AMICUS THERAPEUTICS INC
Form S-1/A
May 17, 2007

Table of Contents

As filed with the Securities and Exchange Commission on May 17, 2007
Registration No. 333-141700

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

AMICUS THERAPEUTICS, INC.
(Exact Name of Registrant as Specified in its Charter)

Delaware	**2834**	**20-0422823**
(State or Other Jurisdiction of Incorporation or Organization)	*(Primary Standard Industrial Classification Code Number)*	*(I.R.S. Employer Identification Number)*

6 Cedar Brook Drive
Cranbury, New Jersey 08512
(609) 662-2000
(Address, including zip code, and telephone number, including area code, of Registrant s principal executive offices)

John F. Crowley
Chief Executive Officer
Amicus Therapeutics, Inc.
6 Cedar Brook Drive
Cranbury, New Jersey 08512
(609) 662-2000
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Julio E. Vega	**Douglas A. Branch**	**Patrick O Brien**
Bingham McCutchen LLP	**Vice President, General**	**Ropes & Gray LLP**
150 Federal Street	**Counsel and Secretary**	**One International Place**
Boston, Massachusetts 02110-1726	**Amicus Therapeutics, Inc.**	**Boston, Massachusetts 02110-1726**
(617) 951-8000	**6 Cedar Brook Drive**	**(617) 951-7000**
	Cranbury, New Jersey 08512	
	(609) 662-2029	

Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement is declared effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended (the Securities Act), please check the following box. o

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

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

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

CALCULATION OF REGISTRATION FEE

f Each Class of ties to be Registered	**Amount to be Registered(1)**	**Proposed Maximum Offering Price Per Share(2)**	**Proposed Maximum Aggregate Offering Price(2)**	**Amou Regist Fee(3**
non Stock, $0.01 par per share	5,750,000	$16.00	$92,000,000	$2,82

(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) $2,647.88 of the registration fee has been paid previously in connection with this Registration Statement based on a previous 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 which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until this 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 contained in this 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 these securities and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

PROSPECTUS (Subject to Completion)
Issued May 17, 2007

5,000,000 Shares

Common Stock

This offering is our initial public offering of shares of our common stock. We are offering 5,000,000 shares of common stock.

We expect the initial public offering price to be between $14.00 and $16.00 per share. Currently, no public market exists for our shares. After pricing of the offering, we expect that the shares will be quoted on The NASDAQ Global Market under the symbol FOLD .

Investing in our common stock involves risks. See Risk Factors beginning on page 8.

	Per Share	Total
Public offering price	$	$
Underwriting discount	$	$
Proceeds, before expenses	$	$

The underwriters may also purchase up to an additional 750,000 shares of common stock from us at the public offering price, less the underwriting discount, within 30 days from the date of this prospectus to cover over-allotments.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved these securities, or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares to purchasers on or about , 2007.

Morgan Stanley **Merrill Lynch & Co.**

JPMorgan

Lazard Capital Markets **Pacific Growth Equities, LLC**

, 2007

Table of Contents

You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus. 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 of any sale of our common stock. In this prospectus, unless otherwise stated or the context otherwise requires, references to Amicus Therapeutics, Amicus, we, us, our and similar references refer to Amicus Therapeutics, In

Until , 2007, 25 days after the commencement of this offering, all dealers that buy, sell or trade shares of our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

For investors outside the United States: 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 United States. You are required to inform yourselves about and to observe any restrictions relating to this offering and the distribution of this prospectus.

Table of Contents

PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus. This summary may not contain all of the information that is important to you. Before investing in our common stock, you should read this prospectus carefully in its entirety, especially the risks of investing in shares of our common stock that we discuss in the Risk Factors section of this prospectus beginning on page 8 and our financial statements and related notes beginning on page F-1.

AMICUS THERAPEUTICS, INC.

Our Company

We are a clinical-stage biopharmaceutical company focused on the discovery, development and commercialization of novel small molecule, orally-administered drugs, known as pharmacological chaperones, for the treatment of a range of human genetic diseases. Our lead products in development are Amigal for Fabry disease, Plicera for Gaucher disease and AT2220 for Pompe disease. Fabry, Gaucher and Pompe are relatively rare disorders but represent substantial commercial markets due to the severity of the symptoms and the chronic nature of the diseases. The worldwide net product sales for the five approved therapeutics to treat Fabry, Gaucher and Pompe disease totaled more than $1.5 billion in 2006, as publicly reported by companies that market these therapeutics. We hold worldwide commercialization rights to Amigal, Plicera and AT2220 and we intend to establish a commercial infrastructure and targeted sales force to market some or all of our products. Currently, none of our product candidates are approved for commercial sale or have generated any revenue from commercial sales.

We have completed enrollment of our Phase II clinical trials of Amigal, and have obtained initial results in the first eleven patients who have completed at least 12 weeks of treatment. These initial results suggest that treatment with Amigal causes an increase in the activity of -galactosidase A, or -GAL, the enzyme deficient in Fabry disease. We believe this increase is likely to be clinically meaningful for a wide range of Fabry patients. Data for the three patients from whom we have kidney biopsies suggest that the increased level of -GAL that occurs after treatment with Amigal may result in a decrease of globotriaosylceramide, or GL-3. GL-3 is the substrate that accumulates in the cells of patients with Fabry disease and is believed to cause the majority of disease symptoms. Reduction of the level of GL-3 in a specific cell type of the kidney was the basis of prior regulatory approval by the FDA of an enzyme replacement therapy for the treatment of Fabry disease. We expect to complete our Phase II clinical trials of Amigal by the end of 2007.

We are currently conducting two Phase II clinical trials of Plicera in Type I Gaucher patients. We expect to obtain preliminary results from the first of these Phase II clinical trials by the end of 2007. We are currently conducting Phase I trials of AT2220 for Pompe disease and expect to initiate a Phase II clinical trial by the end of 2007.

Certain human diseases result from mutations in specific genes that, in many cases, lead to the production of proteins with reduced stability. Proteins with such mutations may not fold into their correct three-dimensional shape and are generally referred to as misfolded proteins. The cell ensures that proteins are folded into their correct shape before they can move from where they are made, the endoplasmic reticulum, or ER, to the appropriate destination in the cell, a process referred to as protein trafficking. Proteins that do not achieve their correct shape are often eliminated by the cell, resulting in reduced biological activity that can lead to impaired cellular function and ultimately to disease. In certain instances, misfolded proteins can accumulate in the ER instead of being eliminated. This accumulation of misfolded proteins may lead to various types of stress on cells, which may also contribute to cellular dysfunction and disease.

Our novel approach to the treatment of human genetic diseases consists of using pharmacological chaperones that selectively bind to the target protein, increasing the stability of the protein and helping it fold into the correct three-dimensional shape. This allows proper trafficking of the protein, thereby increasing protein activity, improving cellular function and potentially reducing cell stress.

Table of Contents

The current standard of treatment for Fabry, Gaucher and Pompe is enzyme replacement therapy. This therapy compensates for the reduced level of activity of specialized proteins called enzymes through regular infusions of recombinant enzyme. Instead of adding enzyme from an external source by intravenous infusion, our approach uses small-molecule, orally-administered pharmacological chaperones to restore the function of the enzyme that is already made by the patient s own body. We believe our product candidates may have advantages relative to enzyme replacement therapy relating to biodistribution and ease of use, potentially improving treatment of these diseases. In addition, we believe our technology is broadly applicable to other diseases for which protein stabilization and improved folding may be beneficial, including certain types of neurological disease, metabolic disease, cardiovascular disease and cancer.

Our Lead Programs

Our three most advanced product development programs target lysosomal storage disorders, which are chronic genetic diseases that frequently result in severe symptoms. Each of these disorders results from the deficiency of a single enzyme.

Amigal for Fabry disease. We are developing Amigal for the treatment of patients with Fabry disease, which commonly causes kidney failure and increased risk of heart attack and stroke. We are currently conducting multiple Phase II clinical trials of Amigal. We expect to complete our Phase II trials of Amigal by the end of 2007.

Plicera for Gaucher disease. We are developing Plicera for the treatment of Gaucher disease, which commonly causes an enlarged liver and spleen, abnormally low levels of red blood cells and platelets, and skeletal complications. Some patients also present with neurological complications. We are currently conducting two Phase II clinical trials of Plicera in Type I Gaucher patients. We expect to obtain preliminary results from the first of these two trials by the end of 2007.

AT2220 for Pompe disease. We are developing AT2220 for the treatment of Pompe disease, which commonly causes progressive muscle weakness, particularly affecting breathing, mobility and heart function. We are currently conducting Phase I clinical trials of AT2220 and expect to initiate a Phase II clinical trial by the end of 2007.

Preliminary Data from our Ongoing Phase II Clinical Trials in Fabry Disease

We have completed enrollment of our four Phase II clinical trials of Amigal and have obtained initial results for the first eleven patients that have completed at least 12 weeks of treatment. Each of these patients has been treated with various doses and regimens of Amigal for various periods of time in accordance with the Phase II protocols. Amigal has been well-tolerated to date with no reported drug-related serious, adverse events.

The eleven patients represent ten different genetic mutations and have baseline levels of -GAL in white blood cells of between 0% and 30% of normal. An increase in -GAL enzyme levels in white blood cells has been observed in ten out of the eleven patients. These initial results suggest that treatment with Amigal causes an increase in the level of -GAL, the enzyme deficient in Fabry disease, in a wide range of Fabry patients. In addition, we believe that this increase is likely to be therapeutically meaningful because it is generally believed that even small increases in lysosomal enzyme levels may have clinical benefits.

GL-3, the lipid substrate broken down by -GAL in the lysosome, accumulates in the cells of patients with Fabry disease and is believed to be the cause of the majority of disease symptoms. Reduction of the level of GL-3 in a

specific cell type of the kidney was the basis of prior regulatory approval by the FDA of an enzyme replacement therapy for the treatment of Fabry disease. Kidney GL-3 levels are available for three patients and were assessed by an independent expert using light and electron microscopy. A decrease in GL-3 was observed in multiple cell types of the kidney of one patient after 12 weeks of treatment. A second patient showed a decrease of GL-3 levels in the same kidney cell types after 24 weeks of treatment, but these decreases were not independently conclusive because of the patient s lower levels of GL-3 at baseline. An increase in the level of -GAL in white blood cells was observed in both of these two patients after treatment

Table of Contents

with Amigal. A third patient showed an increase in GL-3 levels in some cell types of the kidney and no change or a decrease in others after 12 weeks of treatment. Of the eleven patients who have completed at least 12 weeks of treatment to date in our ongoing clinical trials, this is the one patient who did not show an increase in the level of -GAL in white blood cells after treatment with Amigal.

Amigal has been well-tolerated to date with no reported drug-related serious adverse events. Four patients have been on Amigal for over a year. Adverse events were mostly mild and reported by the investigators as unlikely to be related to Amigal. One patient with a history of hypertension discontinued study treatment due to increased blood pressure, which was reported by the investigator as possibly related to the study drug.

The results of our Phase II clinical trials to date do not necessarily predict final results for our Phase II clinical trials. The results from additional patients in our ongoing Phase II clinical studies or additional data from these first eleven patients may cause the results of our Phase II studies to differ from or be less favorable than the preliminary results presented above. We cannot guarantee that our Phase II clinical studies will ultimately be successful.

Data from our Phase I Clinical Trials in Gaucher Disease

We recently completed two double-blind, placebo-controlled, dose escalation Phase I clinical trials in healthy volunteers. These trials were designed to evaluate the safety, tolerability and pharmacokinetics of Plicera. In the first study, 36 subjects received a single dose of one of five dose levels of Plicera. This was followed by a multiple-dose study in which 18 subjects received one of three dose levels of Plicera once daily for 7 consecutive days. The data from our Phase I clinical trials in healthy volunteers showed that Plicera was generally safe and well tolerated at all doses. There were no serious adverse events and no subjects withdrew or discontinued due to an adverse event. The trials also demonstrated that Plicera has good oral bioavailability, and linear pharmacokinetics with a terminal half-life in plasma of approximately fourteen hours. Also, the data from the multiple-dose Phase I clinical trial showed a statistically significant, dose-related increase in -glucocerebrosidase, or GCase, levels in the white blood cells of normal, healthy volunteers who received oral administration of Plicera for seven days. GCase is the enzyme deficient in Gaucher disease.

Our Strategy

Our goal is to become a leading biopharmaceutical company focused on the discovery, development and commercialization of pharmacological chaperone therapies for the treatment of a wide range of human diseases. The introduction of pharmacological chaperones as a treatment option has the potential to address significant unmet medical needs and improve the quality of life for patients.

To achieve this goal, we intend to:

- focus our initial efforts on developing pharmacological chaperones for severe genetic diseases called lysosomal storage disorders;
- rapidly advance our lead programs;
- leverage our proprietary approach to the discovery and development of additional small molecules; and
- build a targeted sales and marketing infrastructure.

Our success in achieving our goal, however, depends in part on the risks and uncertainties described in this prospectus in the section entitled Risk Factors, including, without limitation, those relating to our ability to conduct preclinical

and clinical trials that demonstrate safety and efficacy of our product candidates, our ability to obtain regulatory approvals and our ability to attract and retain effective sales and marketing personnel.

Risks Associated with Our Business

Our business is subject to a number of risks of which you should be aware before making an investment decision. We discuss these risks more fully in the Risk Factors section of this prospectus immediately following this prospectus summary. We have a limited operating history and have not yet commercialized any

Table of Contents

products. We have incurred substantial operating losses in each year since inception. Our net loss attributable to common stockholders was $65.9 million for the year ended December 31, 2006 and $9.7 million for the three months ended March 31, 2007. As of March 31, 2007, we had an accumulated deficit of $93.4 million. We expect to incur significant and increasing net losses for at least the next several years. It is uncertain whether any of our product candidates under development will become effective treatments. All of our product candidates are undergoing clinical trials or are in earlier stages of development, and failure in the development of new drugs is common and can occur at any stage of development. None of our product candidates has received regulatory approval for commercialization, and we do not expect that any drugs resulting from our research and development efforts will be commercially available for a number of years, if at all. We may never generate any revenues or achieve profitability.

Our Corporate Information

We were incorporated under the laws of the State of Delaware on February 4, 2002. Our principal executive offices are located at 6 Cedar Brook Drive, Cranbury, New Jersey 08512, and our telephone number is (609) 662-2000. Our website address is *www.amicustherapeutics.com*. The information on, or that can be accessed through, our website is not part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

We have filed applications to register certain trademarks in the United States and abroad, including AMICUS™, AMICUS THERAPEUTICS™ (and design), AMIGAL™ and PLICERA™. Fabrazyme®, Cerezyme®, Myozyme®, Replagal™ and Zavesca® are the property of their respective owners.

