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As filed with the Securities and Exchange Commission on November 21, 2003

Registration No. 333-109653

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

AMENDMENT NO. 1
TO
FORM S-1

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

XCYTE THERAPIES, INC.

(Exact name of Registrant as specified in its charter)

Delaware	**2834**	**91-1707622**
(State or Other Jurisdiction of Incorporation or Organization)	**(Primary Standard Industrial Classification Code Number)**	**(I.R.S. Employer Identification Number)**

1124 Columbia Street, Suite 130
Seattle, Washington 98104
(206) 262-6200
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Ronald J. Berenson, M.D.
President and Chief Executive Officer
Xcyte Therapies, Inc.
1124 Columbia Street, Suite 130
Seattle, Washington 98104
(206) 262-6200
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Sonya F. Erickson	**Joanna S. Black**	**Robert M. Smith**
Heller Ehrman White & McAuliffe LLP	**General Counsel & Vice President**	**Dewey Ballantine LLP**
701 Fifth Avenue, Suite 6100	**Xcyte Therapies, Inc.**	**1950 University Avenue**
Seattle, Washington 98104	**1124 Columbia Street, Suite 130**	**Suite 500**
(206) 447-0900	**Seattle, Washington 98104**	**East Palo Alto, California 94303**
	(206) 262-6200	**(650) 845-7000**

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

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☐

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

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

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

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

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

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

PRELIMINARY PROSPECTUS Subject to completion November 21, 2003

Shares

Common Stock

This is the initial public offering of our common stock. No public market currently exists for our common stock. We are selling all of the shares of common stock offered by this prospectus. We expect the public offering price to be between $ and $ per share.

We have applied to have our common stock approved for quotation on The Nasdaq National Market under the symbol "XCYT."

Investing in our common stock involves a high degree of risk. Before buying any shares, you should carefully read the discussion of material risks of investing in our common stock in "Risk factors" beginning on page 9.

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

	Per share	Total
Public offering price	$	$
Underwriting discounts and commissions	$	$
Proceeds, before expenses, to us	$	$

The underwriters may also purchase up to an additional shares of our common stock at the public offering price, less the underwriting discounts and commissions payable by us, to cover over-allotments, if any, within 30 days from the date of this prospectus. If the underwriters exercise this option in full, the total underwriting discounts and commissions will be $, and our total proceeds, before expenses, will be $.

The underwriters are offering the common stock as set forth under "Underwriting." Delivery of the shares will be made on or about , 2003.

UBS Investment Bank

U.S. Bancorp Piper Jaffray

Wells Fargo Securities, LLC

You should rely only on the information contained in this prospectus. We have not, and the underwriters have not, authorized anyone to provide you with additional information or information different from that contained in this prospectus. We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where the offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of shares of our common stock.

Through and including , 2004, federal securities laws may require all dealers that effect transactions in our common stock, whether or not participating in this offering, to deliver a prospectus. This is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

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Prospectus summary

This summary highlights selected information appearing elsewhere in this prospectus. While this summary highlights what we consider to be the most important information about us, you should carefully read this prospectus and the registration statement of which this prospectus is a part in their entirety before making an investment decision, especially the risks of investing in our common stock, which we discuss under "Risk factors" beginning on page 9, and our financial statements and related notes beginning on page F-1.

Unless the context requires otherwise, the words "Xcyte," "we," "company," "us" and "our" refer to Xcyte Therapies, Inc.

OUR BUSINESS

We are a biotechnology company developing a new class of therapeutic products that enhance the body's natural immune responses to treat cancer, infectious diseases and other medical conditions associated with weakened immune systems. We derive our therapeutic products from a patient's own T cells, which are cells of the immune system that orchestrate immune responses and can detect and eliminate cancer cells and infected cells in the body. We use our patented and proprietary Xcellerate Technology to generate activated T cells, which we call Xcellerated T Cells, from blood that is collected from the patient. Activated T cells are T cells that have been stimulated to carry out immune functions. Our Xcellerate Technology is designed to rapidly activate and expand the patient's T cells outside of the body. These Xcellerated T Cells are then administered to the patient.

We believe, based on clinical trials, that our Xcellerate Technology can produce Xcellerated T Cells in sufficient numbers to generate rapid and potent immune responses to treat a variety of medical conditions. Our Xcellerate Technology is designed to consistently increase the quantity and restore the quality and diversity of T cells of patients with weakened immune systems. We believe we can efficiently manufacture Xcellerated T Cells for therapeutic applications. In addition, based on clinical studies, we believe Xcellerated T Cells are generally well tolerated and can be easily administered to patients in an outpatient clinical setting. We expect Xcellerated T Cells may be used alone or in combination with other complementary treatments. We and other clinical investigators have completed or are conducting clinical trials in the following indications:

- **Chronic lymphocytic leukemia, or CLL.** In our ongoing Phase I/II clinical trial in CLL, treatment with Xcellerated T Cells resulted in approximately 50% or greater reductions in the size of enlarged lymph nodes and of enlarged spleens in all six patients who have been evaluated.
- **Multiple myeloma.** In our ongoing Phase I/II clinical trial, we have shown that treatment with Xcellerated T Cells led to rapid recovery of T cells and lymphocytes in all 28 evaluable patients with multiple myeloma following treatment with high-dose chemotherapy and transplantation with the patient's own stem cells, known as autologous stem cell transplantation. Similar results have also been observed in an ongoing 40-patient independent physician-sponsored clinical trial in the same clinical setting. Previous independent clinical studies have demonstrated a correlation between patient survival and the speed of recovery of lymphocytes following treatment with chemotherapy and stem cell transplantation.
- **Non-Hodgkin's lymphoma.** In a physician-sponsored clinical trial, the results of which were recently published in a peer-reviewed journal, 16 non-Hodgkin's lymphoma patients undergoing high-dose chemotherapy and autologous stem cell transplantation were treated with T cells activated with an

earlier version of our proprietary technology. In this group of patients with a very poor prognosis, there were several patients with long-term survival and complete responses, which means the absence of detectable disease using conventional detection methods.

- **Kidney cancer.** In our completed Phase I clinical trial in 25 patients with metastatic kidney cancer, treatment with Xcellerated T Cells and low doses of the T cell activating agent, interleukin-2, or IL-2, led to a median survival of 21 months. The results of this study were recently published in a peer-reviewed journal. Previous independent clinical studies have demonstrated median survival of patients with metastatic kidney cancer of approximately 12 months.
- **Prostate cancer.** In our recently completed Phase I/II clinical trial in prostate cancer, treatment with Xcellerated T Cells led to greater than 50% decreases in the serum tumor marker, prostate specific antigen, or PSA, in two out of 19 patients. In some independent clinical studies, decreases in PSA levels have been shown to correlate with increased patient survival.
- **HIV.** In a physician-sponsored clinical trial in HIV patients who had low T cell counts, treatment with T cells activated using an earlier version of our proprietary technology increased the patient population's average T cell count to within normal levels and maintained this normal count for at least one year following therapy. The results of this study were recently published in a peer-reviewed journal. In several independent clinical studies, increased levels of T cells have been shown to correlate with increased patient survival and improved clinical outcome.

OUR SOLUTION

We have developed our proprietary Xcellerate Technology, which consistently activates and grows large numbers of T cells *ex vivo*, or outside of the body, for multiple potential therapeutic applications.

Benefits of Xcellerated T Cells

We believe Xcellerated T Cells may be an effective treatment for cancer and infectious diseases and may have the following clinical benefits:

- **Increased T cell quantity.** Our Xcellerate Technology can be used to activate and grow more than 100 billion T cells, representing a 250-fold increase in T cells during the manufacturing process. One hundred billion T cells represent 25% to 30% of the total number of T cells found in healthy individuals.
- **Prolonged T cell survival.** In a clinical trial, T cells activated using an earlier version of our proprietary technology have been documented to survive in the body for more than a year after their administration. We believe the prolonged survival of Xcellerated T cells may enable less frequent administration than existing therapeutic products for cancer and infectious diseases.
- **Improved T cell quality.** Xcellerated T Cells can produce a broad spectrum of chemical messengers called cytokines and other molecules required to generate an effective immune response.
- **Broadened T cell diversity.** Our Xcellerate Technology generates T cells with a broad repertoire of T cell receptors. A broad diversity of T Cell receptors is important to enable the immune system to recognize and eliminate a wide variety of cancers and infectious diseases.
- **Favorable side effect profile.** More than 100 patients to date have been treated in clinical trials with Xcellerated T Cells or T cells activated using an earlier version of our proprietary technology. The therapy has been generally well-tolerated.
- **Complementary to other therapies.** We believe that Xcellerated T Cells may be complementary to current therapies, such as chemotherapy, radiation and monoclonal antibodies.

