientific staff at Millennium Pharmaceuticals. Prior thereto, Dr. Duyk was an Assistant Professor at Harvard Medical School in the Department of Genetics and Assistant Investigator of the Howard Hughes Medical Institute. Dr. Duyk holds a B.A. from Wesleyan University and a Ph.D. and M.D. from Case Western Reserve University.

Christopher D. Earl, Ph.D. has served as a Director since September 2004. Dr. Earl is President and Chief Executive Officer of BIO Ventures for Global Health. From 1997 to 2005, he served as

Table of Contents

Managing Director at Perseus Capital and of Perseus-Soros Management, LLC, an affiliate of the Perseus-Soros BioPharmaceutical Fund, LP, a private equity fund. Prior to that, Dr. Earl was President and Chief Executive Officer of Avitech Diagnostics, Inc. and a General Partner of Plant Resources Venture Funds. Dr. Earl serves on the Board of Governing Trustees of the Jackson Laboratory. Dr. Earl holds a B.A. from the University of Pennsylvania and a Ph.D. from Harvard University.

Augustine Lawlor has served as a Director since March 2002. Mr. Lawlor has been a Managing Director of HealthCare Ventures LLC since 2000. Mr. Lawlor was previously Chief Operating Officer of LeukoSite, Inc. and has also served as a management consultant with KPMG Peat Marwick. Mr. Lawlor is a member of the Board of Directors of Human Genome Sciences Inc. Mr. Lawlor holds a B.A. from the University of New Hampshire and a M.P.P.M. from the School of Management at Yale University.

Daniel J. Mitchell has served as a Director since March 2002. Mr. Mitchell founded and is a Manager of Sequel Venture Partners, L.L.C., a venture capital firm formed in January 1997. Mr. Mitchell was a founder of Capital Health Venture Partners, a health care focused venture capital firm, in October 1986 and has been a General Partner since December 1992. Mr. Mitchell is a member of the Board of Directors of Myogen, Inc. Mr. Mitchell holds a B.S. from the University of Illinois and an M.B.A. from the University of California at Berkeley.

Henry Wendt has served as a Director since August 2005. Mr. Wendt founded and is a Managing Director of HealthCare Investment Partners LLC, a healthcare private equity partnership. From 1997 until 2002, Mr. Wendt served as the Founder and Chairman of Global Health Care Partners specializing in investments in health care businesses. From 1955 to 1994, Mr. Wendt held various positions with SmithKline, most recently as Chairman and Chief Executive Officer. Mr. Wendt is Chairman of the Boards of Directors of Computerized Medical Systems and Arrail Dental (China), Ltd. and serves on the Boards of Directors of BioPartners, SA and Cambridge Laboratories Ltd. He is also Chairman of the Community Foundation of Sonoma County Leadership Committee, director of The Pacific Basin Institute at Pomona College and Trustee Emeritus of the American Enterprise Institute. Mr. Wendt holds a B.A. from Princeton University.

Board Composition

Our board of directors currently consists of eight members. Effective upon the completion of this offering, we will divide our board of directors into three classes, as follows:

Class I, which will consist of Messr. Christoffersen and Dr. Earl, and whose term will expire at our annual meeting of stockholders to be held in 2007;

Class II, which will consist of Messrs. Wendt, Mitchell and Duyk, and whose term will expire at our annual meeting of stockholders to be held in 2008; and

Class III, which will consist of Messrs. Calhoun, Lawlor and Collins, and whose term will expire at our annual meeting of stockholders to be held in 2009.

At each annual meeting of stockholders to be held after the initial classification, the successors to directors whose terms then expire will serve until the third annual meeting following their election and until their successors are duly elected and qualified. The authorized number of directors may be changed only by resolution of the board of directors. Any additional directorships resulting from an increase in the number of directors will be distributed between the three classes so that, as nearly as possible, each class will consist of one-third of the directors. This classification of the board of directors may have the effect of delaying or preventing changes in our control or management. Under Delaware law, our directors may be removed for cause by the affirmative vote of the holders of a majority of our voting stock.

Board Committees

Our board of directors has an audit committee, a compensation committee and a corporate governance and nominating committee.

Table of Contents

Audit Committee

Our audit committee consists of Messrs. Calhoun and Lawlor and Dr. Earl. The functions of this committee include, among other things:

- evaluating the performance of our independent auditors and deciding whether to retain their services;
- reviewing and pre-approving the engagement of our independent auditors to perform audit services and any permissible non-audit services;
- reviewing our annual and quarterly financial statements and reports and discussing the statements and reports with our independent auditors and management;
- reviewing and approving all related-party transactions;
- reviewing with our independent auditors and management significant issues that arise regarding accounting principles and financial statement presentation, and matters concerning the scope, adequacy and effectiveness of our financial controls; and
- establishing procedures for the receipt, retention and treatment of complaints received by us regarding financial controls, accounting or auditing matters.

Our board of directors has determined that Mr. Calhoun qualifies as an audit committee financial expert within the meaning of SEC regulations and the Nasdaq listing standards. In making this determination, our board has considered the nature and scope of experience Mr. Calhoun has previously had with reporting companies. Both our independent auditors and management periodically meet privately with our audit committee.

Compensation Committee

Our compensation committee consists of Dr. Duyk and Messrs. Lawlor and Mitchell. The functions of this committee include, among other things:

- determining the compensation and other terms of employment of our executive officers and senior management and reviewing and approving corporate performance goals and objectives relevant to such compensation;
- evaluating and recommending to our board of directors the equity incentive plans, compensation plans and similar programs advisable for us, as well as modification or termination of existing plans and programs;
- reviewing and approving appropriate insurance coverage for our officers and directors; and
- reviewing and approving the terms of any employment agreements, severance arrangements, change-in-control protections and any other compensatory arrangements for our executive officers.

Corporate Governance and Nominating Committee

Our corporate governance and nominating committee consists of Dr. Christoffersen and Messrs. Mitchell and Wendt. The functions of this committee include, among other things:

- developing and maintaining a current list of the functional needs and qualifications of members of our board of directors;
- evaluating director performance on the board and applicable committees of the board and determining whether continued service on our board is appropriate;
- interviewing, evaluating, nominating and recommending individuals for membership on our board of directors;

Table of Contents

evaluating nominations by stockholders of candidates for election to our board;

reviewing and reporting annually to our board of directors an assessment of our board's performance;

reviewing and recommending to our board of directors any amendments to our corporate governance documents; and

reviewing and recommending to our board of directors changes with respect to corporate governance issues, issues of broad social significance and our overall conduct as a responsible corporate citizen.

Compensation Committee Interlocks and Insider Participation

No member of our compensation committee has ever been an executive officer or employee of ours. None of our executive officers currently serves, or has served during the last completed fiscal year, on the compensation committee or board of directors of any other entity that has one or more executive officers serving as a member of our board of directors or compensation committee. Prior to establishing the compensation committee, our full board of directors made decisions relating to compensation of our executive officers.

Director Compensation

In the past, we have not provided cash compensation to directors for their services as directors or members of committees of the board of directors. In April 2006, our board of directors adopted a compensation program for non-employee directors. This compensation program will be effective immediately upon the closing of this offering. Pursuant to this program, each member of our board of directors who is not our employee will receive the following cash compensation for board services, as applicable:

\$17,500 per year for service as a board member;

\$7,500 per year for service as chairman of the audit committee;

\$2,500 per year for service as chairman of the compensation committee or the nominating and corporate governance committee;

\$1,500 for each board meeting attended in person (\$750 for meetings attended by video or telephone conference);

\$1,500 for each audit or compensation committee meeting attended by the chairman of such committee in person (\$750 for meetings attended by video or telephone conference); and

\$1,000 for each committee meeting attended in person by members who are not chairman of such committee (\$500 for meetings attended by video or telephone conference).

We have reimbursed and will continue to reimburse our non-employee directors for their reasonable expenses incurred in attending meetings of our board of directors and committees of the board of directors.

Members of our board of directors who are not our employees will receive non-statutory stock options under our 2006 Equity Incentive Plan, which will become effective as of the effective date of this offering. Each non-employee director on our board of directors at the effective date of the offering, who has served as a non-employee director for at least one year prior to such date, or upon initially joining our board of directors will automatically be granted a non-statutory stock option to purchase 16,313 shares of common stock with an exercise price equal to the then fair market value of our common stock. On the date of each annual meeting of our stockholders beginning in 2007, each non-employee director who has served as a non-employee director for at least six months prior to that annual meeting will also automatically be granted a non-statutory stock option to purchase 8,156 shares of our common stock

Table of Contents

on that date with an exercise price equal to the then fair market value of our common stock. Initial grants will vest annually over three years. Automatic annual grants will vest on the first anniversary of the date of grant. All stock options granted under our 2006 Equity Incentive Plan will have a term of 10 years.

Executive Compensation

The following table provides information regarding the compensation earned during the fiscal year ended December 31, 2005 by our chief executive officer and our four other most highly compensated executive officers who were employed by us as of December 31, 2005 and whose combined salary and bonus exceeded \$100,000 during that fiscal year. We refer to our chief executive officer and these other executive officers as our named executive officers elsewhere in this prospectus.

Summary Compensation Table

Name and Principal Position	Annual Compensation		Number of Securities Underlying Options	All Other Compensation
	Salary	Bonus		
Kenneth J. Collins President, Chief Executive Officer and Member of the Board of Directors	\$ 305,000	\$ 122,000		
Roger M. Echols, M.D. Chief Medical Officer	325,000	149,500		
Nebojsa Janjic, Ph.D. Chief Scientific Officer and Secretary	250,000	75,000		
Peter W. Letendre, Pharm.D Chief Commercial Officer	217,708	210,000	203,915	\$ 299,603(1)
Donald J. Morrissey, Jr. Senior Vice President, Corporate Development	205,000	61,500	16,313	

(1) Represents housing and relocation costs.

Stock Option Grants in Last Fiscal Year

All options granted to our named executive officers are incentive stock options, to the extent permissible under the Internal Revenue Code of 1986, as amended, or Internal Revenue Code. The exercise price per share of each option granted to our named executive officers was equal to the fair market value of our common stock as determined by our board of directors on the date of the grant.

The following table provides information regarding grants of options to purchase shares of our common stock to our named executive officers in the fiscal year ended December 31, 2005:

Number of Securities	Individual Grants(1)		Potential Realizable Value at Assumed Annual Rates of Stock Price Appreciation
	% of Total Options Granted to Employees in		

Name	Underlying Options Granted	the Year Ended December 31, 2005(2)	Exercise or Base Price (\$/Sh)	Expiration Date	for Option Term(3)	
					5%	10%
Kenneth J. Collins						
Roger M. Echols, M.D.						
Nebojsa Janjic, Ph.D.						
Peter W. Letendre, Pharm.D.	203,915	35.8%	\$ 0.61	03/19/15	\$ 4,861,334	\$ 7,797,710
Donald J. Morrissey, Jr.	16,313	2.9%	\$ 0.61	05/26/15	246,979	259,214

Table of Contents

- (1) The option grants listed above to Peter Letendre and Donald Morrissey vest over a four year period with 25% of the shares vesting one year from the vesting commencement date and the remaining shares vesting in equal monthly installments over the next 36 months. These options may be exercised immediately for shares of restricted stock, which are subject to a repurchase right by us that lapses on the same vesting schedule as the options.
- (2) Based on 569,513 options granted during the fiscal year ended December 31, 2005 under our amended and restated 2006 Equity Incentive Plan, including grants to executive officers.
- (3) Potential realizable values are computed by (a) multiplying the number of shares of common stock subject to a given option by an assumed initial public offering price of \$15.00 per share, (b) assuming that the aggregate stock value derived from that calculation compounds at the annual 5% or 10% rate shown in the table for the entire ten-year term of the option and (c) subtracting from that result the aggregate option exercise price. The 5% and 10% assumed annual rates of stock price appreciation are mandated by the rules of the SEC and do not represent our estimate or projection of future common stock prices.