Table of Contents

THE OFFERING

Common stock we are offering	5,000,000 shares
Common stock to be outstanding after this offering	22,234,426 shares
Over-allotment option	750,000 shares
Use of proceeds	We estimate that the net proceeds from this offering will be approximately $67.9 million, or approximately $78.3 million if the underwriters exercise their over-allotment option in full, assuming an initial public offering price of $15.00 per share, which is the midpoint of the price range listed on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and offering expenses payable by us. We expect to use most of the net proceeds from this offering to fund clinical trial activities and preclinical research and development activities, and the balance for other general corporate purposes. See Use of Proceeds.
Risk factors	You should read the Risk Factors section of this prospectus for a discussion of the factors to consider carefully before deciding to purchase any shares of our common stock.
Proposed NASDAQ Global Market symbol	FOLD

The number of shares of common stock to be outstanding immediately after the offering is based on 1,162,502 shares of common stock outstanding as of April 25, 2007 and the issuance of 16,071,924 shares of common stock issuable upon the automatic conversion of all shares of our redeemable convertible preferred stock outstanding upon the closing of this offering. The number of shares of common stock to be outstanding after this offering excludes:

- 2,549,950 shares of common stock issuable upon the exercise of stock options outstanding as of April 25, 2007, with a weighted average exercise price of $7.56 per share;
- 5,333 shares of common stock issuable upon exercise of a warrant to purchase common stock at an exercise price of $5.63 per share;
- shares of common stock issuable in connection with the exercise of outstanding warrants to purchase shares of series B redeemable convertible preferred stock. Upon the closing of this offering, these warrants will be automatically exercised and the shares of series B redeemable convertible preferred stock automatically converted into between 34,309 and 59,674 shares of common stock, depending on whether such warrants are exercised for cash or on a net issue basis. In the case of exercises on a net issue basis, we have assumed a price to the public of $15.00 per share, which is the mid-point of the price range as set forth on the cover page of this prospectus;
- an aggregate of 966,667 shares of common stock reserved for future issuance under our 2007 equity incentive plan as of the closing of this offering;
- an aggregate of 200,000 shares of common stock reserved for future issuance under our 2007 director option plan as of the closing of this offering; and
- an aggregate of 200,000 shares of common stock reserved for future issuance under our 2007 employee stock purchase plan as of the closing of this offering.

Unless otherwise noted, all information in this prospectus assumes:

- no exercise of the outstanding options or warrants to purchase capital stock described above;
- no exercise by the underwriters of their option to purchase shares of common stock to cover over-allotments; and
- a 1-for-7.5 reverse split of our common stock and preferred stock which we intend to effect prior to the closing of this offering.

Entities affiliated with New Enterprise Associates have indicated an interest in purchasing shares of our common stock in this offering at the initial public offering price. Because these indications of interest are not binding agreements or commitments to purchase, these entities may elect not to purchase any shares in this offering.

Table of Contents

SUMMARY FINANCIAL DATA

The following is a summary of our financial data. You should read the summary financial data together with our financial statements and the related notes appearing at the end of this prospectus, and Management s Discussion and Analysis of Financial Condition and Results of Operations and other financial information appearing elsewhere in this prospectus.

The pro forma net loss and pro forma net loss per share data for the year end December 31, 2006, and the three month period ended March 31, 2007, give effect, as of the beginning of each such period, to the issuance in March 2007 of 1,976,527 shares of our series D redeemable convertible preferred stock, and the automatic conversion of all outstanding shares of our redeemable convertible preferred stock into 16,071,924 shares of common stock upon the closing of this offering. The pro forma balance sheet data set forth below also give effect, as of March 31, 2007, to the foregoing events and the elimination of our warrant liability.

The pro forma as adjusted balance sheet data gives further effect to our issuance and sale of shares of common stock in this offering at an assumed initial public offering price of $15.00 per share, which is the midpoint of the price range listed on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and offering expenses payable by us.

	Year Ended December 31,			Three Months Ended March 31,		Period from February 4, 2002 (Inception) to March 31, 2007
	2004	2005	2006	2006	2007	
				(unaudited)	(unaudited)	(unaudited)
	(in thousands, except shares and per share data)					
Statement of Operations Data:						
Operating expenses:						
Research and development	$ 6,301	$ 13,652	$ 33,630	$ 6,028	$ 7,085	$ 65,889
General and administrative	2,081	6,877	12,277	1,900	2,850	25,642
Impairment of leasehold improvements						1,030
Depreciation and amortization	146	303	952	199	297	1,854
In-process research and development						418
Total operating expenses	8,528	20,831	46,859	8,127	10,232	94,833
Loss from operations	(8,528)	(20,831)	(46,859)	(8,127)	(10,232)	(94,833)
Other income (expenses):						
Interest income	190	610	1,991	238	693	3,501
Interest expense	(550)	(82)	(273)	(52)	(92)	(1,175)
	(2)	(280)	(22)	(343)	(64)	(368)

Change in fair value of warrant liability						
Other expense			(1,182)	(3)		(1,182)
Loss before tax benefit	(8,890)	(20,584)	(46,345)	(8,287)	(9,695)	(94,057)
Income tax benefit	83	612				695
Net loss	(8,807)	(19,972)	(46,345)	(8,287)	(9,695)	(93,362)
Deemed dividend			(19,424)			(19,424)
Preferred stock accretion	(125)	(139)	(159)	(41)	(41)	(492)

Table of Contents

	Year Ended December 31,			Three Months Ended March 31,		Period from February 4, 2002 (Inception) to March 31, 2007 (unaudited)
	2004	2005	2006	2006	2007	
				(unaudited)	(unaudited)	
	(in thousands, except shares and per share data)					
Net loss attributable to common stockholders	$ (8,932)	$ (20,111)	$ (65,928)	$ (8,328)	$ (9,736)	$ (113,278)
Net loss attributable to common stockholders per common shares basic and diluted	$ (29.05)	$ (49.02)	$ (89.58)	$ (15.43)	$ (10.21)	
Weighted-average common shares outstanding basic and diluted	307,539	410,220	735,967	539,789	953,959	
Unaudited pro forma net loss			$ (46,345)		$ (9,695)	
Unaudited pro forma basic and diluted net loss per share			$ (2.76)		$ (0.57)	
Unaudited shares used to compute pro forma basic and diluted net loss per share			16,807,933		17,025,885	

	As of March 31, 2007		
	Actual	Pro Forma (unaudited)	Pro Forma as Adjusted
		(in thousands)	
Balance Sheet Data:			
Cash and cash equivalents and marketable securities	$ 67,706	$ 67,706	$ 135,570

Working capital	59,526	59,526	127,390
Total assets	73,048	73,048	140,912
Total liabilities	11,146	10,474	10,474
Redeemable convertible preferred stock	148,184		
Deficit accumulated during the development stage	(93,362)	(92,690)	(92,690)
Total stockholders (deficiency) equity	(86,282)	62,574	130,439

Table of Contents

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below together with all of the other information included in this prospectus, including the financial statements and related notes appearing at the end of this prospectus, before deciding to invest in our common stock. If any of the following risks actually occur, they would materially harm our business, prospects, financial condition and results of operations. In this event, the market price of our common stock could decline and you could lose part or all of your investment.

Risks Related to Our Financial Position and Need for Additional Capital

We have incurred significant operating losses since our inception. We currently do not, and since inception never have had, any products available for commercial sale. We expect to incur operating losses for the foreseeable future and may never achieve or maintain profitability.

Since inception, we have incurred significant operating losses. Our net loss attributable to common stockholders was $65.9 million and $9.7 million for the year ended December 31, 2006 and the three months ended March 31, 2007, respectively. As of March 31, 2007, we had an accumulated deficit of $93.4 million. To date, we have financed our operations primarily through private placements of our redeemable convertible preferred stock. We have devoted substantially all of our efforts to research and development, including our preclinical development activities and clinical trials. We have not completed development of any drugs. We expect to continue to incur significant and increasing operating losses for at least the next several years and we are unable to predict the extent of any future losses. We anticipate that our expenses will increase substantially as we:

- continue our ongoing Phase II clinical trials of Amigal for the treatment of Fabry disease and potentially conduct later-stage clinical trials of Amigal;
- continue our ongoing Phase II clinical trials of Plicera for the treatment of Gaucher disease and potentially conduct later-stage clinical trials of Plicera;
- continue our ongoing Phase I clinical trials of AT2220 for the treatment of Pompe disease and potentially conduct later-stage clinical trials of AT2220;
- continue the research and development of additional product candidates;
- seek regulatory approvals for our product candidates that successfully complete clinical trials;
- establish a sales and marketing infrastructure to commercialize products for which we may obtain regulatory approval; and
- add operational, financial and management information systems and personnel, including personnel to support our product development efforts and our obligations as a public company.

To become and remain profitable, we must succeed in developing and commercializing drugs with significant market potential. This will require us to be successful in a range of challenging activities, including the discovery of product candidates, successful completion of preclinical testing and clinical trials of our product candidates, obtaining regulatory approval for these product candidates and manufacturing, marketing and selling those products for which

we may obtain regulatory approval. We are only in the preliminary stages of these activities. We may never succeed in these activities and may never generate revenues that are large enough to achieve profitability. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become or remain profitable could depress the market price of our common stock and could impair our ability to raise capital, expand our business, diversify our product offerings or continue our operations. A decline in the market price of our common stock would also cause you to lose a part or all of your investment.

Table of Contents

We will need substantial additional funding and may be unable to raise capital when needed, which would force us to delay, reduce or eliminate our product development programs or commercialization efforts.

We expect our research and development expenses to increase in connection with our ongoing activities, particularly as we continue our Phase II clinical trials of Amigal, our Phase II clinical trials of Plicera and our Phase I clinical trials of AT2220, and for any later-stage clinical trials of our product candidates. In addition, subject to obtaining regulatory approval of any of our product candidates, we expect to incur significant commercialization expenses for product sales and marketing, securing commercial quantities of product from our manufacturers and product distribution. We currently have no additional commitments or arrangements for any additional financing to fund the research and development and commercial launch of our product candidates.

We believe that the net proceeds from this offering, together with our existing cash and cash equivalents and marketable securities, will be sufficient to enable us to fund our operating expenses and capital expenditure requirements until at least early 2010, assuming an initial public offering price of $15.00 per share, which is the mid-point of the price range set forth on the cover page of this prospectus. If we sell a fewer number of shares in this offering than anticipated, or if we sell shares at less than the mid-point of the price range, then we would require capital sooner. Additional funds may not be available when we need them on terms that are acceptable to us, or at all. If adequate funds are not available to us on a timely basis, we may be required to reduce or eliminate research development programs or commercial efforts.

Our future capital requirements will depend on many factors, including:

- the progress and results of our clinical trials of Amigal, Plicera and AT2220;
- the scope, progress, results and costs of preclinical development, laboratory testing and clinical trials for our other product candidates;
- the costs, timing and outcome of regulatory review of our product candidates;
- the number and development requirements of other product candidates that we pursue;
- the costs of commercialization activities, including product marketing, sales and distribution;
- the emergence of competing technologies and other adverse market developments;
- the costs of preparing, filing and prosecuting patent applications and maintaining, enforcing and defending intellectual property related claims;
- the extent to which we acquire or invest in businesses, products and technologies; and
- our ability to establish collaborations and obtain milestone, royalty or other payments from any such collaborators.

Any additional funds that we obtain may not be on terms favorable to us or our stockholders or may require us to relinquish valuable rights.

Until such time, if ever, as we generate product revenue to finance our operations, we expect to finance our cash needs through public or private equity offerings and debt financings, corporate collaboration and licensing arrangements and grants from patient advocacy groups, foundations and government agencies. If we raise additional funds by issuing

equity securities, our stockholders will experience dilution. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends and may include rights that are senior to the holders of our common stock. Any debt financing or additional equity that we raise may contain terms, such as liquidation and other preferences, which are not favorable to us or our stockholders. If we raise additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us or our stockholders.

Table of Contents

Our short operating history may make it difficult for you to evaluate the success of our business to date and to assess our future viability.

We are a development stage company. We commenced operations in February 2002. Our operations to date have been limited to organizing and staffing our company, acquiring and developing our technology and undertaking preclinical studies and limited clinical trials of our most advanced product candidates. We have not yet demonstrated our ability to successfully complete large-scale, clinical trials, obtain regulatory approvals, manufacture a commercial-scale product or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful product commercialization. Consequently, any predictions you make about our future success or viability may not be as accurate as they could be if we had a longer operating history.

In addition, as a new business, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors. If we are successful in obtaining marketing approval for any of our lead product candidates, we will need to transition from a company with a research focus to a company capable of supporting commercial activities. We may not be successful in such a transition.

Risks Related to the Development and Commercialization of Our Product Candidates

We depend heavily on the success of our most advanced product candidates, Amigal, Plicera and AT2220. All of our product candidates are still in either preclinical or clinical development. Clinical trials of our product candidates may not be successful. If we are unable to commercialize Amigal, Plicera or AT2220, or experience significant delays in doing so, our business will be materially harmed.

We have invested a significant portion of our efforts and financial resources in the development of our most advanced product candidates, Amigal, Plicera and AT2220. Our ability to generate product revenue, which we do not expect will occur for at least the next several years, if ever, will depend heavily on the successful development and commercialization of these product candidates. The successful commercialization of our product candidates will depend on several factors, including the following:

- obtaining supplies of Amigal, Plicera and AT2220 for completion of our clinical trials on a timely basis;
- successful completion of preclinical studies and clinical trials;
- obtaining marketing approvals from the United States Food and Drug Administration, or FDA, and similar regulatory authorities outside the United States;
- establishing commercial-scale manufacturing arrangements with third party manufacturers whose manufacturing facilities are operated in compliance with current good manufacturing practice, or cGMP, regulations;
- launching commercial sales of the product, whether alone or in collaboration with others;
- acceptance of the product by patients, the medical community and third party payors;
- competition from other companies and their therapies;
- successful protection of our intellectual property rights from competing products in the United States and abroad; and

a continued acceptable safety and efficacy profile of our product candidates following approval.

If the market opportunities for our product candidates are smaller than we believe they are, then our revenues may be adversely affected and our business may suffer.

Each of the diseases that our product candidates are being developed to address is relatively rare. Our projections of both the number of people who have these diseases, as well as the subset of people with these diseases who have the potential to benefit from treatment with our product candidates, are based on estimates.

Table of Contents

Currently, most reported estimates of the prevalence of these diseases are based on studies of small subsets of the population of specific geographic areas, which are then extrapolated to estimate the prevalence of the diseases in the broader world population. In addition, as new studies are performed the estimated prevalence of these diseases may change. In fact, as a result of some recent studies, we believe that previously reported studies do not accurately account for the prevalence of Fabry disease and that the prevalence of Fabry disease could be many times higher than previously reported. There can be no assurance that the prevalence of Fabry disease, Gaucher disease or Pompe disease in the study populations, particularly in these newer studies, accurately reflect the prevalence of these diseases in the broader world population.

We estimate the number of potential patients in the broader world population who have those diseases and may respond to treatment with our product candidates by further extrapolating estimates of the prevalence of specific types of genetic mutations giving rise to these diseases. For example, we base our estimate of the percentage of Fabry patients who may respond to treatment with Amigal on the frequency of missense and other similar mutations that cause Fabry disease reported in the Human Gene Mutation Database. As a result of recent studies that estimate that the prevalence of Fabry disease could be many times higher than previously reported, we believe that the number of patients diagnosed with Fabry disease will increase and estimate that the number of Fabry patients who may benefit from the use of Amigal is significantly higher than some previously reported estimates of Fabry disease generally. If our estimates of the prevalence of Fabry disease, Gaucher disease or Pompe disease or of the number of patients who may benefit from treatment with our product candidates prove to be incorrect, the market opportunities for our product candidates may be smaller than we believe they are, our prospects for generating revenue may be adversely affected and our business may suffer.

Initial results from a clinical trial do not ensure that the trial will be successful and success in early stage clinical trials does not ensure success in later-stage clinical trials.

We will only obtain regulatory approval to commercialize a product candidate if we can demonstrate to the satisfaction of the FDA or the applicable non-United States regulatory authority, in well-designed and conducted clinical trials, that the product candidate is safe and effective and otherwise meets the appropriate standards required for approval for a particular indication. Clinical trials are lengthy, complex and extremely expensive processes with uncertain results. A failure of one or more of our clinical trials may occur at any stage of testing. We have limited experience in conducting and managing the clinical trials necessary to obtain regulatory approvals, including approval by the FDA.