Benefits of our Xcellerate Technology

We believe our Xcellerate Technology may have the following benefits:

- ***Ex vivo* process.** We designed our Xcellerate Technology to be used outside of the body in a controlled environment where we can provide optimal conditions for the activation and growth of T cells.
- **Broad clinical applications.** Based on recent clinical trials, we believe that our Xcellerate Technology can be applied to a variety of medical conditions, including many types of cancer and infectious diseases.
- **Ease of administration.** Xcellerated T Cells are administered in approximately two hours using a routine intravenous procedure in an outpatient clinic.
- **Reproducible and cost-effective manufacturing.** We use a standardized process to produce Xcellerated T Cells for all patients. Other than our proprietary components, our Xcellerate Technology incorporates commercially available products and standard clinical and blood bank supplies, which enables us to efficiently manufacture Xcellerated T Cells.

OUR STRATEGY

Our goal is to be a leader in the field of T cell therapy and to leverage our expertise in T cell activation to develop and commercialize products to treat patients with cancer, infectious diseases and other medical conditions associated with weakened immune systems. We plan to initially develop Xcellerated T Cells to treat life-threatening diseases, such as cancer and HIV, which currently have inadequate treatments. Key elements of our strategy include the following:

- **Maximize speed to market.** We plan to initiate one or more pivotal clinical trials in CLL, multiple myeloma or non-Hodgkin's lymphoma in 2005. We believe these clinical indications provide the most rapid and cost-effective commercialization strategy for Xcellerated T Cells.
- **Expand the application of Xcellerated T Cells.** In addition to cancer and HIV, we believe Xcellerated T Cells can be used to treat patients with other illnesses, including infectious diseases, such as hepatitis. In addition, we are studying the potential therapeutic benefits of Xcellerated T Cells in patients with autoimmune diseases treated with immunosuppressive drugs.
- **Leverage complementary technologies and therapies.** Xcellerated T Cells may be effective in combination with current treatments for cancer and infectious diseases as well as complementary to other technologies and therapies, such as chemotherapy, cancer vaccines and monoclonal antibodies.
- **Retain key commercialization rights and pursue strategic partnerships.** We intend to retain marketing and commercialization rights in North America for products in specialized markets, such as cancer. We plan to pursue strategic partnerships with biopharmaceutical companies to obtain development and marketing support for territories outside North America, such as Europe and Asia.
- **Enhance manufacturing capabilities.** We have a major focus on developing an efficient and cost-effective process to manufacture Xcellerated T Cells. We intend to reduce the costs of manufacturing by making additional improvements to our manufacturing procedures and components.
- **Expand our intellectual property.** We intend to continue to improve our proprietary Xcellerate Technology, including developing process improvements and enhancing the activity and the specificity of our T cells. We plan to seek US and international patent protection to advance our business strategy.

We are a development stage company. Accordingly, there are numerous risks and obstacles and we have highlighted the most important of them in “Risk factors” beginning on page 9. In particular, we have a limited operating history and have incurred losses in each fiscal year since our inception. We incurred net losses of approximately $13.2 million for the nine-month period ended September 30, 2003, and our deficit accumulated during the development stage was approximately $81.3 million as of September 30, 2003. We have no commercial products for sale, and we anticipate that we will incur substantial and increasing losses over the next several years as we expand our research, development and clinical trial activities, acquire or license technologies, scale up and improve our manufacturing operations, seek regulatory approval and, if we receive FDA approval, commercialize our products. Because of the numerous risks and uncertainties associated with our product development efforts, we are unable to predict whether we can achieve our objectives.

OUR CORPORATE INFORMATION

We were incorporated in Delaware as MolecuRx, Inc. in January 1996. We changed our name to CDR Therapeutics, Inc. in August 1996 and changed our name to Xcyte Therapies, Inc. in October 1997. Our principal executive offices are located at 1124 Columbia Street, Suite 130, Seattle, Washington 98104, and our telephone number is (206) 262-6200. Our web site address is *www.xcytetherapies.com*. The information contained on our web site is not incorporated by reference into and does not form any part of this prospectus.

The offering

Common stock we are offering	shares
Common stock to be outstanding immediately after the offering	shares
Use of proceeds after expenses	We estimate the net proceeds to us from this offering will be approximately $ million, or approximately $ million if the underwriters exercise the over-allotment option in full, assuming an initial public offering price of $ per share. We expect to use the net proceeds from this offering to fund clinical trial activities, manufacturing and preclinical research and development activities and for other general corporate purposes, including capital expenditures, complementary technology acquisition and working capital to fund anticipated operating losses. See “Use of proceeds.”
Proposed Nasdaq National Market symbol	XCYT

The number of shares of our common stock outstanding immediately after this offering is based on 8,402,636 shares of our common stock outstanding as of September 30, 2003, after giving effect to:

- the conversion of all 37,300,234 shares of our preferred stock outstanding as of September 30, 2003 into 37,300,234 shares of our common stock, which will become effective at the closing of this offering;
- the net exercise of warrants outstanding as of September 30, 2003, which will expire at the closing of this offering, to purchase 4,990,344 shares of our common stock at a weighted average exercise price of $0.05 per share, resulting in the issuance of shares of common stock, assuming an initial public offering price of $ per share;
- the conversion of shares of our preferred stock issuable upon the net exercise of warrants outstanding as of September 30, 2003, which will expire at the closing of this offering, to purchase 471,959 shares of our preferred stock at a weighted average exercise price of $1.32 per share, resulting in the issuance of shares of common stock, assuming an initial public offering price of $ per share; and
- our issuance of convertible promissory notes in October 2003 for net proceeds of approximately $12.7 million, their conversion into approximately 7,268,905 shares of our common stock and the recognition of approximately $11.8 million in interest expense associated with the discount on the notes.

The number of shares of our common stock outstanding immediately after this offering excludes:

- 256,353 shares of our common stock issuable upon the exercise of warrants outstanding as of September 30, 2003 at a weighted average exercise price of $1.44 per share;
- 3,985,560 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2003 under our 1996 Stock Option Plan at a weighted average exercise price of $0.81 per share; and
- 3,500,000 shares of our common stock reserved for future issuance under our 2003 Stock Plan, 600,000 shares of our common stock reserved for future issuance under our 2003 Employee Stock

Purchase Plan and 500,000 shares of our common stock reserved for future issuance under our 2003 Directors' Stock Option Plan, as of September 30, 2003.

Unless otherwise indicated, all information in this prospectus assumes the following:

- a for reverse split of our common stock to be completed before the closing of this offering; and
- the underwriters do not exercise their option to purchase up to additional shares of our common stock to cover over-allotments, if any.

Summary financial data

The following summary financial data for the years ended December 31, 1998 through 2002 has been derived from our audited financial statements. The following summary financial data for the nine-month periods ended September 30, 2003 and 2002, and the summary balance sheet data as of September 30, 2003 have been derived from our unaudited condensed financial statements. The unaudited condensed financial statements have been prepared on a basis consistent with our audited financial statements and include all adjustments we consider necessary for the fair presentation of the information. Operating results for the nine months ended September 30, 2003 are not necessarily indicative of the results that may be expected for the entire year ending December 31, 2003. This information is only a summary and should be read together with the financial statements and the notes to those statements appearing elsewhere in this prospectus and the information under “Selected financial data” and “Management’s discussion and analysis of financial condition and results of operations.”

	Years ended December 31,					Nine months ended September 30,	
Statement of operations data	**1998**	**1999**	**2000**	**2001**	**2002**	**2002**	**2003**
			(in thousands, except per share data)			(unaudited)	
Total revenue	$ —	$ 16	$ 98	$ 30	$ —	$ —	$ 145
Operating expenses:							
Research and development	4,317	5,471	11,257	14,701	14,663	10,888	10,112
General and administrative	1,427	1,654	2,403	5,204	4,979	3,978	3,112
Total operating expenses	5,744	7,125	13,660	19,905	19,642	14,866	13,224
Loss from operations	(5,744)	(7,109)	(13,562)	(19,875)	(19,642)	(14,866)	(13,079)
Other income (expense), net	298	162	621	363	189	168	(85)
Net loss	(5,446)	(6,947)	(12,941)	(19,512)	(19,453)	(14,698)	(13,164)
Accretion of preferred stock	—	—	—	(8,411)	(8,001)	(8,001)	—
Net loss applicable to common stockholders	$ (5,446)	$ (6,947)	$ (12,941)	$ (27,923)	$ (27,454)	$ (22,699)	$ (13,164)
Basic and diluted net loss per common share	$ (0.86)	$ (1.15)	$ (2.16)	$ (4.03)	$ (3.52)	$ (2.97)	$ (1.61)
Shares used in basic and diluted net loss per share calculation	6,355	6,050	6,003	6,936	7,809	7,650	8,161
Pro forma basic and diluted net loss per common share (unaudited)(1)					$ (0.44)		$ (0.29)
Shares used in pro forma basic and diluted net loss per common share calculation (unaudited)(1)					44,550		45,451

(1) The pro forma basic and diluted net loss per share reflects the weighted effect of the assumed conversion of redeemable convertible preferred stock. See note 12 to our financial statements for information regarding computation of basic and diluted net loss per share and pro forma basic and diluted net loss per share.