Aggregated Option Exercises in Last Fiscal Year and Fiscal Year-End Option Values

The following table provides information regarding options exercised by each of our named executive officers during the fiscal year ended December 31, 2005, as well as the number of shares of common stock subject to exercisable and unexercisable stock options held as of December 31, 2005 by each of our named executive officers. All options listed in the table permit early exercise of unvested shares, in which case all unvested shares are subject to repurchase by us.

Name	Shares		Number of Securities Underlying Unexercised Options at Fiscal Year-End		Value of Unexercised In-the-Money Options at Fiscal Year-End(1)	
	Acquired on Exercise	Value Realized(1)	Exercisable	Unexercisable	Exercisable	Unexercisable
Kenneth J. Collins	356,851	\$ 5,134,015				
Roger M. Echols, M.D.	101,957	\$ 1,466,855	101,957		\$ 1,466,855	
Nebojsa Janjic, Ph.D.	224,306	\$ 3,227,090				
Peter W. Letendre, Pharm.D.	0		203,915		\$ 2,933,725	
Donald J. Morrissey, Jr.	0		144,779		\$ 2,089,958	

- (1) Amounts described under value realized and the value of an unexercised in-the-money option as of December 31, 2005 is equal to the excess of an assumed initial public offering price of \$15.00 per share over the exercise price for the option, multiplied by the number of shares issued or issuable upon exercise of the option, without taking into account any taxes that may be payable in connection with the transaction.

Employment Contracts, Termination of Employment and Change-in-Control Arrangements**Employment Agreements**

We have entered into employment agreements with the following executive officers, which set forth the officer's position, duties, base salary and benefits, among other things: Kenneth J. Collins, Roger M. Echols, M.D., Nebojsa

Janjic, Ph.D., Peter W. Letendre, Pharm.D., Donald J. Morrissey, Jr. and Mark L. Smith. The employment agreements provide that we may terminate the employee at any time with or without cause. However, if the employee's employment is terminated without cause or terminated by the employee for good reason, then the employee shall be entitled to receive a severance package consisting of:

salary continuation for a period of 12 months from the date of termination; and

reimbursement for the cost of continued medical insurance coverage through the end of this 12 month period or, if earlier, the date on which the employee obtains alternative group health insurance.

Table of Contents

Upon a change in control of us, each of the employment agreements provide that the employee shall be entitled to acceleration of vesting of 50% of the employee's outstanding unvested options to purchase our common stock. If the employee's employment is terminated without cause or terminated by the employee for good reason within one month before or 13 months following a change of control of us, then the employee shall be entitled to the following benefits:

salary continuation for a period of 12 months (or 18 months with respect to Mr. Collins and Dr. Janjic) from the date of termination;

reimbursement for the cost of continued medical insurance coverage through the end of this 12 month period (or 18 month period with respect to Mr. Collins and Dr. Janjic) or if earlier, the date on which the employee obtains alternative group health insurance; and

acceleration of vesting of all of the employee's outstanding unvested options to purchase our common stock.

In addition, if Mr. Collins' employment is terminated without cause or terminated by him for good reason within one month before or 13 months following a change of control of us, then he would be entitled to payment of a bonus equal to the average of his annual bonus for the two years prior to such termination.

Under these employment agreements, the annual base salary and bonus eligibility of each employee is as follows:

Officer	Base Salary	Bonus Eligibility
Kenneth J. Collins	\$ 350,000	50% of Base Salary
Roger M. Echols, M.D.	\$ 345,000	30% of Base Salary
Nebojsa Janjic, Ph.D.	\$ 275,000	30% of Base Salary
Peter W. Letendre, Pharm.D.	\$ 295,000	40% of Base Salary
Donald J. Morrissey, Jr.	\$ 240,000	30% of Base Salary
Mark L. Smith	\$ 280,000	30% of Base Salary

Under the employment agreements, the employee's eligibility to receive an annual performance bonus is based upon the employee's achievement of milestones and objectives established by us, as determined by our board of directors in its sole discretion.

In the employment agreement with Mr. Smith, we have agreed to reimburse Mr. Smith for certain relocation and temporary housing costs.

Confidential Information and Inventions Agreement

Each of our named executive officers has also entered into a standard form agreement with respect to confidential information and inventions. Among other things, this agreement obligates each named executive officer to refrain from disclosing any of our confidential information received during the course of employment and, with some exceptions, to assign to us any inventions conceived or developed during the course of employment.

Employee Benefit Plans***2006 Equity Incentive Plan***

On June 1, 2006, our board adopted our 2006 Equity Incentive Plan, or 2006 Incentive Plan, as an amendment and restatement of our Amended and Restated 2001 Long-Term Incentive Plan, or the Original Plan. Subject to stockholder approval, the 2006 Incentive Plan will become effective immediately upon the effective date of this offering. The 2006 Incentive Plan will terminate on May 31, 2016, unless sooner terminated by our board of directors.

Table of Contents

Stock Awards. The 2006 Incentive Plan provides for the grant of incentive stock options, nonstatutory stock options, restricted stock awards, restricted stock unit awards, stock appreciation rights, performance stock awards and other forms of equity compensation (together, stock awards), as well as performance cash awards (performance cash awards and together with stock awards, awards), which may be granted to employees, including officers, non-employee directors and consultants. However, participation in the non-discretionary grant program is limited to the non-employee directors (see Non-Discretionary Grant Program below).

As of May 31, 2006, options to purchase 1,779,318 shares of common stock at a weighted average exercise price per share of \$3.12 were outstanding under the Original Plan. All outstanding awards under the Original Plan will automatically become subject to the terms and conditions of the 2006 Incentive Plan on the effective date of this offering.

Share Reserve. Following this offering, the aggregate number of shares of common stock that may be issued pursuant to stock awards under the 2006 Incentive Plan is 7,137,030 shares. This number includes shares subject to stock awards outstanding under the Original Plan as of the effective date of the underwriting agreement, which awards will become subject to the 2006 Incentive Plan as of such effective date. Subject to approval by our board of directors of such increase by no later than March 31st of each year, the number of shares of common stock reserved for issuance will increase, effective as of January 1st, from January 1, 2007 through and including January 1, 2016, by the lesser of (a) 5% of the total number of shares of common stock outstanding on December 31st of the preceding calendar year or (b) 1,325,448 shares, or such lesser amount as determined by the board. The maximum number of shares that may be issued pursuant to the exercise of incentive stock options under the 2006 Incentive Plan is equal to the total share reserve, as increased from time to time pursuant to any annual increase.

Under the 2006 Incentive Plan, no person may be granted stock awards whose value is determined by reference to an increase over an exercise or strike price of at least 100% of the fair market value of the common stock on the date of grant under the 2006 Incentive Plan covering more than _____ shares of common stock during any calendar year. Such limitation is designed to ensure that any deductions to which we would otherwise be entitled upon the exercise of such stock options and stock appreciation rights, will not be subject to the \$1.0 million limitation on the income tax deductibility of compensation paid to certain executive officers imposed by Section 162(m) of the Internal Revenue Code.

The following types of shares issued under the 2006 Incentive Plan (including shares subject to awards originally issued under the Original Plan and outstanding at the effective date of the underwriting agreement) may again become available for the grant of new awards under the 2006 Incentive Plan: (a) shares that are forfeited to or repurchased by us prior to becoming fully vested; (b) shares subject to stock awards that are settled in cash; (c) shares withheld to satisfy income and employment withholding taxes; (d) shares used to pay the exercise price of an option in a net exercise arrangement; (e) shares tendered to us to pay the exercise price of an option; and (f) shares that are cancelled pursuant to an exchange or repricing program. In addition, if a stock award granted under the 2006 Incentive Plan (including a stock award originally granted under the Original Plan and outstanding at the effective date of the underwriting agreement) expires or otherwise terminates without being exercised in full, the shares of common stock not acquired pursuant to the award again become available for subsequent issuance under the 2006 Incentive Plan. Shares issued under the 2006 Incentive Plan may be previously unissued shares or reacquired shares, including shares bought by us on the open market.

Administration. Our board of directors has delegated its authority to administer the 2006 Incentive Plan (except the non-discretionary grant program) to our compensation committee. Subject to the terms of the 2006 Incentive Plan, our board of directors or an authorized committee determines recipients, dates of grant, the numbers and types of equity awards to be granted, and the terms and conditions of the equity awards, including the period of their exercisability and vesting. Subject to the limitations set forth below, the board of directors will also determine the exercise price of options granted and the strike price of stock appreciation rights.

Table of Contents

The board of directors has the authority to reduce the exercise price of any outstanding option or the strike price of any stock appreciation right, with the consent of any adversely affected optionee; cancel any outstanding option or stock appreciation right and to grant in exchange one or more of (i) new options or stock appreciation rights covering the same or a different number of shares of common stock, (ii) new stock awards, (iii) cash, and/or (iv) other valuable consideration; or engage in any action that is treated as a repricing under generally accepted accounting principles.

Stock Options. Incentive and nonstatutory stock options are granted pursuant to incentive and nonstatutory stock option agreements. The board of directors determines the exercise price for a stock option, within the terms and conditions of the 2006 Incentive Plan and applicable law, provided that the exercise price of an incentive stock option and nonstatutory stock option cannot be less than 100% of the fair market value of our common stock on the date of grant. Options granted under the 2006 Incentive Plan vest at the rate specified by the board of directors.

Generally, the board of directors determines the term of stock options granted under the 2006 Incentive Plan, up to a maximum of ten years (except in the case of certain incentive stock options, as described below). Unless the terms of an optionee's stock option agreement provide otherwise, if an optionee's relationship with us, or any of our affiliates, ceases for any reason other than disability or death, the optionee may exercise any vested options for a period of three months following the cessation of service. If an optionee's service relationship with us, or any of our affiliates, ceases due to disability or death, the optionee or a beneficiary may exercise any vested options for a period of 12 months. In no event, however, may an option be exercised beyond the expiration of its term.

Acceptable consideration for the purchase of common stock issued upon the exercise of a stock option will be determined by the board of directors and may include (a) cash, check, bank draft or money order, (b) a broker-assisted cashless exercise, (c) the tender of common stock previously owned by the optionee, (d) a net exercise of the option and (e) other legal consideration approved by the board of directors.

Unless the board of directors provides otherwise, options generally are not transferable except by will, the laws of descent and distribution, or pursuant to a domestic relations order. An optionee may designate a beneficiary, however, who may exercise the option following the optionee's death.

Tax Limitations on Incentive Stock Option Grants. The aggregate fair market value, determined at the time of grant, of shares of our common stock with respect to incentive stock options that are exercisable for the first time by an optionee during any calendar year under all of our stock plans may not exceed \$100,000. No incentive stock option may be granted to any person who, at the time of the grant, owns or is deemed to own stock possessing more than 10% of our total combined voting power or that of any of our affiliates unless (a) the option exercise price is at least 110% of the fair market value of the stock subject to the option on the date of grant, and (b) the term of the incentive stock option does not exceed five years from the date of grant.