Our efforts to develop all of our product candidates are at an early stage. Success in preclinical testing and early clinical trials does not ensure that later clinical trials will be successful, and initial results from a clinical trial do not necessarily predict final results. For example, results to date in our Phase II clinical trials of Amigal for the treatment of Fabry disease caused by missense mutations are based on data from only eleven patients and the kidney biopsy data are based on data from only three patients. Additional data from these eleven patients and data from additional patients in these trials may be less favorable than the results to date. No definitive conclusions as to the safety or efficacy of any drug candidate can be drawn from such a small number of patients. We cannot assure you that these trials will ultimately be successful.

Patients may not be compliant with their dosing regimen or trial protocols or they may withdraw from the study at any time for any reason. We note that a patient in the ongoing Phase II clinical trials for Amigal for the treatment of Fabry disease elected to withdraw from the study. This patient had a history of hypertension and discontinued study treatment due to increased blood pressure, which was reported by the investigator as possibly related to the study drug.

Even if our early stage clinical trials are successful, we will need to conduct additional clinical trials with larger numbers of patients receiving the drug for longer periods for all of our product candidates before we are able to seek approvals to market and sell these product candidates from the FDA and regulatory authorities outside the United States. In addition, each of our product candidates is based on our pharmacological chaperone technology. To date, we are not aware that any product based on chaperone technology has been approved by the FDA. As a result, we cannot be sure what endpoints the FDA will require us to measure in later-stage clinical trials of our product candidates. We are aware that the currently available enzyme

Table of Contents

replacement therapy for the treatment of Fabry disease was approved by the FDA based on an endpoint measuring GL-3 levels in a specific type of kidney cell. We cannot be certain that the FDA will permit the use of this endpoint in our Phase III trials of Amigal. If the FDA requires different endpoints than the endpoints we anticipate using, it may be more difficult for us to obtain, or we may be delayed in obtaining, FDA approval of our product candidates. If we are not successful in commercializing any of our lead product candidates, or are significantly delayed in doing so, our business will be materially harmed.

We have limited experience in conducting and managing the preclinical development activities and clinical trials necessary to obtain regulatory approvals, including approval by the FDA.

We have limited experience in conducting and managing the preclinical development activities and clinical trials necessary to obtain regulatory approvals, including approval by the FDA. To date, we have only three lead product candidates: Amigal, Plicera and AT2220. We have not obtained regulatory approval nor commercialized any of these or any other product candidates. We are currently conducting Phase II clinical trials for Amigal and Plicera and a Phase I clinical trial for AT2220 but have not yet initiated a Phase III clinical trial, or even completed a Phase II clinical trial, for any of our product candidates. Our limited experience might prevent us from successfully designing or implementing a clinical trial. We have limited experience in conducting and managing the application process necessary to obtain regulatory approvals and we might not be able to demonstrate that our product candidates meet the appropriate standards for regulatory approval. If we are not successful in conducting and managing our preclinical development activities or clinical trials or obtaining regulatory approvals, we might not be able to commercialize our lead product candidates, or might be significantly delayed in doing so, which will materially harm our business.

We may find it difficult to enroll patients in our clinical trials.

Each of the diseases that our lead product candidates are intended to treat is relatively rare and we expect only a subset of the patients with these diseases to be eligible for our clinical trials. Given that each of our product candidates is in the early stages of required testing, we may not be able to initiate or continue clinical trials for each or all of our product candidates if we are unable to locate a sufficient number of eligible patients to participate in the clinical trials required by the FDA or other non-United States regulatory agencies. The requirements of our clinical testing mandates that a patient cannot be involved in another clinical trial for the same indication. We are aware that our competitors have ongoing clinical trials for products that are competitive with our product candidates and patients who would otherwise be eligible for our clinical trials may be involved in such testing, rendering them unavailable for testing of our product candidates. Additionally, many patients with Fabry disease, Gaucher disease and Pompe disease may already be receiving existing therapies, such as enzyme replacement therapy, which would render them ineligible for our current clinical trials if they are not willing to stop receiving such therapies. Further, if we are required to include patients in our clinical trials who have never received enzyme replacement therapy, we may experience yet further difficulty and delay enrolling patients in our trials. Our inability to enroll a sufficient number of patients for any of our current or future clinical trials would result in significant delays or may require us to abandon one or more clinical trials altogether.

If our preclinical studies do not produce positive results, if our clinical trials are delayed or if serious side effects are identified during drug development, we may experience delays, incur additional costs and ultimately be unable to commercialize our product candidates.

Before obtaining regulatory approval for the sale of our product candidates, we must conduct, at our own expense, extensive preclinical tests to demonstrate the safety of our product candidates in animals, and clinical trials to demonstrate the safety and efficacy of our product candidates in humans. Preclinical and clinical testing is expensive, difficult to design and implement, and can take many years to complete. A failure of one or more of our preclinical studies or clinical trials can occur at any stage of testing. We may experience

Table of Contents

numerous unforeseen events during, or as a result of, preclinical testing and the clinical trial process that could delay or prevent our ability to obtain regulatory approval or commercialize our product candidates, including:

- our preclinical tests or clinical trials may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional preclinical testing or clinical trials or we may abandon projects that we expect to be promising;
- regulators or institutional review boards may not authorize us to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- conditions imposed on us by the FDA or any non-United States regulatory authority regarding the scope or design of our clinical trials or may require us to resubmit our clinical trial protocols to institutional review boards for re-inspection due to changes in the regulatory environment;
- the number of patients required for our clinical trials may be larger than we anticipate or participants may drop out of our clinical trials at a higher rate than we anticipate;
- our third party contractors or clinical investigators may fail to comply with regulatory requirements or fail to meet their contractual obligations to us in a timely manner;
- we might have to suspend or terminate one or more of our clinical trials if we, the regulators or the institutional review boards determine that the participants are being exposed to unacceptable health risks;
- regulators or institutional review boards may require that we hold, suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements;
- the cost of our clinical trials may be greater than we anticipate;
- the supply or quality of our product candidates or other materials necessary to conduct our clinical trials may be insufficient or inadequate or we may not be able to reach agreements on acceptable terms with prospective clinical research organizations; and
- the effects of our product candidates may not be the desired effects or may include undesirable side effects or the product candidates may have other unexpected characteristics.

If we are required to conduct additional clinical trials or other testing of our product candidates beyond those that we currently contemplate, if we are unable to successfully complete our clinical trials or other testing, if the results of these trials or tests are not positive or are only modestly positive or if there are safety concerns, we may:

- be delayed in obtaining, or may not be able to obtain, marketing approval for one or more of our product candidates;
- obtain approval for indications that are not as broad as intended or entirely different than those indications for which we sought approval; or
- have the product removed from the market after obtaining marketing approval.

Our product development costs will also increase if we experience delays in testing or approvals. We do not know whether any preclinical tests or clinical trials will be initiated as planned, will need to be restructured or will be

completed on schedule, if at all. Significant preclinical or clinical trial delays also could shorten the patent protection period during which we may have the exclusive right to commercialize our product candidates. Such delays could allow our competitors to bring products to market before we do and impair our ability to commercialize our products or product candidates.

Table of Contents

The commercial success of any product candidates that we may develop, including Amigal, Plicera and AT2220, will depend upon the degree of market acceptance by physicians, patients, third party payors and others in the medical community.

Any products that we bring to the market, including Amigal, Plicera and AT2220, if they receive marketing approval, may not gain market acceptance by physicians, patients, third party payors and others in the medical community. If these products do not achieve an adequate level of acceptance, we may not generate significant product revenue and we may not become profitable. The degree of market acceptance of our product candidates, if approved for commercial sale, will depend on a number of factors, including:

- the prevalence and severity of any side effects, including any limitations or warnings contained in a product s approved labeling;
- the efficacy and potential advantages over alternative treatments;
- the pricing of our product candidates;
- relative convenience and ease of administration;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the strength of marketing and distribution support and timing of market introduction of competitive products;
- publicity concerning our products or competing products and treatments; and
- sufficient third party insurance coverage or reimbursement.

Even if a potential product displays a favorable efficacy and safety profile in preclinical and clinical trials, market acceptance of the product will not be known until after it is launched. Our efforts to educate the medical community and third party payors on the benefits of our product candidates may require significant resources and may never be successful. Such efforts to educate the marketplace may require more resources than are required by the conventional technologies marketed by our competitors.

If we are unable to obtain adequate reimbursement from governments or third party payors for any products that we may develop or if we are unable to obtain acceptable prices for those products, our prospects for generating revenue and achieving profitability will suffer.

Our prospects for generating revenue and achieving profitability will depend heavily upon the availability of adequate reimbursement for the use of our approved product candidates from governmental and other third party payors, both in the United States and in other markets. Reimbursement by a third party payor may depend upon a number of factors, including the third party payor s determination that use of a product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;

cost-effective; and

neither experimental nor investigational.

Obtaining reimbursement approval for a product from each government or other third party payor is a time consuming and costly process that could require us to provide supporting scientific, clinical and cost effectiveness data for the use of our products to each payor. We may not be able to provide data sufficient to gain acceptance with respect to reimbursement or we might need to conduct post-marketing studies in order to demonstrate the cost-effectiveness of any future products to such payors satisfaction. Such studies might require us to commit a significant amount of management time and financial and other resources. Even when a payor determines that a product is eligible for reimbursement, the payor may impose coverage limitations

that preclude payment for some uses that are approved by the FDA or non-United States regulatory authorities. In addition, there is a risk that full reimbursement may not be available for high priced products. Moreover, eligibility for coverage does not imply that any product will be reimbursed in all cases or at a rate that allows us to make a profit or even cover our costs. Interim payments for new products, if applicable, may also not be sufficient to cover our costs and may not be made permanent. A primary trend in the United States healthcare industry and elsewhere is toward cost containment. We expect recent changes in the Medicare program and increasing emphasis on managed care to continue to put pressure on pharmaceutical product pricing. For example, the Medicare Prescription Drug Improvement and Modernization Act of 2003 provides a new Medicare prescription drug benefit that began in 2006 and mandates other reforms. While we cannot predict the full outcome of the implementation of this legislation, it is possible that the new Medicare prescription drug benefit, which will be managed by private health insurers and other managed care organizations, will result in additional government reimbursement for prescription drugs, which may make some prescription drugs more affordable but may further exacerbate industry wide pressure to reduce prescription drug prices. If one or more of our product candidates reaches commercialization, such changes may have a significant impact on our ability to set a price we believe is fair for our products and may affect our ability to generate revenue and achieve or maintain profitability.

Governments outside the United States tend to impose strict price controls and reimbursement approval policies, which may adversely affect our prospects for generating revenue.

In some countries, particularly European Union countries, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time (6 to 12 months or longer) after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost effectiveness of our product candidate to other available therapies. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our prospects for generating revenue, if any, could be adversely affected and our business may suffer.

If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to market and sell our product candidates, we may be unable to generate product revenue.

At present, we have no sales or marketing personnel. In order to commercialize any of our product candidates, we must either acquire or internally develop sales, marketing and distribution capabilities, or enter into collaborations with partners to perform these services for us. We may not be able to establish sales and distribution partnerships on acceptable terms or at all, and if we do enter into a distribution arrangement, our success will be dependent upon the performance of our partner.

In the event that we attempt to acquire or develop our own in-house sales, marketing and distribution capabilities, factors that may inhibit our efforts to commercialize our products without strategic partners or licensees include:

- our inability to recruit and retain adequate numbers of effective sales and marketing personnel;
- the inability of sales personnel to obtain access to or persuade adequate numbers of physicians to prescribe our products;
- the lack of complementary products to be offered by our sales personnel, which may put us at a competitive disadvantage against companies with broader product lines;
- unforeseen costs associated with creating our own sales and marketing team or with entering into a partnering agreement with an independent sales and marketing organization; and

efforts by our competitors to commercialize products at or about the time when our product candidates would be coming to market.

We may co-promote our product candidates in various markets with pharmaceutical and biotechnology companies in instances where we believe that a larger sales and marketing presence will expand the market or

Table of Contents

accelerate penetration. If we do enter into arrangements with third parties to perform sales and marketing services, our product revenues will be lower than if we directly sold and marketed our products and any revenues received under such arrangements will depend on the skills and efforts of others.

We may not be successful in entering into distribution arrangements and marketing alliances with third parties. Our failure to enter into these arrangements on favorable terms could delay or impair our ability to commercialize our product candidates and could increase our costs of commercialization. Dependence on distribution arrangements and marketing alliances to commercialize our product candidates will subject us to a number of risks, including:

- we may not be able to control the amount and timing of resources that our distributors may devote to the commercialization of our product candidates;
- our distributors may experience financial difficulties;
- business combinations or significant changes in a distributor s business strategy may also adversely affect a distributor s willingness or ability to complete its obligations under any arrangement; and
- these arrangements are often terminated or allowed to expire, which could interrupt the marketing and sales of a product and decrease our revenue.

If we are unable to establish adequate sales, marketing and distribution capabilities, whether independently or with third parties, we may not be able to generate product revenue and may not become profitable.

Product liability lawsuits against us could cause us to incur substantial liabilities and to limit commercialization of any products that we may develop.

We face an inherent risk of product liability exposure related to the testing of our product candidates in human clinical trials and will face an even greater risk if we commercially sell any products that we may develop and which are approved for sale. We may be exposed to product liability claims and product recalls, including those which may arise from misuse or malfunction of, or design flaws in, such products, whether or not such problems directly relate to the products and services we have provided. If we cannot successfully defend ourselves against claims that our product candidates or products caused injuries, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for any product candidates or products that we may develop;
- damage to our reputation;
- regulatory investigations that could require costly recalls or product modifications;
- withdrawal of clinical trial participants;
- costs to defend the related litigation;
- substantial monetary awards to trial participants or patients, including awards that substantially exceed our product liability insurance, which we would then be required to pay from other sources, if available, and would damage our ability to obtain liability insurance at reasonable costs, or at all, in the future;
- loss of revenue;

the diversion of management s attention from managing our business; and

the inability to commercialize any products that we may develop.

We have liability insurance policies for our clinical trials in the geographies in which we are conducting trials. The aggregate annual limit of coverage amount under these policies expressed in United States dollars is approximately $31.4 million, and these policies are also subject to per claim deductibles. The amount of insurance that we currently hold may not be adequate to cover all liabilities that we may incur. Insurance coverage is increasingly expensive. We may not be able to maintain insurance coverage at a reasonable cost and we may not be able to obtain insurance coverage that will be adequate to satisfy any liability that may

Table of Contents

arise. On occasion, large judgments have been awarded in class action lawsuits based on drugs that had unanticipated side effects. A successful product liability claim or a series of claims brought against us could cause our stock price to fall and, if judgments exceed our insurance coverage, could decrease our available cash and adversely affect our business.

We face substantial competition which may result in others discovering, developing or commercializing products before or more successfully than we do.

The development and commercialization of new drugs is highly competitive and competition is expected to increase. We face competition with respect to our current product candidates and any products we may seek to develop or commercialize in the future from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. For example, several large pharmaceutical and biotechnology companies currently market and sell products for the treatment of Fabry disease. These products include Genzyme Corporation s Fabrazyme and Shire PLC s Replagal. In addition, Genzyme Corporation and Actelion, Ltd. market and sell Cerezyme and Zavesca, respectively, for the treatment of Gaucher disease, and Genzyme Corporation markets and sells Myozyme for the treatment of Pompe disease. We are also aware of other enzyme replacement and substrate reduction therapies in development by third parties.

Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization. Our competitors may develop products that are more effective, safer, more convenient or less costly than any that we are developing or that would render our product candidates obsolete or noncompetitive. Our competitors may also obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours. We may also face competition from off-label use of other approved therapies. There can be no assurance that developments by others that will not render our product candidates obsolete or noncompetitive either during the research phase or once the products reach commercialization.

We believe that many competitors, including academic institutions, government agencies, public and private research organizations, large pharmaceutical companies and smaller more focused companies, are attempting to develop therapies for many of our target indications.

