Altus Pharmaceuticals Inc.
Form 10-Q
May 07, 2008

Table of Contents

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-Q

þ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended March 31, 2008

OR

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission File No. 000-51711

ALTUS PHARMACEUTICALS INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**04-3573277**
(State or Other Jurisdiction of Incorporation or Organization)	*(I.R.S. Employer Identification No.)*
640 Memorial Drive, Cambridge, Massachusetts	**02139**
(Address of Principal Executive Offices)	*(Zip Code)*

Registrant s telephone number, including area code: (617) 299-2900

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES þ NO o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o	Accelerated filer þ	Non-accelerated filer o	Smaller reporting company o

(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES o NO þ

The number of shares outstanding of the registrant s common stock as of May 1, 2008 was 30,832,848.

INDEX TO FORM 10-Q

Table of Contents

PART I FINANCIAL INFORMATION
ITEM 1. FINANCIAL STATEMENTS
ALTUS PHARMACEUTICALS INC. AND SUBSIDIARY
CONDENSED CONSOLIDATED BALANCE SHEETS (UNAUDITED)
(In thousands, except share and per share amounts)

	March 31, 2008	December 31, 2007
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 106,964	$ 113,607
Marketable securities available-for-sale	11,041	24,725
Accounts receivable	681	3,454
Prepaid expenses and other current assets	2,219	2,001
Total current assets	120,905	143,787
PROPERTY AND EQUIPMENT, Net	5,523	5,991
OTHER ASSETS, Net	4,161	4,332
TOTAL ASSETS	$ 130,589	$ 154,110
LIABILITIES, REDEEMABLE PREFERRED STOCK AND STOCKHOLDERS EQUITY		
CURRENT LIABILITIES:		
Accounts payable and accrued expenses	$ 10,994	$ 13,192
Current portion of Dr. Falk Pharma GmbH obligation	2,469	2,200
Current portion of long-term debt	2,571	2,137
Deferred revenue		2,087
Total current liabilities	16,034	19,616
Dr. Falk Pharma GmbH obligation, net of current portion	7,367	6,664
Long-term debt, net of current portion	2,251	738
Other long-term liabilities	1,729	900
TOTAL LIABILITIES	27,381	27,918

COMMITMENTS AND CONTINGENCIES		
REDEEMABLE PREFERRED STOCK:		
Redeemable Preferred Stock, par value $0.01 per share; 450,000 shares authorized, issued and outstanding at March 31, 2008 and December 31, 2007 at accreted redemption value	6,562	6,506
STOCKHOLDERS EQUITY:		
Common stock, par value $0.01 per share; 100,000,000 shares authorized; 30,832,848 shares issued and outstanding at March 31, 2008; 30,791,035 shares issued and outstanding at December 31, 2007	308	308
Additional paid-in capital	359,765	358,134
Accumulated deficit	(263,545)	(239,046)
Accumulated other comprehensive income	118	290
Total stockholders equity	96,646	119,686
TOTAL LIABILITIES, REDEEMABLE PREFERRED STOCK AND STOCKHOLDERS EQUITY	$ 130,589	$ 154,110

See notes to unaudited condensed consolidated financial statements.

Table of Contents

ALTUS PHARMACEUTICALS INC. AND SUBSIDIARY
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)
(In thousands, except per share amounts)

	Three Months Ended March 31,	
	2008	**2007**
CONTRACT REVENUE	$ 2,622	$ 827
COSTS AND EXPENSES:		
Research and development	21,567	12,859
General, sales and administrative	5,776	4,581
Total costs and expenses	27,343	17,440
LOSS FROM OPERATIONS	(24,721)	(16,613)
OTHER INCOME (EXPENSE):		
Interest income	1,399	1,009
Interest expense	(352)	(163)
Foreign currency exchange loss	(825)	
Other income (expense) net	222	846
NET LOSS	(24,499)	(15,767)
PREFERRED STOCK DIVIDENDS	(56)	(56)
NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS	$ (24,555)	$ (15,823)
NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS PER SHARE BASIC AND DILUTED	$ (0.80)	$ (0.67)
WEIGHTED AVERAGE SHARES OUTSTANDING BASIC AND DILUTED	30,825	23,470

See notes to unaudited condensed consolidated financial statements.

Table of Contents

ALTUS PHARMACEUTICALS INC. AND SUBSIDIARY
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)
(In thousands)

	Three Months Ended March 31,	
	2008	**2007**
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (24,499)	$ (15,767)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	942	829
Stock-based compensation expense	1,524	1,989
Noncash interest expense	278	56
Foreign currency exchange loss	825	
Changes in assets and liabilities:		
Accounts receivable	2,773	
Prepaid expenses and other current assets	(218)	451
Other assets	25	17
Accounts payable, accrued expenses and other long-term liabilities	(1,174)	(758)
Payments received as deferred revenue		15,000
Deferred revenue recognized	(2,087)	(889)
Net cash (used in) provided by operating activities	(21,611)	928
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of investments	(2,724)	(13,451)
Maturities of investments	16,236	22,585
Purchases of property and equipment	(654)	(646)
Net cash provided by investing activities	12,858	8,488
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from equity investment		15,000
Proceeds from exercise of stock options	163	413
Proceeds from issuance of long-term debt	2,476	
Repayment of debt	(529)	(541)
Deferred offering costs		(174)
Net cash provided by financing activities	2,110	14,698
NET (DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS	(6,643)	24,114

CASH AND CASH EQUIVALENTS	Beginning of period	113,607	61,470
CASH AND CASH EQUIVALENTS	End of period	$ 106,964	$ 85,584
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:			
Cash paid for interest		$ 79	$ 107

See notes to unaudited condensed consolidated financial statements.

Table of Contents

ALTUS PHARMACEUTICALS INC. AND SUBSIDIARY
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
FOR THE THREE MONTHS ENDED MARCH 31, 2008 AND 2007
(IN THOUSANDS, EXCEPT SHARE AND PER SHARE AMOUNTS)

1. BASIS OF PRESENTATION

The accompanying condensed consolidated financial statements are unaudited and have been prepared in accordance with accounting principles generally accepted in the United States of America for interim reporting. Certain information and footnote disclosures normally included in our annual consolidated financial statements have been condensed or omitted. Accordingly, the interim consolidated financial statements do not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements. The interim financial statements have been prepared on the same basis as the annual consolidated financial statements and, in the opinion of management, reflect all adjustments (including normal recurring adjustments) considered necessary to present fairly our financial position and results of operations and cash flows for the interim periods presented. The results of operations for the interim periods are not necessarily indicative of the results that may be expected for any future period or the year ending December 31, 2008. These condensed consolidated financial statements should be read in conjunction with the audited financial statements for the year ended December 31, 2007, which are included in our Annual Report on Form 10-K, which was filed with the Securities and Exchange Commission, or the SEC.

The condensed consolidated financial statements reflect the operations of us and our wholly owned subsidiary. All intercompany accounts and transactions have been eliminated.

2. REVENUE RECOGNITION

Contract revenue consists of revenue from collaborative license and development agreements for the development and commercialization of our product candidates. We follow the provisions of the SEC Staff Accounting Bulletin, or SAB, No. 104 (SAB No. 104) *Revenue Recognition*, Emerging Issues Task Force, or EITF, Issue No. 00-21 (EITF 00-21) *Accounting for Revenue Arrangements with Multiple Deliverables*, and EITF Issue No. 99-19 (EITF 99-19) *Reporting Revenue Gross as a Principal Versus Net as an Agent*.

Revenue under our current collaboration agreement is recognized using the proportional performance method and is based on the percentage of costs incurred relative to the total costs estimated to be incurred to complete the research program, to the extent such amount is not greater than the cash received. We use an input-based measure, specifically direct costs, to determine proportional performance because, for our current agreement accounted for under this method, the use of an input-based measure is a more accurate representation of proportional performance than an output-based measure, such as milestones. Significant management judgment is required in determining the level of effort required under an arrangement and the period over which we expect to complete the related performance obligations. Management reassesses its estimates quarterly and makes judgments based on the best information available. Estimates may change in the future based on changes in facts and circumstances, resulting in an adjustment in the amount of revenue recognized in future periods.

Table of Contents

Reimbursement of research and development costs is classified as revenue provided the provisions of EITF No. 99-19 are met, and recognized as revenue pursuant to SAB 104 provided the amounts are fixed and determinable and collection of the related receivable is reasonably assured.

Deferred revenue consists of payments received in advance of revenue recognized under collaborative agreements.

3. GENENTECH COLLABORATION

During December 2007, Genentech, Inc., or Genentech, and we entered into an agreement terminating a collaboration and license agreement between Genentech and us. As part of the collaboration and license agreement, Genentech was obligated to reimburse us for certain development activities we performed on Genentech s behalf. Genentech and we subsequently agreed that Genentech will pay us $681 for certain development activities performed in the fourth quarter of 2007 that had been previously contested. Consequently, we recognized this amount as revenue in the first quarter of 2008 and recorded a corresponding accounts receivable balance at March 31, 2008.

4. COMPREHENSIVE LOSS

Comprehensive loss was as follows for the three months ended March 31:

	2008	2007
Net loss	$ (24,499)	$ (15,767)
Unrealized gain (loss) on available-for-sale marketable securities	(172)	64
Comprehensive loss	$ (24,671)	$ (15,703)

5. NET LOSS PER SHARE

Basic and diluted net loss per common share is calculated by dividing net loss attributable to common stockholders by the weighted average number of common shares outstanding during the period. Diluted net loss per common share is the same as basic net loss per common share, since the effects of potentially dilutive securities are antidilutive for all periods presented.

Outstanding dilutive securities not included in the calculation of diluted net loss attributable to common stockholders per share were as follows for the three months ended March 31:

(In thousands)	2008	2007
Options to purchase common stock	3,980	4,146
Warrants to purchase common stock	3,593	3,603
Total	7,573	7,749

Table of Contents

6. STOCK-BASED COMPENSATION

The following table represents stock-based compensation expense included in our Condensed Consolidated Statements of Operations for the three months ended March 31:

	2008	2007
Research and development	$ 461	$ 879
General, sales and administrative	1,063	1,110
Total	$ 1,524	$ 1,989

The fair value of the stock options granted was estimated using the Black-Scholes option-pricing model, using the following assumptions for the three months ended March 31:

	2008	2007
Risk-free interest rate	2.8% to 3.2%	4.5% to 4.8%
Expected average option life	6.25 years	6.25 years
Dividends	None	None
Volatility	75%	75%

The expected average option life assumption is based upon the simplified, or plain-vanilla method, provided under SAB 107, *Share-Based Payment*, or SAB 107, which averages the contractual term of our options (10 years) with the vesting term (4 years) taking into consideration multiple vesting tranches. We were allowed to use the simplified or plain-vanilla method for all options granted prior to or on December 31, 2007. In December 2007, the SEC issued SAB 110, which permits entities, under certain circumstances, to continue to use the simplified method beyond December 31, 2007. We believe we do not have sufficient trading history to determine a reasonable expected life of our option grants. Therefore, we believe that the use of the simplified method of determining the expected life of option grants continues to be an appropriate method of calculating expected life. To determine an appropriate volatility factor, we reviewed volatility factors being used by a group of peer companies, and selected a volatility factor consistent with those used by this group of peers. We have continued to utilize this methodology for the three months ended March 31, 2008 due to the short length of time our common stock has been publicly traded. The risk-free interest rate is based on the yield on zero-coupon U.S. Treasury securities for a period that is commensurate with the expected life of the options.

We operate the 2002 Employee, Director, and Consultant Stock Plan, or the 2002 Plan, which replaced the 1993 Stock Option Plan, or the 1993 Plan, on February 7, 2002. In January 2008, under the evergreen provision contained in the 2002 Plan, an additional 1,144,157 shares were made available for future grant under the 2002 Plan. Options and awards granted prior to January 25, 2006 are generally exercisable immediately, but the shares purchased are subject to restriction on transfer until vested. At March 31, 2008, no such shares were outstanding. Under the 1993 Plan and 2002 Plan, the cumulative number of shares issuable upon exercise of outstanding stock options and available for future grant to employees, directors and consultants at March 31, 2008 was 5,517,982 shares.

Table of Contents

A summary of the stock option activity under the 1993 Plan and 2002 Plan for the three months ended March 31, 2008 is as follows:

	Shares	Weighted Average Exercise Price	Weighed Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Balance December 31, 2007 (1,882,376 options vested)	3,754,788	$ 10.69		
Granted	609,593	5.71		
Exercised	(41,813)	3.92		
Canceled	(342,908)	8.16		
Options outstanding March 31, 2008	3,979,660	$ 10.21	7.0	$ 829
Options exercisable March 31, 2008	2,240,632	$ 8.40	6.9	$ 829
Options vested and expected to vest March 31, 2008	3,752,507	$ 10.06	6.7	$ 820

The aggregate intrinsic value in the table above represents the value (the difference between our closing common stock price on the last trading day of the three months ended March 31, 2008, which was $4.55 on March 31, 2008, and the exercise price of the options, multiplied by the number of in-the-money options) that would have been received by the option holders had all option holders exercised their options on March 31, 2008. As of March 31, 2008, there was $17,923 of total unrecognized stock-based compensation expense related to stock options granted under the plans. The expense is expected to be recognized over a weighted-average period of 2.6 years.

The weighted average fair value of options granted at exercise prices equal to fair market value during the three months ended March 31, 2008 and 2007 was $3.90 and $10.21, respectively.