Restricted Stock Awards. Restricted stock awards are granted pursuant to restricted stock award agreements. A restricted stock award may be granted in consideration for the recipient's past or future services performed for us or our affiliates or any other form of legal consideration acceptable to the board of directors. Payment of any purchase price for stock under a restricted stock award may be made in any form permitted under applicable law; however, we will settle a payment due to a recipient of a restricted stock award by cash, delivery of stock, a combination of cash and stock as deemed appropriate by the board of directors, or in any other form of consideration set forth in the restricted stock award agreement. Shares of common stock acquired under a restricted stock award may, but need not, be subject to forfeiture to us in accordance with a vesting schedule to be determined by the board of directors. Rights to acquire shares under a restricted stock award may be transferred only upon such terms and conditions as set by the board of directors.

Restricted Stock Unit Awards. Restricted stock unit awards are granted pursuant to restricted stock unit award agreements. A restricted stock unit award may be granted in consideration for any form

Table of Contents

of legal consideration acceptable to the board of directors. Payment of any purchase price may be made in any form permitted under applicable law; however, we will settle a payment due to a recipient of a restricted stock unit award by cash, delivery of stock, a combination of cash and stock as deemed appropriate by the board of directors, or in any other form of consideration set forth in the restricted stock unit award agreement. Additionally, dividend equivalents may be credited in respect of shares covered by a restricted stock unit award. Except as otherwise provided in the applicable award agreement, restricted stock units that have not vested will be forfeited upon the participant's cessation of continuous service for any reason.

Stock Appreciation Rights. Stock appreciation rights are granted pursuant to stock appreciation rights agreements. The board of directors determines the strike price for a stock appreciation right, except that the strike price of a stock appreciation right granted as a stand-alone or tandem stock award cannot be less than 100% of the fair market value of the common stock equivalents on the date of grant. Upon exercise of a stock appreciation right, we will pay the participant an amount equal to the excess of (i) the aggregate fair market value of our common stock on the date of exercise, over (ii) the strike price determined by the board of directors on the date of grant. A stock appreciation right granted under the 2006 Incentive Plan vests at the rate specified in the stock appreciation right agreement as determined by the board of directors.

The board of directors determines the term of stock appreciation rights granted under the 2006 Incentive Plan, but in no event are stock appreciation rights exercisable after the expiration of ten years from the date of grant. If a participant's service relationship with us, or any of our affiliates, ceases, then the participant, or the participant's beneficiary, may exercise any vested stock appreciation right for three months (or such longer or shorter period specified in the stock appreciation right agreement) after the date such service relationship ends. In no event, however, may an option be exercised beyond the expiration of its term.

Performance Awards. The 2006 Incentive Plan allows our board of directors to issue performance stock awards and performance cash awards that qualify as performance-based compensation that is not subject to the income tax deductibility limitations imposed by Section 162(m) of the Internal Revenue Code, if the issuance of such stock or cash is approved by the compensation committee and the grant or vesting of one or more stock awards and the delivery of such cash is tied solely to the attainment of certain performance goals during a designated performance period. To assure that the compensation attributable to one or more restricted stock awards, restricted stock unit awards, or performance awards will qualify as performance-based compensation that will not be subject to the \$1.0 million limitation on the income tax deductibility of the compensation paid to certain executive officers imposed by Section 162(m) of the Internal Revenue Code, our compensation committee has the authority to structure one or more such awards so that stock or cash will be issued or paid pursuant to the award only upon the achievement of certain pre-established performance goals. The maximum benefit to be received by a participant in any calendar year attributable to performance stock awards may not exceed 3,568,515 shares of common stock. The maximum benefit to be received by a participant in any calendar year attributable to performance cash awards may not exceed \$2.0 million.

Other Equity Awards. Our board of directors may grant other awards valued in whole or in part by reference to our common stock. Our board of directors will set the number of shares under the award, the purchase price, if any, the timing of exercise and vesting and any repurchase rights associated with such awards.

Non-Discretionary Grant Program. The 2006 Incentive Plan provides for the automatic grant of stock options to non-employee members of our board of directors. Pursuant to the non-discretionary grant program under the proposed 2006 Incentive Plan, eligible non-employee members of our board of directors will receive a series of stock awards over their period of service on the board of directors. Those stock awards will be made as follows:

Initial Option Grant. Each non-employee member of our board of directors who has been a non-employee member of our board of directors for at least 12 months as of the effective

Table of Contents

date of this offering will, on the effective date of this offering, receive an option to purchase 16,313 shares of our common stock. In addition, each new non-employee member of our board of directors elected or appointed after the effective date of this offering will, at the time of his or her initial election or appointment to the board of directors, receive an option to purchase 16,313 shares of our common stock. An option grant described in this paragraph is referred to as an initial option grant.

Annual Awards. On the date of each annual meeting of our stockholders, commencing with the annual meeting in 2007 (the annual award date), each non-employee member of our board of directors who has been a non-employee member of our board of directors for at least six months as of the date of such annual meeting, will be automatically granted a stock award (the annual award) as follows:

Form of Annual Award. The annual award will be either in the form of a nonstatutory stock option grant or restricted stock award. In the calendar year prior to the grant of an annual award, the board of directors decides whether the annual award will be in the form of a nonstatutory stock option or restricted stock award. If the board of directors does not make such a determination by December 31st of the preceding calendar year, the annual awards to be granted in the subsequent calendar year will be granted in the form of a nonstatutory stock option.

Number of Shares for Annual Awards. If the annual award is in the form of a nonstatutory stock option (the annual option grant), each non-employee director receiving an annual award will receive an option to purchase 8,156 shares of our common stock. If the annual award is in the form of a restricted stock award, the annual award will not be more favorable to a non-employee director than that number of unvested shares of our common stock equal to the quotient obtained by dividing (a) the fair value of an annual option grant at such time, as determined under generally accepted accounting principles and using the option pricing model employed by us for purposes of estimating the value of compensatory stock options, by (b) the fair market value of our common stock on the date of grant. In addition, the board of directors has the authority to provide that the issuance of an annual award will be delivered in a restricted stock unit award with shares to be delivered when shares would have otherwise vested under the restricted stock award.

Terms of Non-Discretionary Grant Program Options. The exercise price of each option granted under the non-discretionary grant program shall be equal to 100% of the fair market value of the common stock subject to the option on the date of grant. The maximum term of options granted under the non-discretionary grant program is 10 years. Vesting ceases when the optionee is no longer in our service as a director, employee or consultant. The remaining terms and conditions of each option is set forth in an option agreement in the form adopted from time to time by the board of directors.

Terms of Non-Discretionary Grant Program Restricted Stock Awards and Restricted Stock Unit Awards. Restricted stock awards and Restricted Stock Unit Awards under the non-discretionary grant program are granted in consideration for past or future services rendered to us or any of our affiliates. Vesting ceases when the optionee is no longer in our service as a director, employee or consultant. The remaining terms and conditions of each restricted stock award and restricted stock unit award is set forth in the restricted stock award agreement or restricted stock unit award agreement, in the form adopted from time to time by the Board.

Change in Control. In the event of certain significant corporate transactions constituting a change in control, the vesting of stock awards granted under the non-discretionary grant program will automatically accelerate in full, unless provided otherwise in an applicable award agreement.

Table of Contents

Changes to Capital Structure. If any change is made to the outstanding shares of our common stock without our receipt of consideration (whether through a stock split or other specified change in our capital structure), appropriate adjustments will be made to: (i) the maximum number and/or class of securities issuable under the 2006 Incentive Plan; (ii) the maximum number and/or class of securities that may be issued pursuant to the exercise of incentive stock options under the 2006 Incentive Plan; (iii) the maximum number and/or class of securities for which any one person may be granted stock awards per calendar year pursuant to the section 162(m) limitation; (iv) the number and/or class of securities for which stock awards are subsequently to be made under the non-discretionary grant program to new and continuing non-employee members of the board of directors; and (v) the number and/or class of securities and the price per share in effect under each outstanding stock award under the 2006 Incentive Plan (including shares subject to awards originally issued under the Original Plan and outstanding at the effective date of the underwriting agreement).

Corporate Transactions. In the event of certain significant corporate transactions, outstanding stock awards under the 2006 Incentive Plan may be assumed, continued or substituted for by any surviving or acquiring entity (or its parent company). If the surviving or acquiring entity (or its parent company) elects not to assume, continue or substitute for such stock awards, then (a) with respect to any such stock awards that are held by individuals whose service with us or our affiliates has not terminated prior to the effective date of the corporate transaction, the vesting and exercisability provisions of such stock awards will be accelerated in full and such awards will be terminated if not exercised prior to the effective date of the corporate transaction, and (b) all other outstanding stock awards will terminate if not exercised prior to the effective date of the corporate transaction. Our board of directors may also provide that the holder of an outstanding stock award not assumed in the corporate transaction will surrender such stock award in exchange for a payment equal to the excess of (a) the value of the property that the stock award would have received upon exercise of the stock award, over (b) the exercise price otherwise payable in connection with the stock award.

Changes in Control. Our board of directors has the discretion to provide that a stock award under the 2006 Incentive Plan may be subject to additional acceleration of vesting and exercisability upon or after certain specified change in control transactions. Stock awards held by participants under the 2006 Incentive Plan will not vest on such an accelerated basis unless specifically provided by the participant's applicable award agreement. However, the board of directors expects that most award agreements under the 2006 Incentive Plan will provide that, if the participant's service is terminated within 13 months after a specified change in control transaction, the vesting of the award will accelerate as if the participant had remained employed for an additional 12 months after such termination. Most of the awards originally issued under the Original Plan contain a similar vesting acceleration provision.

2006 Employee Stock Purchase Plan

Our board of directors adopted our 2006 Employee Stock Purchase Plan on June 1, 2006, and the 2006 Employee Stock Purchase Plan will be submitted to our stockholders for their approval prior to the commencement of the initial offering under the plan. The 2006 Employee Stock Purchase Plan will be effective immediately upon the closing of this offering.

Share Reserve. The board of directors authorized the issuance of 305,872 shares of our common stock pursuant to purchase rights granted to eligible employees under the 2006 Employee Stock Purchase Plan. Subject to approval by our board of directors of such increase by no later than March 31st of each year, on January 1st of each year for ten years, beginning on January 1, 2007, through and including January 1, 2016, the number of shares in the reserve will be increased by the lesser of (i) 1% of our outstanding shares on December 31st of the prior year or (ii) 101,957 shares of common stock, or such lesser amount approved by the board of directors.

Eligibility. The 2006 Employee Stock Purchase Plan is intended to qualify as an employee stock purchase plan within the meaning of Section 423 of the Internal Revenue Code. The 2006 Employee Stock Purchase Plan provides a means by which eligible employees may purchase our common stock

Table of Contents

through payroll deductions. We will implement the 2006 Employee Stock Purchase Plan by offerings of purchase rights to eligible employees. Generally, all of our employees and the employees of our affiliates incorporated in the U.S., who are employed at least 20 hours a week and at least five months per calendar year, may participate in offerings under the purchase plan. However, no employee may participate in the 2006 Employee Stock Purchase Plan if, immediately after we grant the employee a purchase right, the employee has voting power over 5% or more of our outstanding capital stock.

Offerings. The board of directors has the authority to set the terms of each offering under the 2006 Employee Stock Purchase Plan. The board may specify offerings of up to 27 months where common stock is purchased for accounts of participating employees at a price per share equal to the lower of:

85% of the fair value of a share on the first day of the offering, or

85% of the fair value of a share on the purchase date.