Many of our competitors have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals, prosecuting intellectual property rights and marketing approved products than we do. Smaller and other early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to or necessary for our programs or advantageous to our business. In addition, if we obtain regulatory approvals for our products, manufacturing efficiency and marketing capabilities are likely to be significant competitive factors. We currently have no commercial manufacturing capability, sales force or marketing infrastructure. Further, many of our competitors have substantial resources and expertise in conducting collaborative arrangements, sourcing in-licensing arrangements and acquiring new business lines or businesses that are greater than our own.

Our business activities involve the use of hazardous materials, which require compliance with environmental and occupational safety laws regulating the use of such materials. If we violate these laws, we could be subject to significant fines, liabilities or other adverse consequences.

Our research and development programs involve the controlled use of hazardous materials, including microbial agents, corrosive, explosive and flammable chemicals and other hazardous compounds in addition to certain biological hazardous waste. Ultimately, the activities of our third party product manufacturers when a product candidate reaches commercialization will also require the use of hazardous materials. Accordingly, we are subject to federal, state and local laws governing the use, handling and disposal of these materials. Although we believe that our safety procedures for handling and disposing of these materials comply in all material

Table of Contents

respects with the standards prescribed by local, state and federal regulations, we cannot completely eliminate the risk of accidental contamination or injury from these materials. In addition, our collaborators may not comply with these laws. In the event of an accident or failure to comply with environmental laws, we could be held liable for damages that result, and any such liability could exceed our assets and resources or we could be subject to limitations or stoppages related to our use of these materials which may lead to an interruption of our business operations or those of our third party contractors. While we believe that our existing insurance coverage is generally adequate for our normal handling of these hazardous materials, it may not be sufficient to cover pollution conditions or other extraordinary or unanticipated events. Furthermore, an accident could damage or force us to shut down our operations. Changes in environmental laws may impose costly compliance requirements on us or otherwise subject us to future liabilities and additional laws relating to the management, handling, generation, manufacture, transportation, storage, use and disposal of materials used in or generated by the manufacture of our products or related to our clinical trials. In addition, we cannot predict the effect that these potential requirements may have on us, our suppliers and contractors or our customers.

Risks Related to Our Dependence on Third Parties

Use of third parties to manufacture our product candidates may increase the risk that we will not have sufficient quantities of our product candidates or such quantities at an acceptable cost, and clinical development and commercialization of our product candidates could be delayed, prevented or impaired.

We do not own or operate manufacturing facilities for clinical or commercial production of our product candidates. We have limited personnel with experience in drug manufacturing and we lack the resources and the capabilities to manufacture any of our product candidates on a clinical or commercial scale. We currently outsource all manufacturing and packaging of our preclinical and clinical product candidates and products to third parties. The manufacture of pharmaceutical products requires significant expertise and capital investment, including the development of advanced manufacturing techniques and process controls. Manufacturers of pharmaceutical products often encounter difficulties in production, particularly in scaling up initial production. These problems include difficulties with production costs and yields and quality control, including stability of the product candidate.

We do not currently have any agreements with third party manufacturers for the long-term commercial supply of any of our product candidates. We may be unable to enter into agreements for commercial supply with third party manufacturers, or may be unable to do so on acceptable terms. Even if we enter into these agreements, the manufacturers of each product candidate will be single source suppliers to us for a significant period of time.

Reliance on third party manufacturers entails risks to which we would not be subject if we manufactured product candidates or products ourselves, including:

- reliance on the third party for regulatory compliance and quality assurance;
- limitations on supply availability resulting from capacity and scheduling constraints of the third parties;
- impact on our reputation in the marketplace if manufacturers of our products, once commercialized, fail to meet the demands of our customers;
- the possible breach of the manufacturing agreement by the third party because of factors beyond our control; and
- the possible termination or nonrenewal of the agreement by the third party, based on its own business priorities, at a time that is costly or inconvenient for us.

The failure of any of our contract manufacturers to maintain high manufacturing standards could result in injury or death of clinical trial participants or patients using products. Such failure could also result in product liability claims, product recalls, product seizures or withdrawals, delays or failures in testing or delivery, cost overruns or other problems that could seriously harm our business or profitability.

Table of Contents

Our contract manufacturers will be required to adhere to FDA regulations setting forth current good manufacturing processes, or cGMP. These regulations cover all aspects of the manufacturing, testing, quality control and recordkeeping relating to our product candidates and any products that we may commercialize. Our manufacturers may not be able to comply with cGMP regulations or similar regulatory requirements outside the United States. Our manufacturers are subject to unannounced inspections by the FDA, state regulators and similar regulators outside the United States. Our failure, or the failure of our third party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including fines, injunctions, civil penalties, failure of regulatory authorities to grant marketing approval of our product candidates, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates or products, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect regulatory approval and supplies of our product candidates.

Our product candidates and any products that we may develop may compete with other product candidates and products for access to manufacturing facilities. There are a limited number of manufacturers that operate under cGMP regulations and that are both capable of manufacturing for us and willing to do so. If the third parties that we engage to manufacture products for our preclinical tests and clinical trials should cease to continue to do so for any reason, we likely would experience delays in advancing these trials while we identify and qualify replacement suppliers and we may be unable to obtain replacement supplies on terms that are favorable to us. Later relocation to another manufacturer will also require notification, review and other regulatory approvals from the FDA and other regulators and will subject our production to further cost and instability in the availability of our product candidates. In addition, if we are not able to obtain adequate supplies of our product candidates or the drug substances used to manufacture them, it will be more difficult for us to develop our product candidates and compete effectively.

Our current and anticipated future dependence upon others for the manufacture of our product candidates may adversely affect our future profit margins and our ability to develop product candidates and commercialize any products that obtain regulatory approval on a timely and competitive basis.

Materials necessary to manufacture our product candidates may not be available on commercially reasonable terms, or at all, which may delay the development and commercialization of our product candidates.

We rely on the manufacturers of our product candidates to purchase from third party suppliers the materials necessary to produce the compounds for our preclinical and clinical studies and will rely on these other manufacturers for commercial distribution if we obtain marketing approval for any of our product candidates. Suppliers may not sell these materials to our manufacturers at the time we need them or on commercially reasonable terms and all such prices are susceptible to fluctuations in price and availability due to transportation costs, government regulations, price controls, changes in economic climate or other foreseen circumstances. We do not have any control over the process or timing of the acquisition of these materials by our manufacturers. Moreover, we currently do not have any agreements for the commercial production of these materials. If our manufacturers are unable to obtain these materials for our preclinical and clinical studies, product testing and potential regulatory approval of our product candidates would be delayed, significantly impacting our ability to develop our product candidates. If our manufacturers or we are unable to purchase these materials after regulatory approval has been obtained for our product candidates, the commercial launch of our product candidates would be delayed or there would be a shortage in supply, which would materially affect our ability to generate revenues from the sale of our product candidates.

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

We do not independently conduct certain preclinical development activities of our product candidates, such as long-term safety studies in animals, or clinical trials for our product candidates. We rely on, or work in conjunction

with, third parties, such as contract research organizations, medical institutions and clinical investigators, to perform this function. Our reliance on these third parties for preclinical and clinical

Table of Contents

development activities reduces our control over these activities. We are responsible for ensuring that each of our preclinical development activities and our clinical trials is conducted in accordance with the applicable general investigational plan and protocols, however, we have no direct control over these researchers or contractors (except by contract), as they are not our employees. Moreover, the FDA requires us to comply with standards, commonly referred to as Good Clinical Practices, or GCP, for conducting, recording and reporting the results of our preclinical development activities and our clinical trials to assure that data and reported results are credible and accurate and that the rights, safety and confidentiality of trial participants are protected. Our reliance on third parties that we do not control does not relieve us of these responsibilities and requirements. Furthermore, these third parties may also have relationships with other entities, some of which may be our competitors. If these third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our preclinical development activities or our clinical trials in accordance with regulatory requirements or our stated protocols, we will not be able to obtain, or may be delayed in obtaining, regulatory approvals for our product candidates and will not be able to, or may be delayed in our efforts to, successfully commercialize our product candidates. Moreover, these third parties may be bought by other entities or they may go out of business, thereby preventing them from meeting their contractual obligations.

We also rely on other third parties to store and distribute drug supplies for our preclinical development activities and our clinical trials. Any performance failure on the part of our existing or future distributors could delay clinical development or regulatory approval of our product candidates or commercialization of our products, producing additional losses and depriving us of potential product revenue.

Extensions, delays, suspensions or terminations of our preclinical development activities and our clinical trials as a result of the performance of our independent clinical investigators and contract research organizations will delay, and make more costly, regulatory approval for any product candidates that we may develop. Any change in a contract research organization during an ongoing preclinical development activity or clinical trial could seriously delay that trial and potentially compromise the results of the activity or trial.

We may not be successful in maintaining or establishing collaborations, which could adversely affect our ability to develop and, particularly in international markets, commercialize products.

For each of our product candidates, we are collaborating with physicians, patient advocacy groups, foundations and government agencies in order to assist with the development of our products. We plan to pursue similar activities in future programs and plan to evaluate the merits of retaining commercialization rights for ourselves or entering into selective collaboration arrangements with leading pharmaceutical or biotechnology companies. We also may seek to establish collaborations for the sales, marketing and distribution of our products outside the United States. If we elect to seek collaborators in the future but are unable to reach agreements with suitable collaborators, we may fail to meet our business objectives for the affected product or program. We face, and will continue to face, significant competition in seeking appropriate collaborators. Moreover, collaboration arrangements are complex and time consuming to negotiate, document and implement. We may not be successful in our efforts, if any, to establish and implement collaborations or other alternative arrangements. The terms of any collaborations or other arrangements that we establish, if any, may not be favorable to us.

Any collaboration that we enter into may not be successful. The success of our collaboration arrangements, if any, will depend heavily on the efforts and activities of our collaborators. It is likely that any collaborators of ours will have significant discretion in determining the efforts and resources that they will apply to these collaborations. The risks that we may be subject to in possible future collaborations include the following:

- our collaboration agreements are likely to be for fixed terms and subject to termination by our collaborators in the event of a material breach or lack of scientific progress by us;

our collaborators are likely to have the first right to maintain or defend our intellectual property rights and, although we would likely have the right to assume the maintenance and defense of our intellectual property rights if our collaborators do not, our ability to do so may be compromised by our collaborators acts or omissions; and

Table of Contents

our collaborators may utilize our intellectual property rights in such a way as to invite litigation that could jeopardize or invalidate our intellectual property rights or expose us to potential liability.

Collaborations with pharmaceutical companies and other third parties often are terminated or allowed to expire by the other party. Such terminations or expirations may adversely affect us financially and could harm our business reputation in the event we elect to pursue collaborations that ultimately expire or are terminated.

Risks Related to Our Intellectual Property

If we are unable to obtain and maintain protection for the intellectual property relating to our technology and products, the value of our technology and products will be adversely affected.

Our success will depend in large part on our ability to obtain and maintain protection in the United States and other countries for the intellectual property covering or incorporated into our technology and products. The patent situation in the field of biotechnology and pharmaceuticals generally is highly uncertain and involves complex legal, technical, scientific and factual questions. We may not be able to obtain additional issued patents relating to our technology or products. Even if issued, patents issued to us or our licensors may be challenged, narrowed, invalidated, held to be unenforceable or circumvented, which could limit our ability to stop competitors from marketing similar products or reduce the term of patent protection we may have for our products. Changes in either patent laws or in interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property or narrow the scope of our patent protection.

The degree of future protection for our proprietary rights is uncertain, and we cannot ensure that:

- we or our licensors were the first to make the inventions covered by each of our pending patent applications;
- we or our licensors were the first to file patent applications for these inventions;
- others will not independently develop similar or alternative technologies or duplicate any of our technologies;
- any patents issued to us or our licensors will provide a basis for commercially viable products, will provide us with any competitive advantages or will not be challenged by third parties;
- we will develop additional proprietary technologies that are patentable;
- we will file patent applications for new proprietary technologies promptly or at all;
- our patents will not expire prior to or shortly after commencing commercialization of a product; or
- the patents of others will not have a negative effect on our ability to do business.

In addition, we cannot assure you that any of our pending patent applications will result in issued patents. In particular, we have filed patent applications in the European Patent Office and other countries outside the United States that have not been issued as patents. These pending applications include, among others, the patent applications we license pursuant to a license agreement with Mount Sinai School of Medicine of New York University. If patents are not issued in respect of our pending patent applications, we may not be able to stop competitors from marketing similar products in Europe and other countries in which we do not have issued patents.

The patents and patent applications that we own or have licensed relating to use of Amigal expire in 2018 in the United States and 2019 outside of the United States, and the foreign counterparts, if issued, would expire in 2019. Patents that we own or have licensed relating to Plicera expire between 2015 and 2016 in the United States and in 2015 outside of the United States for composition of matter, and in 2018 in the United States for methods of use. We currently have no issued patents or pending applications covering methods of using Plicera outside of the United States. Patents and patent applications that we own or have licensed relating to the use of AT2220 expire in 2018 in the United States. Further, we currently do not have composition of matter or method of use protection for AT2220 outside of the United States. Where we lack patent protection outside of the United States, we intend to seek orphan medicinal product designation and to

Table of Contents

rely on statutory data exclusivity provisions in jurisdictions outside the United States where such protections are available, including Europe. If we are unable to obtain such protection outside the United States, our competitors may be free to use and sell Plicera and/or AT2220 outside of the United States and there will be no liability for infringement or any other barrier to competition. The patent rights that we own or have licensed relating to our product candidates are limited in ways that may affect our ability to exclude third parties from competing against us if we obtain regulatory approval to market these product candidates. In particular:

- We do not hold composition of matter patents covering Amigal and AT2220, two of our three lead product candidates. Composition of matter patents can provide protection for pharmaceutical products to the extent that the specifically covered compositions are important. For our product candidates for which we do not hold composition of matter patents, competitors who obtain the requisite regulatory approval can offer products with the same composition as our products so long as the competitors do not infringe any method of use patents that we may hold.

- For some of our product candidates, the principal patent protection that covers, or that we expect will cover, our product candidate is a method of use patent. This type of patent only protects the product when used or sold for the specified method. However, this type of patent does not limit a competitor from making and marketing a product that is identical to our product that is labeled for an indication that is outside of the patented method, or for which there is a substantial use in commerce outside the patented method.

Moreover, physicians may prescribe such a competitive identical product for indications other than the one for which the product has been approved, or off-label indications, that are covered by the applicable patents. Although such off-label prescriptions may infringe or induce infringement of method of use patents, the practice is common and such infringement is difficult to prevent or prosecute.

Our patents also may not afford us protection against competitors with similar technology. Because patent applications in the United States and many other jurisdictions are typically not published until 18 months after filing, or in some cases not at all, and because publications of discoveries in the scientific literature often lag behind the actual discoveries, neither we nor our licensors can be certain that we or they were the first to make the inventions claimed in our or their issued patents or pending patent applications, or that we or they were the first to file for protection of the inventions set forth in these patent applications. If a third party has also filed a United States patent application covering our product candidates or a similar invention, we may have to participate in an adversarial proceeding, known as an interference, declared by the United States Patent and Trademark Office to determine priority of invention in the United States. The costs of these proceedings could be substantial and it is possible that our efforts could be unsuccessful, resulting in a loss of our United States patent position.

If we fail to comply with our obligations in our intellectual property licenses with third parties, we could lose license rights that are important to our business.