The following table contains a summary of our balance sheet as of September 30, 2003:

- on an actual basis;
- on a pro forma basis giving effect to our issuance of convertible promissory notes in October 2003 for net proceeds of approximately $12.7 million, and the recognition of an $11.8 million discount on the notes, as if such transaction had occurred on September 30, 2003; and
- on a pro forma as adjusted basis to further reflect:
  - the sale of shares of our common stock we are offering at an assumed initial public offering price of $ per share, after deducting underwriting discounts and commissions and estimated offering expenses to be paid by us;
  - the conversion of all 37,300,234 shares of our preferred stock outstanding as of September 30, 2003 into 37,300,234 shares of our common stock, which will become effective at the closing of this offering;
  - the conversion of shares of our preferred stock issuable upon the net exercise of warrants outstanding as of September 30, 2003, which will expire at the closing of this offering, to purchase 471,959 shares of our preferred stock at a weighted average exercise price of $1.32 per share, resulting in the issuance of shares of common stock, assuming an initial public offering price of $ per share;
  - the conversion of warrants outstanding as of September 30, 2003 to purchase 256,353 shares of our preferred stock into warrants to purchase 256,353 shares of our common stock, which will become effective at the closing of this offering; and
  - the conversion of the convertible promissory notes we issued in October 2003 into approximately 7,268,905 shares of our common stock, and the recognition of approximately $11.8 million in interest expense associated with the discount on the notes, which will become effective upon the closing of this offering.

	As of September 30, 2003		
Balance sheet data	**Actual**	**Pro forma**	**Pro forma as adjusted**
		(unaudited, in thousands)	
Cash, cash equivalents and short-term investments	$ 5,405	$ 18,126	$
Working capital	3,335	16,056	
Total assets	9,367	22,088	
Long-term obligations, less current portion	1,400	2,273	1,400
Redeemable convertible preferred stock	64,604	64,604	—
Redeemable convertible preferred stock warrants	1,072	1,072	—
Total stockholders' equity (deficit)	(60,221)	(48,373)	

Risk factors

Investing in our common stock involves a high degree of risk. You should carefully consider the risks described below with all of the other information included in this prospectus before deciding to invest in our common stock. If any of the following risks actually occur, they may materially harm our business and our financial condition and results of operations. In this event, the market price of our common stock could decline and you could lose part or all of your investment. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial may also adversely affect our business.

RISKS RELATED TO OUR BUSINESS

We expect to continue to incur substantial losses, and we may never achieve profitability.

We are a development stage company with limited operating history. We have incurred significant operating losses since we began operations in 1996, including net losses of approximately $13.2 million for the nine months ended September 30, 2003, and we may never become profitable. As of September 30, 2003, we had a deficit accumulated during the development stage of approximately $81.3 million. These losses have resulted principally from costs incurred in our research and development programs and from our general and administrative expenses. We also expect to incur significant costs to renovate our leased facility for the manufacture of Xcellerated T Cells for our planned clinical trials and, if we receive FDA approval, for initial commercialization activities. To date, we have derived no revenues from product sales or royalties. We do not expect to have any significant product sales or royalty revenue for a number of years. Our operating losses have been increasing during the past several years and will continue to increase significantly in the next several years as we expand our research and development, participate in clinical trial activities, acquire or license technologies, scale up and improve our manufacturing operations, seek regulatory approvals and, if we receive FDA approval, commercialize our products. These losses, among other things, have had and will continue to have an adverse effect on our stockholders' equity and working capital. Because of the numerous risks and uncertainties associated with our product development efforts, we are unable to predict when we may become profitable, if at all. If we are unable to achieve and then maintain profitability, the market value of our common stock will likely decline.

We will need to raise substantial additional capital to fund our operations, and our failure to obtain funding when needed may force us to delay, reduce or eliminate our product development programs or collaboration efforts.

Developing products and conducting clinical trials for the treatment of cancer and infectious diseases require substantial amounts of capital. To date, we have raised capital primarily through private equity financings and equipment leases. If we are unable to timely obtain additional funding, we may never conduct required clinical trials to demonstrate safety and clinical efficacy of Xcellerated T Cells, and we may never obtain FDA approval or commercialize any of our products. We will need to raise additional capital to, among other things:

- fund our clinical trials;
- expand our research and development activities;
- scale up and improve our manufacturing operations;
- finance our general and administrative expenses;

- acquire or license technologies;
- prepare, file, prosecute, maintain, enforce and defend our patent and other proprietary rights;
- pursue regulatory approval and commercialization of Xcellerated T Cells and any other products that we may develop; and
- develop and implement sales, marketing and distribution capabilities.

Our net cash used in operations has exceeded our cash generated from operations for each year since our inception. For example, we used approximately $11.2 million in operating activities for the nine months ended September 30, 2003 and approximately $15.2 million in 2002. Based on the current status of our product development and collaboration plans, we believe that the net proceeds from this offering, together with our cash, cash equivalents and investments, will be adequate to satisfy our capital needs through at least the end of the second quarter of 2005. However, changes in our business may occur that would consume available capital resources sooner than we expect. As of September 30, 2003, we had cash, cash equivalents and short-term investments of approximately $5.4 million and current liabilities of approximately $2.5 million. Based on our current financial resources and anticipated expenses and in the event we do not raise any capital from this offering, we believe we have sufficient funding to continue our operational needs through at least the end of October 2004, unless a majority of the holders elect to accelerate the maturity date on or after February 1, 2004. These convertible promissory notes convert into shares of our common stock at the closing of this offering. Additionally, holders of our preferred stock may redeem their shares at any time for an aggregate redemption price of approximately $76.5 million based on shares of Preferred Stock outstanding as of September 30, 2003. The holders of our preferred stock will not have the right to force us to redeem their shares after their shares convert into shares of our common stock, which will occur immediately before completion of our initial public offering. Our future funding requirements will depend on many factors, including, among other things:

- the progress, expansion and cost of our clinical trials and research and development activities;
- any future decisions we may make about the scope and prioritization of the programs we pursue;
- the development of new product candidates or uses for our Xcellerate Technology;
- changes in regulatory policies or laws that affect our operations; and
- competing technological and market developments.

If we raise additional funds by issuing equity securities, further dilution to stockholders may result and new investors could have rights superior to holders of the shares issued in this offering. In addition, debt financing, if available, may include restrictive covenants. If adequate funds are not available to us, we may have to liquidate some or all of our assets or delay, reduce the scope of or eliminate some portion or all of our development programs or clinical trials. We also may have to license to other companies our products or technologies that we would prefer to develop and commercialize ourselves.

We may decide to pursue development programs for Xcellerated T Cells that may never receive regulatory approval or prove to be profitable.

Because we have limited resources and access to capital to fund our operations, our management must make significant prioritization decisions on which programs to pursue and how much of our resources to allocate to each program. We are currently focusing our research and development efforts on the use of Xcellerated T Cells to treat CLL, multiple myeloma, non-Hodgkin’s lymphoma, kidney cancer, prostate cancer and HIV. Our management has broad discretion to suspend, scale down or discontinue any of these programs or to initiate new programs to treat other clinical indications. Xcellerated T Cells may never prove to be safe and clinically effective to treat any of these indications, and the market for these indications may never prove to be profitable even if we obtain regulatory approval for these indications.

Accordingly, we cannot assure you that the programs we decide to pursue will lead to regulatory approval or will prove to be profitable.

The clinical and commercial utility of our Xcellerate Technology is uncertain and may never be realized.

Our Xcellerate Technology is based on a novel approach to treat cancer and infectious diseases and is in an early stage of development. We have limited clinical data or examples of similar technology to conclude that our Xcellerate Technology may be safe and clinically effective. Some of the data regarding our Xcellerate Technology were derived from independent clinical trials, including physician-sponsored trials, which we do not control. In addition, data from these independent clinical trials were derived using T cells activated with an earlier version of our proprietary technology. In addition, we may not be able to treat patients if we cannot collect a sufficient quantity of T cells that meet our minimum specifications to enable us to produce Xcellerated T Cells. Also, some patients may be unable to tolerate the required procedures for blood collection and administration of Xcellerated T Cells.