7. FAIR VALUE MEASUREMENT

Statement of Financial Accounting Standard No. 157, *Fair Value Measurement*, or SFAS 157, requires expanded disclosures about fair value measurements. SFAS 157 applies to other accounting pronouncements that require or permit fair value measurements, but does not require any new fair value measurements. We adopted the provisions of SFAS 157 relating to assets and liabilities recognized or disclosed in the financial statements at fair value on a recurring basis on January 1, 2008. The adoption of these provisions did not have a material effect on our consolidated financial statements.

Table of Contents

SFAS 157 clarifies that fair value is an exit price, representing the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants based on the highest and best use of the asset or liability. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. SFAS 157 requires us to use valuation techniques to measure fair value that maximize the use of observable inputs and minimize the use of unobservable inputs. These inputs are prioritized as follows:

Level Input:	**Input Definition:**
Level I	Observable inputs such as quoted prices for identical assets or liabilities in active markets.
Level II	Other inputs which are observable directly or indirectly, such as quoted prices for similar assets or liabilities or market-corroborated inputs.
Level III	Unobservable inputs for which there is little or no market data and which require us to develop our own assumptions about how market participants would price the assets or liabilities.

The following table summarizes fair value measurements by level at March 31, 2008 for assets measured at fair value on a recurring basis:

	Level I	**Level II**	**Level III**	**Total**
Cash and cash equivalents	$ 53,559	$ 53,405	$	$ 106,964
Marketable securities available for sale		11,041		11,041
Total assets at fair value	$ 53,559	$ 64,446	$	$ 118,005

Table of Contents

ITEM 2. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Overview

We are a biopharmaceutical company focused on the development and commercialization of oral and injectable protein therapeutics for gastrointestinal and metabolic disorders, with three product candidates in the clinical stage of development. We are using our proprietary protein crystallization technology to develop protein therapies, which we believe will have significant advantages over existing products and will address unmet medical needs. Our product candidates are designed to either increase the amount of a protein that is in short supply in the body or degrade and remove toxic metabolites from the blood stream. Our three most advanced product candidates are: Trizytek™ [porcine-free enzymes] (formerly ALTU-135), for which we are currently conducting a Phase III clinical trial in cystic fibrosis patients for the treatment of malabsorption due to exocrine pancreatic insufficiency and two long-term Phase III safety studies; ALTU-238, for which we have completed a Phase II clinical trial in adults for the treatment of growth hormone deficiency; and ALTU-237, for which we have completed a Phase I clinical trial for the treatment of primary hyperoxaluria and enteric hyperoxaluria. We also have a pipeline of other product candidates in preclinical research and development. We have generated significant losses as we have advanced our lead product candidates into clinical development and expect to continue to generate losses as Trizytek completes its clinical development and ALTU-238 and ALTU-237 move into later stages of clinical development. As of March 31, 2008, we had an accumulated deficit of $263.5 million.

Financial Operations Overview

Contract Revenue. Our contract revenue consists of amounts earned under our collaborative research and development agreements.

In February 2001, we entered into a strategic alliance agreement with Cystic Fibrosis Foundation Therapeutics, Inc., or CFFTI, to collaborate on the development of Trizytek and specified derivatives of Trizytek in North America for the treatment of malabsorption due to exocrine pancreatic insufficiency in patients with cystic fibrosis and other indications. The agreement, in general terms, provides us with funding from CFFTI for a portion of the development costs of Trizytek upon the achievement of specified development milestones, up to a total of $25.0 million, in return for specified payment obligations and our obligation to use good faith reasonable efforts to develop and bring Trizytek to market in North America. As of March 31, 2008, we had received a total of $18.4 million of the $25.0 million available under the CFFTI agreement and recognized cumulative net revenue of $17.1 million. Under the terms of the agreement, we may receive an additional milestone payment of $6.6 million, less an amount determined by when we achieve the milestone.

Effective February 21, 2007, we entered into a collaboration and license agreement with Genentech, Inc., or Genentech, for the development, manufacture and commercialization of ALTU-238. Under the terms of the agreement, we granted Genentech exclusive rights and license to make (and have made), use and import ALTU-238, and to sell ALTU-238 in North America if approved by the United States Food and Drug Administration, or FDA. The agreement, in general terms, provided that Genentech would assume full responsibility for the development, manufacture and commercialization of ALTU-238.

Upon the agreement becoming effective, Genentech made the following specific cash payments to us in 2007: a $15.0 million upfront non-refundable license fee payment and $15.0 million in exchange for 794,575 shares of our common stock. In addition, Genentech also paid us $6.7 million in 2007 to reimburse us for various development activities performed by us on Genentech s behalf through September 30, 2007, and as of December 31, 2007 agreed to pay us $3.5 million related to the

Table of Contents

uncontested portion of certain development activities we performed on its behalf during the fourth quarter of 2007.

On December 19, 2007, Genentech and we entered into an agreement terminating the collaboration and license agreement effective December 31, 2007. Under the terms of the termination agreement, we reacquired the North American development and commercialization rights to ALTU-238, and the option to expand the agreement to a global agreement expired unexercised. In addition, Genentech agreed to provide, for a limited time, supplies of human growth hormone for further clinical development and commercialization of ALTU-238 in North America and clinical development and commercialization purposes outside North America, and to pay us a $4.0 million termination payment to fund the transition of the project back to us. Upon commercialization, Genentech will be entitled to a nominal royalty on net sales of ALTU-238.

Before we entered into the termination agreement, we did not recognize any revenue related to the upfront payment or reimbursements for development activities performed on Genentech s behalf because provisions in the original agreement precluded us from concluding that revenue was fixed and determinable. As a result of the amendment of the collaborative agreement, our estimated performance period under the amended agreement changed to coincide with the December 31, 2007 effective date of the termination of the agreement. Accordingly, we recognized revenue of $25.1 million in December 2007, comprised of the original $15.0 million upfront payment and $10.1 million of cost reimbursements received and estimated to be due to us for uncontested development work performed on Genentech s behalf. In addition, we recognized a gain as a result of terminating the collaboration and license agreement with Genentech in the amount of the $4.0 million termination payment. Genentech and we subsequently agreed that Genentech will pay us an additional $0.7 million for development work performed in the fourth quarter of 2007. Consequently, we recognized this amount as revenue in the first quarter of 2008 and recorded a corresponding accounts receivable balance at March 31, 2008.

Research and Development Expense. Research and development expense consists primarily of expenses incurred in developing and testing product candidates, including:

- salaries and related expenses for personnel, including stock-based compensation expenses;
- fees paid to professional service providers in conjunction with independently monitoring our clinical trials and evaluating data in conjunction with our clinical trials;
- costs of contract manufacturing services;
- costs of materials used in clinical and non-clinical trials;
- performance of non-clinical trials, including toxicity studies in animals; and
- depreciation of equipment used to develop our products and costs of facilities.

We expense research and development costs as incurred.

We are conducting our Phase III efficacy trial of the capsule form of Trizytek in cystic fibrosis patients and two long term safety studies, one in cystic fibrosis patients and one in chronic pancreatitis patients with pancreatic insufficiency. Our current estimate of the total costs we will incur to complete the development of Trizytek and file a New Drug Application, or NDA with the FDA is approximately $157.5 million. As of March 31, 2008, we had incurred approximately $117.0 million of these total costs.

We have also completed a Phase II clinical trial of ALTU-238. From January 1, 2003, the date on which we began separately tracking development costs for ALTU-238, through March 31, 2008, we have incurred approximately $43.3 million in total development costs for this product candidate.

Table of Contents

We completed a Phase I clinical trial for ALTU-237 in April 2008. From January 1, 2006, the date on which we began separately tracking development costs for ALTU-237, through March 31, 2008, we have incurred approximately $17.9 million in total development costs for this product candidate.

We expect our research and development costs to increase substantially in the foreseeable future as we complete our Trizytek Phase III trials and prepare for an NDA filing, advance ALTU-238 and move ALTU-237 through additional clinical trials and continue the development of our preclinical pipeline. The amount and timing of resources we devote to our clinical and preclinical product candidates in the future will be influenced by our ability to fund further development activities, or the potential to enter into one or more strategic collaborations that would provide full or partial funding for the development of a product candidate.

Product candidates in clinical development have higher associated development costs than those in the preclinical stage since the former involve testing on humans while the latter involve shorter-term animal studies. Moreover, as a product candidate moves into later-stage clinical trials, such as from Phase I to Phase II or Phase II to Phase III, the costs are significantly higher due to the increased size and length of the later stage trials.

The successful development of our product candidates is highly uncertain. At this time, we cannot reasonably estimate or know the nature, timing and estimated costs of the efforts that will be necessary to complete the remainder of the development of ALTU-238, ALTU-237 or any of our preclinical product candidates, or the period, if any, in which material net cash inflows will commence. This is due to the numerous risks and uncertainties associated with developing drugs, including the uncertainty of:

- the scope, rate of progress and expense of our clinical trials and other research and development activities;
- the potential benefits of our product candidates over other therapies;
- our ability to manufacture, market, commercialize and achieve market acceptance for any of our product candidates that we are developing or may develop in the future;
- future clinical trial results;
- the terms and timing of any collaborative, licensing and other arrangements that we may establish;
- the expense and timing of regulatory approvals;
- the expense of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights; and
- the availability of sufficient capital resources to fund development activities.

A change in the outcome of any of these 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 authority were to require us to conduct clinical trials beyond those which we currently anticipate will be required for the completion of clinical development of a product candidate or if we experience significant delays in enrollment in any of our clinical trials, we would be required to expend significant additional financial resources and time on the completion of clinical development.

Table of Contents

General, Sales and Administrative Expense. General, sales and administrative expense consists primarily of salaries and other related costs for personnel, including stock-based compensation expenses, in our executive, sales, marketing, finance, accounting, information technology and human resource functions. Other costs primarily include facility costs not otherwise included in research and development expense, corporate insurance, advertising and promotion expenses, trade shows and professional fees for accounting and legal services, including patent-related expenses.

While we expect future general and administrative costs to rise, we expect that the rate of increase in our general and administrative expense will decrease as we leverage our investments in personnel and infrastructure related to supporting the needs of a public company.

Interest and Other Income (Expense), Net. Interest income consists of interest earned on our cash and cash equivalents and marketable securities. Interest expense consists of interest incurred on capital leases and equipment loans, and amortization of the discount associated with our obligation to Dr. Falk Pharma GmbH, or Dr. Falk, with whom we formerly had a collaborative agreement regarding the development of Trizytek in certain countries outside the United States. The discount on the loan to Dr. Falk is being amortized to interest expense over the life of the loan.

Preferred Stock Dividends. Preferred stock dividends consist of cumulative but undeclared dividends payable on our redeemable preferred stock.

Critical Accounting Policies and Significant Judgments and Estimates

A critical accounting policy is one which is both important to the portrayal of our financial condition and results and requires management s most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. See the discussion of our significant accounting policies in Note 2 to the Consolidated Financial Statements included in our Annual Report on Form 10-K for fiscal year 2007 for additional information regarding our critical accounting policies.

Contract Revenue. Contract revenue consists of revenue from collaborative license and development agreements for the development and commercialization of our product candidates. We follow the provisions of the Securities and Exchange Commission s, or the SEC, Staff Accounting Bulletin, or SAB, No. 104 (SAB No. 104) *Revenue Recognition*, Emerging Issues Task Force, or EITF, Issue No. 00-21 (EITF 00-21) *Accounting for Revenue Arrangements with Multiple Deliverables*, and EITF Issue No. 99-19 (EITF 99-19) *Reporting Revenue Gross as a Principal Versus Net as an Agent*.

Revenue under our current collaboration agreement is recognized using the proportional performance method and is based on the percentage of costs incurred relative to the total costs estimated to be incurred to complete the research program, to the extent such amount is not greater than the cash received. We use an input-based measure, specifically direct costs, to determine proportional performance because, for our current agreements accounted for under this method, the use of an input-based measure is a more accurate representation of proportional performance than an output-based measure, such as milestones. Significant management judgment is required in determining the level of effort required under an arrangement and the period over which we expect to complete the related performance obligations. Management reassesses its estimates quarterly and makes judgments based on the best information available. Estimates may change in the future based on changes in facts and circumstances, resulting in an adjustment in the amount of revenue recognized in future periods.

Table of Contents

Results of Operations

Three Months Ended March 31, 2008 Compared to Three Months Ended March 31, 2007

Contract revenue

	Three Months Ended March 31,		Increase (Decrease)	
	2008	2007	$	%
		(dollars in thousands)		
Contract revenue	$2,622	$827	$1,795	217%

Contract revenue for the three months ended March 31, 2008 increased by $1.8 million, or 217%, due to an increase in revenue associated with our agreement with CFFTI for the development of Trizytek and to additional revenue received from Genentech in connection with our terminated agreement. Contract revenue related to the CFFTI agreement is recognized under the proportional performance method. Under this methodology, to the extent we incur direct development costs each period to advance Trizytek, we recognize revenue based on the proportion of actual costs spent to our estimate of total direct development costs. Our spending during the three months ended March 31, 2008 increased significantly over the same period in 2007 as a result of our ongoing Phase III clinical trials, resulting in a $1.1 million increase in revenues. The amount of revenue we were able to recognize under our collaborative agreement with CFFTI in the first quarter of 2008 was limited to the amount remaining in deferred revenue at the beginning of the period which represented cash previously received from CFFTI. We will not be able to recognize further revenue under our collaborative agreement with CFFTI until such time as we receive the remaining milestone payment in accordance with the terms of the collaborative agreement. We do not expect to receive the remaining milestone payment during 2008.