We are a party to a number of license agreements including agreements with the Mount Sinai School of Medicine of New York University, the University of Maryland, Baltimore County and Novo Nordisk A/S, pursuant to which we license key intellectual property relating to our lead product candidates. We expect to enter into additional licenses in the future. Under our existing licenses, we have the right to enforce the licensed patent rights. Our existing licenses impose, and we expect that future licenses will impose, various diligence, milestone payment, royalty, insurance and other obligations on us. If we fail to comply with these obligations, the licensor may have the right to terminate the license, in which event we might not be able to market any product that is covered by the licensed patents.

If we are unable to protect the confidentiality of our proprietary information and know-how, the value of our technology and products could be adversely affected.

We seek to protect our know-how and confidential information, in part, by confidentiality agreements with our employees, corporate partners, outside scientific collaborators, sponsored researchers, consultants and

other advisors. We also have confidentiality and invention or patent assignment agreements with our employees and our consultants. If our employees or consultants breach these agreements, we may not have adequate remedies for any of these breaches. In addition, our trade secrets may otherwise become known to or be independently developed by others. Enforcing a claim that a party illegally obtained and is using our trade secrets is difficult, expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets. Costly and time consuming litigation could be necessary to seek to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

If we infringe or are alleged to infringe the intellectual property rights of third parties, it will adversely affect our business.

Our research, development and commercialization activities, as well as any product candidates or products resulting from these activities, may infringe or be accused of infringing one or more claims of an issued patent or may fall within the scope of one or more claims in a published patent application that may subsequently issue and to which we do not hold a license or other rights. Third parties may own or control these patents or patent applications in the United States and abroad. These third parties could bring claims against us that would cause us to incur substantial expenses and, if successful against us, could cause us to pay substantial damages. Further, if a patent infringement suit were brought against us, we or they could be forced to stop or delay research, development, manufacturing or sales of the product or product candidate that is the subject of the suit.

No assurance can be given that patents do not exist, have not been filed, or could not be filed or issued, which contain claims covering our products, technology or methods. Because of the number of patents issued and patent applications filed in our field, we believe there is a risk that third parties may allege they have patent rights encompassing our products, technology or methods.

We are aware, for example, of United States patents, and corresponding international counterparts, owned by third parties that contain claims related to treating protein misfolding. We have received written notice from one of these third parties indicating that it believes we may need a license to certain of these patents in order to avoid infringing such patents. If any of these third party patents were to be asserted against us we do not believe that our proposed products would be found to infringe any valid claim of these patents. If we were to challenge the validity of any issued United States patent in court, we would need to overcome a presumption of validity that attaches to every patent. This burden is high and would require us to present clear and convincing evidence as to the invalidity of the patent s claims. There is no assurance that a court would find in our favor on infringement or validity.

In order to avoid or settle potential claims with respect to any of the patent rights described above or any other patent rights of third parties, we may choose or be required to seek a license from a third party and be required to pay license fees or royalties or both. These licenses may not be available on acceptable terms, or at all. Even if we or our future collaborators were able to obtain a license, the rights may be nonexclusive, which could result in our competitors gaining access to the same intellectual property. Ultimately, we could be prevented from commercializing a product, or be forced to cease some aspect of our business operations, if, as a result of actual or threatened patent infringement claims, we are unable to enter into licenses on acceptable terms. This could harm our business significantly.

Others may sue us for infringing their patent or other intellectual property rights or file nullity, opposition or interference proceedings against our patents, even if such claims are without merit, which would similarly harm our business. For example, by letter dated April 10, 2007, we received a notice from a third party alleging trademark infringement in connection with our intended use of The NASDAQ Global Market ticker symbol FOLD for our common stock. Furthermore, during the course of litigation, confidential information may be disclosed in the form of documents or testimony in connection with discovery requests, depositions or trial testimony. Disclosure of our

confidential information and our involvement in intellectual property litigation could materially adversely affect our business.

Table of Contents

There has been substantial litigation and other proceedings regarding patent and other intellectual property rights in the pharmaceutical and biotechnology industries. In addition to infringement claims against us, we may become a party to other patent litigation and other proceedings, including interference proceedings declared by the United States Patent and Trademark Office and opposition proceedings in the European Patent Office, regarding intellectual property rights with respect to our products and technology. Even if we prevail, the cost to us of any patent litigation or other proceeding could be substantial.

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 any litigation could significantly limit our ability to continue our operations. Patent litigation and other proceedings may also absorb significant management time.

Many of our employees were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. We try to ensure that our employees do not use the proprietary information or know-how of others in their work for us. However, we may be subject to claims that we or these employees have inadvertently or otherwise used or disclosed intellectual property, trade secrets or other proprietary information of any such employee s former employer. Litigation may be necessary to defend against these claims and, even if we are successful in defending ourselves, could result in substantial costs to us or be distracting to our management. If we fail to defend any such claims, in addition to paying monetary damages, we may jeopardize valuable intellectual property rights, disclose confidential information or lose personnel.

Risks Related to Regulatory Approval of Our Product Candidates

If we are not able to obtain and maintain required regulatory approvals, we will not be able to commercialize our product candidates, and our ability to generate revenue will be materially impaired.

Our product candidates, including Amigal, Plicera and AT2220, and the activities associated with their development and commercialization, including their testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale and distribution, are subject to comprehensive regulation by the FDA and other regulatory agencies in the United States and by comparable authorities in other countries. Failure to obtain regulatory approval for a product candidate will prevent us from commercializing the product candidate in the jurisdiction of the regulatory authority. We have not obtained regulatory approval to market any of our product candidates in any jurisdiction. We have only limited experience in filing and prosecuting the applications necessary to obtain regulatory approvals and expect to rely on third party contract research organizations to assist us in this process.

Securing FDA approval requires the submission of extensive preclinical and clinical data and supporting information to the FDA for each therapeutic indication to establish the product candidate s safety and efficacy. Securing FDA approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the FDA. Our future products may not be effective, may be only moderately effective or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude our obtaining regulatory approval or prevent or limit commercial use.

Our product candidates may fail to obtain regulatory approval for many reasons, including:

- our failure to demonstrate to the satisfaction of the FDA or comparable 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 comparable regulatory authorities for approval;

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

our inability to demonstrate that the product candidate presents an advantage over existing therapies;

Table of Contents

the FDA s or comparable regulatory authorities disagreement with the manner in which we interpret the data from preclinical studies or clinical trials;

the FDA s or comparable regulatory authorities failure to approve the manufacturing processes, quality procedures or manufacturing facilities of third party manufacturers with which we contract for clinical or commercial supplies; and

a change in the approval policies or regulations of the FDA or comparable regulatory authorities or a change in the laws governing the approval process.

The process of obtaining regulatory approvals is expensive, often takes many years, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved. Changes in regulatory approval policies during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for each submitted product application may cause delays in the approval or rejection of an application. The FDA and non-United States regulatory authorities have substantial discretion in the approval process and may refuse to accept any application or may decide that our data is insufficient for approval and require additional preclinical, clinical or other studies. In addition, varying interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent regulatory approval of a product candidate. Any regulatory approval we ultimately obtain may be limited or subject to restrictions or post approval commitments that render the approved product not commercially viable. Any FDA or other regulatory approval of our product candidates, once obtained, may be withdrawn, including for failure to comply with regulatory requirements or if clinical or manufacturing problems follow initial marketing.

Our product candidates may cause undesirable side effects or have other properties that could delay or prevent their regulatory approval or commercialization.

Undesirable side effects caused by our product candidates could interrupt, delay or halt clinical trials and could result in the denial of regulatory approval by the FDA or other regulatory authorities for any or all targeted indications, and in turn prevent us from commercializing our product candidates and generating revenues from their sale. For example, in a clinical trial of Amigal for Fabry disease, one patient with a history of hypertension experienced increased blood pressure during the course of the trial which was reported by the investigator as possibly related to the drug. Further, Amigal has been shown to cause reversible infertility effects in mice.

In addition, if any of our product candidates receive marketing approval and we or others later identify undesirable side effects caused by the product:

regulatory authorities may require the addition of restrictive labeling statements;

regulatory authorities may withdraw their approval of the product; and

we may be required to change the way the product is administered or conduct additional clinical trials.

Any of these events could prevent us from achieving or maintaining market acceptance of the affected product or could substantially increase the costs and expenses of commercializing the product candidate, which in turn could delay or prevent us from generating significant revenues from its sale or adversely affect our reputation.

We may not be able to obtain orphan drug exclusivity for our product candidates. If our competitors are able to obtain orphan drug exclusivity for their products that are the same drug as our product candidates, we may

not be able to have competing products approved by the applicable regulatory authority for a significant period of time.

Regulatory authorities in some jurisdictions, including the United States and Europe, may designate drugs for relatively small patient populations as orphan drugs. We obtained orphan drug designations from the FDA for Amigal for the treatment of Fabry disease on February 25, 2004 and the active ingredient in Plicera for the treatment of Gaucher disease on January 10, 2006. We also obtained orphan drug designation from the

Table of Contents

European Medicines Agency, or EMEA, for Amigal on May 22, 2006. We anticipate filing for orphan drug designation from the EMEA for Plicera for the treatment of Gaucher disease and from the FDA and EMEA for AT2220 for the treatment of Pompe disease. Generally, if a product with an orphan drug designation subsequently receives the first marketing approval for the indication for which it has such designation, the product is entitled to a period of marketing exclusivity, which precludes the applicable regulatory authority from approving another marketing application for the same drug for that time period. The applicable period is seven years in the United States and ten years in Europe. For a drug composed of small molecules, the FDA defines same drug as a drug that contains the same active molecule and is intended for the same use. Obtaining orphan drug exclusivity for Amigal and Plicera may be important to each of the product candidate s success. Even if we obtain orphan drug exclusivity for Amigal or Plicera for these indications, we may not be able to maintain it. For example, if a competitive product that is the same drug as our product candidate is shown to be clinically superior to our product candidate, any orphan drug exclusivity we have obtained will not block the approval of such competitive product and we may effectively lose what had previously been orphan drug exclusivity.

Any product for which we obtain marketing approval could be subject to restrictions or withdrawal from the market and we may be subject to penalties if we fail to comply with regulatory requirements or if we experience unanticipated problems with our products, when and if any of them are approved.

Any product for which we obtain marketing approval, along with the manufacturing processes, post approval clinical data, labeling, advertising and promotional activities for such product, will be subject to continual requirements of and review by the FDA and comparable regulatory authorities. These requirements include submissions of safety and other post marketing information and reports, registration requirements, cGMP requirements relating to quality control, quality assurance and corresponding maintenance of records and documents, requirements regarding the distribution of samples to physicians and recordkeeping. Even if we obtain regulatory approval of a product, the approval may be subject to limitations on the indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for costly post marketing testing and surveillance to monitor the safety or efficacy of the product. We also may be subject to state laws and registration requirements covering the distribution of our products. Later discovery of previously unknown problems with our products, manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in actions such as:

- restrictions on such products, manufacturers or manufacturing processes;
- warning letters;
- withdrawal of the products from the market;
- refusal to approve pending applications or supplements to approved applications that we submit;
- voluntary or mandatory recall;
- fines;
- suspension or withdrawal of regulatory approvals or refusal to approve pending applications or supplements to approved applications that we submit;
- refusal to permit the import or export of our products;
- product seizure or detentions;

injunctions or the imposition of civil or criminal penalties; and

adverse publicity.

If we, or our suppliers, third party contractors, clinical investigators or collaborators are slow to adapt, or are unable to adapt, to changes in existing regulatory requirements or adoption of new regulatory requirements or policies, we or our collaborators may lose marketing approval for our products when and if any of them are approved, resulting in decreased revenue from milestones, product sales or royalties.

Table of Contents

Failure to obtain regulatory approval in international jurisdictions would prevent us from marketing our products abroad.

We intend to have our products marketed outside the United States. In order to market our products in the European Union and many other jurisdictions, we must obtain separate regulatory approvals and comply with numerous and varying regulatory requirements. The approval procedures vary among countries and can involve additional testing and clinical trials. The time required to obtain approval may differ from that required to obtain FDA approval. The regulatory approval process outside the United States may include all of the risks associated with obtaining FDA approval. In addition, in many countries outside the United States, it is required that the product be approved for reimbursement by government-backed healthcare regulators or insurance providers before the product can be approved for sale in that country. We may not obtain approvals from regulatory authorities outside the United States on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one regulatory authority outside the United States does not ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA. We may not be able to file for regulatory approvals and may not receive necessary approvals to commercialize our products in any market.

Risks Related to Employee Matters and Managing Growth

Our future success depends on our ability to retain our chief executive officer and other key executives and to attract, retain and motivate qualified personnel.

We are highly dependent on John F. Crowley, our President and Chief Executive Officer, Matthew R. Patterson, our Chief Operating Officer, James E. Dentzer, our Chief Financial Officer, and David J. Lockhart, Ph.D., our Chief Scientific Officer. These executives each have significant pharmaceutical industry experience, including Mr. Crowley, with whom we have entered into an employment agreement that runs for successive one year terms until either we or Mr. Crowley elect to terminate the agreement. We may terminate Mr. Crowley s employment without cause at any time, or we may decide not to extend Mr. Crowley s agreement at the end of any term, or he may terminate his employment for good reason at any time, in each case subject to certain severance payments and benefits as described elsewhere in this prospectus. Mr. Crowley is a commissioned officer in the United States Navy (Reserve). The United States recently called Mr. Crowley to service, which he fulfilled, from September 11, 2006 to March 5, 2007, and he may be called to active duty service again at any time. The loss of Mr. Crowley for protracted military duty could materially adversely affect our business. We are also parties to employment agreements with each of Messrs. Patterson and Dentzer and Dr. Lockhart. These employment agreements each provide for an initial term of two years, and will continue thereafter for successive two-year periods until we provide the executive with written notice of the end of the agreement in accordance with its terms. We may terminate any of these executives without cause at any time, or one of these executives may quit for good reason within six months of the occurrence of certain corporate changes, in each case subject to certain severance payments and benefits as described elsewhere in this prospectus. The loss of the services of any of these executives might impede the achievement of our research, development and commercialization objectives and materially adversely affect our business. We do not maintain key person insurance on Mr. Crowley or on any of our other executive officers.

Recruiting and retaining qualified scientific personnel, clinical personnel and sales and marketing personnel will also be critical to our success. Our industry has experienced a high rate of turnover in recent years. We may not be able to attract and retain these personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel, particularly in New Jersey and surrounding areas. Although we believe we offer competitive salaries and benefits, we may have to increase spending in order to retain personnel.

We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in

formulating our research and development and commercialization strategy. Our consultants and

Table of Contents

advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us.

We expect to expand our development, regulatory and sales and marketing capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

We are a development stage company with 76 full-time employees as of April 25, 2007. Of these employees, 53 work primarily in research and development and 23 provide administrative services. We expect to experience significant growth in the number of our employees and the scope of our operations, particularly in the areas of drug development, regulatory affairs and sales and marketing. Assuming our plans and business conditions progress consistent with our current projections, we plan to grow to a total of 90-100 employees by the end of 2007 and to a total of 100-120 employees by the end of 2008. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Due to our limited resources, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The physical expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability on the part of our management to manage growth could delay the execution of our business plans or disrupt our operations.

Risks Related to Our Common Stock and This Offering

After this offering, our executive officers, directors and principal stockholders will maintain the ability to control all matters submitted to our stockholders for approval.

When this offering is completed, our executive officers, directors and stockholders who owned more than 5% of our outstanding common stock before this offering will, in the aggregate, beneficially own shares representing 69.2% of our common stock assuming such persons do not purchase any shares of our common stock in this offering. As a result, if these stockholders were to choose to act together, they would be able to control all matters submitted to our stockholders for approval, as well as our management and affairs. For example, these persons, if they choose to act together, will control the election of directors and approval of any merger, consolidation, sale of all or substantially all of our assets or other business combination or reorganization. This concentration of voting power could delay or prevent an acquisition of us on terms that other stockholders may desire. The interests of this group of stockholders may not always coincide with your interests or the interests of other stockholders, and they may act, whether by meeting or written consent of stockholders, in a manner that advances their best interests and not necessarily those of other stockholders, including obtaining a premium value for their common stock, and might affect the prevailing market price for our common stock.