Although we believe that, based on data from clinical trials, Xcellerated T Cells have to date demonstrated various therapeutic effects with a favorable side effect profile and safety record, we may not ultimately be able to provide the FDA with satisfactory data on clinical safety and efficacy sufficient to enable the FDA to approve Xcellerated T Cells for commercialization. This may be because later clinical trials may fail to reproduce favorable data we may have obtained in earlier clinical trials, because the FDA may disagree with how we interpret the data from these clinical trials or because the FDA may not accept these therapeutic effects as valid endpoints in pivotal trials necessary for market approval. For example, although to date our studies have indicated that our Xcellerate Technology can lead to increased T cell and lymphocyte counts, the FDA will not accept increased T cell and lymphocyte counts as a valid endpoint in pivotal studies necessary for market approval. Instead, we would be required to show that Xcellerated T Cells lead to a significant clinical benefit. We will also need to demonstrate that Xcellerated T Cells are safe. We do not have data on possible harmful long-term effects of Xcellerated T Cells and will not have any data on long-term effects in the near future. We also have limited data on the safety and efficacy of Xcellerated T Cells to treat patients with very weakened immune systems, such as patients with HIV. Furthermore, the data from our clinical trials may be limited because these clinical trials generally do not involve a large number of patients. For these and other reasons, the clinical effectiveness and commercialibility of our Xcellerate Technology is uncertain and may never be realized.

We may fail to obtain or may experience delays in obtaining regulatory approval to market Xcellerated T Cells, which will significantly harm our business.

We do not have the necessary approval to market or sell Xcellerated T Cells in the United States or any foreign market. Before marketing Xcellerated T Cells, we must successfully complete extensive preclinical studies and clinical trials and rigorous regulatory approval procedures. We cannot assure you that we will obtain the necessary regulatory approval to commercialize Xcellerated T Cells.

Conducting clinical trials is uncertain and expensive and often takes many years to complete. The results from preclinical testing and early clinical trials are often not predictive of results obtained in later clinical trials. In conducting clinical trials, we may fail to establish the effectiveness of Xcellerated T Cells for the targeted indication or we may discover unforeseen side effects. Moreover, clinical trials may require the enrollment of large numbers of patients, and suitable patients may be difficult to identify and recruit. Clinical trials are also often subject to unanticipated delays. In addition, we are currently developing a custom bioreactor system in our manufacturing process, and we will not be able to obtain FDA approval to commercialize Xcellerated T Cells without the FDA's acceptance of our manufacturing process using this bioreactor system. Also, patients participating in the trials may die before completion of the trial or

suffer adverse medical effects unrelated to treatment with Xcellerated T Cells. This could delay or lead to termination of our clinical trials. A number of companies in the biotechnology industry have suffered significant setbacks in every stage of clinical trials, even in advanced clinical trials after positive results in earlier trials.

To date, the FDA has approved only a few cell-based therapies for commercialization. The FDA recently formed a new division that will regulate biologic products, such as Xcellerated T Cells. The processes and requirements associated with this new division may cause delays and additional costs in obtaining regulatory approvals for our products. Because our Xcellerate Technology is novel, and cell-based therapies are relatively new, regulatory agencies may lack experience in evaluating product candidates like Xcellerated T Cells. This inexperience may lengthen the regulatory review process, increase our development costs and delay or prevent commercialization of Xcellerated T Cells. In addition, the following factors may impede or delay our ability to obtain timely regulatory approvals, if at all:

- our limited experience in filing and pursuing the applications necessary to gain regulatory approvals;
- any failure to satisfy efficacy, safety or quality standards;
- a decision by us or regulators to suspend or terminate our clinical trials if the participating patients are being exposed to unacceptable health risks;
- regulatory inspections of our clinical trials or manufacturing facilities, which may, among other things, require us to undertake corrective action or suspend or terminate our clinical trials if investigators find us not to be in compliance with applicable regulatory requirements;
- our ability to produce sufficient quantities of Xcellerated T Cells to complete our clinical trials;
- varying interpretations of the data generated from our clinical trials; and
- changes in governmental regulations or administrative action.

Any delays in, or termination of, our clinical trials could materially and adversely affect our development and collaboration timelines, which may cause our stock price to decline. If we do not complete clinical trials for Xcellerated T Cells and obtain regulatory approvals, we may not be able to recover any of the substantial costs we have invested in the development of Xcellerated T Cells.

We have limited manufacturing experience and may not be able to manufacture Xcellerated T Cells on a large scale or in a cost-effective manner.

We currently manufacture Xcellerated T Cells for research and development and our clinical activities in one manufacturing facility in Seattle, Washington. We have not demonstrated the ability to manufacture Xcellerated T Cells beyond quantities sufficient for research and development and limited clinical activities. We have no experience manufacturing Xcellerated T Cells at the capacity that will be necessary to support large clinical trials or commercial sales. We plan to relocate our manufacturing activities to our leased property in Bothell, Washington, which we plan to renovate for the manufacture of Xcellerated T Cells for our planned clinical trials and, if we receive FDA approval, initial commercialization. However, we may encounter difficulties in obtaining the approvals for, and designing, constructing, validating and operating, any new manufacturing facility. We may also be unable to hire the qualified personnel that we will require to accommodate the expansion of our operations and manufacturing capabilities.

Because our Xcellerate Technology is a patient-specific, cell-based product, the manufacture of Xcellerated T Cells is more complicated than the manufacture of most pharmaceuticals. Our present manufacturing process may not meet our initial expectations as to reproducibility, yield, purity or other measurements of performance. In addition, we have recently begun using a custom bioreactor system in

our manufacturing process and only have limited manufacturing experience using this bioreactor system to activate and expand T cells. Because this new manufacturing process is unproven, we may never successfully utilize our custom bioreactor system to commercialize our products. We are currently negotiating a manufacturing and supply agreement with the manufacturer of our bioreactor system. If we are unable to negotiate this contract or are unable to procure a suitable alternative manufacturer in a timely manner, we would face a setback in the development of our manufacturing process. For these and other reasons, we may not be able to manufacture Xcellerated T Cells on a large scale or in a cost-effective manner.

We are the only manufacturer of Xcellerated T Cells. Although we are considering third party manufacturing options, we expect that we will conduct most of our manufacturing in our own facility for the next several years. Furthermore, because we are the only manufacturer of Xcellerated T Cells and we currently use only one manufacturing facility, any damage to or destruction of our manufacturing facility or our equipment, prolonged power outage, contamination of our facility or shutdown by the
FDA or other regulatory authority could significantly impair or curtail our ability to produce Xcellerated T Cells. In addition, we store our patients' cells in freezers at our manufacturing facility. If these cells are damaged at our facility, including by the loss or malfunction of these freezers or our back-up power systems, we would need to collect replacement patient cells, which would delay our patients' treatments. If we are unable to collect replacement cells from our patients, we could incur liability and our business could suffer.

The government and other third-party payors may control the pricing and profitability of our products.

Our ability to commercialize Xcellerated T Cells successfully will depend in part on the extent to which governmental authorities, private health insurers and other organizations establish appropriate reimbursement levels for the cost of Xcellerated T Cells and related treatments. Increasing emphasis on managed care in the United States will continue to put pressure on the pricing of healthcare products. In addition, governmental authorities may establish pricing and reimbursement levels for some disease indications but not others, which may reduce the demand for Xcellerated T Cells and our profitability. Pricing and profitability of healthcare products are also subject to governmental control in some foreign markets. Cost control initiatives could:

- result in lower prices for Xcellerated T Cells or any future products or their exclusion from reimbursement programs;
- reduce any future revenues we may receive from collaborators; and
- discourage physicians from delivering Xcellerated T Cells to patients in connection with clinical trials or future treatments.

We rely on third parties to conduct some of the clinical trials for Xcellerated T Cells, and their failure to timely and successfully perform their obligations to us, or their defective performance, could significantly harm our product development programs and our business.

Because we rely on academic institutions, site management organizations and clinical research organizations to conduct, supervise or monitor some or all aspects of clinical trials involving our Xcellerate Technology, we have limited control over the timing and other aspects of these clinical trials. If these third parties do not successfully carry out their duties under their agreements with us, fail to inform us if these trials fail to comply with clinical trial protocols or fail to meet expected deadlines, this may adversely affect our clinical trials and we may not be able to obtain regulatory approvals.

A third party on whom we rely to conduct clinical trials for Xcellerated T Cells could conduct those clinical trials defectively. This could lead to patients experiencing harmful side effects or could prevent us from proving that Xcellerated T Cells are effective, which may result in:

- our failure to obtain or maintain regulatory approval;
- physicians not using or recommending our products; and
- significant product liability.

Xcellerated T Cells may never achieve market acceptance even if we obtain regulatory approvals.