The first offering under the 2006 Employee Stock Purchase Plan will begin on the effective date of this initial public offering and we expect the first offering will be for approximately six months, with one purchase date at the end of such offering. The fair market value of the shares on the first date of the offering will be the price per share at which our shares are first sold to the public as specified in this prospectus. Otherwise, fair market value generally means the closing sales price (rounded up where necessary to the nearest whole cent) for such shares (or the closing bid, if no sales were reported) as quoted on the Nasdaq National Market or the Nasdaq Small Cap Market on the last trading day preceding the relevant determination date, as reported in The Wall Street Journal.

Eligible employees will purchase our stock at the lower of:

85% of the market value of a share on the day they began participating in the purchase plan, or

85% of the market value of a share on the purchase date.

The board of directors may permit participants under the terms of an offering to authorize payroll deductions of up to 20% of their base compensation for the purchase of stock under the plan. Under the initial offering, the maximum percentage will be 12% of base compensation. If expressly permitted by the terms of an offering, participants may make a cash payment to purchase shares on specified purchase dates under the offering. Participants may end their participation in an offering at any time prior to a purchase date. Their participation ends automatically on termination of their employment.

Other Provisions. A participant's right to purchase our stock under the 2006 Employee Stock Purchase Plan, plus any other employee stock purchase plans intended to qualify under Section 423 of the Internal Revenue Code established by us or by our affiliates, is limited. The right may accrue to any participant at a rate of no more than \$25,000 worth of our stock for each calendar year in which purchase rights are outstanding. We determine the fair market value of our stock, for the purpose of this limitation, as of the first day of the offering.

Upon a change of control, the board of directors may provide that the successor corporation will assume or substitute for outstanding purchase rights. Alternatively, if a successor corporation does not assume or substitute for outstanding purchase rights, accumulated contributions shall be used to purchase our stock for the participants immediately before the change of control and purchase rights under any ongoing offerings shall terminate immediately after such purchase.

Shares Issued. As of the date hereof, no shares of common stock have been purchased under the purchase plan.

Plan Termination. The 2006 Employee Stock Purchase Plan will terminate on May 31, 2016, unless the board of directors, in its discretion, earlier terminates the 2006 Employee Stock Purchase Plan.

Table of Contents

401(k) Plan

We maintain a defined contribution employee retirement plan for our employees. The plan is intended to qualify as a tax-qualified plan under Section 401(k) of the Internal Revenue Code. The plan provides that each participant may contribute up to 12% of his or her pre-tax compensation, up to a statutory limit, which is generally \$15,000 for calendar year 2006. Participants that are 50 years or older can also make catch-up contributions, which in calendar year 2006 may be up to an additional \$5,000 above the statutory limit. Under the plan, each employee is fully vested in his or her deferred salary contributions. Employee contributions are held and invested by the plan's trustee. The plan also permits us to make discretionary contributions and matching contributions, subject to established limits and a vesting schedule. To date, we have not made any discretionary or matching contributions to the plan on behalf of participating employees. However, upon the closing of this offering, we plan to match 50% of employee contributions up to \$2,000 per year.

Limitation of Liability and Indemnification

Our amended and restated certificate of incorporation, which will become effective upon the closing of this offering, limits the liability of directors to the maximum extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability for any:

breach of their duty of loyalty to the corporation or its stockholders;

act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;

unlawful payment of dividends or redemption of shares; or

transaction from which the directors derived an improper personal benefit.

These limitations of liability do not apply to liabilities arising under federal securities laws and do not affect the availability of equitable remedies such as injunctive relief or rescission.

Our amended and restated bylaws, which will become effective upon the closing of this offering, provide that we will indemnify our directors and executive officers, and may indemnify other officers, employees and other agents, to the fullest extent permitted by law. Our amended and restated bylaws also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in connection with their services to us, regardless of whether our amended and restated bylaws permit such indemnification. We have obtained a policy of directors' and officers' liability insurance.

We have entered, and intend to continue to enter, into separate indemnification agreements with our directors and executive officers, in addition to the indemnification provided for in our amended and restated bylaws. These agreements, among other things, require us to indemnify our directors and executive officers for certain expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or executive officer in any action or proceeding arising out of their services as one of our directors or executive officers, or to any of our subsidiaries or to any other company or enterprise to which the person provides services at our request.

At present, there is no pending litigation or proceeding involving any of our directors or executive officers as to which indemnification is required or permitted, and we are not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, executive officers or persons controlling us, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Table of Contents

RELATED PARTY TRANSACTIONS

The following includes a description of transactions since January 1, 2003 and certain transactions prior to that date to which we have been a party, in which the amount involved in the transaction exceeds \$60,000, and in which any of our directors, executive officers, or holders of more than 5% of our capital stock had or will have a direct or indirect material interest other than equity and other compensation, termination, change-in control and other arrangements, which are described under Management. We believe the terms obtained or consideration that we paid or received, as applicable, in connection with the transactions described below were comparable to terms available or the amounts that would be paid or received, as applicable, in arm's-length transactions.

All share and per share amounts pertaining to common stock have been retroactively adjusted to give effect to a one-for-4.904 reverse stock split of our common stock to be effected before the closing of this offering. As a result of the one-for-4.904 reverse stock split to be effected before the completion of this offering, each share of outstanding preferred stock is convertible into 0.204 of a share of our common stock. The one-for-4.904 reverse stock split of our common stock adjusted the conversion ratio of the preferred stock but did not adjust the number of outstanding shares of preferred stock.

Preferred Stock Issuances

In February 2002, we issued and sold to investors an aggregate of 13,000,000 shares of Series A preferred stock at a purchase price of \$1.00 per share, for aggregate consideration of \$13,000,000. Upon the closing of this offering, these shares will convert into 2,650,895 shares of common stock.

In June 2003, we issued and sold to investors an aggregate of 4,000,000 shares of Series B preferred stock at a purchase price of \$1.25 per share, for aggregate consideration of \$5,000,000, all of which was paid to us through the transfer of certain assets. Upon the closing of this offering, these shares will convert into 815,660 shares of common stock.

In April 2004, with subsequent closings in August 2004, September 2004 and November 2004, we issued and sold to investors an aggregate of 36,800,000 shares of Series C preferred stock at a purchase price of \$1.25 per share, for aggregate consideration of \$46,000,000, including \$7,000,000 of converted indebtedness. Upon the closing of this offering, these shares will convert into 7,504,074 shares of common stock.

In August 2005, we issued and sold to investors an aggregate of 34,722,722 shares of Series D preferred stock at a purchase price of \$1.80 per share, for aggregate consideration of \$62,499,999.60. Upon the closing of this offering, these shares will convert into 7,080,380 shares of common stock.

Table of Contents

The participants in these preferred stock financings included the following directors, executive officers and holders of more than 5% of our capital stock or entities affiliated with them. The following table presents the number of shares issued to these related parties in these financings:

Stockholder(1)	Series A Preferred	Series C Preferred	Series D Preferred
Holders of More than 5%			
HealthCare Investment Partners Holdings III, LLC			5,555,556
Entities affiliated with HealthCare Ventures VI, L.P.(2)	8,250,300	7,200,000	3,447,188
Morgenthaler Partners VII, L.P.	2,000,000	6,400,000	1,874,163
OZ Master Fund, Ltd.			7,777,778
Perseus-Soros Biopharmaceutical Fund, LP		5,600,000	1,110,554
Entities affiliated with Sequel Limited Partnership III(3)	2,000,000	3,200,000	1,160,196
Entities affiliated with TPG Biotechnology Partners, L.P.(4)		9,600,000	2,705,756
Entities affiliated with Duquesne Capital Management LLC(5)			6,388,889

- (1) Additional detail regarding these stockholders and their equity holdings is provided in Principal Stockholders.
- (2) Includes: (a) 8,250,300 shares of Series A preferred stock held by HealthCare Ventures VI, L.P.; (b) 7,200,000 shares of Series C preferred stock held by HealthCare Ventures VI, L.P.; and (c) 3,447,188 shares of Series D preferred Stock held by HealthCare Ventures VIII, L.P. Upon completion of this offering, these shares will convert into 3,853,483 shares of common stock.
- (3) Includes: (a) 1,945,920 shares of Series A preferred stock held by Sequel Limited Partnership III; (b) 54,080 shares of Series A preferred stock held by Sequel Entrepreneurs Fund III, L.P.; (c) 3,113,472 shares of Series C preferred stock held by Sequel Limited Partnership III; (d) 86,528 shares of Series C preferred stock held by Sequel Entrepreneurs Fund III, L.P.; (e) 1,128,824 shares of Series D preferred stock held by Sequel Limited Partnership III; and (f) 31,372 shares of Series D preferred stock held by Sequel Entrepreneurs Fund III, L.P. Upon completion of this offering, these shares will convert into 1,296,938 shares of common stock.
- (4) Includes: (a) 2,880,000 shares of Series C preferred stock held by TPG Ventures, L.P.; (b) 6,720,000 shares of Series C preferred stock held by TPG Biotechnology Partners, L.P.; (c) 811,727 shares of Series D preferred stock held by TPG Ventures, L.P.; and (d) 1,894,029 shares of Series D preferred stock held by TPG Biotechnology Partners, L.P. Upon completion of this offering, these shares will convert into 2,509,328 shares of common stock.
- (5) Includes: (a) 1,111,111 shares of Series D preferred stock held by Juggernaut Fund, L.P.; (b) 211,111 shares of Series D preferred stock held by Iron City Fund, Ltd.; and (c) 5,066,667 shares of Series D preferred stock held by Windmill Master Fund, L.P. Upon completion of this offering, these shares will convert into 1,302,790 shares of common stock.

In each of these preferred stock financings, we entered into or amended various stockholder agreements with the holders of our preferred stock relating to voting rights, information rights, rights of first refusal and registration rights, among other things. These stockholder agreements will terminate upon the closing of this offering, except for the registration rights granted under our fourth amended and restated stockholders agreement, as more fully described in Description of Capital Stock Registration Rights.

Table of Contents

Some of our directors are associated with our principal stockholders as indicated in the table below:

Director	Principal Stockholder
Henry Wendt	HealthCare Investment Partners
Augustine Lawlor	HealthCare Ventures VI, L.P.
Ralph E. Christoffersen, Ph.D.	Morgenthaler Partners VII, L.P.
Daniel J. Mitchell	Sequel Limited Partnership III
Geoffrey Duyk M.D., Ph.D.	TPG Biotechnology Partners, L.P.

Secured Bridge Financing

In December 2003, as part of a secured loan financing, we issued convertible promissory notes in an aggregate principal amount of \$7.0 million to certain investors in five tranches.

The notes were secured by substantially all of our assets, accrued interest at 6% per year and were automatically convertible into shares of our Series C preferred stock in the event we completed a Series C preferred stock financing of at least \$12.0 million. All convertible promissory notes were terminated in connection with our Series C preferred stock financing in April 28, 2004, with subsequent closings on August 12, 2004, September 14, 2004 and November 12, 2004, and all principal and unpaid interest accrued under the notes converted into shares of our Series C preferred stock.

In connection with the secured loan financing, we issued warrants to the investors that were exercisable for a number of shares of our Series C preferred stock determined based on the conversion price at which the notes were to be converted. For a description of these warrants, see Description of Capital Stock Warrants. In February 2006, HealthCare Ventures VI, L.P. exercised its warrant to purchase 80,001 shares of Series C preferred stock.