Provisions in our corporate charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our corporate charter and our bylaws that will become effective upon the closing of this offering may discourage, delay or prevent a merger, acquisition or other change in control of us that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors. Because our board of directors is responsible for appointing the members of our management team, these provisions could in turn affect any attempt by our stockholders to replace current members of our management team. Among others, these provisions:

establish a classified board of directors, and, as a result, not all directors are elected at one time;

allow the authorized number of our directors to be changed only by resolution of our board of directors;

Table of Contents

limit the manner in which stockholders can remove directors from our board of directors;

establish advance notice requirements for stockholder proposals that can be acted on at stockholder meetings and nominations to our board of directors;

require that stockholder actions must be effected at a duly called stockholder meeting and prohibit actions by our stockholders by written consent;

limit who may call stockholder meetings;

authorize our board of directors to issue preferred stock, without stockholder approval, which could be used to institute a poison pill that would work to dilute the stock ownership of a potential hostile acquirer, effectively preventing acquisitions that have not been approved by our board of directors; and

require the approval of the holders of at least 67% of the votes that all our stockholders would be entitled to cast to amend or repeal certain provisions of our charter or bylaws.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner.

If you purchase shares of common stock in this offering, you will suffer immediate dilution of your investment.

We expect the initial public offering price of our common stock to be substantially higher than the net tangible book value per share of our common stock. Therefore, if you purchase shares of our common stock in this offering, you will pay a price per share that substantially exceeds our net tangible book value per share after this offering. To the extent outstanding options or warrants are exercised, you will incur further dilution.

Based on an assumed initial public offering price of $15.00 per share, which is the midpoint of the price range listed on the cover page of this prospectus, you will experience immediate dilution of $9.15 per share, representing the difference between our pro forma as adjusted net tangible book value per share after giving effect to this offering and the assumed initial public offering price. In addition, purchasers of common stock in this offering will have contributed approximately 33.2% of the aggregate price paid by all purchasers of our common stock but will own only approximately 22.5% of our common stock outstanding after this offering.

An active trading market for our common stock may not develop.

This is our initial public offering of equity securities and prior to this offering, there has been no public market for our common stock. The initial public offering price for our common stock will be determined through negotiations with the underwriters. Although we have applied to have our common stock approved for quotation on The NASDAQ Global Market, an active trading market for our common stock may never develop or be sustained following its listing on The NASDAQ Global Market. If an active market for our common stock does not develop, it may be difficult for you to sell shares you purchase in this offering without depressing the market price for our common stock.

If the price of our common stock is volatile, purchasers of our common stock could incur substantial losses.

The price of our common stock is likely to be volatile. The stock market in general and the market for biotechnology companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, investors may not be able to sell their shares of our common stock at or above the initial public offering price. The market price for our common stock may be influenced by many factors, including:

- results of clinical trials of our product candidates or those of our competitors;

Table of Contents

our entry into or the loss of a significant collaboration;

regulatory or legal developments in the United States and other countries, including changes in the health care payment systems;

variations in our financial results or those of companies that are perceived to be similar to us;

changes in the structure of healthcare payment systems;

market conditions in the pharmaceutical and biotechnology sectors and issuance of new or changed securities analysts reports or recommendations;

general economic, industry and market conditions;

results of clinical trials conducted by others on drugs that would compete with our product candidates;

developments or disputes concerning patents or other proprietary rights;

public concern over our product candidates or any products approved in the future;

litigation;

future sales or anticipated sales of our common stock by us or our stockholders; and

the other factors described in this Risk Factors section.

For these reasons and others you should consider an investment in our common stock as risky and invest only if you can withstand a significant loss and wide fluctuations in the marked value of your investment.

We have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the price of our common stock to decline and delay the development of our product candidates. Pending the application of these funds, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

We intend to use the proceeds from this offering for clinical activities, including clinical supplies, preclinical research and development activities, general and administrative expenses, working capital needs and other general corporate purposes, including capital expenditures. Because of the number and variability of factors that will determine our use of the proceeds from this offering, their ultimate use may vary substantially from their currently intended use. For a further description of our intended use of the proceeds of this offering, see the Use of Proceeds section of this prospectus.

We have never paid cash dividends on our capital stock and we do not anticipate paying any cash dividends in the foreseeable future. You should not invest in us if you require dividend income. Any income from an investment in us would only come from a rise in the market price of our common stock, which is uncertain and

unpredictable.

We have paid no cash dividends on our capital stock to date. We currently intend to retain our future earnings, if any, to fund the development and growth of our business and do not foresee payment of a dividend in any upcoming fiscal period. In addition, the terms of existing or any future debt agreements may preclude us from paying dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

Table of Contents

A significant portion of our total outstanding shares of common stock is restricted from immediate resale but may be sold into the market in the near future. This could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares of common stock intend to sell shares, could reduce the market price of our common stock. After this offering, we will have outstanding 22,234,426 shares of common stock based on the number of shares outstanding as of April 25, 2007. Of these shares, 5,005,333 may be resold in the public market immediately and the remaining 17,229,093 shares are currently restricted under securities laws or as a result of lock-up agreements but will be able to be sold after the offering as described in the Shares Eligible for Future Sale section of this prospectus. Moreover, after this offering, holders of an aggregate of 16,570,855 shares of our common stock will have rights, subject to some conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. We also intend to register all 1,366,667 shares of common stock that we may issue under our equity compensation plans. Once we register these shares, they can be freely sold in the public market upon issuance, subject to the 180 day lock-up periods under the lock-up agreements described in the Underwriters section of this prospectus.

If securities or industry analysts do not publish research or reports or publish unfavorable research about our business, the price of our common stock and trading volume could decline.

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us or our business. We do not currently have and may never obtain research coverage by securities and industry analysts. If no securities or industry analysts commence coverage of us the trading price for our common stock would be negatively affected. In the event we obtain securities or industry analyst coverage, if one or more of the analysts who covers us downgrades our common stock, the price of our common stock would likely decline. If one or more of these analysts ceases to cover us or fails to publish regular reports on us, interest in the purchase of our common stock could decrease, which could cause the price of our common stock or trading volume to decline.

We will incur increased costs as a result of being a public company.

As a public company, we will incur significant legal, accounting, reporting and other expenses that we did not incur as a private company, including costs related to compliance with the regulations of the Sarbanes-Oxley Act of 2002. We expect these rules and regulations to increase our legal and financial compliance costs and to make some activities more time-consuming and costly. We also expect these new rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. As a result, we may experience more difficulty attracting and retaining qualified individuals to serve on our board of directors or as executive officers. We cannot predict or estimate the amount of additional costs we may incur as a result of these requirements or the timing of such costs.

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, included in this prospectus regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management are forward-looking statements. The words anticipate, believe, estimate, expect, intend, may, plan, predict, would and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

The forward-looking statements in this prospectus include, among other things, statements about:

- our plans to develop and commercialize Amigal, Plicera and AT2220;
- our ongoing and planned discovery programs, preclinical studies and clinical trials;
- our ability to enter into selective collaboration arrangements;
- the timing of and our ability to obtain and maintain regulatory approvals for our product candidates;
- the rate and degree of market acceptance and clinical utility of our products;
- our ability to quickly and efficiently identify and develop product candidates;
- the extent to which our scientific approach may potentially address a broad range of diseases across multiple therapeutic areas;
- our commercialization, marketing and manufacturing capabilities and strategy;
- our intellectual property position; and
- our estimates regarding expenses, future revenues, capital requirements and needs for additional financing.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this prospectus, particularly in the Risk Factors section, that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures, collaborations or investments we may make.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement of which this prospectus is a part completely and with the understanding that our actual future results may be materially different from what we expect. We do not assume any obligation to update any forward-looking statements.

Table of Contents

USE OF PROCEEDS

We estimate that the net proceeds from the sale of 5,000,000 shares of common stock in this offering will be approximately $67.9 million, or $78.3 million if the underwriters exercise their over-allotment option in full, based on an assumed initial public offering price of $15.00 per share, which is the midpoint of the price range listed on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

We intend to use the net proceeds from this offering to fund the growth of our business, including:

- approximately $20.0 million for clinical development of Amigal for the treatment of Fabry disease;
- approximately $20.0 million for clinical development of Plicera for the treatment of Gaucher disease;
- approximately $20.0 million for clinical development of AT2220 for the treatment of Pompe disease;
- approximately $5.0 million for research and development activities relating to additional preclinical programs; and
- the balance, if any, to fund working capital and other general corporate purposes, which may include the acquisition or licensing of complementary technologies, products or businesses.

The expected use of net proceeds of this offering represents our intentions based on our current plans and business conditions. The amount and timing of our actual expenditures will depend on numerous factors, including the progress of our research and development activities and clinical trials, the number and breadth of our product development programs, whether or not we establish corporate collaborations and other arrangements, and the amount of cash, if any, generated by our operations and any unforeseen cash needs. As a result, we will retain broad discretion in the allocation and use of the remaining net proceeds of this offering. We do not expect the net proceeds from this offering and our other available funds to be sufficient to fund the completion of the development of our lead product candidates, and we expect that we will need to raise additional funds prior to being able to market any products. We have no current plans, agreements or commitments for any material acquisitions or licenses of any technologies, products or businesses.

We expect that the net proceeds from this offering, along with our existing cash resources, will be sufficient to enable us to complete Phase III clinical trials of Amigal for the treatment of Fabry disease, initiate Phase III clinical trials of Plicera for the treatment of Gaucher Disease, and complete Phase II clinical trials of AT2220 for the treatment of Pompe Disease. We also believe that the funds from the offering will enable us to advance our preclinical studies of different pharmacological chaperones for the treatment of Parkinson s disease and possibly other programs. As to our clinical programs, it is possible that we will not achieve the progress that we anticipate because the actual costs and timing of development are difficult to predict, are subject to substantial risks, and often vary depending on the particular indication and development strategy. As a result, we may need to raise additional funds from external sources to achieve the expected development progress described in this paragraph.

A $1.00 increase (decrease) in the assumed initial public offering price of $15.00 per share, which is the mid-point of the price range listed on the cover page of this prospectus, would increase (decrease) the net proceeds to us from this offering by $4.7 million, assuming 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.

Pending application of the net proceeds, as described above, we intend to invest any remaining proceeds in a variety of short-term, investment-grade, interest-bearing securities.

DIVIDEND POLICY

We have never declared or paid any dividends on our capital stock. We currently intend to retain any future earnings to finance our research and development efforts, the further development of our pharmacological chaperone technology, and the expansion of our business. We do not intend to declare or pay cash dividends to our stockholders in the foreseeable future.

Table of Contents

CAPITALIZATION

The following table sets forth our capitalization as of March 31, 2007:

- on an actual basis;
- on a pro forma basis to give effect to elimination of our warrant liability of $672,418 and the automatic conversion of all shares of our redeemable convertible preferred stock into an aggregate of 16,071,924 shares of common stock outstanding upon the completion of this offering; and
- on a pro forma as adjusted basis to give further effect to our issuance and sale of 5,000,000 shares of common stock in this offering at an assumed initial public offering price of $15.00 per share, which is the midpoint of the price range listed on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and offering expenses payable by us.

The pro forma information below is illustrative only and our capitalization following the closing of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing. You should read this table together with Management s Discussion and Analysis of Financial Condition and Results of Operations and our financial statements and the related notes appearing at the end of this prospectus.

	As of March 31, 2007		
	Actual (unaudited)	Pro Forma (unaudited)	Pro Forma As Adjusted (unaudited)
		(in thousands)	
Capital lease obligations	$ 3,250	$ 3,250	$ 3,250
Series A redeemable convertible preferred stock, par value $0.01 per share; 444,443 shares authorized, issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	2,477		
Series B redeemable convertible preferred stock, par value $0.01 per share; 4,936,730 shares authorized, actual, 4,877,056 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	30,895		
Series C redeemable convertible preferred stock, par value $0.01 per share; 5,820,020 shares authorized, issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	54,878		
Series D redeemable convertible preferred stock, par value $0.01 per share; 4,930,405 shares authorized, issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	59,934		
Stockholders equity:			
Common stock, par value $0.01 per share; 21,333,333 shares authorized, actual and pro forma; 1,152,331 shares issued and	82	1,288	1,338

outstanding, actual; 17,224,255 shares issued and outstanding, pro forma; 50,000,000 shares authorized and 22,224,255 shares issued and outstanding, pro forma as adjusted			
Additional paid-in capital[1]	6,981	153,959	221,774
Accumulated other comprehensive income	17	17	17
Deficit accumulated during the development stage	(93,362)	(92,690)	(92,690)
Total stockholders (deficiency) equity[1]	$ (86,282)	$ 62,574	130,439
Total capitalization[1]	$ 65,152	$ 65,824	133,689

(1) A $1.00 increase (decrease) in the assumed initial public offering price of $15.00 per share, which is the mid-point of the price range listed on the cover page of this prospectus, would increase (decrease) each of cash, and cash equivalents and short-term investments, additional paid-in capital, total stockholders equity and total capitalization by approximately $4.7 million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Table of Contents

The table above does not include:

1,714,087 shares of common stock issuable upon exercise of options outstanding as of March 31, 2007 at a weighted average exercise price of $4.58 per share;

5,333 shares of common stock issuable upon exercise of a warrant to purchase common stock at an exercise price of $5.63 per share;

shares of common stock issuable in connection with the exercise of outstanding warrants to purchase shares of series B redeemable convertible preferred stock. Upon the closing of this offering, these warrants will be automatically exercised and the shares of series B redeemable convertible preferred stock automatically converted into between 34,309 and 59,674 shares of common stock, depending on whether such warrants are exercised for cash or on a net issue basis. In the case of exercises on a net issue basis, we have assumed a price to the public of $15.00 per share, which is the mid-point of the price range as set forth on the cover page of this prospectus;

an aggregate of 966,667 shares of common stock reserved for future issuance under our 2007 equity incentive plan as of the closing of this offering;

an aggregate of 200,000 shares of common stock reserved for future issuance under our 2007 director option plan as of the closing of this offering; and

an aggregate of 200,000 shares of common stock reserved for future issuance under our 2007 employee stock purchase plan as of the closing of this offering.

Table of Contents

DILUTION

If you invest in our common stock in this offering, your interest will be diluted to the extent of the difference between the public offering price per share of our common stock and the pro forma net tangible book value per share of our common stock after this offering.

The historical net tangible book value of our common stock as of March 31, 2007 was approximately $(86.7) million or $(75.24) per share, based on 1,152,331 shares of common stock outstanding, as adjusted to reflect the 1-for-7.5 reverse split of our common stock and preferred stock to be effected prior to the completion of this offering. Historical net tangible book value per share represents the amount of our total tangible assets less total pro forma liabilities and redeemable convertible preferred stock, divided by the number of shares of common stock outstanding. Our pro forma net tangible book value as of March 31, 2007 was approximately $62.2 million, or $3.61 per share of common stock. Pro forma net tangible book value per share represents the amount of our total tangible assets reduced by the amount of our total pro forma liabilities, divided by the pro forma number of shares of common stock outstanding after giving effect, as of March 31, 2007, to the elimination of our warrant liability of $672,418, and the automatic conversion of all shares of our redeemable convertible preferred stock into an aggregate of 16,071,924 shares of common stock outstanding upon completion of this offering.