We do not expect to receive regulatory approvals for the commercial sale of any products derived from our Xcellerate Technology for several years, if at all. Even if we do receive regulatory approvals, the future commercial success of Xcellerated T Cells will depend, among other things, on its acceptance by physicians, patients, healthcare payors and other members of the medical community as a therapeutic and cost-effective alternative to commercially available products. Because only a few cell-based therapy products have been commercialized, we do not know to what extent cell-based immunotherapy products will be accepted as therapeutic alternatives. If we fail to gain market acceptance, we may not be able to earn sufficient revenues to continue our business. Market acceptance of and demand for any product that we may develop will depend on many factors, including:

- our ability to provide acceptable evidence of safety and efficacy;
- convenience and ease of administration;
- prevalence and severity of adverse side effects;
- availability of alternative and competing treatments;
- cost effectiveness;
- effectiveness of our marketing and distribution strategy and the pricing of any product that we may develop;
- publicity concerning our products or competitive products; and
- our ability to obtain sufficient third-party coverage or reimbursement.

If Xcellerated T Cells do not become widely accepted by physicians and patients, it is unlikely that we will ever become profitable.

Even if we obtain regulatory approvals for Xcellerated T Cells, those approvals and ongoing regulation of our products may limit how we manufacture and market our products, which could prevent us from realizing the full benefit of our efforts.

If we obtain regulatory approvals, Xcellerated T Cells, our Xcellerate Technology and our manufacturing facilities will be subject to continual review, including periodic inspections, by the FDA and other US and foreign regulatory authorities. In addition, regulatory authorities may impose significant restrictions on the indicated uses or marketing of Xcellerated T Cells or other products that we may develop. These and other factors may significantly restrict our ability to successfully commercialize Xcellerated T Cells and our Xcellerate Technology.

We and many of our vendors and suppliers are required to comply with current Good Manufacturing Practices, or cGMP, which include requirements relating to quality control and quality assurance as well as the corresponding maintenance of records and documentation. Furthermore, our manufacturing facilities must be approved by regulatory agencies before these facilities can be used to manufacture Xcellerated T Cells, and they will also be subject to additional regulatory inspections. Any material

changes we may make to our manufacturing process may require approval by the FDA and state or foreign regulatory authorities. Failure to comply with FDA or other applicable regulatory requirements may result in criminal prosecution, civil penalties, recall or seizure of products, partial or total suspension of production or withdrawal of a product from the market.

We must also report adverse events that occur when our products are used. The discovery of previously unknown problems with Xcellerated T Cells or our manufacturing facilities may result in restrictions or sanctions on our products or manufacturing facilities, including withdrawal of our products from the market. Regulatory agencies may also require us to reformulate our products, conduct additional clinical trials, make changes in the labeling of our product or obtain re-approvals. This may cause our reputation in the market place to suffer or subject us to lawsuits, including class action suits.

We rely on third parties to administer Xcellerated T Cells to patients, and our business could be harmed if these third parties administer Xcellerated T Cells incorrectly.

We rely on the expertise of physicians, nurses and other associated medical personnel to administer Xcellerated T Cells to patients. Although our Xcellerate Technology employs mostly standard medical procedures, if these medical personnel are not properly trained to administer, or are negligent in the administration of, Xcellerated T Cells, the therapeutic effect of Xcellerated T Cells may be diminished or the patient may suffer critical injury.

In addition, third-party medical personnel must thaw Xcellerated T Cells received from us. If this thawing is not performed correctly, the patient may suffer critical injury. While we intend to provide training materials and adequate resources to these third-party medical personnel, the thawing of Xcellerated T Cells will occur outside our supervision and may not be administered properly. If, due to a third-party error, people believe that Xcellerated T Cells are ineffective or harmful, the desire to use Xcellerated T Cells may decline, which will negatively impact our ability to generate revenue. We may also face significant liability even though we may not be responsible for the actions of these third parties.

There are risks inherent in our business that may subject us to potential product liability suits and other claims, which may require us to engage in expensive and time-consuming litigation or pay substantial damages and may harm our reputation and reduce the demand for our product.

Our business exposes us to product liability risks, which are inherent in the testing, manufacturing, marketing and sale of biopharmaceutical products. We will face an even greater risk of product liability if we commercialize Xcellerated T Cells. An individual may bring a product liability claim against us if Xcellerated T Cells cause, or merely appear to have caused, an injury. For example, we have been named as a defendant in connection with a clinical trial using technology similar to ours conducted at the University of Chicago Hospital. This proceeding is currently pending. Although we intend to vigorously defend this lawsuit, because of the nature of the complaint against us, we cannot predict the probability of a favorable or unfavorable outcome or estimate the amount or range of potential loss. See “Business—Legal proceedings.”

Certain aspects of how Xcellerated T Cells are processed and administered may enhance our exposure to liability. Our Xcellerate Technology requires us to activate a patient’s T cells *ex vivo*, or outside of the body, using blood collected from the patient. Third party physicians or other medical personnel initially collect a patient’s blood through a process called leukapheresis, which may pose risks, such as bleeding and infection. The blood that we collect from our patients may contain infectious agents that may infect medical personnel or others with whom the blood comes in contact. Medical personnel administer Xcellerated T Cells to patients intravenously in an outpatient procedure. This procedure poses risks to

the patient similar to those occurring with infusions of other frozen cell products, such as stem cells, including blood clots, infection and mild to severe allergic reactions.

It is possible that we or third parties may misidentify Xcellerated T Cells and deliver them to the wrong patient. If these misidentified Xcellerated T Cells are administered to the wrong patient, the patient could suffer irreversible injury or death.

The discovery of unforeseen side effects of Xcellerated T Cells could also lead to lawsuits against us. Regardless of merit or eventual outcome, product liability or other claims may, among other things, result in:

- injury to our reputation and decreased demand for Xcellerated T Cells;
- withdrawal of clinical trial volunteers;
- costs of related litigation; and
- substantial monetary awards to plaintiffs.

We have clinical trial insurance that covers our clinical trials up to $5.0 million per occurrence with a $5.0 million aggregate limit, and we intend to obtain product liability coverage in the future. However, insurance coverage may not be available to us at an acceptable cost, if at all. Even if we secure coverage, we may not be able to obtain insurance coverage that will be adequate to satisfy any liability that may arise. If a successful product liability or other claim or series of claims is brought against us for uninsured liabilities or in excess of insured liabilities, our assets may not be sufficient to cover these claims and our business operations could suffer.

If Xcellerated T Cells or components of our Xcellerate Technology alone or in combination with complementary treatments cause unforeseen harmful side effects, physicians may not use our products and/or we may incur significant product liability, which will adversely affect our ability to operate our business.

Xcellerated T Cells or components of our Xcellerate Technology may cause unforeseen harmful side effects. For example, a patient receiving Xcellerated T Cells could have a severe allergic reaction or could develop an autoimmune condition. While we employ procedures to substantially remove the antibodies and beads used to generate Xcellerated T Cells, it is possible that residual antibodies or beads may be infused into patients and cause harmful effects.

In addition, we have not conducted studies on the long-term effects associated with the media that we use to grow and freeze cells as part of our Xcellerate Technology. These media contain substances that have proved harmful if used in certain quantities. While we believe that we use sufficiently small quantities of these substances, harmful effects may still arise from our use of these media. As we continue to develop our Xcellerate Technology, we may encounter harmful side effects that we did not previously observe in our prior studies and clinical trials.

We believe Xcellerated T Cells may be used in combination with complementary treatments, including cancer vaccines, monoclonal antibodies, genes, cytokines or chemotherapy, and one or more of these other therapies could cause harmful side effects that could be attributed to Xcellerated T Cells. Any or all of these harmful side effects may occur at various stages of our product development, including the research stage, the development stage, the clinical stage or the commercial stage of our products. If people believe Xcellerated T Cells or any component of our Xcellerate Technology alone or in

combination with complementary treatments causes harmful side effects, we may incur significant damages from product liability claims, which will adversely affect our ability to operate our business.

We rely on a limited number of manufacturers and suppliers for some of the key components of our Xcellerate Technology. The loss of these suppliers, or their failure to provide us with adequate quantities of these key components when needed, could delay our clinical trials and prevent or delay commercialization of Xcellerated T Cells.

We rely on third party suppliers for some of the key components used to manufacture Xcellerated T Cells. We rely on Lonza Biologics PLC, or Lonza, to develop and manufacture the antibodies that we use in our Xcellerate Technology. Lonza may terminate the agreements we have with them if we commit a breach. We are aware of few companies with the ability to manufacture commercial-grade antibodies. Our current agreements with Lonza only provide for the manufacture of these antibodies for use in clinical trials. We are currently negotiating an agreement with Lonza to manufacture the antibodies for commercial use. If we are unable to negotiate this contract with Lonza or are unable to procure a suitable alternative manufacturer in a timely manner and on favorable terms, if at all, we may incur significant costs and be unable to continue developing our Xcellerate Technology.