During the three months ended March 31, 2008, we also recognized $0.7 million of additional revenue related to our terminated collaboration and license agreement with Genentech. This revenue represents agreement on the amount Genentech will pay us related to service we performed on Genentech s behalf in the fourth quarter of 2007.

Research and development

	Three Months Ended March 31,		Increase (Decrease)	
	2008	2007	$	%
		(dollars in thousands)		
Trizytek	$ 14,841	$ 4,893	$ 9,948	203%
ALTU-238	2,466	3,420	(954)	(28%)
ALTU-237	1,937	1,951	(14)	(1%)
Other research and development	1,862	1,716	146	9%
Stock-based compensation	461	879	(418)	(48%)
Total research and development	$ 21,567	$ 12,859	$ 8,708	68%

Research and development expense for the three months ended March 31, 2008 increased due primarily to increased third-party development and manufacturing costs related to Trizytek. This increase was partially offset by decreased external development costs related to ALTU-238. During the three months ended March 31, 2008, we incurred greater third-party clinical costs for Trizytek as we completed screening patients and continued the enrollment of the Phase III clinical trials which began in the second quarter of 2007. We also incurred increased manufacturing costs at Lonza Ltd., or Lonza, including the production of engineering batches to support our NDA planned for the first half of 2009. Development spending on ALTU-238 decreased during the three

Table of Contents

months ended March 31, 2008. During the three months ended March 31, 2008, much of the costs associated with ALTU-238 related to validation costs associated with our clinical supply agreement with Althea Technologies, Inc., or Althea, and our planned Phase 1C clinical trial, which we expect to initiate in the third quarter of 2008. In addition, our research and development headcount increased to 119 full-time employees as of March 31, 2008 from 113 as of March 31, 2007.

General, sales and administrative

	Three Months Ended March 31,		Increase (Decrease)	
	2008	2007	$	%
		(dollars in thousands)		
Personnel	$ 2,648	$ 1,655	$ 993	60%
Legal services	242	362	(120)	(33%)
General insurance	260	170	90	53%
Marketing research and related costs	112	66	46	70%
Consulting and professional services	576	633	(57)	(9%)
Stock-based compensation	1,063	1,110	(47)	(4%)
Other general and administrative	875	585	290	50%
Total general and administrative	$ 5,776	$ 4,581	$ 1,195	26%

General, sales and administrative costs for the three months ended March 31, 2008 increased from the same period in 2007 primarily due to a $1.0 million increase in personnel costs. The increase is primarily driven by a one-time charge of $0.6 million associated with a separation agreement with Sheldon Berkle, our former Chief Executive Officer, or CEO, who resigned in February 2008, an increase in administrative headcount as we continue to invest in administrative infrastructure and increased recruiting costs related to the search for a new CEO. Our general, sales and administrative headcount increased to 34 at March 31, 2008 from 31 at March 31, 2007.

Other income (expense) net

	Three Months Ended March 31,		Increase (Decrease)	
	2008	2007	$	%
		(dollars in thousands)		
Interest income	$ 1,399	$ 1,009	$ 390	39%
Interest expense	(352)	(163)	(189)	116%
Foreign currency exchange loss	(825)		(825)	N/A
Total other income (expense) net	$ 222	$ 846	$ (624)	(74%)

Interest income for the three months ended March 31, 2008 increased compared to the same period in 2007 primarily due to a higher average investment balance, which more than offset the decrease in the average interest rates earned on our investments. Interest expense for the three months ended March 31, 2008 increased as compared to the same period in 2007 primarily due to the accretion of non-cash interest expense on our obligation to Dr. Falk. Foreign currency exchange loss for the three months ended March 31, 2008 relates primarily to a foreign currency exchange adjustment relating to our obligation to Dr. Falk, which is denominated in Euros and therefore is remeasured at each reporting date. We had no foreign currency exchange gains or losses during the same period in 2007.

Table of Contents

Preferred stock dividends and accretion

	Three Months Ended March 31,		Increase (Decrease)	
	2008	2007	$	%
		(dollars in thousands)		
Preferred stock dividends	$(56)	$(56)	$	0%

The preferred stock dividends for the three months ended March 31, 2008 and 2007 relate entirely to dividends on our redeemable preferred stock.

Liquidity and Capital Resources

Overview

We have financed our operations since inception primarily through the sale of equity securities, payments from our collaborators, borrowings and capital lease financings and, prior to the middle of 2004, revenue from product sales. During January 2006, we completed our initial public offering of 8,050,000 shares of common stock at a price of $15.00 per share, resulting in net proceeds to us of approximately $110.2 million. During April 2007, we completed a common stock offering of 6,518,830 shares of common stock at a price of $14.75 per share, resulting in net proceeds to us of approximately $89.9 million.

From September 2001 until the time of the initial public offering, we funded our activities primarily with issuances of convertible preferred stock and redeemable preferred stock. At March 31, 2008, only the redeemable preferred stock remains outstanding, which is not convertible into common stock, and is redeemable, at the holder s option, on or after December 31, 2010, or by us at our option at any time. The liquidation preference of the redeemable preferred stock at March 31, 2008 was $6.6 million and includes accrued but unpaid dividends on the redeemable preferred stock of $2.1 million. Assuming we do not exercise our right to repurchase the redeemable preferred stock before December 31, 2010, the accrued and unpaid dividends at that date will be $2.7 million.

As of March 31, 2008, we had received $18.4 million from our collaborative agreement with CFFTI and are entitled to receive up to $6.6 million of future milestone payments under the agreement if a development milestone is met.

Effective June 6, 2007, Dr. Falk and we agreed to terminate our collaborative agreement, and we reacquired Dr. Falk s marketing rights under the agreement. Under the terms of the termination agreement, we agreed to make cash payments to Dr. Falk totaling 12.0 million, payable as follows: 5.0 million that was paid in July 2007 and equated to $6.7 million based on foreign currency exchange rates at the time of payment, 2.0 million on each of June 7, 2008 and 2009 and 3.0 million on June 6, 2010. Both parties were absolved from any further performance obligations under the original contract.

Effective February 21, 2007, we entered into a collaboration and license agreement with Genentech for the development, manufacture and commercialization of ALTU-238. Pursuant to the original agreement, Genentech made the following specific cash payments to us in 2007: a $15.0 million upfront non-refundable license fee payment, $15.0 million in exchange for 794,575 shares of our common stock, and $6.6 million to reimburse us for various development activities performed by us on Genentech s behalf. In addition, Genentech has paid us $3.5 million in 2008 to reimburse us for development activities performed on its behalf in the fourth quarter of 2007, and has agreed to pay us an

Table of Contents

additional $0.7 million for service we performed on Genentech s behalf in the fourth quarter of 2007. On December 19, 2007, Genentech and we entered into an agreement terminating the collaboration effective December 31, 2007. Under the terms of the termination agreement, we reacquired the North American development and commercialization rights to ALTU-238. As part of the termination agreement Genentech paid us a $4.0 million termination payment and agreed to provide, for a limited time, supplies of human growth hormone, or hGH, for further clinical development of ALTU-238 in North America and clinical development and commercial purposes outside North America. Upon commercialization, Genentech will be entitled to a nominal royalty on sales of ALTU-238.

Summary Cash Flow Information

	March 31, 2008	December 31, 2007	Increase (Decrease) $	Increase (Decrease) %
	(dollars in thousands)			
Cash, cash equivalents and marketable securities	$118,005	$138,332	$(20,327)	(15%)
Working capital	104,871	124,171	(19,300)	(16%)

	Three Months Ended March 31,	
	2008	2007
	(dollars in thousands)	
Cash flows from:		
Operating activities	$(21,611)	$ 928
Investing activities	12,858	8,488
Financing activities	2,110	14,698

Cash flows from operating activities. Since our inception, we have generated significant losses while advancing our product candidates into preclinical and clinical trials and maintaining and growing our administrative infrastructure. Accordingly, we have historically used cash in our operating activities. During the three months ended March 31, 2008, we used $21.6 million in operations. During the three months ended March 31, 2007, operating activities provided $0.9 million, which was due to the receipt of the $15.0 million upfront payment from Genentech more than offsetting expenditures related to research and development activities and administrative costs.

Cash flows from investing activities. Net cash provided by investing activities was $12.9 million for the three months ended March 31, 2008, reflecting $16.2 million of proceeds from the maturities of marketable securities, partially offset by $2.7 million to purchase marketable securities and $0.7 million for capital expenditures. During the same period in 2007, investing activities provided $8.5 million, reflecting $22.6 million of proceeds from the maturities of marketable securities, partially offset by $13.5 million to purchase marketable securities and $0.6 million for capital expenditures. We expect capital expenditures to be between $6.0 million and $8.0 million for the full year 2008.

Our funds at March 31, 2008 were invested in investment grade securities and money market funds. The composition and mix of cash, cash equivalents and marketable securities may change frequently as a result of our constant evaluation of conditions in the financial markets, the maturity of specific investments, and our near term liquidity needs.

Cash flows from financing activities. For the three months ended March 31, 2008, our financing activities provided $2.1 million, primarily reflecting $2.5 million of proceeds from the issuance of long-

Table of Contents

term debt under our equipment financing agreement, partially offset by repayments of long-term debt of $0.5 million. In addition, we received $0.2 million in proceeds from the exercise of common stock options. For the three months ended March 31, 2007, our financing activities provided $14.7 million, primarily reflecting the $15.0 million equity investment by Genentech. In addition, we received $0.4 million in proceeds from the exercise of common stock options, and made repayments of long-term debt principal of $0.5 million.

We have generally financed a substantial portion of our capital expenditures through equipment loans under which the lender retains a security interest in the equipment. The capital equipment loans are governed by a master loan and security agreement that contains the key terms of the loans. The master loan and security agreement requires us to maintain insurance on the collateral. Each loan carries a fixed rate of interest which was established at the time of borrowing and is payable in fixed monthly installments over periods of up to four years. We intend to secure additional equipment loans to continue to finance a substantial portion of our future capital expenditures.

Funding Requirements

We anticipate that our current cash, cash equivalents and marketable securities together with our expected cash inflow from collaborative agreements will be sufficient to fund our operations into mid-2009. However, our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement that involves risks and uncertainties, and actual results could vary materially.

Since our inception, we have generated significant losses while we have advanced our product candidates into preclinical and clinical trials. As we continue to advance our product candidates through development and begin to incur increased sales and marketing costs related to commercialization of our product candidates, we expect to incur additional operating losses until such time, if any, as our efforts result in commercially viable drug products. We do not expect our existing capital resources, together with the milestone payments and research and development funding we expect to receive, to be sufficient to fund the completion of the development and commercialization of any of our product candidates, and we expect that we will need to raise additional funds prior to being able to market any products. We may also need additional funds for possible future strategic acquisitions of businesses, products or technologies complementary to our business.

Our funding requirements will depend on numerous factors, including:

- the continued development progress on Trizytek, ALTU-238 and ALTU-237, including the completion of nonclinical and clinical trials and the results of these studies;
- our ability to advance additional product candidates into clinical development from our preclinical portfolio;
- the timing, receipt and amount of milestone and other payments, if any, from present and future collaborations;
- the timing and cost involved in obtaining regulatory approvals;
- the costs involved in preparing, filing, prosecuting, maintaining and enforcing patent claims for our drug discovery technology and product candidates and avoiding the infringement of intellectual property rights of others;
- the potential acquisition and in-licensing of other technologies, products or assets;
- the timing, receipt and amount of sales and royalties, if any, from our product candidates;
- the cost of manufacturing, marketing and sales activities, if any; and
- the receptivity of the capital markets to financings of biotechnology companies.

We do not expect to generate significant revenues, other than a milestone payment that we may receive from CFFTI or other similar collaborations we may enter into in the future, unless and until we successfully obtain

marketing approval for, and begin selling one or more of our product candidates.

Table of Contents

We may raise funds from time to time through public or private sales of equity or from borrowings. Financing may not be available on acceptable terms, or at all, and our failure to raise capital when needed could materially adversely impact our growth plans and our financial condition and results of operations. Additional equity financing may be dilutive to the holders of our common stock and debt financing, if available, may involve significant cash payment obligations and covenants that restrict our ability to operate our business. For example, warrants issued in connection with our Series B and Series C financings contain anti-dilution provisions that result in the issuance of additional shares of common stock upon exercise, and thus further dilution, to the extent we issue or are deemed to issue equity at a per share price that is less than the exercise price of the warrants. At March 31, 2008, 1,962,494 of such warrants with an exercise price of $5.64 per warrant and 1,556,291 of such warrants with an exercise price of $9.80 per warrant were outstanding. We do not engage in off-balance sheet financing arrangements, other than operating leases.

Forward Looking Statements and Risk Factors

This report contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. The forward-looking statements reflect our plans, estimates and beliefs. These statements involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performances or achievements expressed or implied by the forward-looking statements. In some cases, you can identify forward-looking statements by terms such as anticipates, believes, could, estimates, expects, intends, may, plans, potential, predicts, projects, should, expressions intended to identify forward-looking statements. Forward-looking statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Because of these risks and uncertainties, the forward-looking events and circumstances discussed in this report may not transpire. We discuss many of these risks in Part II Item 1A of this Quarterly Report on Form 10-Q and in our Annual Report on Form 10-K for the year ended December 31, 2007 under the heading Risk Factors .