After giving effect to our issuance and sale of 5,000,000 shares of our common stock in this offering at an assumed initial public offering price of $15.00 per share (the mid-point of the price range set forth on the cover page of this prospectus) less the estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of March 31, 2007, would have been approximately $130.0 million, or $5.85 per share of our common stock. This represents an immediate increase in pro forma net tangible book value of $2.24 per share to our existing stockholders and an immediate dilution in pro forma net tangible book value of $9.15 per share to new investors purchasing shares in this offering at the initial public offering price. Dilution per share to new investors is determined by subtracting pro forma as adjusted net tangible book value per share after this offering from the initial public offering price per share paid by a new investor.

The following table illustrates this per share dilution:

Assumed initial public offering price per share		$ 15.00
Historical net tangible book value per shares as of March 31, 2007	(75.24)	
Increase attributable to the conversion of outstanding preferred stock	78.85	
Pro forma net tangible book value per share as of March 31, 2007	3.61	
Increase per share attributable to new investors	2.24	
Pro forma as adjusted net tangible book value per share after this offering		5.85
Dilution per share to new investors		$ 9.15

A $1.00 increase (decrease) in the assumed initial public offering price of $15.00 per share, the mid-point of the price range set forth on the cover page of this prospectus, would increase (decrease) our pro forma net tangible book value after this offering by approximately $4.7 million, our pro forma as adjusted net tangible book value per share after this offering by approximately $0.21 per share and dilution per share to new investors in this offering would be

approximately $9.94 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 estimated underwriting discounts and commissions.

If the underwriters exercise their over-allotment option in full to purchase 750,000 additional shares of common stock in this offering, the proforma as adjusted net tangible book value per share after the offering would be $6.11 per share, the increase in net tangible book value per share to existing stockholders would be $0.26 per share and the dilution to new investors, in this offering would be $8.89 per share.

Table of Contents

The following table sets forth, as of March 31, 2007, on a pro forma basis to give effect to the automatic conversion of all shares of our redeemable convertible preferred stock into an aggregate of 16,071,924 shares of common stock outstanding upon the closing of this offering, the total consideration paid investors in this offering and the average price per share paid, or to be paid, to us by existing stockholders and by new investors in this offering at an assumed initial public offering price of $15.00 per share, which is the midpoint of the price range listed on the cover page of this prospectus, before deducting estimated underwriting discounts and commissions.

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders	17,234,426	77.5%	150,791,267	66.8%	$ 8.75
New investors[(1)]	5,000,000	22.5%	75,000,000	33.2	15.00
Total	22,234,426	100.0%	225,791,267	100.0%	10.16

(1) A $1.00 increase (decrease) in the assumed initial public offering price of $15.00 per share, which is the mid-point of the price range on the cover page of this prospectus, would increase (decrease) the total consideration paid by new investors by $4.7 million and increase (decrease) the percentage of total consideration paid by new investors by approximately 1.4%, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same.

The discussion and tables above exclude:

1,714,087 shares of common stock issuable upon exercise of stock options outstanding as of March 31, 2007 at a weighted average exercise price of $4.58 per share;

5,333 shares of common stock issuable upon exercise of a warrant to purchase common stock at an exercise price of $5.63 per share;

shares of common stock issuable in connection with the exercise of outstanding warrants to purchase shares of series B redeemable convertible preferred stock. Upon the closing of this offering, these warrants will be automatically exercised and the shares of series B redeemable convertible preferred stock automatically converted into between 34,309 and 59,674 shares of common stock, depending on whether such warrants are exercised for cash or on a net issue basis. In the case of exercises on a net issue basis, we have assumed a price to the public of $15.00 per share, which is the mid-point of the price range as set forth on the cover page of this prospectus;

an aggregate of 966,667 shares of common stock reserved for future issuance under our 2007 equity incentive plan as of the closing of this offering;

an aggregate of 200,000 shares of common stock reserved for future issuance under our 2007 director option plan as of the closing of this offering; and

an aggregate of 200,000 shares of common stock reserved for future issuance under our 2007 employee stock purchase plan as of the closing of this offering.

If the underwriters exercise their over-allotment option in full, the following will occur:

- the percentage of shares of common stock held by existing stockholders will decrease to 75.0% of the total number of shares of our common stock outstanding after this offering; and

- the pro forma as adjusted number of shares held by new investors will be increased to 5,750,000, or approximately 25% of the total pro forma as adjusted number of shares of our common stock outstanding after this offering.

Table of Contents

SELECTED FINANCIAL DATA

You should read the following selected financial data together with our financial statements and the related notes appearing at the end of this prospectus and the Management s Discussion and Analysis of Financial Condition and Results of Operations section of this prospectus. We have derived the statements of operations data for the years ended December 31, 2004, 2005 and 2006 and the balance sheet data at December 31, 2005 and 2006 from our audited financial statements, which are included in this prospectus. We have derived the statement of operations for the period of February 4, 2002 (inception) to December 31, 2002, and the year ended December 31, 2003 and the balance sheet data at December 31, 2002, 2003 and 2004, from our audited financial statements, which are not included in this prospectus. We have derived the statements of operations data for the three months ended March 31, 2006 and 2007, and for the period February 4, 2002 (inception) to March 31, 2007 and the balance sheet data at March 31, 2007 from our unaudited financial statements included in this prospectus. The unaudited financial statements include, in the opinion of management, all adjustments, consisting of only recurring adjustments, that management considers necessary for the fair presentation of the financial information set forth in those statements. Our historical results for any prior period are not necessarily indicative of results to be expected for any future period.

	Period from February 4, 2002 (Inception) to December 31, 2002	Year Ended December 31, 2003	2004	2005	2006	Three Months Ended March 31, 2006 (unaudited)	2007 (unaudited)	Period from February 4, 2002 (Inception to March 31 2007 (unaudited
	(in thousands, except shares and per share data)							
atement of perations Data:								
perating expenses:								
esearch and velopment	$ 788	$ 4,433	$ 6,301	$ 13,652	$ 33,630	$ 6,028	7,085	65,889
eneral and ministrative	552	1,005	2,081	6,877	12,277	1,900	2,850	25,642
pairment of sehold provements		1,030						1,030
epreciation and nortization	24	132	146	303	952	199	297	1,854
-process research d development	418							418
otal operating penses	1,783	6,600	8,528	20,831	46,859	8,127	10,232	94,833

ss from operations	(1,783)	(6,600)	(8,528)	(20,831)	(46,859)	(8,127)	(10,232)	(94,83
her income xpenses):								
terest income	13	5	190	610	1,991	238	693	3,50
terest expense	(6)	(172)	(550)	(82)	(273)	(52)	(92)	(1,17
hange in fair value warrant liability			(2)	(280)	(22)	(343)	(64)	(36
her expense					(1,182)	(3)		(1,18
ss before tax nefit	(1,776)	(6,768)	(8,890)	(20,584)	(46,345)	(8,287)	(9,695)	(94,05
come tax benefit			83	612				69
et loss	(1,776)	(6,768)	(8,807)	(19,972)	(46,345)	(8,287)	(9,695)	(93,36
eemed dividend					(19,424)			(19,42
eferred stock cretion	(10)	(17)	(126)	(139)	(159)	(41)	(41)	(49
et loss attributable common ockholders	$ (1,786)	$ (6,785)	$ (8,933)	$ (20,111)	$ (65,928)	$ (8,328)	$ (9,736)	(113,27
et loss attributable common ockholders per mmon share basic d diluted	$ (22.05)	$ (29.05)	$ (49.02)	$ (89.58)	$ (15.43)	$ (10.21)		
eighted-average mmon shares tstanding basic d diluted	307,539	307,539	410,220	735,967	539,789	953,959		
naudited pro forma t loss				$ (46,345)		$ (9,695)		
naudited pro forma sic and diluted net ss per share				$ (2.76)		$ (0.57)		
naudited shares ed to compute pro rma basic and uted net loss per are				16,807,933		17,025,885		

Table of Contents

	As of December 31,					As of March 31,
	2002	2003	2004	2005	2006	2007 (unaudited)
	(in thousands)					
Balance Sheet Data:						
Cash and cash equivalents and marketable securities	$ 1,341	$ 15	$ 4,336	$ 24,418	$ 54,699	$ 67,706
Working capital	947	(5,588)	3,569	22,267	44,814	59,526
Total assets	1,919	501	5,073	28,670	59,646	73,048
Total liabilities	752	5,776	1,346	4,031	13,071	11,146
Redeemable convertible preferred stock	2,416	2,432	20,013	60,469	124,091	148,184
Deficit accumulated during the development stage	(1,775)	(8,503)	(17,351)	(37,322)	(83,667)	(93,362)
Total stockholders deficiency	$ (1,249)	$ (7,708)	$ (16,287)	$ (35,830)	$ (77,515)	$ (86,282)

Table of Contents

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

Overview

We are a clinical-stage biopharmaceutical company focused on the discovery, development and commercialization of novel small molecule, orally-administered drugs, known as pharmacological chaperones, for the treatment of a range of human genetic diseases. Certain human diseases result from mutations in specific genes that, in many cases, lead to the production of proteins with reduced stability. Proteins with such mutations may not fold into their correct three-dimensional shape and are generally referred to as misfolded proteins. Misfolded proteins are often recognized by cells as having defects and, as a result, may be eliminated prior to reaching their intended location in the cell. The reduced biological activity of these proteins leads to impaired cellular function and ultimately to disease. Our novel approach to the treatment of human genetic diseases consists of using pharmacological chaperones that selectively bind to the target protein, increasing the stability of the protein and helping it fold into the correct three-dimensional shape. This allows proper trafficking of the protein, thereby increasing protein activity, improving cellular function and potentially reducing cell stress. We are currently conducting Phase II clinical trials of Amigal for Fabry disease, Phase II clinical trials of Plicera for Gaucher disease, and Phase I clinical trials of AT2220 for Pompe disease.

We have generated significant losses to date and expect to continue to generate losses as we continue the clinical development of Amigal, Plicera, and AT2220. From our inception in February 2002 through March 31, 2007, we have accumulated a deficit of $93.4 million. Because we do not generate revenue from any of our product candidates, our losses will continue as we conduct our research and development activities. These activities are budgeted to expand over time and will require further resources if we are to be successful. As a result, our operating losses are likely to be substantial over the next several years. We will need to obtain additional funds to further develop our research and development programs.

Financial Operations Overview

Revenue

We have not generated any revenue since our inception. To date, we have funded our operations primarily through the sale of equity securities and equipment financings through capital leases. If our development efforts result in clinical success, regulatory approval and successful commercialization of any of our products, we could generate revenue from sales of any of our products.

Research and Development Expense

We expect our research and development expense to increase as we continue to develop our product candidates. Research and development expense consists of:

- internal costs associated with our research activities;
- payments we make to third party contract research organizations, contract manufacturers, investigative sites, and consultants;
- technology and intellectual property license costs;
- manufacturing development costs;

personnel related expenses, including salaries, benefits, travel, and related costs for the personnel involved in drug discovery and development;

activities relating to regulatory filings and the advancement of our product candidates through preclinical studies and clinical trials; and

facilities and other allocated expenses, which include direct and allocated expenses for rent, facility maintenance, as well as laboratory and other supplies.

Table of Contents

We have multiple research and development projects ongoing at any one time. We utilize our internal resources, employees and infrastructure across multiple projects. We do not believe that allocating internal costs on the basis of estimates of time spent by our employees would accurately reflect the actual costs of a project. We do, however, record and maintain information regarding external, out-of-pocket research and development expenses on a project-specific basis.

We expense research and development costs as incurred, including payments made to date under our license agreements. We believe that significant investment in product development is a competitive necessity and plan to continue these investments in order to realize the potential of our product candidates. From our inception in February 2002 through March 31, 2007, we have incurred research and development expense in the aggregate of $65.9 million, including stock-based compensation expense of approximately $2.3 million.

The following table summarizes our principal product development programs, including the related stages of development for each product candidate in development, and the out-of-pocket, third party expenses incurred with respect to each product candidate (in thousands).

	Year Ended December 31,			Three Months Ended March 31,		Period from February 4, 2002 (Inception) to March 31,
Product Candidate	**2004**	**2005**	**2006**	**2006**	**2007**	**2007**
Third party direct project expenses						
Amigal (Fabry Disease Phase II)	$ 4,547	$ 5,579	$ 3,361	$ 849	$ 591	$ 16,973
Plicera (Gaucher Disease Phase II)	26	2,109	9,905	1,360	2,027	13,757
AT2220 (Pompe Disease Phase I)		374	4,427	129	938	5,701
Total third party direct project expenses	4,573	8,062	17,693	2,338	3,556	36,431
Other project costs[1]						
Personnel costs	1,363	3,581	8,187	1,642	2,299	17,009
Other costs[2]	365	2,009	7,750	2,048	1,230	12,449
Total other project costs	1,728	5,590	15,937	3,690	3,529	29,458
Total research and development costs	$ 6,301	$ 13,652	$ 33,630	$ 6,028	$ 7,085	$ 65,889

(1) Other project costs are leveraged across multiple projects.

(2) Other costs include facility, supply, overhead, and licensing costs that support multiple clinical and preclinical projects.

The successful development of our product candidates is highly uncertain. At this time, we cannot reasonably estimate or know the nature, timing and costs of the efforts that will be necessary to complete the remainder of the development of, or the period, if any, in which material net cash inflows may commence from Amigal, Plicera, AT2220 or any of our other preclinical product candidates. This uncertainty is due to the numerous risks and uncertainties associated with the duration and cost of clinical trials which vary significantly over the life of a project as a result of differences arising during clinical development, including:

- the number of clinical sites included in the trials;
- the length of time required to enroll suitable patients;
- the number of patients that ultimately participate in the trials; and
- the results of our clinical trials.

Our expenditures are subject to additional uncertainties, including the terms and timing of regulatory approvals, and the expense of filing, prosecuting, defending and enforcing any patent claims or other intellectual property rights. We may obtain unexpected results from our clinical trials. We may elect to discontinue, delay or modify clinical trials of some product candidates or focus on others. A change in the outcome of any of the foregoing variables with respect to the development of a product candidate could mean a significant change in the costs and timing associated with the development of that product candidate. For example, if the FDA or other regulatory authorities were to require us to conduct clinical trials beyond those

Table of Contents

which we currently anticipate, or if we experience significant delays in enrollment in any our clinical trials, we could be required to expend significant additional financial resources and time on the completion of clinical development. Drug development may take several years and millions of dollars in development costs.

General and Administrative Expense

General and administrative expense consists primarily of salaries and other related costs, including stock-based compensation expense, for persons serving in our executive, finance, accounting, information technology and human resource functions. Other general and administrative expense includes facility-related costs not otherwise included in research and development expense, promotional expenses, costs associated with industry and trade shows, and professional fees for legal services, including patent-related expense, and accounting services. We expect that our general and administrative expenses will increase as we add personnel and become subject to the reporting obligations applicable to public companies. From our inception in February 2002 through March 31, 2007, we spent $25.6 million, including stock-based compensation expense of approximately $2.5 million, on general and administrative expense.

Beneficial Conversion Charges

When we issue debt or equity securities which are convertible into common stock at a discount from the common stock fair value at the date the debt or equity financing is committed, a beneficial conversion charge is measured as for the difference between the closing price and the conversion price at the commitment date. The beneficial conversion charge is presented as a discount or reduction to the related security, with an offsetting amount increasing additional paid-in capital. We recorded a beneficial conversion charge for a bridge loan financing of $0.1 million which was initially recorded as debt discount and amortized to interest expense through May 2004. We also recorded a beneficial conversion charge (deemed dividend) during April of 2006 of approximately $19.4 million related to the issuance of certain shares of series C redeemable convertible preferred stock. The beneficial conversion charge for our equity instruments is recorded with offsetting charges and credits to additional paid in capital with no effect on total shareholder equity. The beneficial conversion charge (deemed dividend) increases the loss applicable to our common stockholders in the calculation of basic net loss per share for the year ended December 31, 2006. The Series C investors committed to finance the second tranche of the series C redeemable convertible preferred stock on March 31, 2006. The estimated fair value of the common stock was approximately $16.13 per share at the commitment date of the second tranche and the beneficial conversion charge was recognized upon issuance of the series C redeemable convertible preferred stock as such stock could be converted upon issuance. We did not record a beneficial conversion charge for any other redeemable convertible preferred stock issuances as the common stock fair value was less than the conversion price of each offering on the respective commitment dates of those offerings.