Our Xcellerate Technology also depends in part on the successful attachment of the antibodies to magnetic beads. We currently use magnetic beads developed and manufactured by Dynal S.A., or Dynal, in Oslo, Norway. Our contract with Dynal expires in August 2009, and either party may terminate the contract for material breach. We are contractually obligated to obtain our beads from Dynal as long as Dynal is able to fill our orders. If Dynal terminates our contract or if Dynal discontinues manufacturing our beads for any reason, we may be unable to find a suitable alternative manufacturer in a timely manner, or at all, which would delay our clinical trials and delay or prevent commercialization of Xcellerated T Cells.

Although these and other suppliers have produced our components with acceptable quality, quantity and cost in the past, they may be unable or unwilling to timely meet our future demands. They may also increase the prices they charge us. Obtaining similar FDA-acceptable components from other suppliers may be difficult and expensive. If we have to switch to a replacement supplier, we could face additional regulatory delays, which could interrupt the manufacture and delivery of our product for an extended period. In addition, because Lonza and Dynal are located outside the United States, we are subject to foreign import laws and customs regulations, which complicate, and could delay, shipment of components to us and delay the development and production of Xcellerated T Cells. Any delay in the development or production of Xcellerated T Cells may impact our ability to generate revenue and cause our stock price to decline.

If we or any of our third party manufacturers do not maintain high standards of manufacturing, our ability to develop and commercialize Xcellerated T Cells could be delayed or curtailed.

We and any third parties that we may use in the future to manufacture our products must continuously adhere to cGMP regulations enforced by the FDA through its facilities inspection program. If our facilities or the facilities of these third parties do not pass a pre-approval plant inspection, the FDA will not grant market approval for Xcellerated T Cells. In complying with cGMP, we and any third-party manufacturers must expend significant time, money and effort in production, record-keeping and quality control to assure that each component of our Xcellerate Technology meets applicable specifications and other requirements. We or any of these third-party manufacturers may also be subject to comparable or more stringent regulations of foreign regulatory authorities. If we or any of our third-party manufacturers fail to comply with these requirements, we may be subject to regulatory action, which

could delay or curtail our ability to develop and commercialize Xcellerated T Cells. If our component part manufacturers and suppliers fail to provide components of sufficient quality, our clinical trials or commercialization of Xcellerated T Cells could be delayed or halted and we could face product liability claims.

Our leased facilities are at risk of damage by earthquakes, and any damage to our facilities will harm our clinical trials and development programs.

We currently rely on the availability and condition of our leased Seattle, Washington facility to conduct research and development and manufacture Xcellerated T Cells. This facility is located in a seismic zone, and there is the possibility of an earthquake which, depending on its magnitude, could be disruptive to our operations. Our leased facility in Bothell, Washington, where we intend to locate our initial commercial manufacturing activities, is also in a seismic area. We currently have no insurance against damage caused by earthquakes.

If third party carriers fail to ship patient samples and our products in a proper and timely manner, the treatment of patients could be delayed or prevented, our reputation may suffer and we may incur liability.

We depend on third party carriers to deliver patient-specific blood cells to us and to deliver Xcellerated T Cells back to patients in a careful and timely manner. Our Xcellerate Technology currently requires that we process each patient's leukapheresis blood sample within 48 hours of collection. Xcellerated T Cells must currently be shipped in a frozen storage shipping container and received by the patient within six days from leaving our manufacturing facility. If the shipping containers fail to maintain the necessary temperature, Xcellerated T Cells could be damaged. If third party carriers fail to timely deliver the leukapheresis blood sample to us or fail to timely ship Xcellerated T Cells to the clinic, or if they damage or contaminate them during shipment, the treatment of patients could be delayed or discontinued, our reputation may suffer and we may incur liability.

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

Our research and development and manufacturing processes involve the controlled storage, use and disposal of hazardous materials, including biological hazardous materials. We are subject to federal, state and local regulations governing the use, manufacture, storage, handling and disposal of materials and waste products. Although we believe that our safety procedures for handling and disposing of these hazardous materials comply with the standards prescribed by law and regulation, we cannot completely eliminate the risk of accidental contamination or injury from hazardous materials. In the event of an accident, we could be held liable for any damages that result, and any liability could exceed the limits or fall outside the coverage of our insurance. We may not be able to obtain insurance on acceptable terms, if at all. We could incur significant costs to comply with current or future environmental laws and regulations.

Our current commercial property insurance provides coverage up to $25,000 for pollution clean-up or removal and up to $25,000 for biological agency clean-up or removal. Additionally our business income coverage provides for up to $250,000 for extra expenses for pollution clean-up or removal to enable us to re-establish operations after a hazardous event.

In some circumstances we plan to rely on collaborators to commercialize Xcellerated T Cells. If our current collaborators do not perform as expected or if future collaborators do not commit adequate resources to their collaboration with us, our product development and potential for profitability may suffer.

We have entered into alliances with third-party collaborators to develop and market Xcellerated T Cells for diseases and markets that we are not pursuing on our own. In addition, our strategy includes substantial reliance on additional strategic collaborations for research, development, manufacturing, marketing and other commercialization activities relating to Xcellerated T Cells. If our collaborators do not prioritize and commit substantial resources to these collaborations, or if we are unable to secure successful future collaborations, we may be unable to commercialize Xcellerated T Cells for important diseases and in important markets, which would limit our ability to generate revenue and become profitable. Furthermore, disputes may arise between us and our existing or future collaborators, which could result in delays in the development and commercialization of Xcellerated T Cells.

For example, we have a letter of intent to establish an alliance with Taiwan Cellular Therapy Company, or TCTC, a company newly formed under the laws of Taiwan, to develop and market Xcellerated T Cells in Australia and Asia, excluding Japan. The letter of intent requires us to negotiate in good faith a definitive agreement with TCTC on or before November 30, 2003. However, the letter of intent provides that the definitive agreement is subject to, among other things, TCTC closing, or obtaining commitments for at least US$25 million in equity financing on or before December 30, 2003. TCTC's ability to obtain the required equity financing is very uncertain. In addition, we may not be able to negotiate mutually agreeable terms for a definitive agreement or we or TCTC may elect not to proceed with the alliance. If we elect not to proceed with the alliance for any reason, other than for a good faith inability to negotiate a definitive agreement, and we enter into an agreement with a third party in Australia or Asia, excluding Japan, before February 22, 2004, we will be required to pay a break-up fee of US$200,000 to TCTC.

Although there is substantial uncertainty as to whether we will complete an alliance with TCTC, we have agreed to reserve the rights to our Xcellerate Technology in Australia and Asia, excluding Japan, for TCTC until at least December 30, 2003. If we complete an alliance with TCTC, we will be required to expend significant resources to transfer technology to TCTC and assist them in developing and manufacturing using our Xcellerate Technology. Even if we complete an alliance with TCTC, TCTC may not have sufficient resources to fund, or may subsequently decide not to proceed with, development of our Xcellerate Technology. In this event, we may not have sufficient capital resources to develop our Xcellerate Technology on our own in Australia or Asia.

We may be unable to establish sales, marketing and distribution capabilities necessary to successfully commercialize our products.

We currently have only limited marketing capabilities and no direct or third-party sales or distribution capabilities. We currently plan to develop an internal sales force to serve certain North American markets and pursue strategic partnerships to obtain development and marketing support for territories outside North America. However, we may be unable to establish marketing, sales and distribution capabilities necessary to commercialize and gain market acceptance for our potential products. In addition, developing a sales force, or entering into co-promotion agreements with third parties, is expensive and time-consuming and could delay any product launch. Co-promotion or other marketing arrangements with third parties to commercialize potential products may also not be successful and could significantly limit the revenues we derive from Xcellerated T Cells.

Risk factors

We face competition in our industry, and many of our competitors have substantially greater experience and resources than we have.

Even if our Xcellerate Technology proves successful, we might not be able to remain competitive because of the rapid pace of technological development in the biotechnology field.

We are currently aware of several companies developing *ex vivo* cell-based immunotherapy products as a method of treating cancer and infectious diseases. These competitors include Antigenics, Inc., CancerVax Corporation, Cell Genesys, Inc., CellExSys, Inc., Dendreon Corporation, Favrille, Inc., Genitope Corporation, IDM, S.A., Kirin Pharmaceutical and Valeocyte Therapies. Some of our competitors have greater financial and other resources, larger research and development staffs and more experienced capabilities in researching, developing and testing products than we do. Many of these companies also have more experience in conducting clinical trials, obtaining FDA and other regulatory approvals and manufacturing, marketing and distributing therapeutic products. Smaller companies may successfully compete with us by establishing collaborative relationships with larger pharmaceutical companies or academic institutions. In addition, large pharmaceutical companies or other companies with greater resources or experience than us may choose to forgo *ex vivo* cell-based immunotherapy opportunities that would have otherwise been complementary to our product development and collaboration plans. Our competitors may succeed in developing, obtaining patent protection for or commercializing their products more rapidly than us. A competing company developing, or acquiring rights to, a more effective therapeutic product for the same diseases targeted by us, or one that offers significantly lower costs of treatment, could render our products noncompetitive or obsolete.