Given these uncertainties, you should not place undue reliance on these forward-looking statements. Also, forward-looking statements represent our estimates and assumptions only as of the date of this Quarterly Report. You should read this Quarterly Report with the understanding that our actual future results may be materially different from what we expect. Except as required by law, we do not undertake any obligation to update or revise any forward-looking statements contained in this Quarterly Report, whether as a result of new information, future events or otherwise.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our cash, cash equivalents and marketable securities are invested with highly-rated financial institutions in North America with the primary objective of preservation of principal and minimum risk. When purchased, the investments generally have a maturity of less than 18 months. Some of the securities we invest in are subject to interest rate risk and will fall in value if market interest rates increase. To minimize the risk associated with changing interest rates, we invest primarily in money market funds, bank certificates of deposit, United States government securities and investment-grade commercial paper and corporate notes that can be held to their maturity date. All of our investments at March 31, 2008 met these criteria. We had gross unrealized gains of $0.1 million on our investments at March 31, 2008. If market interest rates were to increase immediately and uniformly by 10% from levels at March 31, 2008, we estimate that the fair value of our investment portfolio would decline by an immaterial amount.

Our total debt at March 31, 2008 was $4.8 million, representing equipment loans. All equipment loans carried fixed rates of interest established at the time of borrowing. Accordingly, our future interest costs relating to such borrowing are not subject to fluctuations in market interest rates.

Table of Contents

Our assets are principally located in the United States and a majority of our historical revenues and operating expenses are denominated in United States dollars, however some purchases of raw materials and contract manufacturing services are denominated in Euros. Accordingly, we are subject to market risk with respect to foreign currency-denominated expenses. We had a foreign currency exchange loss of $0.8 million in the three months ended March 31, 2008, primarily due to a foreign currency exchange adjustment relating to our obligation to Dr. Falk, which is denominated in Euros and therefore is remeasured at each reporting date. We had no foreign currency exchange gains or losses in the three months ended March 31, 2007. We may engage in collaborations with international partners in the future. When Trizytek or any other future drug candidates reach commercialization outside of the United States, if at all, or we enter into additional collaborations with international partners providing for foreign currency-denominated revenues and expenses, we may be subject to significant market risk.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Principal Executive Officer, or PEO, and Principal Financial Officer, or PFO, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934) as of March 31, 2008. In designing and evaluating our disclosure controls and procedures, our management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and our management necessarily applied its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation by our management, our PEO and PFO concluded that, as of March 31, 2008, our disclosure controls and procedures were: (1) designed to ensure that material information relating to us is made known to our PEO and PFO by others within the Company, particularly during the period in which this report was being prepared and (2) effective, in that they provide reasonable assurance that information required to be disclosed by us in reports that we file or submit under the Securities Exchange Act of 1934, as amended, or the Exchange Act, is recorded, processed, summarized, and reported within the time periods specified in the SEC s rules and forms and that such information is accumulated and communicated to management as appropriate to allow timely decisions regarding disclosures.

Changes in Internal Control

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the fiscal quarter ended March 31, 2008 that materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Table of Contents

PART II OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

We are not a party to any material legal proceedings.

ITEM 1A. RISK FACTORS

Our business is subject to numerous risks. We cannot assure investors that our assumptions and expectations about our business will prove to have been correct. Important factors could cause our actual results to differ materially from those indicated or implied by forward-looking statements. Such factors that could cause or contribute to such differences include those factors discussed below. We undertake no intention or obligation to update or revise any forward-looking statements in this Quarterly Report on Form 10-Q, whether as a result of new information, future events or otherwise.

Our existing and potential stockholders should consider carefully the risks described below and the other information in this Quarterly Report, including under the heading Forward-Looking Statements and Risk Factors , our Management s Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements and the related notes appearing elsewhere in this Quarterly Report. We may be unable, for many reasons, including those that are beyond our control, to implement our current business strategy. If any of the following risks actually occur, they may materially harm our business, our financial condition and our results of operations. In that event, the market price of our common stock could decline.

Risks Related to Our Business and Strategy

If we fail to obtain the additional capital necessary to fund our operations, we will be unable either to successfully develop and commercialize our product candidates or to finance the discovery and development of our next generation of product candidates.

We will require substantial future capital in order to continue to complete the development of and commercialize our clinical-stage product candidates, Trizytek, ALTU-238 and ALTU-237 and to conduct the research and development and clinical and regulatory activities necessary to bring our other product candidates into clinical development. Our future capital requirements will depend on many factors, including:

- the progress and results of our Phase III clinical efficacy trial and long-term safety studies for Trizytek, our planned toxicology studies and any other studies we may initiate based on the results of these studies or additional discussions with regulatory authorities;
- the results and costs of future clinical trials for ALTU-238 that we may initiate;
- the results of the Phase I clinical trial for ALTU-237 and any other trials we may initiate based on the results of this trial or additional discussions with regulatory authorities;
- the timing, progress and results of ongoing manufacturing development work for Trizytek, ALTU-238 and ALTU-237;
- the results of our preclinical studies and testing for our earlier stage research products and product candidates, and any decisions to initiate clinical trials if supported by the preclinical results;

Table of Contents

the costs, timing and outcome of regulatory review of our product candidates in clinical development, and any of our preclinical product candidates that progress to clinical trials;

the cost of obtaining clinical and commercial supplies of APIs and finished drug product;

the costs of establishing commercial operations, including sales and marketing functions, should any of our product candidates approach marketing approval and/or be approved, and of establishing commercial manufacturing and distribution arrangements;

the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing our issued patents, ensuring freedom to operate under any third party intellectual property rights, and defending intellectual property-related claims;

our ability to establish and maintain collaborative or other financing arrangements and obtain milestone, royalty and other payments from collaborators or third parties; and

the extent to which we acquire or invest in new businesses, products or technologies.

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, or we decide it is necessary to preserve existing resources, we may find it necessary or appropriate to:

terminate or delay preclinical studies, clinical trials or other development activities for one or more of our product candidates; or

delay our establishment of sales, marketing and commercial operations capabilities or other activities that may be necessary to commercialize our product candidates.

Based on our operating plans, we estimate that our net cash used in operating activities will be between $85 million and $95 million in 2008. We currently expect that our existing capital resources will be sufficient to maintain our current and planned operations into mid-2009. However, our operating plan may change as a result of many factors, including factors currently unknown to us, and we may need additional funds sooner than planned. In particular, we are now funding all costs related to the development of ALTU-238 and cannot defer or avoid such expenses unless we delay or curtail the ALTU-238 program or we enter into a new collaboration agreement with another collaborative partner or secure alternative funding to support the development of this product candidate. The failure to obtain additional financing or enter into a new collaboration could lead to a delay in the planned clinical trials for ALTU-238.

We do not expect our available funds to be sufficient to fund the completion of the development and commercialization of any of our product candidates, and we expect that we will need to raise additional funds prior to being able to market any products. Additional funding may not be available to us on acceptable terms, or at all.

We are obligated under our agreement with CFFTI and under the terms of our redeemable preferred stock to make significant payments upon the occurrence of specified events. We may not have sufficient resources to make these payments when they become due.

If we receive FDA approval for Trizytek or related products, we must pay our collaborator, CFFTI, an amount equal to CFFTI s aggregate funding to us plus interest, up to a maximum of $40.0 million, less

Table of Contents

the fair market value of the shares of common stock underlying the warrants we issued to CFFTI. This amount, together with accrued interest, will be due in four annual installments, commencing 30 days after the approval date. We will also be required to pay an additional $1.5 million to CFFTI within 30 days after the approval date. These initial payments to CFFTI, if we receive FDA approval of Trizytek, will be due before we receive revenue from any commercial sales of the product, which could require us to raise additional funds or make it difficult for us to make the payments in a timely manner. In addition, if Vertex Pharmaceuticals Incorporated, or Vertex, the holder of our redeemable preferred stock, elects to redeem those shares on or after December 31, 2010, we will be required to pay an aggregate of $7.2 million plus dividends accrued after that date. We may require additional funding to make any such payments. Funds for these purposes may not be available to us on acceptable terms, or at all.

We have a history of net losses, which we expect to continue for at least several years and, as a result, we are unable to predict the extent of any future losses or when, if ever, we will achieve, or be able to maintain, profitability.

We have incurred significant losses since 1999, when we were reorganized as a company independent from Vertex. At March 31, 2008, our accumulated deficit was $263.5 million and we expect to continue to incur losses for at least the next several years. We have only been able to generate limited amounts of revenue from license and milestone payments under our collaboration agreements, and payments for funded research and development, as well as revenue from products we no longer sell. We expect that our annual operating losses will continue to increase over the next several years as we expand our research, development and commercialization efforts.

We must generate significant revenue to achieve and maintain profitability. All of our product candidates are still in development. Even if we succeed in developing and commercializing one or more of our product candidates, we may not be able to generate sufficient revenue or achieve or maintain profitability. Our failure to become and remain profitable would 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.

Raising additional capital by issuing securities or through collaboration and licensing arrangements may cause dilution to existing stockholders, restrict our operations or require us to relinquish proprietary rights.

We may seek the additional capital necessary to fund our operations through public or private equity offerings, debt financings, and collaboration and licensing arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, existing stock ownership interests will be diluted, and the terms of such securities may include liquidation or other preferences that adversely affect the rights of our existing stockholders. In addition, many of the warrants that we have issued contain anti-dilution provisions that result in the issuance of additional shares of common stock upon exercise, and thus further dilution, to the extent we issue or are deemed to issue equity at a per share price less than the exercise price of the warrants. 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. If we raise additional funds through collaboration and licensing arrangements with third parties, we may have to relinquish valuable development and commercialization rights to our technologies or product candidates, or grant licenses on terms that are not favorable to us.

Our competitors may develop products that are less expensive, safer or more effective, which may diminish or prevent the commercial success of any product candidate that we bring to market.

Table of Contents

Competition in the pharmaceutical and biotechnology industries is intense. We face competition from pharmaceutical and biotechnology companies, as well as numerous academic and research institutions and governmental agencies engaged in drug discovery activities or funding, both in the United States and abroad. Some of these competitors have greater financial resources than us, greater experience in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing than we do, and have products or are pursuing the development of product candidates that target the same diseases and conditions that are the focus of our drug development programs, including those set forth below. In addition, there may be others of which we are unaware.

Trizytek. If approved, Trizytek, the product candidate we are developing for the treatment of malabsorption due to exocrine pancreatic insufficiency, will compete with currently marketed porcine-derived pancreatic enzyme replacement therapies from companies such as Axcan Pharma, Johnson & Johnson, and Solvay Pharmaceuticals, as well as from generic drug manufacturers such as KV Pharmaceutical and IMPAX Laboratories. In addition, we understand that Axcan Pharma, Biovitrum, Eurand, Meristem Therapeutics, and Solvay Pharmaceuticals have product candidates in development, some more advanced than Trizytek, that could compete with Trizytek. For example, Axcan Pharma completed the initial submission of the NDA for its porcine-derived pancrealipase product candidate, and Eurand has completed the initial submission of its rolling NDA for its porcine-derived pancrealipase product candidate. If any of the existing porcine products is successful in satisfying the requirements of the FDA notice and obtains market approval, such product or products may share some of the competitive advantages that Trizytek may offer over the existing products and could generate significant sales and competition. Existing products to treat exocrine pancreatic insufficiency have been marketed in the United States since before the passage of the Food, Drug and Cosmetic Act in 1938 and are currently marketed without FDA-approved NDAs. In 1995, the FDA issued a final rule requiring that these pancreatic enzyme products be marketed by prescription only, and in April 2004, the FDA issued a notice that manufacturers of these products will be subject to regulatory action if they do not obtain approved NDAs for their products by April 28, 2008. On October 26, 2007, the FDA provided additional notice to manufacturers of pancreatic enzyme products announcing that it has extended the required approval date for unapproved pancreatic enzyme products to April 28, 2010 as long as the manufacturers have investigational new drug applications, or INDs, on active status on or before April 28, 2008 and have submitted NDAs on or before April 28, 2009. Despite the FDA s announced position, the agency may not pursue regulatory action against these companies if they fail to meet the 2008 deadline because there are currently no other products on the market for the treatment of exocrine pancreatic insufficiency. The level of competition that Trizytek, if approved, will face from these products in the United States will depend on whether the manufacturers of these products obtain approved NDAs by the deadline set by the FDA and, if they are unable to do so, whether the FDA takes regulatory action against these manufacturers and the nature of any such action. The nature of the competition that Trizytek, if approved, faces from existing pancreatic enzyme products could affect the market acceptance of Trizytek or require us to lower the price of Trizytek, which would negatively impact our margins and our ability to achieve profitability.

ALTU-238. If approved, ALTU-238, the product candidate we are developing as a once-weekly treatment for human growth hormone, or hGH deficiency and related disorders, will compete with existing approved hGH therapies from companies such as BioPartners, Eli Lilly, Genentech, Merck Serono, Novo Nordisk, Pfizer, Sandoz, and Teva Pharmaceutical Industries. In addition, we understand that ALTU-238 may compete with product candidates in clinical development from some of these companies and others, including LG Life Sciences, which is developing a long-acting hGH therapy based on an encapsulated microparticle technology.

Table of Contents

ALTU-237. If approved, ALTU-237, the product candidate we are developing for the treatment of hyperoxalurias, may compete with product candidates in development at companies such as Amsterdam Molecular Therapeutics, Medix, NephroGenex, and OxThera.