The following table sets forth the names of our directors, executive officers or holders of more than 5% of our capital stock who participated in our secured loan financing, the principal amount of each loan and the number of shares of our Series C preferred stock issued upon conversion of the loans.

Holders of More Than 5%	Principal Amount of Loan	Shares of Series C Preferred Stock Issued upon Conversion
HealthCare Ventures VI, L.P.	\$ 2,800,000	2,240,000
Morgenthaler Partners, VII, L.P.	\$ 2,800,000	2,240,000
Entities affiliated with Sequel Limited Partnership III(1)	\$ 1,400,000	1,120,000

(1) Includes: (a) a loan of \$1,362,144 from Sequel Limited Partnership III and 1,089,715 shares of Series C preferred stock issued upon conversion; and (b) a loan of \$37,856 from Sequel Entrepreneurs Fund III, L.P. and 30,285 shares of Series C preferred stock issued upon conversion.

Loans

We loaned Nebojsa Janjic, Ph.D., our current Chief Scientific Officer, \$137,500.00 pursuant to a promissory note dated March 8, 2005. The note accrued interest at an adjustable rate equal to the prime rate. Dr. Janjic paid us \$146,321.24 on February 28, 2006, in full satisfaction of amounts owing under the note.

We loaned Kenneth J. Collins, our current President and Chief Executive Officer, \$218,750.00 pursuant to a promissory note dated March 8, 2005. The note accrued interest at an adjustable rate equal to the prime rate. Mr. Collins paid us \$232,783.79 on February 28, 2006, in full satisfaction of amounts owing under the note.

Table of Contents

Amended and Restated Stockholders Agreement

We have entered into a fourth amended and restated stockholders agreement with the purchasers of our outstanding preferred stock and certain holders of common stock and warrants to purchase our preferred stock, including entities with which certain of our directors are affiliated. As of May 31, 2006, the holders of 19,302,666 shares of our common stock, including the shares of common stock issuable upon the automatic conversion of our preferred stock and shares of common stock issued upon exercise of warrants, are entitled to rights with respect to the registration of their shares under the Securities Act. For a description of these registration rights, see Description of Capital Stock Registration Rights.

Other Transactions

We have entered into employment agreements with our executive officers. For a description of these employment agreements, see Management Employment Contracts, Termination of Employment and Change in Control Arrangements.

We have granted stock options to our directors and executive officers. For a description of these options, see Management Director Compensation and Management Executive Compensation.

We have entered into indemnification agreements with our directors and executive officers. For a description of these agreements, see Management Limitation of Liability and Indemnification.

Table of Contents**PRINCIPAL STOCKHOLDERS**

The following table sets forth information regarding beneficial ownership of our capital stock by:

each person, or group of affiliated persons, known by us to beneficially own more than 5% of our common stock;

each of our directors;

each of our named executive officers; and

all of our directors and executive officers as a group.

The percentage ownership information shown in the table is based upon (1) shares outstanding as of May 31, 2006, (2) the conversion of all outstanding shares of our preferred stock into 18,067,322 shares of common stock upon the completion of this offering, (3) the issuance of 5,000,000 shares of common stock in this offering and (4) the issuance of 1,182,332 shares of common stock to the holders of our Series A, B, C and D convertible preferred stock upon the closing of this offering in satisfaction of accumulated dividends, assuming for this purpose that the closing of this offering occurs June 30, 2006 and the initial public offering price is \$15.00 per share. The percentage ownership information assumes no exercise of the underwriters' over-allotment option.

Each individual or entity shown in the table has furnished information with respect to beneficial ownership. We have determined beneficial ownership in accordance with the SEC's rules. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. In addition, the rules include shares of common stock issuable pursuant to the exercise of stock options or warrants that are either immediately exercisable or exercisable on July 30, 2006, which is 60 days after May 31, 2006. These shares are deemed to be outstanding and beneficially owned by the person holding those options or warrants for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person. All of the options held by the executive officers and directors are exercisable at any time but, if exercised, are subject to a lapsing right of repurchase until the options are fully vested. Unless otherwise indicated, the persons or entities identified in this table have sole voting and investment power with respect to all shares shown as beneficially owned by them, subject to applicable community property laws.

Except as otherwise noted below, the address for each person or entity listed in the table is c/o Replidyne, Inc., 1450 Infinite Drive, Louisville, Colorado 80027.

Name and Address of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned	
		Before Offering	After Offering
5% Stockholders			
Duquesne Capital Management LLC and its affiliates(1)	1,302,790	6.47%	5.00%
HealthCare Investment Partners Holdings II LLC(2)	1,132,862	5.62%	4.46%
HealthCare Ventures VI, L.P.(3)	3,869,796	19.21%	16.00%
Morgenthaler Partners VII, L.P.(4)	2,095,057	10.47%	8.40%
OZ Master Fund, Ltd(5)	1,586,006	7.87%	6.27%
Perseus-Soros Biopharmaceutical Fund, LP(6)	1,368,382	6.79%	5.50%
Sequel Limited Partnership III and its affiliates(7)	1,296,938	6.48%	5.54%
TPG Biotechnology Partners, L.P. and its affiliates(8)	2,509,328	12.46%	10.24%
Named Executive Officers and Directors			

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Kenneth J. Collins(9)	530,176	2.63%	2.01%
Kirk K. Calhoun	0	*	*
Ralph E. Christoffersen Ph.D.(4)	2,095,057	10.47%	8.40%

Table of Contents

Name and Address of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned	
		Before Offering	After Offering
Geoffrey Duyk M.D., Ph.D.(8)	2,509,328	12.46%	10.24%
Christopher D. Earl Ph.D.(10)	0	*	*
Augustine Lawlor(3)	3,869,796	19.21%	16.00%
Daniel J. Mitchell(7)	1,296,938	6.48%	5.54%
Henry Wendt(2)	1,132,862	5.62%	4.46%
Roger M. Echols M.D.(11)	101,957	*	*
Nebojsa Janjic Ph.D.(12)	397,633	1.97%	1.51%
Peter W. Letendre Pharm.D.(13)	0	*	*
Donald J. Morrissey, Jr.(14)	100,258	*	*
Mark Smith	0	*	*
All directors and executive officers as a group (13 persons)(15)	1,130,024	6.13%	4.69%

* Represents beneficial ownership of less than 1%.

- (1) Includes 1,033,170 shares held by Windmill Master Fund, L.P., 226,572 shares held by Juggernaut Fund, L.P. and 43,048 shares held by Iron City Fund, Ltd. The Chairman and Chief Executive Officer of Duquesne Capital Management LLC, Stanley F. Druckenmiller, possesses voting and investment authority over these shares. The address for all entities and individuals affiliated with Duquesne Capital Management LLC is 2579 Washington Road, Suite 322, Pittsburgh, PA 15241.
- (2) HealthCare Investment Partners LLC is the managing member of HealthCare Investment Partners Holdings II LLC. The managing members of HealthCare Investment Partners LLC, Henry Wendt, Edward Brown and Reid Perper, share voting and investment authority with respect to these shares. Mr. Wendt disclaims beneficial ownership of these shares except to the extent of his proportionate pecuniary interest in these securities. The address for all entities and individuals affiliated with HealthCare Investment Partners Holdings II LLC is 400 West Dry Creek Road, Healdsburg, CA 95448.
- (3) Includes 702,933 shares held by HealthCare Ventures VIII, L.P. HealthCare Ventures VI, L.P. disclaims beneficial ownership of those shares owned by HealthCare Ventures VIII, L.P. Mr. Lawlor is a general partner of HealthCare Partners VI, L.P. which is the general partner of HealthCare Ventures VI, L.P. Mr. Lawlor shares voting and investment authority over the shares held by HealthCare Ventures VI, L.P. with Eric Aguiar, James Cavanaugh, William Crouse, John Littlechild, Christopher Mirabelli and Harold Werner. Mr. Lawlor is also a managing director of HealthCare Partners VIII LLC which is the general partner of HealthCare Partners VIII, L.P. which is the general partner of HealthCare Ventures VIII, L.P. Mr. Lawlor shares voting and investment authority over the shares held by HealthCare Ventures VIII, L.P. with Eric Aguiar, James Cavanaugh, John Littlechild, Christopher Mirabelli and Harold Werner. Mr. Lawlor disclaims beneficial ownership of these shares except to the extent of his proportionate pecuniary interest in these securities. The address for HealthCare Ventures VI, L.P. is 44 Nassau Street, Princeton, NJ 08542.
- (4) Includes 16,311 shares that Morgenthaler Partners VII, L.P. has the right to acquire from us within 60 days of May 31, 2006 pursuant to the exercise of outstanding warrants. Morgenthaler Management Partners VII, LLC is

the managing general partner of Morgenthaler Partners VII, L.P. The members of Morgenthaler Management Partners VII, LLC, Ralph E. Christoffersen, Robert C. Bellas, Jr., Greg E. Blonder, James W. Broderick, Daniel F. Farrar, Andrew S. Lanza, Theodore A. Laufik, Paul H. Levine, Gary R. Little, John D. Lutsi, Gary J. Morgenthaler, Robert D. Pavey, G. Gary Shaffer, Alfred J.V. Stanley and Peter G. Taft, share voting and investment authority over these shares. Dr. Christoffersen disclaims beneficial ownership of these shares except to the extent of his proportionate pecuniary interest in these securities. The address for Morgenthaler Partners VII, L.P. is 4430 Arapahoe Avenue, Suite 220, Boulder, CO 80303.

Table of Contents

- (5) Daniel S. Och is the Senior Managing Member of OZ Management, L.L.C., the investment manager of OZ Master Fund, Ltd. As such, Mr. Och may be deemed to exercise voting and investment discretion of the shares held by OZ Master Fund, Ltd. The address of Oz Master Fund, Ltd. is 9 West 57th Street, 39th Floor, New York, NY 10019.
- (6) Perseus-Soros Partners, LLC is the general partner of the Perseus-Soros BioPharmaceutical Fund, LP. Perseus BioTech Fund Partners, LLC and SFM Participation, L.P. are the managing members of Perseus-Soros Partners, LLC. Perseuspur, LLC is the managing member of Perseus BioTech Fund Partners, LLC. Frank Pearl is the sole member of Perseuspur, LLC and in such capacity may be deemed a beneficial owner of securities held for the account of the Perseus-Soros BioPharmaceutical Fund, LP. SFM AH, LLC is the general partner of SFM Participation, L.P. The sole managing member of SFM AH, LLC is Soros Fund Management LLC. George Soros is the Chairman of Soros Fund Management LLC and in such capacity may be deemed a beneficial owner of securities held for the account of the Perseus-Soros BioPharmaceutical Fund, LP. The address of Perseus-Soros BioPharmaceutical Fund, LP is 888 Seventh Avenue, 30th Floor, New York, New York 10106.
- (7) Includes 35,068 shares held by Sequel Entrepreneurs Fund III, L.P. Also includes 8,154 shares that Sequel Limited Partnership III and Sequel Entrepreneurs Fund III, L.P. have the right to acquire from us within 60 days of May 31, 2006 pursuant to the exercise of outstanding warrants. Sequel Venture Partners L.L.C. is the general partner of Sequel Limited Partnership III and Sequel Entrepreneurs Fund III, L.P. The managers of Sequel Venture Partners, L.L.C., Daniel Mitchell, Timothy Conner, Thomas Washing, John Greff and Kinney Johnson, share voting and investment authority over these shares. Mr. Mitchell disclaims beneficial ownership of these shares except to the extent of his proportionate pecuniary interest in these securities. The address for all entities and individuals affiliated with Sequel Limited Partnership III is 4430 Arapahoe Avenue, Suite 220, Boulder, CO 80303.
- (8) Includes 752,798 shares held by TPG Ventures, L.P. Jeff Ekberg, John Viola and David Spuria share voting authority with respect to these shares. Steve Foster, Fred Cohen, Geoffrey Duyk, Bill McGlashan, Vivek Paul, David Bonderman, Jim Coulter and Bill Price share investment authority over these shares. Dr. Duyk disclaims beneficial ownership of these shares except to the extent of his proportionate pecuniary interest in these securities. The address for all entities and individuals affiliated with TPG Biotechnology Partners, L.P. is 345 California Street, Suite 2600, San Francisco, CA 94104.
- (9) Includes 63,192 unvested shares which are subject to a right of repurchase in our favor as of July 30, 2006, 25,488 shares held by Ryan D. Collins and 25,488 shares held by Brendan C. Collins, of which Mr. Collins is custodian.
- (10) Christopher D. Earl does not have voting or dispositive power with respect to any of the shares owned by Perseus-Soros Biopharmaceutical Fund, LP.
- (11) Includes 21,241 unvested shares which are subject to a right of repurchase in our favor as of July 30, 2006.
- (12) Includes 39,721 unvested shares which are subject to a right of repurchase in our favor as of July 30, 2006.
- (13) Includes 74,768 shares Dr. Letendre has the right to acquire within 60 days of May 31, 2006 through the exercise of vested options.
- (14) Includes 35,853 shares Mr. Morrissey has the right to acquire within 60 days of May 31, 2006 through the exercise of vested options.
- (15)