We plan significant growth, which we may not be able to effectively manage.

We will need to add a significant number of new personnel and expand our capabilities in order to successfully pursue our research, development and commercialization efforts and secure collaborations to market and distribute our products. This growth may strain our existing managerial, operational, financial and other resources. We also intend to add personnel in our research and development and manufacturing departments as we expand our clinical trial and research capabilities. Our failure to manage our growth effectively could delay or curtail our product development and commercialization efforts and harm our business.

If we lose key management or scientific personnel, our business could suffer.

Our success depends, to a significant extent, on the efforts and abilities of Ronald J. Berenson, M.D., our President and Chief Executive Officer, Stewart Craig, Ph.D., our Chief Operating Officer and Vice President, Mark Frohlich, M.D., our Medical Director and Vice President, and other members of our senior management and our scientific personnel. We do not have employment agreements with Dr. Berenson, Dr. Craig or several other members of our senior management. Additionally, any employment agreement that we may enter into will not ensure the retention of the employee. Since the pool of employees with relevant experience in immunology and biotechnology is small, replacing any of our senior management or scientific personnel would likely be costly and time-consuming. Although we maintain key person life insurance on Dr. Berenson, we do not maintain key person life insurance on any of our other officers, employees or consultants. The loss of the services of one or more of our key employees could delay or curtail our research and development and product development efforts.

We may undertake acquisitions in the future, and any difficulties from integrating these acquisitions could damage our ability to attain or maintain profitability.

We may acquire additional businesses, products or product candidates that complement or augment our existing business. Integrating any newly acquired business or product could be expensive and time-

consuming. We may not be able to integrate any acquired business or product successfully or operate any acquired business profitably. Moreover, we many need to raise additional funds through public or private debt or equity financing to make acquisitions, which may result in dilution to stockholders and the incurrence of indebtedness that may include restrictive covenants.

Changes in the value of the British pound relative to the US dollar may adversely affect us.

Under our agreements with Lonza to purchase antibodies, we must make payments denominated in British pounds. As a result, from time to time, we are exposed to currency exchange risks. We do not engage in currency hedging. Accordingly, if the British pound strengthens against the US dollar, our payments to Lonza will increase in US dollar terms. We have paid a total of $4.9 million to Lonza under our agreements with them as of September 30, 2003, consisting of approximately $252,000, $1.7 million and $1.6 million during the years ended December 31, 2000, 2001 and 2002, respectively, and $1.3 million during the nine months ended September 30, 2003. At September 30, 2003, we had no outstanding obligations or future contractual commitments to Lonza. However, we may elect to purchase additional antibodies from Lonza, in which case we would have to make payments in British pounds, exposing us to currency exchange risks in the future.

If we do not achieve our projected development goals in the time frames we announce and expect, the commercialization of our products may be delayed and, as a result, our stock price may decline.

From time to time, we estimate the timing of the accomplishment of various scientific, clinical, regulatory and other product development goals, which we sometimes refer to as milestones. These milestones may include the commencement or completion of scientific studies and clinical trials and the submission of regulatory filings. From time to time, we may publicly announce the expected timing of some of these milestones. All of these milestones will be based on a variety of assumptions. The actual timing of these milestones can vary dramatically compared to our estimates, in some cases for reasons beyond our control. If we do not meet these milestones as publicly announced, the commercialization of our products may be delayed and, as a result, our stock price may decline.

RISKS RELATED TO OUR INTELLECTUAL PROPERTY

If we are unable to protect our proprietary rights, we may not be able to compete effectively.

Our success depends in part on obtaining, maintaining and enforcing our patents and in-licensed and proprietary rights. We believe we own, or have rights under licenses to, issued patents and pending patent applications that are necessary to commercialize Xcellerated T Cells. However, the patents on which we rely may be challenged and invalidated, and our patent applications may not result in issued patents. Moreover, our patents and patent applications may not be sufficiently broad to prevent others from practicing our technologies or developing competing products. We also face the risk that others may independently develop similar or alternative technologies or may design around our proprietary and patented technologies.

The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in biotechnology patents has emerged to date in the United States. Furthermore, the application and enforcement of patent laws and regulations in foreign countries is even more uncertain. Accordingly, we cannot assure you that we will be able to effectively file, protect or defend our proprietary rights in the United States or in foreign jurisdictions on a consistent basis.

Third parties may successfully challenge the validity of our patents. We will only be able to protect our technologies from unauthorized use by third parties to the extent that valid and enforceable patents or other proprietary rights cover them. Because the issuance of a patent is not conclusive of its validity or enforceability, we cannot assure you how much protection, if any, will be given to our patents if we attempt to enforce them or if others challenge their validity in court. It is possible that a competitor may successfully challenge our patents or that a challenge will result in limiting the coverage of our patents. If the outcome of litigation is adverse to us, third parties may be able to use our technologies without payment to us.

In addition, it is possible that competitors may infringe upon our patents or successfully avoid them through design innovation. We may initiate litigation to police unauthorized use of our proprietary rights. However, the cost of litigation to uphold the validity of our patents and to prevent infringement could be substantial, and the litigation will consume time and other resources. Some of our competitors may be better able to sustain the costs of complex patent litigation because they have substantially greater resources. Moreover, if a court decides that our patents are not valid, we will not have the right to stop others from using our inventions. There is also the risk that, even if the validity of our patents were upheld, a court may refuse to stop others on the ground that their activities do not infringe upon our patents. Because protecting our intellectual property is difficult and expensive, we may be unable to prevent misappropriation of our proprietary rights.

We also rely on certain proprietary trade secrets and know-how, especially where we believe patent protection is not appropriate or obtainable. Trade secrets and know-how, however, are difficult to protect. We have taken measures to protect our unpatented trade secrets and know-how, including the use of confidentiality and invention assignment agreements with our employees, consultants and some of our contractors. It is possible, however, that these persons may unintentionally or willingly breach the agreements or that our competitors may independently develop or otherwise discover our trade secrets and know-how.

If the use of our technologies conflicts with the rights of others, we could be subject to expensive litigation or be required to obtain licenses from others to develop or market Xcellerated T Cells.

Our competitors or others may have or acquire patent rights that they could enforce against us. If they do so, we may be required to alter our Xcellerate Technology, pay licensing fees or cease activities. If our Xcellerate Technology conflicts with patent rights of others, third parties could bring legal action against us or our licensees, suppliers, customers or potential collaborators, claiming damages and seeking to enjoin manufacturing and marketing of the affected products. If these legal actions are successful, in addition to any potential liability for damages, we might have to obtain a license in order to continue to manufacture or market the affected products. A required license under the related patent may not be available on acceptable terms, if at all.

We may be unaware that the use of our technology conflicts with pending or issued patents. Because patent applications can take many years to issue, there may be currently pending applications, unknown to us, that may later result in issued patents upon which our Xcellerate Technology or Xcellerated T Cells may infringe. There could also be existing patents of which we are unaware upon which our Xcellerate Technology or Xcellerated T Cells may infringe. In addition, if third parties file patent applications or obtain patents claiming technology also claimed by us in pending applications, we may have to participate in interference proceedings in the US Patent and Trademark Office to determine priority of invention. If third parties file oppositions in foreign countries, we may also have to participate in opposition proceedings in foreign tribunals to defend the patentability of the filed foreign patent

applications. We may have to participate in interference proceedings involving our issued patents or our pending applications.

If a third party claims that we infringe upon its proprietary rights, any of the following may occur:

- we may become involved in time-consuming and expensive litigation, even if the claim is without merit;
- we may become liable for substantial damages for past infringement if a court decides that our technology infringes upon a competitor's patent;
- a court may prohibit us from selling or licensing our product without a license from the patent holder, which may not be available on commercially acceptable terms, if at all, or which may require us to pay substantial royalties or grant cross licenses to our patents; and
- we may have to redesign our technology or clinical candidate so that it does not infringe upon others' patent rights, which may not be possible or could require substantial funds or time.

If any of these events occurs, our business will suffer and the market price of our common stock will likely decline.

Our rights to use antibodies and technologies licensed to us by third parties are not within our control, and we may not be able to implement our Xcellerate Technology without these antibodies and technologies.