We may not be successful in maintaining our existing collaboration or in establishing and maintaining additional collaborations on acceptable terms, which could adversely affect our ability to develop and commercialize our products.

An element of our business strategy is to establish collaborative arrangements with third parties, particularly with regard to development, regulatory approval, sales, marketing and distribution of our products outside of North America. We currently have one collaboration with CFFTI for Trizytek. We may also collaborate with other companies to accelerate the development of some of our early-stage product candidates, to co-commercialize our product candidates in North America in instances where we believe that a larger sales and marketing presence will expand the market or accelerate penetration, or to advance other business objectives. The process of establishing new collaborative relationships is difficult, time-consuming and involves significant uncertainty. We face, and will continue to face, significant competition in seeking appropriate collaborators. Moreover, if we do establish collaborative relationships, our collaborators may fail to fulfill their responsibilities or seek to renegotiate or terminate their relationships with us due to unsatisfactory clinical results, a change in business strategy, a change of control or other reasons. In the event of a termination, we may incur termination payments or other expenses in connection with any reacquisition of rights. If we are unable to establish and maintain collaborative relationships on acceptable terms, we may have to delay or discontinue further development of one or more of our product candidates, undertake development and commercialization activities at our own expense or find alternative sources of funding.

For example, under our collaboration agreement with CFFTI, we have received significant funding for the development of Trizytek. We are also eligible to receive an additional payment if we achieve a specified milestone under the agreement. Additionally, the collaboration provides us with access to the Cystic Fibrosis Foundation s network of medical providers, patients, researchers and others involved in the care and treatment of cystic fibrosis patients. Our agreement with CFFTI provides for an exclusive license from us to CFFTI, and an exclusive sublicense back with a right to further sublicense from CFFTI, of intellectual property rights covering the development and commercialization of Trizytek in North America. The agreement with CFFTI requires us to use commercially reasonable efforts to develop and commercialize Trizytek in North America for the treatment of malabsorption due to exocrine pancreatic insufficiency in patients with cystic fibrosis and other indications. We are also required to meet specified milestones under the agreement by agreed upon dates. If we are unable to satisfy our obligations under the agreement, we may lose further funding under the agreement and lose our exclusive sublicense to Trizytek in North America, which will materially harm our business.

If we enter into new collaborative agreements, our collaborators and we may not achieve our projected research and development goals in the time frames we announce and expect, which could have an adverse impact on our business and could cause our stock price to decline.

If we enter into new collaborative agreements for our product candidates, we expect to set goals for and make public statements regarding the timing of activities, such as the commencement and completion of preclinical studies and clinical trials, anticipated regulatory approval dates and developments and milestones under those collaboration agreements. The actual timing of such events can vary dramatically due to a number of factors such as delays or failures in our or our collaborators preclinical studies or clinical trials, delays or failures in manufacturing process development activities or in manufacturing product candidates, the amount of time, effort and resources to be committed to our programs by our future collaborators and the uncertainties inherent in the regulatory approval process. We cannot be certain that our or our collaborators preclinical studies and clinical trials will advance or be completed in

Table of Contents

the time frames we announce or expect, that our collaborators or we will make regulatory submissions or receive regulatory approvals as planned or that our collaborators or we will be able to adhere to our current schedule for the achievement of key milestones under any of our internal or collaborative programs. If our collaborators or we fail to achieve one or more of these milestones as planned, our business will be materially adversely affected and the price of our common stock could decline.

Risks Related to Development of Our Product Candidates

If we, or if we enter into collaborative agreements, our collaborators, are unable to commercialize our lead product candidates, or experience significant delays in doing so, our business will be materially harmed.

We have invested a significant portion of our time and financial resources to date in the development of oral and injectable crystallized protein therapies, including Trizytek, ALTU-238, and ALTU-237, for the treatment of gastrointestinal and metabolic disorders. Our ability and the ability of a collaborative partner to develop and commercialize our product candidates successfully, and therefore our ability to generate revenues, will depend on numerous factors, including:

- successfully scaling up the manufacturing processes for our product candidates, successfully completing stability testing and release of our product candidates, and obtaining sufficient supplies of, our product candidates, in order to complete our clinical trials and toxicology studies on a timely basis;
- receiving marketing approvals from the FDA and foreign regulatory authorities;
- arranging for commercial-scale supplies of our product candidates with contract manufacturers whose manufacturing facilities operate in compliance with current good manufacturing practice regulations, or cGMPs, including the need to scale up the manufacturing process for commercial scale supplies;
- establishing sales, marketing and distribution capabilities on our own, through collaborative agreements or through third parties;
- obtaining commercial acceptance of our product candidates, if approved, in the medical community and by third-party payors and government pricing authorities; and
- establishing favorable pricing from foreign regulatory authorities.

If we are not successful in commercializing Trizytek, ALTU-238 or ALTU-237, or are significantly delayed in doing so, our business will be materially harmed.

Because our product candidates are in clinical development, there is a significant risk of failure.

Of the large number of drugs in development, only a small percentage result in the submission of an NDA to the FDA, and even fewer are approved for commercialization. We will only receive regulatory approval to commercialize a product candidate if we can demonstrate to the satisfaction of the FDA or the applicable foreign regulatory authority, in well-designed and conducted clinical trials, that the product

Table of Contents

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 programs 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.

We have not yet completed Phase III clinical trials for any of our product candidates in clinical development, and we have not advanced, and may never advance, our product candidates that are currently in preclinical testing into clinical trials. We have completed a Phase II clinical trial for the capsule form of Trizytek and initiated a Phase III efficacy trial in May 2007. In order for Trizytek to be approved by the FDA, we will be required to demonstrate in the Phase III efficacy trial, to a statistically significant degree, that Trizytek improves absorption of fat in patients suffering from malabsorption as a result of exocrine pancreatic insufficiency. We will also be required to demonstrate the safety of Trizytek in a long-term study and have commenced two Phase III studies of Trizytek to evaluate its long-term safety. However, we may not be successful in meeting the primary or secondary endpoints for the Phase III efficacy trial or the goal of the long-term safety studies. The possibility exists that even if these trials are successful, we may still be required or may determine it is desirable to perform additional studies for approval or in order to achieve a broad indication for the labeling of the drug. In addition, we will need to complete specified toxicology studies in animals before submitting an NDA, and the results of those studies may not demonstrate sufficient safety.

The ability to complete our Phase III program for Trizytek depends on our performance and that of our contract research organization as well as the continued availability and willingness of patients to participate in experimental research. We have limited experience from conducting earlier stage clinical trials, and we are still developing our capabilities to conduct Phase III clinical trials, which usually involve a larger number of patients. In addition, in the execution of any clinical trials we conduct, we intend to continue to rely in part on third party contractors to assist with these activities. The design of our Phase III efficacy clinical trial for Trizytek includes two in-hospital participation periods as well as one off-enzyme period for all patients and an additional off-enzyme period for half of the patients. This may cause subjects to drop out of the trial. In-hospital periods can be inconvenient, and off-enzyme periods can be uncomfortable for these patients. The design of our safety studies for Trizytek requires patients to participate for approximately 12 months. It is possible that some subjects may decide, after they have enrolled, that they no longer wish to participate in the trial, which could require us to enroll new patients at a later date, thereby delaying completion of the trial. Any predictions about the timing of enrollment or the completion of clinical trials are subject to the risks inherent in these activities.

For ALTU-238, we have completed Phase I clinical trials in healthy adults and a Phase II clinical trial in adults with hGH deficiency. The efficacy of ALTU-238 has not yet been tested in a human clinical trial, and ALTU-238 may prove not to be clinically effective as an extended-release formulation of hGH. In addition, it is possible that patients receiving ALTU-238 will suffer additional or more severe side effects than we observed in our Phase I and Phase II clinical trials, which could delay or preclude regulatory approval of ALTU-238 or limit its commercial use.

In April 2008, we completed our first Phase I human clinical trial of ALTU-237 in healthy human subjects. Its safety and efficacy have yet to be determined.

If we observe serious or other adverse events during the time our product candidates are in development or after our products are approved and on the market, we may be required to perform lengthy additional clinical trials, may be denied regulatory approval of such products, may be forced to change the labeling of such products or may be required to withdraw any such products from the market, any of which would hinder or preclude our ability to generate revenues.

Table of Contents

In connection with our completed Phase II clinical trial of Trizytek, there was one serious adverse event considered by an investigator in our clinical trials as probably or possibly related to treatment with that product candidate. As the size of our clinical trials increase or the medical conditions of the population in which we are testing our products vary, the potential for serious or other adverse events related or unrelated to our product candidates could vary and possibly increase.

The one serious adverse event in our Phase II clinical trial of Trizytek involved a subject in the lowest dose group who developed distal intestinal obstructive syndrome, or DIOS, which resolved itself without further complications. DIOS is a condition that is unique to cystic fibrosis and occurs due to the accumulation of viscous mucous and fecal material in the colon. According to a 1987 study, DIOS is relatively common in cystic fibrosis patients, occurring in about 16% of those patients. In our Phase II clinical trial of Trizytek, we also observed elevated levels of liver transaminases, which can be associated with harm to the liver. These elevations were transient and asymptomatic and were not reported as drug-related serious adverse events. Elevation of liver transaminases is common among cystic fibrosis patients. The elevations we observed may or may not have been caused by Trizytek. The increases we observed were not associated with increases in bilirubin, which are typically associated with harm to the liver.

If the incidence of these events increases in number or severity, if a regulatory authority believes that these events constitute an adverse effect caused by the drug, or if other effects are identified either during future clinical trials or after any of our drug candidates are approved and on the market:

- we may be required to conduct additional preclinical or clinical trials, make changes in clinical trial brochures or, if a product is approved, make changes to the labeling of any such products, reformulate any such products, or implement changes to or obtain new approvals of our or our contractors or collaborators manufacturing facilities or processes;
- regulatory authorities may be unwilling to approve our product candidates or may withdraw approval of our products;
- we may experience a significant drop in the sales of the affected products;
- our reputation in the marketplace may suffer; and
- we may become the target of lawsuits, including class action suits.

Any of these events could prevent approval or harm sales of the affected products or could substantially increase the costs and expenses of commercializing and marketing any such products.

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

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

Table of Contents

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

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

delays in the completion of manufacturing development work for our product candidates, and in collecting the necessary manufacturing information for submission of our marketing approval applications for our product candidates;

any dispute that arises under our current or future collaborative agreements or our agreements with third parties;

insufficient supply or deficient quality of our product candidates or other materials necessary to conduct our clinical trials;

difficulties enrolling subjects in our clinical trials, including, for example, finding pediatric subjects with hGH deficiency who have not previously received hGH therapy for our pediatric trials of ALTU-238;

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

serious or unexpected side effects experienced by subjects in clinical trials; or

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

Our clinical trials and those of our collaborators may not begin as planned, may need to be redesigned, and may not be completed on schedule, if at all. For example, in December 2007, we announced that Genentech and we had terminated our ALTU-238 collaboration agreement. This may result in a delay in our planned clinical trials, and preclude our ability to enter into Phase III clinical trials unless we are able to procure additional funds to finance the costs of such trials. Delays in our clinical trials may result in increased development costs for our product candidates, which could cause our stock price to decline and could limit our ability to obtain additional financing. In addition, if one or more of our clinical trials are delayed, our competitors may be able to bring products to market before we do, and the commercial advantage, profitability or viability of our product candidates, including our clinical-stage product candidates, could be significantly reduced.

Conducting clinical studies in Eastern Europe involves risks not typically associated with U.S. studies which may result in timing, cost and/or quality problems in our planned clinical trials for our product candidates.

A significant number of the human subjects enrolled in our Phase III clinical trials for Trizytek have been in Eastern Europe and we expect that a significant number of the human subjects in our upcoming clinical trials for ALTU-238 will be enrolled in Eastern European countries. We plan to conduct these trials in compliance with good clinical practices. However, ensuring compliance with good clinical practices at Eastern European clinical sites will involve risks, including risks associated with language barriers and the fact that some European clinical investigators have only limited experience in conducting clinical studies in accordance with standards set forth by the FDA and the European

Table of Contents

Medicines Agency, or EMEA. Although we will seek to mitigate this risk by monitoring and auditing the ongoing performance of our studies, using both our employees and outside contract research organizations, to ensure compliance with good clinical practices and all other regulatory requirements, we may not be able to mitigate these risks effectively. Failure to attain and document compliance with good clinical practices would adversely impact the value of any data generated from these trials. In addition, should it require more time or money than we currently anticipate to perform any required site training, monitoring or auditing activities, these trials could be delayed, exceed their budgets, or both, which could have a material adverse impact on our business.

We may fail to select or capitalize on the most scientifically, clinically or commercially promising or profitable indications or therapeutic areas for our product candidates.

We have limited technical, managerial and financial resources to determine the indications on which we should focus the development efforts related to our product candidates. We may make incorrect determinations. Our decisions to allocate our research, management and financial resources toward particular indications or therapeutic areas for our product candidates may not lead to the development of viable commercial products and may divert resources from better opportunities. Similarly, our decisions to delay or terminate drug development programs may also be incorrect and could cause us to miss valuable opportunities. For example, we will need to allocate our financial, capital and human resources among Trizytek, ALTU-238 and ALTU-237, and our preclinical product candidates. If we invest in the advancement of a candidate which proves not to be viable, we will have fewer resources available for potentially more promising candidates. In particular, because we are now solely responsible for the development of ALTU-238, we will need to commit additional financial and human resources to the ALTU-238 program. Because our resources are limited, we may be unable to commit the necessary resources to this program without negatively impacting other programs.