Includes shares, options and warrants described in the notes above, as applicable to our directors and named executive officers. Includes an aggregate of 124,154 shares subject to a repurchase option in favor of us and an aggregate of 110,621 additional shares subject to vested options exercisable within 60 days of May 31, 2006 held by our directors and named executive officers.

Table of Contents

DESCRIPTION OF CAPITAL STOCK

Upon the closing of this offering and the filing of our amended and restated certificate of incorporation, our authorized capital stock will consist of 100,000,000 shares of common stock, par value \$0.001 per share, and 5,000,000 shares of preferred stock, par value \$0.001 per share.

The following is a summary of the rights of our common stock and preferred stock. This summary is not complete. For more detailed information, please see our amended and restated certificate of incorporation and bylaws, which are filed as exhibits to the registration statement of which this prospectus is a part.

Common Stock

Outstanding Shares. Based on 2,077,349 shares of common stock outstanding as of May 31, 2006, the conversion of preferred stock into 18,067,322 shares of common stock upon the completion of this offering, the issuance of 1,182,332 shares of common stock upon the closing of this offering in satisfaction of accumulated dividends on our convertible preferred stock (assuming that the initial public offering price is \$15.00 per share, the mid-point of the price range set forth on the cover page of this prospectus, and that the offering closes on June 30, 2006), the issuance of 5,000,000 shares of common stock in this offering, and no exercise of options or warrants, there will be 26,327,003 shares of common stock outstanding upon completion of this offering. As of May 31, 2006, assuming the conversion of all outstanding preferred stock into common stock upon the completion of this offering, we had approximately _____ record holders of our common stock.

As of May 31, 2006, there were 1,779,318 shares of common stock subject to outstanding options, and up to 53,012 shares of common stock subject to outstanding warrants.

Voting Rights. Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Our amended and restated certificate of incorporation and bylaws do not provide for cumulative voting rights. Because of this, the holders of a majority of the shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they should so choose.

Dividends. Subject to preferences that may be applicable to any then outstanding preferred stock, holders of common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

Liquidation. In the event of our liquidation, dissolution or winding up, holders of common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

Rights and Preferences. Holders of common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to the common stock. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock which we may designate in the future.

Fully Paid and Nonassessable. All of our outstanding shares of common stock are, and the shares of common stock to be issued in this offering will be, fully paid and nonassessable.

Preferred Stock

Assuming the closing of this offering, all outstanding shares of preferred stock will have been converted into shares of common stock. See Note 7 to our financial statements for a description of the currently outstanding preferred stock. Following the conversion, our restated certificate of incorporation will be restated to delete all references to such shares of preferred stock. Under the amended and restated certificate of incorporation, our board of directors will have the authority, without further action by the

Table of Contents

stockholders, to issue up to 5,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences and privileges of the shares of each wholly unissued series and any qualifications, limitations or restrictions thereon, and to increase or decrease the number of shares of any such series (but not below the number of shares of such series then outstanding).

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in our control and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock. We have no current plans to issue any shares of preferred stock.

Warrants

In July 2002, we issued a warrant to purchase up to an aggregate of 60,000 shares of our Series A preferred stock to TBCC Funding Trust II and a warrant to purchase up to an aggregate of 80,000 shares of our Series A preferred stock to GATX Ventures, Inc. These warrants are immediately exercisable at an exercise price of \$1.00 per share and expire the later of ten years from the date of grant, July 31, 2002, or five years after the closing of this offering. Upon completion of this offering, the warrant issued to TBCC Funding Trust II will convert into a warrant to purchase up to 12,234 shares of our common stock and the warrant issued to GATX Ventures, Inc. will convert into a warrant to purchase 16,313 shares of our common stock, with an exercise price of \$4.90 per share.

Each of these warrants for Series A preferred stock has a net exercise provision under which its holder may, in lieu of payment of the exercise price in cash, surrender the warrant and receive a net amount of shares of our Series A preferred stock based on the fair market value of our Series A preferred stock at the time of exercise of the warrant after deduction of the aggregate exercise price. Each of these warrants for Series A preferred stock also contains provisions for the adjustment of the exercise price and the aggregate number of shares issuable upon the exercise of the warrant in the event of stock dividends, stock splits, reorganizations and reclassifications and consolidations.

In December 2003, we entered into a note and warrant purchase agreement with HealthCare Ventures VI, L.P., Morgenthaler Partners, VII, L.P., Sequel Limited Partnership III and Sequel Entrepreneurs Fund III, L.P. Pursuant to this agreement, we issued warrants at three different tranches to purchase shares of our Series C preferred stock. As of this offering, Morgenthaler Partners, VII, L.P. has three warrants outstanding to purchase up to an aggregate of 80,001 shares of our Series C preferred stock, Sequel Limited Partnership III has three warrants outstanding to purchase up to an aggregate of 38,919 shares of our Series C preferred stock, and Sequel Entrepreneurs Fund III, L.P. has three warrants outstanding to purchase up to an aggregate of 1,083 shares of our Series C preferred stock. All of these warrants are immediately exercisable at an exercise price of \$1.25 per share and will expire the later of ten years from the date of issuance or five years after the closing of this offering. Upon completion of this offering, all of these warrants will convert into warrants to purchase up to an aggregate of 24,465 shares of our common stock at an exercise price of \$6.13 per share.

Each of these warrants for Series C preferred stock has a net exercise provision under which its holder may, in lieu of payment of the exercise price in cash, surrender the warrant and receive a net amount of shares of Series C preferred stock based on the fair market value of our Series C preferred stock at the time of exercise of the warrant after deduction of the aggregate exercise price. Each of these warrants for Series C preferred stock also contains provisions for the adjustment of the exercise price and the aggregate number of shares issuable upon the exercise of the warrant in the event of stock dividends, stock splits, reorganizations and reclassifications and consolidations.

Table of Contents

The holders of these warrants for our Series A preferred stock and our Series C preferred stock are entitled to registration rights under our fourth amended and restated stockholders agreement, as described in Registration Rights below.

Registration Rights

Under our fourth amended and restated stockholders agreement, following the completion of this offering, the holders of 19,249,654 shares of common stock and warrants to purchase up to 53,012 shares of common stock, or their transferees, have the right to require us to register their shares with the SEC so that those shares may be publicly resold, or to include their shares in any registration statement we file.

Demand Registration Rights. At any time beginning 12 months after the completion of this offering, the holders of at least 50% of the shares having registration rights have the right to demand that we file up to two registration statements. In addition, at any time beginning 12 months after the completion of this offering, the holders of at least 50% of the shares of common stock issued upon conversion of the Series D preferred stock have the right to demand that we file up to two registration statements. These registration rights are subject to specified conditions and limitations, including the right of the underwriters to limit the number of shares included in any such registration under certain circumstances.

Form S-3 Registration Rights. If we are eligible to file a registration statement on Form S-3, each holder of shares having registration rights has the right to demand that we file up to three registration statements for such holder, but not more than two annually, on Form S-3 so long as the aggregate amount of securities to be sold under the registration statement on Form S-3 is at least \$1,000,000, subject to specified exceptions, conditions and limitations.

Piggyback Registration Rights. If we register any securities for public sale, stockholders with registration rights will have the right to include their shares in the registration statement. The underwriters of any underwritten offering will have the right to limit the number of shares having registration rights to be included in the registration statement, but not below 30% of the total number of shares included in the registration statement, except for this offering in which the underwriters have excluded any shares by existing investors.

Expenses of Registration. We will pay all expenses relating to all demand registrations, Form S-3 registrations and piggyback registrations, other than underwriting discounts and commissions.

Expiration of Registration Rights. The registration rights described above will terminate upon the earlier of either five years following the completion of this offering or as to a given holder of registrable securities, when such holder of registrable securities can sell all of such holder's registrable securities in a three month period pursuant to Rule 144 promulgated under the Securities Act.

Delaware Anti-Takeover Law and Provisions of our Amended and Restated Certificate of Incorporation and Bylaws

Delaware Anti-Takeover Law. We are subject to Section 203 of the Delaware General Corporation Law. Section 203 generally prohibits a public Delaware corporation from engaging in a business combination with an interested stockholder for a period of three years after the date of the transaction in which the person became an interested stockholder, unless

prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder,

the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding (a) shares owned by persons who are directors and also officers and (b) shares owned by employee stock plans in which employee participants do

Table of Contents

not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer, or

on or subsequent to the date of the transaction, the business combination is approved by the board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66²/₃ % of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

any merger or consolidation involving the corporation and the interested stockholder,

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

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

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

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

Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws. Provisions of our amended and restated certificate of incorporation and amended and restated bylaws, which will become effective upon the completion of this offering, may delay or discourage transactions involving an actual or potential change in our control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares, or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our common stock. Among other things, our amended and restated certificate of incorporation and bylaws:

permit our board of directors to issue up to 5,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate (including the right to approve an acquisition or other change in our control);

provide that the authorized number of directors may be changed only by resolution adopted by a majority of the authorized number of directors constituting the board of directors;

provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;

divide our board of directors into three classes;

require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent;

provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide notice in writing in a timely manner, and also specify requirements as to the form and content of a stockholder's notice;

do not provide for cumulative voting rights (therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for

election, if they should so choose); and

Table of Contents

provide that special meetings of our stockholders may be called only by the chairman of the board, our chief executive officer or by the board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors.

The amendment of any of the provisions of the amended and restated certificate of incorporation would require approval by the holders of at least 66²/₃% of our then outstanding capital stock. Any adoption, amendment or repeal of the amended and restated bylaws by the board of directors requires the approval of a majority of the authorized number of directors and the stockholders also have the power to adopt, amend or repeal the bylaws provided that in addition to any vote required by law or the amended and restated certificate, such stockholder action would require the affirmative vote of at least 66²/₃ % of our then outstanding capital stock.