Interest Income and Interest Expense

Interest income consists of interest earned on our cash and cash equivalents and marketable securities. Interest expense consists of interest incurred on our capital lease facility.

Other Income and Expenses

During the second and third quarter of 2006, we deferred and capitalized $1.2 million of costs directly attributable to the planned initial public offering of our common stock as other non-current assets. These costs were recorded as non-operating expenses when the planned offering was officially withdrawn during the third quarter of 2006.

Change in Warrant Liability

We account for warrants to purchase shares of our series B redeemable convertible preferred stock in accordance with FASB Staff Position 150-5: *Issuer s Accounting under FASB Statement No. 150 for Freestanding Warrants and Other Similar Instruments on Shares That Are Redeemable (FSP150-5).* As the

Table of Contents

Series B Preferred shares underling the warrants have redemption rights, the warrants to purchase Series B shares are classified as a liability. We recognize changes in the fair value of the warrants in the statements of operations as non-operating income or expense.

Critical Accounting Policies and Significant Judgments and Estimates

The discussion and analysis of our financial condition and results of operations are based on our financial statements, which we have prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenues and expenses during the reporting periods. On an ongoing basis, we evaluate our estimates and judgments, including those described in greater detail below. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are more fully described in Note 2 to our financial statements appearing at the end of this filing, we believe that the following accounting policies are the most critical to aid you in fully understanding and evaluating our financial condition and results of operations.

Accrued Expenses

As part of the process of preparing our financial statements, we are required to estimate accrued expenses. This process involves identifying services that have been performed on our behalf and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of actual cost. The majority of our service providers invoice us monthly in arrears for services performed. We make estimates of our accrued expenses as of each balance sheet date in our financial statements based on facts and circumstances known to us. Examples of estimated accrued expenses include:

- fees owed to contract research organizations in connection with preclinical and toxicology studies and clinical trials;
- fees owed to investigative sites in connection with clinical trials;
- fees owed to contract manufacturers in connection with the production of clinical trial materials;
- fees owed for professional services, and
- unpaid salaries, wages, and benefits.

Adoption of SFAS No. 123(R)

Effective January 1, 2006, we adopted the fair value recognition provisions of FASB Statement No. 123(R), *Share-Based Payment,* or SFAS No. 123(R), using the prospective transition method. Under the prospective transition method, compensation expense is recognized in the financial statements on a prospective basis for all share-based payments granted subsequent to December 31, 2005, based upon the grant-date fair value estimated in accordance with the provisions of SFAS 123(R). Options granted prior to January 1, 2006, as a non-public company and accounted for using the intrinsic value method, will continue to be expensed over the vesting period. The fair value of awards expected to vest, as measured at grant date, is expensed on a straight-line basis over the vesting period of the

related awards. Under the prospective transition method, results for prior periods are not restated.

Stock-Based Compensation

At December 31, 2006 and March 31, 2007, we had one stock-based employee compensation plan, which is described more fully in Note 7 to our financial statements appearing at the end of this prospectus. Prior to January 1, 2006, we accounted for this plan under the recognition and measurement provisions of Accounting

Table of Contents

Principles Board Opinion No 25, *Accounting for Stock Issued to Employees*, or APB 25, and related interpretations, as permitted by SFAS 123. Stock-based employee compensation cost was recognized in the statement of operations for periods prior to January 1, 2006, to the extent options granted under the plan had an exercise price that was less than the fair market value of the underlying common stock on the date of grant. Under the prospective transition method, compensation cost recognized for all stock-based payments granted subsequent to January 1, 2006 is based on the grant-date fair value estimated in accordance with the provisions of SFAS 123(R). Results for prior periods have not been restated. As a result of adopting SFAS 123(R) on January 1, 2006, our net income for the year ended December 31, 2006 was less than it would have been had we continued to account for stock-based compensation under APB 25.

Prior to the adoption of SFAS 123(R), we presented our unamortized portion of deferred compensation cost for nonvested stock options in the statement of changes in shareholders deficiency with a corresponding credit to additional paid-in capital. Upon the adoption of SFAS 123(R), these amounts were offset against each other as SFAS 123(R) prohibits the gross-up of stockholders equity. Under SFAS 123(R), an equity instrument is not considered to be issued until the instrument vests. As a result, compensation cost is recognized over the requisite service period with an offsetting credit to additional paid-in capital.

We recognized employee stock-based compensation expense of $0.1 million, $0.4 million, $2.8 million, and $0.7 million for the years ended 2004, 2005, 2006, and the three month period ended March 31, 2007, respectively.

During the year ended December 31, 2006, we recorded incremental compensation expense of approximately $2.2 million ($2.99 per basic and diluted share) related to the expensing of our options under SFAS 123(R) during the year. The compensation expense had no impact on our cash flows from operations and financing activities. The total unrecognized compensation cost related to non-vested stock option awards as of December 31, 2006 was approximately $8.1 million. This expense will be recorded on a straight-line basis over approximately 2.7 years.

Upon adoption of SFAS 123(R), we selected the Black-Scholes option pricing model as the most appropriate model for determining the estimated fair value for stock-based awards. The fair value of stock option awards subsequent to December 31, 2005 is amortized on a straight-line basis over the requisite service periods of the awards, which is generally the vesting period. Use of a valuation model requires management to make certain assumptions with respect to selected model inputs. Expected volatility was calculated based on a blended weighted average of historical information of our stock and the weighted average of historical information of similar public entities for which historical information was available. We will continue to use a blended weighted average approach using our own historical volatility and other similar public entity volatility information until our historical volatility is relevant to measure expected volatility for future option grants. The average expected life was determined according to the SEC shortcut approach as described in Staff Accounting Bulletin, or SAB, 107, *Disclosure about Fair Value of Financial Instruments*, which is the mid-point between the vesting date and the end of the contractual term. The risk-free interest rate is based on U.S. Treasury, zero-coupon issues with a remaining term equal to the expected life assumed at the date of grant. Forfeitures are estimated based on voluntary termination behavior, as well as a historical analysis of actual option forfeitures. The weighted average assumptions used in the Black-Scholes option pricing model are as follows:

	Year Ended December 31, 2006	Three Months Ended March 31, 2006	Three Months Ended March 31, 2007
Expected stock price volatility	74.8%	72.7%	78.8%

Risk free interest rate	4.7%	4.6%	4.7%
Expected life of options (years)	6.25	6.25	6.25
Expected annual dividend per share	$ 0.00	$ 0.00	$ 0.00

Table of Contents

The weighted-average fair value (as of the date of grant) of the options granted during the year ended December 31, 2006 and three months ended March 31, 2006 and 2007 was $10.20, $11.40, and $7.13, respectively.

The exercise prices for options granted were set by our board of directors, the members of which have extensive experience in the life sciences industry and all but one of whom are non-employee directors, with input from our management, based on our board s determination of the fair market value of our common stock at the time of the grants. In connection with the preparation of the financial statements for a public offering, we performed a retrospective determination of fair value for financial reporting purposes of our common stock underlying stock option grants in 2005 and the first quarter of 2006 utilizing a combination of valuation methods described in the AICPA *Technical Practice Aid, Valuation of Privately-Held-Company Equity Securities Issued as Compensation*, or the Practice Aid. We utilized the same combination of valuation methods to perform contemporaneous valuations of our common stock for each quarter subsequent to March 31, 2006. Information on stock option grants during 2005, 2006, and 2007 are as follows:

Date of 2005 Issuance	Number of Options Granted	Average Exercise Price	Retrospective Fair Value Estimate per Common Share	Intrinsic Value per Share
January - May	404,941	$ 0.68	$ 2.33	$ 1.65
June - July	235,838	0.68	5.78	5.10
August - September	42,071	1.65	7.13	5.48
October - November	313,477	5.33	8.55	3.23
December	13,934	5.33	10.80	5.48
	1,010,261			

Date of 2006 Issuance	Number of Options Granted	Average Exercise Price	Average Fair Value Estimate per Common Share	Average Intrinsic Value per Share
January - March	786,019	$ 5.33	$ 13.73(1)	$ 8.40
June	119,940	8.18	8.18	
July - September	54,006	8.18	8.18	
October - December	45,203	9.15	9.15	
	1,005,168			

(1) Retrospectively determined fair value for financial reporting purposes.

Date of 2007 Issuance	Number of Options Granted	Average Exercise Price	Average Fair Value Estimate per Common Share	Average Intrinsic Value per Share
January - March	17,870	9.90	$ 9.90	$
April	856,292	13.43	13.43	
	874,162			

Table of Contents

Determining the fair value of the common stock of a private enterprise requires complex and subjective judgments. Our retrospective and contemporaneous estimates of enterprise value at each of the grant dates during 2005, 2006, and 2007 used results from both the income approach and the market approach.

Under the income approach, our enterprise value was based on the present value of our forecasted operating results. Our revenue forecasts were based on our estimates of expected annual growth rates following the anticipated commercial launch of our product candidates Amigal, Plicera and AT2220. Estimated operating expenses were based on our internal assumptions, including continuing research and development activities for Amigal, Plicera, AT2220 and other preclinical candidates, and preparation and ongoing support for the commercialization of our lead product candidates. The assumptions underlying the estimates are consistent with our business plan. The risks associated with achieving our forecasts were assessed in selecting the appropriate discount rates, which were approximately 25% to 35%.

Under the market approach, our estimated enterprise value was developed based on a comparison of pre-money initial public offering, or IPO, values of recent biotechnology and emerging pharmaceutical companies at a similar stage of development to ours. When we achieved or exceeded a significant milestone, we reduced the discount rate applied to determine our enterprise value.

Once our enterprise value was established, an allocation method was used to allocate the enterprise value to the different classes of equity instruments. During our retrospective and contemporaneous reviews, we used the probability weighted expected returns, or PWER, method to allocate our enterprise value to our common stock. Under the PWER method, the value of common stock is estimated based upon an analysis of future values for the enterprise assuming various future outcomes. In our retrospective review, the future outcomes included two scenarios: (i) we become a public company and; (ii) we remain a private company. In our contemporaneous review, the future outcomes included three scenarios: (i) we become a public company, (ii) we merge or are acquired by another company, and; (iii) we remain a private company. In general, the closer a company gets to an IPO, the higher the probability assessment weighting is for that scenario. We used a low probability assumption for our January 2005 grants and this percentage increased over time as significant milestones were achieved and as discussions with our investment bankers began and continued to increase as we prepared for our IPO process. An increase in the probability assessment for an IPO increases the value ascribed to our common stock while a decrease in that probability has the opposite effect on the value ascribed to our common stock.

For each of the scenarios, estimated future and present value for the common shares were calculated using assumptions including:

- our expected pre-IPO valuation;
- a risk-adjusted discount rate associated with the IPO scenario;
- the liquidation preferences of our redeemable convertible preferred stock;
- appropriate discount for lack of marketability assuming we remained a private company;
- the expected probability of completing an IPO versus remaining a private company or completing a merger or acquisition; and
- the estimated timing of a potential IPO.

The increase in the fair value of our common stock for financial reporting purposes during 2005 and the 2006 principally reflects increases resulting from achieving significant clinical milestones and a significant increase in our probability weighting for the IPO scenario until we withdrew our offering in the third quarter of 2006. The following is a summary of the significant factors that resulted in changes in the fair value of our common stock since January 2005:

The reassessed fair value for financial reporting purposes of common stock underlying 404,941 options granted to employees during the period from January 2005 through May 2005 was $2.33 per share. This valuation was attributable to the hiring of our President and Chief Executive Officer and other members

Table of Contents

of executive management and a relatively low probability estimate for the IPO scenario under the PWER method.

The reassessed fair value for financial reporting purposes of common stock underlying 235,838 options granted to employees during the period from June 2005 through July 2005 was determined to be $5.78 per share based on the ongoing clinical trial of Amigal, additional development of our preclinical programs, and an increased probability estimate for the IPO scenario under the PWER method due to progress made on our preclinical programs.

The reassessed fair value for financial reporting purposes of common stock underlying 42,071 options granted to employees during the period from August 2005 through September 2005 was determined to be $7.13 per share. This increase in valuation was based on the completion of Phase I clinical trials for Amigal and completion of our series C redeemable convertible preferred stock financing of $55 million.

The reassessed fair value for financial reporting purposes of common stock underlying 313,477 options granted to employees during the period from October 2005 through November 2005 was determined to be $8.55 per share. This increase was primarily based on positive developments in the capital markets for early stage life science companies, the start of Phase II clinical trials for Amigal, and further preclinical development of our other programs.

The reassessed fair value for financial reporting purposes of common stock underlying 13,934 options granted to employees in December 2005 and 12,335 options granted to employees in the period from January 1, 2006 to February 22, 2006 was determined to be $10.80 per share. This increase was primarily based on preclinical development of Plicera and AT2220, as well as an acceleration of our IPO planning associated with early internal discussions regarding a potential IPO.

The reassessed fair value for financial reporting purposes of common stock underlying 773,684 options granted to employees and directors in the period from February 28, 2006 to March 27, 2006 was determined to be $13.80 per share. This increase was primarily based on initial data from our Phase II studies in Fabry disease, leading to an increased probability of the IPO scenario in the PWER method and a further acceleration of our IPO timeline.

The reassessed fair value for financial reporting purposes of common stock at March 31, 2006 was determined to be $16.13 per share. No options were granted on this date. This increase was primarily based on our board of director s resolution to pursue an IPO and an increase in probability of the IPO scenario under the PWER method. During this timeframe, we believed that an IPO was imminent and that the common stock price was set at what we believed was 90% of the midpoint of the expected IPO price range.

The fair value of common stock underlying 173,946 options granted to employees during the period from June to September of 2006 was determined to be $8.18 per share. This decrease was primarily the result of slower than anticipated enrollment in our Phase II clinical trials for Fabry and worsening market conditions as evidenced by the valuations of Biotech IPOs in the second quarter of 2006, the decline in the Nasdaq Biotechnology Index during the same period, and our extended delay and subsequent withdrawal of a planned IPO in 2006 which significantly reduced the probability of what we had previously believed to be an imminent IPO event.

The fair value of common stock underlying 45,203 options granted to employees during the fourth quarter of 2006 was determined to be $9.15 per share. This increase was primarily based on a comparison to improved pre-money IPO values of biotechnology and emerging pharmaceutical companies at a similar stage of

development to ours, an increased probability estimate for the IPO scenario under the PWER method subsequent to the completion of our Series D financing and an increase in the probability that we merge with or are acquired by another company.

The fair value of common stock underlying 17,870 options granted to employees during the first quarter of 2007 was determined to be $9.90 per share. This increase was primarily based on an increase of the

Table of Contents

probability estimate for the IPO scenario under the PWER method associated with the commencement of Phase I clinical trials for AT2220.

The fair value of common stock underlying 856,292 options granted to employees during April of 2007 was determined to be $13.43 per share. This increase was primarily based on a significant increase of the probability estimate for the IPO scenario under the PWER method attributable to the completion of enrollment for our Phase II clinical trials for Amigal, data from our preclinical and Phase I clinical trials of Amigal, data from our preclinical and Phase I clinical trials from Plicera, and our board of directors resolution to pursue an IPO