Risks Related to Regulatory Approval of Our Product Candidates and Other Government Regulations

If we or our future collaborators do not obtain required regulatory approvals, we will be unable to commercialize our product candidates, and our ability to generate revenue will be materially impaired.

Trizytek, ALTU-238, ALTU-237 and any other product candidates we may discover or acquire and seek to commercialize, either alone or in conjunction with a collaborator, are subject to extensive regulation by the FDA and other regulatory authorities in the United States and other countries relating to the testing, manufacture, safety, efficacy, recordkeeping, labeling, packaging, storage, approval, advertising, promotion, sale and distribution of drugs. In the United States and in many foreign jurisdictions, we must successfully complete rigorous preclinical testing and clinical trials and an extensive regulatory review process before a new drug can be sold. We have not obtained regulatory approval for any product. Satisfaction of these and other regulatory requirements is costly, time consuming, uncertain and subject to unanticipated delays.

The time required to obtain approval by the FDA is unpredictable but typically takes many years following the commencement of clinical trials, depending upon numerous factors, including the complexity of the product candidate and the disease to be treated. Our product candidates may fail to receive regulatory approval for many reasons, including:

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

Table of Contents

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

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

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

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

the FDA s or comparable foreign regulatory authorities failure to approve the manufacturing processes or facilities of third-party contract manufacturers of clinical and commercial supplies; and

a change in the approval policies or regulations of, or the specific advice provided to us by, the FDA or comparable foreign regulatory authorities or a change in the laws governing the approval process.

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

Failure to obtain regulatory approvals or to comply with regulatory requirements in foreign jurisdictions would prevent us or any collaborator from marketing our products internationally.

We intend to have our product candidates marketed outside the United States. In order to market products in the European Union and many other non-United States jurisdictions, our collaborators or we must obtain separate regulatory approvals and comply with numerous and varying regulatory requirements. We have no experience in obtaining foreign regulatory approvals for our product candidates. The approval procedures vary among countries and can involve additional and costly preclinical and clinical testing and data review. The time required to obtain approval in other countries may differ from that required to obtain FDA approval. The foreign regulatory approval process may include all of the risks associated with obtaining FDA approval. Approval by the FDA does not ensure approval by regulatory authorities in other countries, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other foreign countries or by the FDA. Our collaborators or we may not receive necessary approvals to commercialize our products in any market. The failure to obtain these approvals could harm our business and result in decreased revenues from the sale of products or from milestones or royalties associated with any collaboration agreements we may enter into in the future.

We also face challenges arising from the different regulatory requirements imposed by United States and foreign regulators with respect to clinical trials. The EMEA often imposes different requirements than the FDA with respect to the design of a pivotal Phase III clinical trial. For example, we believe that, based on our discussions with the EMEA, a collaborator or we will be required to conduct a

Table of Contents

trial comparing Trizytek with a currently marketed pancreatic enzyme replacement therapy in order to obtain regulatory approval in the European Union. If a comparator study is undertaken and Trizytek does not demonstrate equivalent efficacy to the comparator product, Trizytek may not obtain regulatory approval; further, if Trizytek does not demonstrate an advantage over the comparator, the commercial profitability and viability of Trizytek could be materially and adversely affected in Europe as well as the United States. These factors could in turn adversely impact the opportunity to enter into a future Trizytek collaboration in Europe.

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

Even if we receive regulatory approval to market a particular product candidate, the product will remain subject to extensive regulatory requirements, including requirements relating to manufacturing, labeling, packaging, adverse event reporting, storage, advertising, promotion, distribution and record keeping. In addition, the approval may be subject to limitations on the 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, which could reduce our revenues, increase our expenses and render the approved product candidate not commercially viable.

In addition, as clinical experience with a drug increases after approval because it is typically used by a larger and more diverse group of patients after approval than during clinical trials, side effects and other problems may be observed after approval that were not seen or anticipated during pre-approval clinical trials or other studies. Any adverse effects observed after the approval and marketing of a product candidate could result in limitations on the use of or withdrawal of any approved products from the marketplace. Absence of long-term safety data may also limit the approved uses of our products, if any. If we fail to comply with the regulatory requirements of the FDA and other applicable United States and foreign regulatory authorities, or previously unknown problems with any approved commercial products, manufacturers or manufacturing processes are discovered, we could be subject to administrative or judicially imposed sanctions or other setbacks, including:

- restrictions on the products, manufacturers or manufacturing processes;
- warning letters;
- civil or criminal penalties;
- fines;
- injunctions;
- product seizures or detentions;
- import or export bans or restrictions;
- voluntary or mandatory product recalls and related publicity requirements;
- suspension or withdrawal of regulatory approvals;
- total or partial suspension of production; and
- refusal to approve pending applications for marketing approval of new products or supplements to approved applications.

Table of Contents

If we are slow to adapt, or are unable to adapt, to changes in existing regulatory requirements or adoption of new regulatory requirements or policies, we 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.

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

Our activities and those of our third-party manufacturers on our behalf involve the controlled storage, use and disposal of hazardous materials, including microbial agents, corrosive, explosive and flammable chemicals and other hazardous compounds. Our manufacturers and we are subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of these hazardous materials. Although we believe that the safety procedures for handling and disposing of these materials comply with the standards prescribed by these laws and regulations, we cannot eliminate the risk of accidental contamination or injury from these materials.

In the event of an accident, state or federal authorities may curtail our use of these materials and interrupt our business operations. In addition, we could be liable for any resulting civil damages which may exceed our financial resources and may seriously harm our business. While we believe that the amount of insurance we currently carry, providing coverage of $1.0 million, should be sufficient for typical risks regarding our handling of these 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. In addition, if we develop a manufacturing capacity, we may incur substantial costs to comply with environmental regulations and would be subject to the risk of accidental contamination or injury from the use of hazardous materials in our manufacturing process.

Risks Related to Our Dependence on Third Parties

We have no manufacturing capacity, and we have relied and expect to continue to rely on third-party manufacturers to produce our product candidates.

We do not own or operate manufacturing facilities for the production of clinical or commercial quantities of our product candidates or any of the compounds that we are testing in our preclinical programs, and we lack the internal resources and the capabilities to do so. As a result, we currently rely, and we expect to rely in the future, on third-party manufacturers to supply the APIs for our product candidates and to produce and package final drug products, if and when they are approved for marketing. 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 manufacturing process development, sourcing of key raw materials and specialized manufacturing equipment, regulatory compliance and quality assurance;
- limitations on supply availability resulting from capacity and scheduling constraints of the third party;
- the possible breach of the manufacturing agreement by the third party because of factors beyond our control; and

Table of Contents

the possible termination or non-renewal of the agreement by the third party, based on its own business priorities, at a time that is costly or inconvenient for us.

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 our product candidates and commercialize any products that receive regulatory approval on a timely basis.

We currently rely on a limited number of manufacturers for the clinical and commercial supply of each of our product candidates, which could delay or prevent the clinical development and commercialization of our product candidates.

We currently depend on single source suppliers for each of our product candidates. Any disruption in production, inability of a supplier to produce adequate quantities of clinical and other material to meet our needs or other impediments could adversely affect our ability to successfully complete the clinical trials and other studies of our product candidates, delay submissions of our regulatory applications or adversely affect our ability to commercialize our product candidates in a timely manner, or at all.

We currently rely on two contract manufacturers to provide us with Trizytek for our Phase III clinical trials. Amano Enzyme Inc., or Amano, located in Nagoya, Japan, is the sole supplier of the enzymes that comprise the APIs for Trizytek. Patheon Inc., or Patheon, located in Ontario, Canada, is the sole manufacturer of the Trizytek drug product which contains the three APIs. Both Amano and Patheon have only supplied us with materials for our clinical trials and our toxicology studies. In addition, Amano s manufacturing facility that produces the APIs for Trizytek has not been inspected or approved by the FDA, EMEA or the Japanese Ministry of Health, Labour and Welfare. Pursuant to our agreement with Amano, it has notified us that it will not be the primary manufacturer of the APIs for the initial commercial supply of Trizytek, but it may elect to supply some of the APIs for Trizytek in the future. Any dispute over the terms of, or decisions regarding, our collaboration with Amano or other adverse developments in our relationship with Amano would materially harm our business and might accelerate our need for additional capital.

We entered into an agreement with Lonza in November 2006 for the commercial scale-up and supply of Trizytek. We are in the process of working with Lonza to transfer from Amano and us the technology required to manufacture the APIs for Trizytek. Switching manufacturers requires the cooperation of Amano, training of personnel, sourcing and quality assurance of key raw materials, and validation of Lonza s processes. Lonza s facility has not been inspected or approved by the FDA, the EMEA or other relevant regulatory authorities. Changes in manufacturing processes or procedures, including a change in the location where the drug is manufactured or a change of a third-party manufacturer, may require prior review and approval from the FDA and satisfaction of comparable foreign requirements. This review may be costly and time-consuming and, if we obtain the required marketing approvals, could delay or prevent the launch of a product. If we are unable to successfully transition the manufacture of the APIs for Trizytek from Amano and ourselves to Lonza, our commercialization of Trizytek could be delayed, prevented or impaired and the costs related to Trizytek may increase. In addition, if Amano elects to become a commercial supplier of Trizytek, we will have the added difficulty of managing two suppliers of the same materials.

With respect to ALTU-238, we have purchased the hGH, the API in ALTU-238, for our prior clinical trials from Sandoz GmbH. In February 2008, we purchased hGH from a third-party supplier for both our Phase Ic trial and our Phase II pediatric trial. The Phase Ic trial is designed to confirm that ALTU-238 material produced at the current manufacturing scale performs similarly to the material used in previous ALTU-238 Phase I and Phase II trials. We have not decided on a long term supplier for the

Table of Contents

hGH that we will need for our future Phase III trials and commercial needs, and we cannot be sure that we will be able to enter into an agreement with a suitable alternative supplier on suitable terms, or at all.

We have an agreement with Althea for Althea to use the hGH supplied to it to produce the clinical supplies for our planned clinical trials of ALTU-238. We have transferred the manufacturing process for ALTU-238 to Althea and are currently validating this process. Furthermore, prior to the initiation of manufacturing activities for ALTU-238 at Althea we will need to complete additional activities including the testing and qualification of specialized manufacturing equipment specific to ALTU-238. Delays in these activities, particularly in the delivery of specialized manufacturing equipment, have in the past delayed our clinical trials of ALTU-238 and unsuccessful testing, qualification and performance of such equipment could further delay the planned clinical trials for ALTU-238 and result in additional unforeseen expenses.

Our agreement with Althea covers only the manufacture of ALTU-238 for the planned clinical trials of ALTU-238. We will need to negotiate an additional agreement under which Althea would provide the commercial supply of ALTU-238 or find an alternative commercial manufacturer. Switching manufacturers would require cooperation with Althea, technology transfers, training, and validation of the alternative manufacturer s processes, and, under some circumstances, will require us to make a specified payment to Althea. Changes in manufacturing processes or procedures, including a change in the location where the drug is manufactured or a change of a third-party manufacturer, may require prior review and approval from the FDA and satisfaction of comparable foreign requirements. This review may be costly and time-consuming and could delay or prevent the launch of a product. If we are unable to secure another contract manufacturer for ALTU-238 at an acceptable cost, the commercialization of ALTU-238 could be delayed, prevented or impaired, and the costs related to ALTU-238 may increase. Any dispute over the terms of, or decisions regarding, our collaboration with Althea or other adverse developments in our relationship would materially harm our business and might accelerate our need for additional capital.

We do not have any agreements in place to manufacture our product candidates, other than the APIs for Trizytek, on a commercial scale. In order to commercialize these product candidates, our existing suppliers will need to scale up their manufacturing of our product candidates and/or transfer the technology to a commercial supplier. We may be required to fund capital improvements to support scale-up of manufacturing and related activities. Our existing manufacturers may not be able to increase their manufacturing capacity successfully for any of our product candidates for which we obtain marketing approval in a timely or economic manner, or at all. We may need to engage other manufacturers to provide commercial supplies of our product candidates. It may be difficult for us to enter into commercial supply arrangements on a timely basis or on acceptable terms, which could delay or prevent our ability to commercialize our product candidates. If our existing manufacturers are unable or unwilling to increase their manufacturing capacity or we are unable to establish alternative arrangements, the development and commercialization of our product candidates may be delayed or there may be a shortage in supply.

Any performance failure on the part of a contract manufacturer could delay clinical development or regulatory approval of our product candidates or commercialization of any approved products.

The failure of a contract manufacturer to achieve and maintain high manufacturing standards could result in patient injury or death, product liability claims, product recalls, product seizures or withdrawals, delays or failures in testing or delivery, cost overruns, failure of regulatory authorities to grant marketing approvals, delays, suspensions or withdrawals of approvals, injunctions, fines, civil or criminal penalties, or other problems that could seriously harm our business. Contract manufacturers may encounter difficulties involving production yields, quality control and quality assurance. These manufacturers are subject to ongoing periodic unannounced inspection by the FDA and corresponding state and foreign

Table of Contents

agencies which audit strict compliance with cGMP and other applicable government regulations and corresponding foreign standards. However, we or a future collaborator may have limited control over third-party manufacturers compliance with these regulations and standards. Present or future manufacturers might not be able to comply with cGMP and other FDA or international regulatory requirements.