Nasdaq National Market Listing

Our common stock has been approved for quotation on the Nasdaq National Market under the symbol RDYN, subject to official notice of issuance.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, Inc. The transfer agent and registrar's address is 59 Maiden Lane, Plaza Level, New York, NY 10038.

Table of Contents

SHARES ELIGIBLE FOR FUTURE SALE

Immediately prior to this offering, there has been no public market for our common stock. Future sales of substantial amounts of common stock in the public market could adversely affect prevailing market prices. Furthermore, since only a limited number of shares will be available for sale shortly after this offering because of contractual and legal restrictions on resale described below, sales of substantial amounts of common stock in the public market after the restrictions lapse could adversely affect the prevailing market price for our common stock as well as our ability to raise equity capital in the future.

Based on the number of shares of common stock outstanding as of May 31, 2006, upon completion of this offering, 26,327,003 shares of common stock will be outstanding, assuming no exercise of the underwriters over-allotment option and no exercise of options or warrants. All of the shares sold in this offering will be freely tradable unless held by an affiliate of ours. Except as set forth below, the remaining 21,327,003 shares of common stock outstanding after this offering will be restricted as a result of securities laws or lock-up agreements. These remaining shares will generally become available for sale in the public market as follows:

no restricted shares will be eligible for immediate sale upon the completion of this offering;

19,372,003 restricted shares, less shares subject to a repurchase option in our favor tied to the holders continued service to us, which will be eligible for sale upon lapse of the repurchase option, will be eligible for sale upon expiration of lock-up agreements 180 days after the date of this prospectus; and

the remainder of the restricted shares will be eligible for sale from time to time thereafter upon expiration of their respective one-year holding periods, but could be sold earlier if the holders exercise any available registration rights.

Rule 144

In general, under Rule 144 under the Securities Act of 1933, as in effect on the date of this prospectus, a person who has beneficially owned shares of our common stock for at least one year would be entitled to sell within any three-month period a number of shares that does not exceed the greater of:

1% of the number of shares of our common stock then outstanding, which will equal approximately 263,270 shares immediately after this offering; or

the average weekly trading volume of our common stock on the Nasdaq National Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

Sales under Rule 144 are also subject to manner of sale provisions and notice requirements and to the availability of current public information about us.

Rule 144(k)

Under Rule 144(k) under the Securities Act as in effect on the date of this prospectus, a person who is not deemed to have been one of our affiliates at any time during the 90 days preceding a sale, and who has beneficially owned the shares proposed to be sold for at least two years, including the holding period of any prior owner other than an affiliate, is entitled to sell the shares without complying with the manner of sale, public information, volume limitation or notice provisions of Rule 144. 3,930,212 shares of our common stock will qualify for resale under Rule 144(k) within 180 days of the date of this prospectus.

Rule 701

Rule 701 under the Securities Act, as in effect on the date of this prospectus, permits resales of shares in reliance upon Rule 144 but without compliance with certain restrictions of Rule 144, including the holding period requirement. Most of our employees, executive officers, directors or consultants who

Table of Contents

purchased shares under a written compensatory plan or contract may be entitled to rely on the resale provisions of Rule 701, but all holders of Rule 701 shares are required to wait until 90 days after the date of this prospectus before selling their shares. However, substantially all Rule 701 shares are subject to lock-up agreements as described below and under Underwriting and will become eligible for sale at the expiration of those agreements.

Lock-Up Agreements

We, along with our directors, executive officers and substantially all of our other stockholders, optionholders and warrant holders, have agreed with the underwriters that for a period of 180 days following the date of this prospectus, we or they will not offer, sell, assign, transfer, pledge, contract to sell or otherwise dispose of or hedge any shares of our common stock or any securities convertible into or exchangeable for shares of common stock, subject to specified exceptions. Merrill Lynch, Pierce, Fenner & Smith Incorporated and Morgan Stanley & Co. Incorporated may, in their sole discretion, at any time without prior notice, release all or any portion of the shares from the restrictions in any such agreement.

Registration Rights

Upon completion of this offering, the holders of 19,249,654 shares of our common stock and warrants to purchase up to 53,012 shares of our common stock will be entitled to rights with respect to the registration of their shares under the Securities Act, subject to the 180-day lock-up arrangement described above. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act, except for shares purchased by affiliates, immediately upon the effectiveness of this registration. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock. See Description of Capital Stock Registration Rights.

Equity Incentive Plans

We intend to file with the SEC a registration statement under the Securities Act covering the shares of common stock reserved for issuance under our 2006 Equity Incentive Plan and our 2006 Employee Stock Purchase Plan. The registration statement is expected to be filed and become effective as soon as practicable after the completion of this offering. Accordingly, shares registered under the registration statement will be available for sale in the open market following its effective date, subject to Rule 144 volume limitations and the 180-day lock-up arrangement described above, if applicable.

Table of Contents**UNDERWRITERS**

Merrill Lynch, Pierce, Fenner & Smith Incorporated and Morgan Stanley & Co. Incorporated are acting as representatives of the underwriters named below. Subject to the terms and conditions described in a purchase agreement among us and the underwriters, we have agreed to sell to the underwriters, and the underwriters severally have agreed to purchase from us the number of shares of common stock listed opposite their names below:

Underwriters	Number of Shares
Merrill Lynch, Pierce, Fenner & Smith Incorporated	
Morgan Stanley & Co. Incorporated	
Cowen and Company, LLC	
Pacific Growth Equities, LLC	
Total	

The underwriters have agreed to purchase all of the shares sold under the purchase agreement if any of these shares are purchased. If an underwriter defaults, the purchase agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the purchase agreement may be terminated.

We have agreed to indemnify the underwriters against certain civil liabilities, including liabilities under the Securities Act of 1933, or to contribute to payments the underwriters may be required to make in respect of any such liabilities.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, and other conditions contained in the purchase agreement, such as the receipt by the underwriters of officer's certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Commissions and Discounts

The representatives have advised us that the underwriters propose initially to offer the shares of common stock directly to the public at the initial public offering price listed on the cover page of this prospectus and to dealers at that price, less a concession not in excess of \$ _____ per share. The underwriters may allow, and the dealers may reallow, a discount not in excess of \$ _____ per share to other dealers. After the initial public offering, the public offering price, concession and discount may be changed.

The following table shows the public offering price, underwriting discount and proceeds before expenses to us. The information assumes either no exercise or full exercise by the underwriters of their over-allotment option.

	Per Share	Without Option	With Option
Public offering price	\$	\$	\$
Underwriting discount	\$	\$	\$
Proceeds, before expenses, to us	\$	\$	\$

The expenses of the offering, not including the underwriting discount, are estimated at \$1,600,000 and are payable by us.

Table of Contents

Over-Allotment Option

We have granted an option to the underwriters to purchase up to 750,000 additional shares at the public offering price less the underwriting discount. The underwriters may exercise this option for 30 days from the date of this prospectus solely to cover any over-allotments. If the underwriters exercise this option, each will be obligated, subject to conditions contained in the purchase agreement, to purchase a number of additional shares proportionate to that underwriter's initial amount reflected in the above table.

No Sales of Similar Securities

We and our executive officers, directors, stockholders, warrant holders and option holders, who hold an aggregate of 23,014,196 shares of our common stock, on a fully diluted basis, have agreed, with exceptions, not to sell or transfer any common stock for 180 days after the date of this prospectus without first obtaining the written consent of Merrill Lynch, Pierce, Fenner & Smith Incorporated and Morgan Stanley & Co. Incorporated. Specifically, we and these other individuals have agreed not to directly or indirectly:

offer, pledge, sell or contract to sell any common stock;

sell any option or contract to purchase any common stock;

purchase any option or contract to sell any common stock;

grant any option, right or warrant for the sale of any common stock;

otherwise dispose of or transfer any common stock;

file or cause to be filed any registration statement related to the common stock; or

enter into any swap or other arrangement or any transaction that transfers, in whole or in part, directly or indirectly, any of the economic consequences of ownership of any common stock, whether any such swap or transaction is to be settled by delivery of shares or other securities, in cash or otherwise.

Notwithstanding the foregoing, if: (1) during the last 17 days of the 180-day lockup period, we issue an earnings release or publicly announce material news or a material event relating to us occurs; or (2) prior to the expiration of the 180-day lock-up period, we announce that we will release earnings results or become aware that material news or a material event will occur during the 16-day period beginning on the last day of the 180-day lock-up period, the restrictions imposed by the lockup provision shall continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or the public announcement of the material news or the occurrence of the material event, as applicable, unless Merrill Lynch, Pierce, Fenner & Smith Incorporated and Morgan Stanley & Co Incorporated waive, in writing, such extension.

This lockup provision applies to common stock and to securities convertible into or exchangeable or exercisable for common stock. It also applies to common stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition.

Quotation on the Nasdaq National Market

We expect the shares of common stock to be approved for quotation on the Nasdaq National Market, subject to notice of issuance, under the symbol RDYN.

Before this offering, there has been no public market for shares of our common stock. The initial public offering price will be determined through negotiations among us, the representatives and the lead

Table of Contents

managers. In addition to prevailing market conditions, the factors to be considered in determining the initial public offering price are:

the valuation multiples of publicly traded companies that the representatives and the lead managers believe to be comparable to us;

our financial information;

the history of, and the prospects for, our company and the industry in which we compete;

an assessment of our management, its past and present operations, and the prospects for, and timing of, our future revenues;

the present state of our development; and

the above factors in relation to market values and various valuation measures of other companies engaged in activities similar to ours.

An active trading market for the shares may not develop. It is also possible that after the offering the shares will not trade in the public market at or above the initial public offering price.

The underwriters do not expect to sell more than 5% of the shares in the aggregate to accounts over which they exercise discretionary authority.

Price Stabilization, Short Positions and Penalty Bids

Until the distribution of the shares is completed, SEC rules may limit underwriters and selling group members from bidding for and purchasing our common stock. However, the representatives may engage in transactions that stabilize the price of the common stock, such as bids or purchases to peg, fix or maintain that price.

If the underwriters create a short position in the common stock in connection with the offering, i.e., if they sell more shares than are listed on the cover of this prospectus, the representatives may reduce that short position by purchasing shares in the open market. The representatives may also elect to reduce any short position by exercising all or part of the over-allotment option described above. Purchases of the common stock to stabilize its price or to reduce a short position may cause the price of the common stock to be higher than it might be in the absence of such purchases.

The representatives may also impose a penalty bid on underwriters and selling group members. This means that if the representatives purchase shares in the open market to reduce the underwriter's short position or to stabilize the price of such shares, they may reclaim the amount of the selling concession from the underwriters and selling group members who sold those shares. The imposition of a penalty bid may also affect the price of the shares in that it discourages resales of those shares.

Neither we nor any of the underwriters makes any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the common stock. In addition, neither we nor any of the underwriters makes any representation that the representatives or the lead managers will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

Electronic Distribution

A prospectus in electronic format will be made available on the websites maintained by one or more of the underwriters of this offering. Other than the electronic prospectus, the information on the websites of the underwriters is not part of this prospectus. The underwriters may agree to allocate a number of shares to underwriters for sale to their online brokerage account holders. Internet distributions will be allocated to underwriters that may make Internet distributions on the same basis as other allocations.

Table of Contents

Other Relationships

Some of the underwriters and their affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us. They have received customary fees and commissions for these transactions.

LEGAL MATTERS

The validity of the shares of common stock being offered by this prospectus will be passed upon for us by Cooley Godward LLP, Broomfield, Colorado. The underwriters are being represented by Wilson Sonsini Goodrich & Rosati, Professional Corporation.

EXPERTS

The financial statements of Replidyne, Inc. as of December 31, 2004 and 2005, and for each of the years in the three-year period ended December 31, 2005 and for the period from December 6, 2000 (inception) to December 31, 2005, have been included herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, appearing elsewhere herein, and upon the authority of said firm as experts in accounting and auditing.

Table of Contents

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act of 1933, as amended, with respect to the shares of common stock being offered by this prospectus. This prospectus does not contain all of the information in the registration statement and its exhibits. For further information with respect to Replidyne and the common stock offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

You can read our SEC filings, including the registration statement, over the Internet at the SEC's website at <http://www.sec.gov>. You may also read and copy any document we file with the SEC at its public reference facilities at 100 F Street, NE, Washington, D.C. 20549. You may also obtain copies of these documents at prescribed rates by writing to the Public Reference Section of the SEC at 100 F Street, NE, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facilities.

Upon completion of this offering, we will be subject to the information reporting requirements of the Securities Exchange Act of 1934, as amended, and we will file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information will be available for inspection and copying at the public reference room and web site of the SEC referred to above. We also maintain a website at <http://www.Replidyne.com>, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. The information contained in, or that can be accessed through, our website is not part of this prospectus.

Table of Contents

**Replidyne, Inc.
Index to Financial Statements**

	Page(s)
<u>Report of Independent Registered Public Accounting Firm</u>	F-2
<u>Balance Sheets</u>	F-3
<u>Statements of Operations</u>	F-4
<u>Statements of Preferred Stock, Stockholders' Deficit, and Comprehensive Loss</u>	F-5
<u>Statements of Cash Flows</u>	F-9
<u>Notes to Financial Statements</u>	F-10

F-1

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

When the reverse stock split referred to in Note 1(e) of the Notes to Financial Statements has been consummated, we will be in a position to render the following report.

/s/ KPMG LLP

The Board of Directors and Stockholders of
Replidyne, Inc.:

We have audited the accompanying balance sheets of Replidyne, Inc. (a development stage enterprise) as of December 31, 2004 and 2005, and the related statements of operations; preferred stock, stockholders' deficit, and comprehensive loss; and cash flows for each of the years in the three-year period ended December 31, 2005 and for the period from December 6, 2000 (inception) to December 31, 2005. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Replidyne, Inc. (a development stage enterprise) as of December 31, 2004 and 2005, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2005 and for the period from December 6, 2000 (inception) to December 31, 2005, in conformity with U.S. generally accepted accounting principles.

Boulder, Colorado
April 4, 2006, except as to
Note 1(e), as to which
the date is June 1, 2006

F-2

Table of Contents

REPLIDYNE, INC.
(a development stage enterprise)
BALANCE SHEETS
(in thousands, except share and per share amounts)

	December 31,		March 31,
	2004	2005	2006
			(unaudited)
ASSETS			
Current assets:			
Cash and cash equivalents	\$ 4,640	\$ 4,353	\$ 32,385
Short-term investments	22,378	55,067	77,515
Receivable from Forest Laboratories			2,140
Notes receivable from officers		375	
Prepaid expenses and other current assets	105	275	802
Total current assets	27,123	60,070	112,842
Property and equipment, net	2,904	3,248	3,032
Other assets	40	261	238
Total assets	\$ 30,067	\$ 63,579	\$ 116,112
LIABILITIES, PREFERRED STOCK AND STOCKHOLDERS DEFICIT			
Current liabilities:			
Accounts payable and accrued expenses	\$ 1,216	\$ 9,154	\$ 9,598
Current portion of deferred revenue	283		4,444
Current portion of long-term debt, net of discount	1,215	161	
Total current liabilities	2,714	9,315	14,042
Deferred revenue, net of current portion	24		54,966
Long-term debt, net of current portion and discount	84		
Other long-term liabilities		81	75
Total liabilities	2,822	9,396	69,083
Commitments and contingencies			
Preferred stock:			
Series A redeemable convertible preferred stock, \$0.01 par value. Authorized 13,140,000 shares; issued and outstanding 13,000,000 shares (liquidation preference of \$15,975, \$17,015 and \$17,275 at December 31, 2004, 2005 and March 31, 2006 (unaudited), respectively) at accreted redemption value	15,886	16,940	17,203
Series B convertible preferred stock, \$0.01 par value. Authorized 4,000,000 shares; issued and outstanding 4,000,000 shares (liquidation preference of \$5,630, \$6,030, and \$6,130 at December 31, 2004, 2005 and March 31, 2006 (unaudited),	5,630	6,030	6,130

respectively)

Series C redeemable convertible preferred stock, \$0.01 par value.

Authorized 37,000,004 shares; issued and outstanding

36,800,000 shares at December 31, 2005 and 36,880,001 at

March 31, 2006 (unaudited) (liquidation preference of \$48,084,

\$51,764 and \$52,785 at December 31, 2004, 2005 and March 31,

2006 (unaudited), respectively); at accreted redemption value 47,931 51,635 52,660

Series D redeemable convertible preferred stock, \$0.001 par value.

Authorized 34,722,222 shares; issued and outstanding

34,722,222 shares at December 31, 2005 and March 31, 2006

(unaudited) (liquidation preference of \$64,364 at December 31, 2005

and \$65,614 at March 31, 2006 (unaudited)); at accreted redemption

value 62,210 63,575

Stockholders deficit:

Common stock, \$0.001 par value. Authorized 66,600,000 and

115,000,000 shares; issued 789,995, 1,897,660 and

2,094,706 shares; 759,408, 1,867,073 and 2,064,119 shares

outstanding at December 31, 2004, 2005 and March 31, 2006

(unaudited), respectively

1 2 2

Treasury stock, \$0.01 par value; 30,587 shares

(2) (2) (2)

Deferred stock-based compensation

(7) (4)

Accumulated other comprehensive income

41 479 521

Deficit accumulated during the development stage

(42,235) (83,107) (93,060)

Total stockholders deficit

(42,202) (82,632) (92,539)

Total liabilities, preferred stock and stockholders deficit

\$ 30,067 \$ 63,579 \$ 116,112

See accompanying notes to financial statements.

Table of Contents

REPLIDYNE, INC.
(a development stage enterprise)
STATEMENTS OF OPERATIONS
(in thousands, except share and per share amounts)

	Year Ended December 31,			Period from December 6, 2000 (date of inception) to December 31, 2005	Three Months Ended March 31,	
	2003	2004	2005	2005	2005	2006
Revenue	\$ 726	\$ 834	\$ 441	\$ 2,050	(unaudited) \$ 267	(unaudited) \$ 2,877
Costs and expenses:						
Research and development	12,331	16,282	29,180	60,435	5,013	8,970
Sales, general and administrative	2,155	2,994	5,329	12,150	686	1,953
Total costs and expenses	14,486	19,276	34,509	72,585	5,699	10,923
Loss from operations	(13,760)	(18,442)	(34,068)	(70,535)	(5,432)	(8,046)
Interest and other income	88	172	722	1,085	77	674
Interest and other expense	(278)	(500)	(323)	(1,186)	(35)	(330)
Loss on extinguishment of convertible notes payable		(469)		(469)		
Net loss	(13,950)	(19,239)	(33,669)	(71,105)	(5,390)	(7,702)
Preferred stock dividends and accretion	(1,294)	(3,560)	(7,191)	(12,960)	(1,291)	(2,653)
Net loss attributable to common stockholders	\$ (15,244)	\$ (22,799)	\$ (40,860)	\$ (84,065)	\$ (6,681)	\$ (10,355)
Net loss attributable to common stockholders per share basic and diluted	\$ (20.82)	\$ (30.55)	\$ (39.20)	\$ (109.51)	\$ (8.13)	\$ (7.21)
Weighted average shares outstanding basic and diluted	732,044	746,306	1,042,388	767,638	821,757	1,435,726
Pro forma net loss attributable to common				\$ (2.24)		\$ (0.38)

stockholders per share
basic and diluted
(unaudited)

Pro forma weighted
average shares
outstanding basic and
diluted (unaudited)

15,031,566

20,508,603

See accompanying notes to financial statements.

F-4

Table of Contents

REPLIDYNE, INC.
(a development stage enterprise)
STATEMENTS OF PREFERRED STOCK, STOCKHOLDERS DEFICIT, AND COMPREHENSIVE LOSS
(in thousands, except share and per share amounts)

	Preferred Stock					Stockholders			Deficit			Total	
	Series A Redeemable Convertible Preferred Stock	Series B Convertible Preferred Stock	Series C Convertible Preferred Stock	Series D Redeemable Convertible Preferred Stock	Common Stock	Treasury Stock	Additional Paid-Up Capital	Deferred Stock- Based Compensation	Other	During the Development Stage	Accumulated Deficit		Retained Earnings
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Capital	Income	Loss	Loss	Deficit
Balances, December 6, 2000 (date of inception)	\$		\$		\$		\$		\$	\$	\$	\$	\$
Estimated fair value of common stock issued to founder in December 2000 for services (\$27) and contributed assets (at historical cost of \$24)					550,570	1		50					51
Issuance of common stock to employee in December 2000 for cash at \$0.01 per share					110,114			6					6
Estimated fair value of common stock issued to university for license to technology in January 2001 at \$0.01 per share					13,213								
Estimated fair value of common stock					3,058								

issued to non-employee for services in July 2001 at \$0.01 per share					
Issuance of common stock upon exercise of stock options		1,325			
Net loss				(485)	(485)
Comprehensive loss					(485)
Balances, December 31, 2001		678,280	1	56	(485) (428)
Return of common stock issued to founder in January 2002 at \$0.01 per share			(203,915)	(10)	10
Estimated fair value of common stock issued to an employee in January 2002 for services, at \$0.01 per share		63,213		3	3
Estimated fair value of common stock issued to an employee from treasury stock in January 2002 for services, at \$0.01 per share			173,328	8	8
Issuance of Series A redeemable convertible preferred stock in February 2002 for cash of \$1.00 per share, net of \$151 of issuance costs	13,000,000	12,849			
				5	5

Stock-based compensation related to stock option grants to non-employees			
Warrants issued in conjunction with debt		128	128
Accretion of offering costs on redeemable preferred stock	20	(20)	(20)

F-5

Table of Contents

REPLIDYNE, INC.
(a development stage enterprise)
STATEMENTS OF PREFERRED STOCK, STOCKHOLDERS DEFICIT, AND COMPREHENSIVE LOSS
(in thousands, except share and per share amounts)

	Preferred Stock						Stockholders Deficit					
	Series A Redeemable Convertible Preferred Stock	Series B Convertible Preferred Stock	Series C Redeemable Convertible Preferred Stock	Series D Redeemable Convertible Preferred Stock	Common Stock	Treasury Stock	Additional Paid-In Capital	Deferred Stock-Based Compensation	Other Income	Accumulated Deficit During the Development Stage		
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Capital	Income	Stage	
Loss on stock sold gain		\$ 895		\$		\$		\$		\$ (182)	\$	\$ (713)
Available-for-sale securities											43	(3,762)
Comprehensive												
As of December 31,	13,000,000	13,764			741,493	1	(30,587)	(2)			43	(4,960)
Change of stock price of exercise of options and fair value common stock related to equity for equity in 2003 at share of					9,715				4			
Change of			4,000,000	5,000							9	
Change of stock in 2003 for and amount, at												

fair
\$1.25 per

issued
option
convertible

69

used
option
stock
grants to
employees

7

used
option
stock
grants to
employees
description of

10 (10)

used
option

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