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

We rely on third parties such as contract research organizations, medical institutions and clinical investigators to enroll qualified patients and conduct, supervise and monitor our clinical trials. Our reliance on these third parties for clinical development activities reduces our control over these activities. Our reliance on these third parties, however, does not relieve us of our regulatory responsibilities, including ensuring that our clinical trials are conducted in accordance with good clinical practice regulations and the investigational plan and protocols contained in the IND. Furthermore, these third parties may also have relationships with other entities, some of which may be our competitors. In addition, they may not complete activities on schedule, or may not conduct our preclinical studies or clinical trials in accordance with regulatory requirements or our trial design. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, our efforts to obtain regulatory approvals for, and commercialize, our product candidates may be delayed or prevented.

Because we may enter into in the future sales or collaboration transactions, we may be dependent upon our collaborators, and we may be unable to prevent them from taking actions that may be harmful to our business or inconsistent with our business strategy.

Any future licensing and collaboration agreements that we may enter into with respect to our product development candidates may reduce or eliminate the control we have over the development and commercialization of our product candidates. Our future collaborators may decide to terminate a development program under circumstances where we might have continued such a program, or may be unable or unwilling to pursue ongoing development and commercialization activities as quickly as we would prefer. A collaborator may follow a different strategy for product development and commercialization that could delay or alter development and commercial timelines and likelihood of success. A collaborator may also be unwilling or unable to fulfill its obligations to us, including its development and commercialization responsibilities. Any future collaborators will likely have significant discretion in determining the efforts and level of resources that they dedicate to the development and commercialization of our product candidates. In addition, although we seek to structure our agreements with potential collaborators to prevent the collaborator from developing and commercializing a competitive product, we are not always able to negotiate such terms and the possibility exists that our collaborators may develop and commercialize, either alone or with others or through an in-license or acquisition, products that are similar to or competitive with the products that are the subject of the collaboration with us. If any collaborator terminates its collaboration with us or fails to perform or satisfy its obligations to us, the development, regulatory approval or commercialization of our product candidate would be delayed or may not occur and our business and prospects could be materially and adversely affected for that reason. Likewise, if we fail to fulfill our obligations under a collaboration and license agreement, our collaborator may be entitled to damages, to terminate the agreement, or terminate or reduce its financial payment obligations to us under our collaborative agreement.

Our collaborations with outside scientists and consultants may be subject to restriction and change.

Table of Contents

We work with chemists, biologists and other scientists at academic and other institutions, and consultants who assist us in our research, development, regulatory and commercial efforts. These scientists and consultants have provided, and we expect that they will continue to provide, valuable advice on our programs. These scientists and consultants are not our employees, may have other commitments that would limit their future availability to us and typically will not enter into non-compete agreements with us. If a conflict of interest arises between their work for us and their work for another entity, we may lose their services. In addition, we will be unable to prevent them from establishing competing businesses or developing competing products. For example, if a key principal investigator identifies a potential product or compound that is more scientifically interesting to his or her professional interests, his or her availability could be restricted or eliminated.

Risks Related to Commercialization of Our Product Candidates

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.

We have no commercial products, and we do not currently have an organization for the sales and distribution of pharmaceutical products. In order to successfully commercialize any products that may be approved in the future by the FDA or comparable foreign regulatory authorities, we must build our sales and marketing capabilities or make arrangements with third parties to perform these services. Though we currently plan to retain North American commercialization rights to our products in circumstances where we believe that we can successfully commercialize such products on our own or with a partner, we may not be able to successfully develop our own sales and marketing force for product candidates for which we have retained marketing rights. In addition, we may co-promote our product candidates in North America with any future collaborators, or we may rely on other third parties to perform sales and marketing services for our product candidates, in order to achieve a variety of business objectives, including expanding the market or accelerating penetration. If we develop our own sales and marketing capability, we may be competing with other companies that currently have experienced and well-funded sales and marketing operations.

If we do enter into arrangements with third parties to perform sales and marketing services, our product revenues may 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. 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.

If physicians and patients do not accept our future products, we may be unable to generate significant revenue, if any.

Even if we or a future collaborator receives regulatory approval for our product candidates, these product candidates may not gain market acceptance among physicians, healthcare payors, government pricing agencies, patients and the medical community. Physicians may elect not to recommend or patients may elect not to use these products for a variety of reasons, including:

prevalence and severity of adverse side effects;

ineffective marketing and distribution support;

timing of market introduction of competitive products;

Table of Contents

lack of availability of, or inadequate reimbursement from managed care plans and other third-party or government payors;

lower demonstrated clinical safety and efficacy compared to other products;

other potential advantages of alternative treatment methods; and

lack of cost-effectiveness or less competitive pricing.

If our approved drugs fail to achieve market acceptance, we will not be able to generate significant revenue, if any.

If the government and third-party payors fail to provide coverage and adequate payment rates for our future products, if any, our revenue and prospects for profitability will be harmed.

In both domestic and foreign markets, our sales of any future products will depend in part upon the availability of reimbursement from third-party payors. Such third-party payors include government health programs such as Medicare and Medicaid, managed care providers, private health insurers and other organizations. These third-party payors are increasingly attempting to contain healthcare costs by demanding price discounts or rebates and limiting both coverage on which drugs they will pay for and the amounts that they will pay for new drugs. As a result, they may not cover or provide adequate payment for our drugs.

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 clinical development resources and management time as well as incur significant financial and other expense. Our future products might not ultimately be considered cost-effective. Adequate third-party reimbursement might not be available to enable us to maintain price levels sufficient to realize an appropriate return on investment in product development.

In the United States there have been, and we expect that there will continue to be, a number of federal and state proposals to implement governmental pricing reimbursement controls. The Medicare Prescription Drug and Modernization Act of 2003 imposed new requirements for the distribution and pricing of prescription drugs that may affect the marketing of our products, if we obtain FDA approval for those products. Under this law, Medicare was extended to cover a wide range of prescription drugs other than those directly administered by physicians in a hospital or medical office. Competitive regional private drug plans were authorized to establish lists of approved drugs, or formularies, and to negotiate rebates and other price control arrangements with drug companies. Proposals to allow the government to negotiate Medicare drug prices with drug companies directly, if enacted, might further constrain drug prices, leading to reduced revenues and profitability. While we cannot predict whether any future legislative or regulatory proposals will be adopted, the adoption of such proposals could have a material adverse effect on our business, financial condition and profitability.

Foreign governments tend to impose strict price controls on pharmaceutical products, which may adversely affect our revenues, if any.

In some foreign countries, particularly the countries of the European Union, Canada and Japan, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we may be

Table of Contents

required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies. In some countries, the pricing is limited by the pricing of existing or comparable therapies. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our ability to enter into collaborative development and commercialization agreements and our revenues from these agreements could be adversely affected.

There is a substantial risk of product liability claims in our business. If we are unable to obtain sufficient insurance, a product liability claim against us could adversely affect our business.

We face an inherent risk of product liability exposure related to the testing of our product candidates in human clinical trials and will face even greater risks upon any commercialization by us of our product candidates. We have product liability insurance covering our clinical trials in the amount of $10 million, which we believe is adequate to cover any current product liability exposure we may have. However, liabilities may exceed the extent of our coverage, resulting in material losses. Clinical trial and product liability insurance is becoming increasingly expensive. As a result, we may be unable to obtain sufficient insurance or increase our existing coverage at a reasonable cost to protect us against losses that could have a material adverse effect on our business. An individual may bring a product liability claim against us if one of our products or product candidates causes, or is claimed to have caused, an injury or is found to be unsuitable for consumer use. Any product liability claim brought against us, with or without merit, could result in:

liabilities that substantially exceed our product liability insurance, which we would then be required to pay from other sources, if available;

an increase of our product liability insurance rates or the inability to maintain insurance coverage in the future on acceptable terms, or at all;

withdrawal of clinical trial volunteers or patients;

damage to our reputation and the reputation of our products, resulting in lower sales;

regulatory investigations that could require costly recalls or product modifications;

litigation costs; and

the diversion of management s attention from managing our business.

Risks Related to Our Intellectual Property

If the combination of patents, trade secrets and contractual provisions that we rely on to protect our intellectual property is inadequate to provide us with market exclusivity, our ability to successfully commercialize our product candidates will be harmed and we may not be able to operate our business profitably.

Our success depends, in part, on our ability to obtain, maintain and enforce our intellectual property rights both domestically and abroad. The patent position of biotechnology companies is generally highly uncertain, involves complex legal and factual questions and has in recent years been the

Table of Contents

subject of much litigation. The validity, enforceability and commercial value of these rights, therefore, are highly uncertain.

Our patents may not protect us against our competitors. The issuance of a patent is not conclusive as to its scope, validity or enforceability. The scope, validity or enforceability of our patents can be challenged in litigation. Such litigation is often complex, can involve substantial costs and distraction and the outcome of patent litigation is often uncertain. If the outcome is adverse to us, third parties may be able to use our patented inventions and compete directly with us, without payment to us. Third parties may also be able to circumvent our patents by design innovations. We may not receive any additional patents based on the applications that we have filed and are currently pending.

Because patent applications in the United States and many foreign 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 actual discoveries, neither we nor our licensors or collaborators can be certain that they or we were the first to make the inventions claimed in patents or pending patent applications, or that they or we were the first to file for protection of the inventions set forth in these patent applications. Assuming the other requirements for patentability are met, in the United States, the first to make the claimed invention is entitled to the patent, and outside the United States, the first to file is entitled to the patent.

Many of the proteins that are the APIs in our product candidates are off-patent. Therefore, we have obtained and are seeking to obtain patents directed to novel compositions of matter, formulations, methods of manufacturing and methods of treatment to protect some of our products. Such patents may not, however, prevent our competitors from developing products using the same APIs but different manufacturing methods or formulation technologies that are not covered by our patents.

If third parties successfully assert that we have infringed their patents and proprietary rights or challenge the validity of our patents and proprietary rights, we may become involved in intellectual property disputes and litigation that would be costly, time consuming, and could delay or prevent the development or commercialization of our product candidates.

Our ability to commercialize our product candidates depends on our ability to develop, manufacture, market and sell our product candidates without infringing the proprietary rights of third parties. Third parties may allege our product candidates infringe their intellectual property rights. Numerous United States and foreign patents and pending patent applications, which are owned by third parties, exist in fields that relate to our product candidates and our underlying technology, including patents and patent applications claiming compositions of matter of, methods of manufacturing, and methods of treatment using, specific proteins, combinations of proteins, and protein crystals. For example, we are aware of some issued United States and/or foreign patents that may be relevant to the development and commercialization of our product candidates. However, we believe that, if these patents were asserted against us, it is likely that we would not be found to infringe any valid claim of the patents relevant to our development and commercialization of these products. If any of these patents were asserted against us and determined to be valid and construed to cover any of our product candidates, including, without limitation, Trizytek, ALTU-238 and ALTU-237, our development and commercialization of these products could be materially adversely affected.

Although we believe it is unlikely that we would be found to infringe any valid claim of these patents, we may not succeed in any action in which the patents are asserted against us. In order to successfully challenge the validity of any United States patent, we would need to overcome a presumption of validity. This burden is a high one requiring clear and convincing evidence. If any of these patents were found to be valid and we were found to infringe any of them, or any other patent rights of third

Table of Contents

parties, we would be required to pay damages, stop the infringing activity or obtain licenses in order to use, manufacture or sell our product candidates. Any required license might not be available to us on acceptable terms, or at all. If we succeeded in obtaining these licenses, payments under these licenses would reduce any earnings from our products. In addition, some licenses might be non-exclusive and, accordingly, our competitors might gain access to the same technology as that which was licensed to us. If we failed to obtain a required license or were unable to alter the design of our product candidates to make the licenses unnecessary, we might be unable to commercialize one or more of our product candidates, which could significantly affect our ability to establish and grow our commercial business.

In order to protect or enforce our patent rights, defend our activities against claims of infringement of third-party patents, or to satisfy contractual obligations to licensees of our own intellectual property, we might be required to initiate patent litigation against third parties, such as infringement suits or nullity, opposition or interference proceedings. Our collaborators or we may enforce our patent rights under the terms of our major collaboration and license agreements, but neither we nor our collaborators is required to do so. In addition, others may sue us for infringing their patent rights or file nullity, opposition or interference proceedings against our patents, even if such claims are without merit.

Intellectual property litigation is relatively common in our industry and can be costly. Even if we prevail, the cost of such litigation could deplete our financial resources. Litigation is also time consuming and could divert management s attention and resources away from our business. 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. Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. In addition, any uncertainties resulting from the initiation and continuation of any litigation could significantly limit our ability to continue our operations.

Many of our employees were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. While we try to ensure that our employees do not use the proprietary information or know-how of others in their work for us, 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 or be distracting to management. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel.

If we are unable to protect our trade secrets, we may be unable to protect our interests in proprietary technology, processes and know-how that is not patentable or for which we have elected not to seek patent protection.

In addition to patented technology, we rely upon unpatented proprietary technology, processes and know-how, including particularly our manufacturing know-how relating to the production of the crystallized proteins used in the formulation of our product candidates. In an effort to protect our unpatented proprietary technology, processes and know-how, we require our employees, consultants, collaborators, contract manufacturers and advisors to execute confidentiality agreements. These agreements, however, may not provide us with adequate protection against improper use or disclosure of confidential information, in particular as we are required to make such information available to a larger pool of people as we seek to increase production of our product candidates and their component proteins. These agreements may be breached, and we may not become aware of, or have adequate remedies in the

Table of Contents

event of, any such breach. In addition, in some situations, these agreements may conflict with, or be subject to, the rights of third parties with whom our employees, consultants, collaborators, contract manufacturers or advisors have previous employment or consulting relationships. Also, others may independently develop substantially equivalent technology, processes and know-how or otherwise gain access to our trade secrets. If we are unable to protect the confidentiality of our proprietary technology, processes and know-how, competitors may be able to use this information to develop products that compete with our products, which could adversely impact our business.

If we fail to comply with our obligations in the agreements under which we licensed development, commercialization or other technology rights to products or technology from third parties, we could lose license rights that are important to our business or incur financial obligations based on our exercise of such license rights.

Some of our license agreements provide for licenses to us of technology that is important to our business, and we may enter into additional agreements in the future that provide licenses to us of valuable technology. These licenses impose, and future licenses may impose, various commercialization, milestone and other obligations on us. If we fail to comply with these obligations, the licensor may have the right to terminate the license even where we are able to achieve a milestone or cure a default after a date specified in an agreement, in which event we would lose valuable rights and our ability to develop our product candidates. For example, under the terms of our strategic alliance agreement with CFFTI, we granted CFFTI an exclusive license under our intellectual property rights covering Trizytek and specified derivatives for use in all applications and indications in North America, and CFFTI granted us back an exclusive sublicense of the same scope, including the right to grant sublicenses. CFFTI has the right to retain its exclusive license and terminate our sublicense if we fail to meet specified development milestones, there occurs an unresolved deadlock under the agreement and we discontinue our development activities, there occurs a material default in our obligations under the agreement not cured on a timely basis, including a failure to make required license fee payments to CFFTI on a timely basis if Trizytek is approved by the FDA, or a bankruptcy or similar proceeding is filed by or against us. The retention by CFFTI of its exclusive license to Trizytek and termination of our sublicense would have a material adverse effect on our business.

In addition, we rely on Amano s intellectual property relating to the manufacturing process used to produce the APIs for Trizytek, as well as upon technology jointly developed by us and Amano related to the production of those enzymes. Amano has granted a license to us of its proprietary technology and its rights under technology jointly developed during our collaboration, which we may sublicense to contract manufacturers we select. Our agreement with Amano requires us to pay Amano a royalty based on the cost of the materials supplied to us by other contract manufacturers. If we were to breach our agreement with Amano, we would be required to pay Amano a higher royalty based on net sales of Trizytek to retain our rights to Amano s independently and jointly-developed process technology.

Risks Related to Our Employees and Growth

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

We are a small company with 168 employees as of March 31, 2008. Our success depends on our ability to attract, retain and motivate highly qualified management, development and scientific personnel. Our President and Chief Executive Officer resigned on February 4, 2008. We are currently recruiting a President and Chief Executive Officer. The Chairman of our Board of Directors, David Pendergast, Ph.D., has been appointed to lead our senior management team on an interim basis as Executive Chairman. Our

Table of Contents

future success is dependent on Dr. Pendergast s leadership during this transition period and on attracting a new President and Chief Executive Officer in a timely manner.

All of the arrangements we have with the key members of our executive, development and scientific teams may be terminated by us or the employee at any time without notice. Although we do not have any reason to believe that we may lose the services of any of these persons in the foreseeable future, the loss of the services of any of these persons might impede the achievement of our research, development and commercialization objectives.

Recruiting and retaining qualified development and scientific personnel and sales and marketing personnel will also be critical to our success. 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. We also experience competition for the hiring of development and scientific personnel from universities and research institutions. We do not maintain key person insurance on any of our employees.

As we evolve from a company primarily involved in drug research and development into one that may become involved in the commercialization of drug products, we may have difficulty managing our growth, which could disrupt our operations.

As we advance our drug candidates through the development process, we will need to expand our development, regulatory, manufacturing, sales and marketing capabilities or contract with other organizations to provide these capabilities for us. As our operations expand, we expect that we will need to manage additional relationships with various contract manufacturers, collaborative partners, suppliers and other organizations. Our ability to manage our operations and growth requires us to continue to improve our operational, financial and management controls, reporting systems and procedures. Such growth could place a strain on our management, administrative and operational infrastructure. We may not be able to make improvements to our management information and control systems in an efficient or timely manner and may discover deficiencies in existing systems and controls. In addition, the physical expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

Risks Related to Our Common Stock and Public Company Compliance Requirements

Our stock price has been and is likely to continue to be volatile.

Investors should consider an investment in our common stock as risky and subject to significant loss and wide fluctuations in market value. Our common stock has only been publicly traded since January 26, 2006, and accordingly there is a limited history on which to gauge the volatility of our stock price. Our stock price has, however, been volatile since we began to be publicly traded. For example, our stock price declined approximately 50% following our announcement that our collaboration with Genentech had been terminated in December 2007. The stock market as a whole has experienced significant volatility, particularly with respect to pharmaceutical, biotechnology and other life sciences company stocks. The volatility of pharmaceutical, biotechnology and other life sciences company stocks may not relate to the operating performance of the companies represented by the stock. Some of the factors that may cause the market price of our common stock, which has been between $4.08 and $25.70 per share from the time of our initial public offering until May 1, 2008, to continue to fluctuate include:

delays in or results from our clinical trials or studies;

Table of Contents

our entry into or the loss of a significant collaboration or the expansion or contraction of a significant collaboration, disputes with a collaborator, or delays in the progress of a collaborative development program;

competitive product information such as results of clinical trials conducted by others on drugs that would compete with our product candidates or the regulatory filing or approval of such competitive products;

delays or other problems with manufacturing our product candidates or approved products;

failure or delays in advancing product candidates from our preclinical programs, or other product candidates we may discover or acquire in the future, into clinical trials;

failure or discontinuation of any of our research programs;

regulatory review delays, changes in regulatory requirements, new regulatory developments or enforcement policies in the United States and foreign countries;

developments or disputes concerning patents or other proprietary rights;

introduction of technological innovations or new commercial products by us or our competitors;

changes in estimates or recommendations by securities analysts, if any, who cover our common stock;

failure to meet estimates or recommendations by securities analysts, if any, who cover our common stock;

positive or negative publicity regarding our product candidates or any approved products;

litigation;

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

changes in the structure of health care payment systems;

failure of any of our product candidates, if approved, to achieve commercial success;

economic and other external factors or other disasters or crises;

period-to-period fluctuations in our financial results; and

general market conditions.

Table of Contents

These and other external factors may cause the market price and demand for our common stock to fluctuate substantially, which may limit or prevent investors from readily selling their shares of common stock and may otherwise negatively affect the liquidity of our common stock. In addition, in the past, when the market price of a stock has been volatile, holders of that stock have instituted securities class action litigation against the company that issued the stock. If any of our stockholders brought a lawsuit against us, we could incur substantial costs defending the lawsuit regardless of the validity of the claims or the ultimate outcome. Such a lawsuit could also divert the time and attention of our management and create additional volatility in our common stock price.

We have limited experience attempting to comply with public company obligations, including those relating to internal controls over financial reporting. Compliance with these requirements is expensive and requires significant management resources, and we still may fail to comply.

We face and will continue to face substantial growth in legal, accounting, administrative and other costs and expenses as a public company that we did not incur as a private company. Compliance with the Sarbanes-Oxley Act of 2002, as well as other rules of the SEC, the Public Company Accounting Oversight Board and The Nasdaq Stock Market has resulted in a significant initial cost to us as well as an ongoing increase in our legal, audit and financial compliance costs. We are required to include the reports required by Section 404 of the Sarbanes-Oxley Act relating to internal controls over financial reporting in our SEC reports. We have completed a formal process to evaluate our internal controls over financial reporting for purposes of Section 404, and although we believe that our internal controls over financial reporting are effective, we cannot assure you that this will continue to be the case. Effective internal controls over financial reporting are necessary for us to provide reliable financial reports and, together with adequate disclosure controls and procedures, are designed to prevent fraud. Given the status of our efforts, coupled with the fact that guidance from regulatory authorities in the area of internal controls continues to evolve, we cannot be certain that we will be able to continue to comply with the applicable regulations and deadlines. Any failure to implement required new or improved internal controls over financial reporting, or difficulties encountered in their implementation, could harm our operating results or cause us to fail to meet our reporting obligations. Ineffective internal controls over financial reporting could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our common stock.

If the estimates we make and the assumptions on which we rely in preparing our financial statements prove inaccurate, our actual results and our stock price may vary significantly.

Our financial statements have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates, accruals and judgments that affect the reported amounts of our assets, liabilities, revenues and expenses and related disclosure. Such estimates and judgments include the carrying value of our property, equipment and other assets, revenue recognition under our collaboration agreement and the value of certain accrued expenses. We base our estimates, accruals and judgments on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. However, these estimates and judgments, or the assumptions underlying them, may change over time. For example, since the inception of our collaboration agreement with CFFTI, we have adjusted our estimated costs to complete the development program for Trizytek on five occasions resulting in cumulative changes in our revenue at each time of the change in the estimate. During the third quarter of 2007, we increased our estimated total development costs for Trizytek from $137.5 million to $157.5 million, which resulted in a $2.0 million decrease in our cumulative revenue in the third quarter of 2007. During the third quarter of 2006, we increased our estimated development costs for Trizytek, which resulted in a $3.7 million decrease in our cumulative revenue in the third quarter of 2006. Given the possibility that our estimates may change, our actual financial results may vary significantly from the estimates contained in our financial statements, our capital requirements may increase and our stock price could be adversely affected.

Table of Contents

Insiders have substantial influence over us which could delay or prevent a change in corporate control or result in the entrenchment of management and the board of directors.

Our directors and executive officers, together with their affiliates and related persons as of May, 1, 2008, beneficially owned, in the aggregate, approximately 27% of our outstanding common stock. As a result, these stockholders, if acting together, may have the ability to influence significantly the outcome of matters submitted to our stockholders for approval, including the election and removal of directors and any merger, consolidation or sale of all or substantially all of our assets. In addition, these persons, acting together, may have the ability to control the management and affairs of our company. Accordingly, this concentration of ownership may harm the market price of our common stock by:

delaying, deferring or preventing a change in control;

entrenching our management and the board of directors;

impeding a merger, consolidation, takeover or other business combination involving us; or

discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control of us.

Entities affiliated with Warburg Pincus Private Equity VIII, L.P., or Warburg Pincus, one of our principal stockholders, are entitled to designate up to two individuals as candidates to our board of directors, for so long as Warburg Pincus owns at least 2,691,935 shares of our common stock, or one individual for so long as Warburg Pincus owns at least 1,794,623 shares of our common stock. We have agreed to nominate and use our reasonable efforts to cause the election of such candidates. Currently, Stewart Hen and Jonathan S. Leff are the members of our board of directors designated by Warburg Pincus.

A significant portion of our total outstanding shares 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 intend to sell shares, could reduce the market price of our common stock. We had 30,832,848 shares of common stock outstanding as of May 1, 2008. Holders of up to 17,216,958 shares of our common stock, assuming the exercise of warrants to purchase shares of our common stock, 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 have registered all shares of common stock issuable under our equity compensation plans and they can now be freely sold in the public market upon issuance. A decline in the price of shares of our common stock might impede our ability to raise capital through the issuance of additional shares of our common stock or other equity securities, and may cause our stockholders to lose part or all of their investments in our shares of common stock.

Table of Contents

Provisions of our charter, bylaws, and Delaware law may make an acquisition of us or a change in our management more difficult.

Certain provisions of our certificate of incorporation and bylaws could discourage, delay or prevent a merger, acquisition or other change in control that stockholders may consider favorable, including transactions in which stockholders might otherwise receive a premium for their shares. These provisions could 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. Stockholders who wish to participate in these transactions may not have the opportunity to do so. Furthermore, these provisions could prevent or frustrate attempts by our stockholders to replace or remove our management. These provisions:

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

establish a classified board of directors, such that not all members of the board are elected at one time;

authorize our board of directors to issue without stockholder approval blank check preferred stock that, if issued, could operate as a poison pill to dilute the stock ownership of a potential hostile acquirer to prevent an acquisition that is not approved by our board of directors;

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

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

limit who may call stockholder meetings; and

require the approval of the holders of 80% of the outstanding shares of our capital stock entitled to vote in order to amend certain provisions of our restated certificate of incorporation and restated bylaws.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which may, unless certain criteria are met, prohibit large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us for a prescribed period of time.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

Table of Contents

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

None.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

See the Exhibit Index for a list of the exhibits filed as a part of this Quarterly Report, which Exhibit Index is incorporated by reference.

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on May 6, 2008.

ALTUS PHARMACEUTICALS INC.

By /s/ Jonathan I. Lieber
Jonathan I. Lieber
Vice President, Chief Financial Officer and
Treasurer (duly authorized officer)

Exhibit Index

Exhibit Number	Description of Exhibit
10.1++	Second Amendment, effective March 12, 2008, to Drug Product Production and Clinical Supply Agreement between Althea Technologies, Inc. and Altus Pharmaceuticals Inc., dated August 15, 2006
31.1	Certification of Principal Executive Officer Pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934
31.2	Certification of Principal Financial Officer Pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934
32	Certification of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

++ Confidential treatment has been requested as to certain portions of the document, which portions have been omitted and filed separately with the Securities and Exchange Commission.