We have licensed patents and other rights which are necessary to our Xcellerate Technology and Xcellerated T Cells. Our business will significantly suffer if these licenses terminate, if the licensors fail to abide by the terms of the license or fail to prevent infringement by third parties or if the licensed patents or other rights are found to be invalid.

Our Xcellerate Technology uses two monoclonal antibodies that we license from third parties. We rely on our non-exclusive license from the Fred Hutchinson Cancer Research Center in Seattle, Washington to use the monoclonal antibody that binds to the CD3 molecule and our exclusive license from Diaclone S.A., or Diaclone, in Besancon, France to use the monoclonal antibody that binds to the CD28 molecule. These antibodies are necessary components of our Xcellerate Technology. We rely on these licensors to prevent infringement of the licensed antibody. Our rights to use these antibodies depend on the licensors abiding by the terms of those licenses and not terminating them. Our license agreement with the Fred Hutchinson Research Center is effective for 15 years following the first sale of a product based on the license and may be terminated in the event of a material breach. Our license agreement with Diaclone is effective for 15 years from the date of the first FDA approval, or its foreign equivalent, of a product based on the license and may be terminated in the event of a material breach. Our contract with Diaclone obligates us to purchase the monoclonal antibody from Diaclone until we begin preparing for Phase III clinical trials.

In addition, we have in-licensed several T cell activation patents and patent applications from the Genetics Institute, a subsidiary of Wyeth, Inc. The technology underlying these patents creates the basis for our Xcellerate Technology. The terms of our license from Genetics Institute allow us to enforce the licensed patents. These licenses from Genetics Institute terminate upon the expiration of the last licensed patent and may also be terminated in the event of a material breach. Of the four patents presently related to this technology, two patents expire in 2016 and two others expire in 2019 and 2020.

If we violate the terms of our licenses, or otherwise lose our rights to these antibodies, patents or patent applications, we may be unable to continue development of our Xcellerate Technology. Our licensors or

others may dispute the scope of our rights under any of these licenses. Additionally, the licensors under these licenses might breach the terms of their respective agreements or fail to prevent infringement of the licensed patents by third parties. Loss of any of these licenses for any reason could materially harm our financial condition and operating results.

RISKS RELATING TO THIS OFFERING

You will suffer immediate and substantial dilution.

We expect the initial public offering price of our shares to be substantially higher than the book value per share of our outstanding common stock. Accordingly, investors purchasing shares of common stock in this offering will:

- pay a price per share that substantially exceeds the value of our assets after subtracting liabilities; and
- contribute % of the total amount invested to date to fund us but own only % of the shares of common stock outstanding after this offering.

To the extent outstanding stock options or warrants are exercised, there will be further dilution to new investors. See “Dilution.”

If our principal stockholders, executive officers and directors choose to act together, they may be able to control our management and operations, acting in their best interests and not necessarily those of other stockholders.

Our executive officers, directors and principal stockholders, and entities affiliated with them, will beneficially own in the aggregate approximately % of our common stock following this offering. This significant concentration of share ownership may adversely affect the trading price of our common stock because investors often perceive disadvantages in owning stock in companies with controlling stockholders. These stockholders, acting together, will have the ability to exert substantial influence over all matters requiring approval by our stockholders, including the election and removal of directors and any proposed merger, consolidation or sale of all or substantially all of our assets. In addition, they could dictate the management of our business and affairs. This concentration of ownership could have the effect of delaying, deferring or preventing a change in control of us or impeding a merger, consolidation, takeover or other business combination that could be favorable to you.

The future sale of our common stock could negatively affect our stock price.

After this offering, we will have approximately shares of common stock outstanding, or shares if the underwriters exercise their over-allotment option in full. The shares sold in this offering, or shares if the underwriters exercise their over-allotment option in full, will be freely tradable without restriction under the federal securities laws unless purchased by our affiliates. The remaining shares of common stock outstanding after this offering will be available for public sale subject in some cases to volume, lock-up and other limitations. See “Shares eligible for future sale.”

If our common stockholders sell substantial amounts of common stock in the public market, or the market perceives that such sales may occur, the market price of our common stock could fall. After this offering, the holders of approximately 44,051,323 shares of our common stock or warrants to purchase shares of our common stock will have rights, subject to some conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for

ourselves or other stockholders. Furthermore, if we were to include in a company-initiated registration statement shares held by those holders pursuant to the exercise of their registrations rights, the sale of those shares could impair our ability to raise needed capital by depressing the price at which we could sell our common stock.

In addition, we will need to raise substantial additional capital in the future to fund our operations. If we raise additional funds by issuing equity securities, our stock price may decline and our existing stockholders may experience significant dilution.

An active, liquid trading market for our common stock may never develop.

Prior to this offering, there was no public market for our common stock. An active trading market for our common stock may not develop following this offering. You may not be able to sell your shares quickly or at the market price if trading in our stock is not active. The initial public offering price may not be indicative of prices that will prevail in the trading market. See “Underwriting” for more information regarding the factors considered in determining the initial public offering price.

Our common stock may experience extreme price and volume fluctuations, which could lead to costly litigation for us and make an investment in us less appealing.

The market price of our common stock may fluctuate substantially due to a variety of factors, including:

- results of our clinical trials;
- announcements of technological innovations or new products or services by us or our competitors;
- media reports and publications about immunotherapy;
- announcements concerning our competitors or the biotechnology industry in general;
- new regulatory pronouncements and changes in regulatory guidelines;
- general and industry-specific economic conditions;
- additions to or departures of our key personnel;
- changes in financial estimates or recommendations by securities analysts;
- variations in our quarterly results;
- announcements about our collaborators or licensors; and
- changes in accounting principles.

The market prices of the securities of biotechnology companies, particularly companies like ours without consistent product revenues and earnings, have been highly volatile and are likely to remain highly volatile in the future. This volatility has often been unrelated to the operating performance of particular companies. In the past, companies that experience volatility in the market price of their securities have often faced securities class action litigation. Moreover, market prices for stocks of biotechnology-related and technology companies, particularly following an initial public offering, frequently reach levels that bear no relationship to the operating performance of these companies. These market prices generally are not sustainable and are highly volatile. Whether or not meritorious, litigation brought against us could result in substantial costs, divert our management’s attention and resources and harm our financial condition and results of operations.

Our amended and restated certificate of incorporation and bylaws may delay or prevent a change in our management.

Our amended and restated certificate of incorporation and bylaws will contain provisions that could delay or prevent a change in our board of directors and management teams. Some of these provisions:

- authorize the issuance of preferred stock that can be created and issued by the board of directors without prior stockholder approval, commonly referred to as "blank check" preferred stock, with rights senior to those of our common stock; and
- provide for a classified board of directors.

These provisions could make it more difficult for common stockholders to replace members of our board of directors. Because our board of directors is responsible for appointing the members of our management team, these provisions could in turn affect any attempt to replace our current management team.

We may allocate the net proceeds from this offering in ways with which you may not agree.

We expect to use the net proceeds from this offering to fund clinical trial activities, manufacturing and preclinical research and development activities and for other general corporate purposes, including capital expenditures, complementary technology acquisition and working capital. See "Use of proceeds." Our management, however, has broad discretion in the use of the net proceeds from this offering and could spend the net proceeds in ways that do not necessarily improve our operating results or the value of our common stock.

We do not intend to pay cash dividends on our common stock in the foreseeable future.

We do not anticipate paying cash dividends on our common stock in the foreseeable future. Any payment of cash dividends will depend on our financial condition, results of operations, capital requirements and other factors and will be at the discretion of our board of directors. Accordingly, investors will have to rely on capital appreciation, if any, to earn a return on their investment in our common stock. Furthermore, we may in the future become subject to contractual restrictions on, or prohibitions against, the payment of dividends.

Special note regarding forward-looking statements

This prospectus, including the sections titled “Prospectus summary,” “Risk factors,” “Management’s discussion and analysis of financial condition and results of operations” and “Business,” contains forward-looking statements. Forward-looking statements convey our current expectations or forecasts of future events. All statements contained in this prospectus other than statements of historical fact are forward-looking statements. Forward-looking statements include statements regarding our future financial position, business strategy, budgets, projected costs, plans and objectives of management for future operations. The words “may,” “continue,” “estimate,” “intend,” “plan,” “will,” “believe,” “project,” “expect,” “anticipate” and similar expressions may identify forward-looking statements, but the absence of these words does not necessarily mean that a statement is not forward-looking.

Any or all of our forward-looking statements in this prospectus may turn out to be inaccurate. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. They may be affected by inaccurate assumptions we might make or by known or unknown risks and uncertainties, including the risks, uncertainties and assumptions described in “Risk factors.” In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this prospectus may not occur as contemplated, and actual results could differ materially from those anticipated or implied by the forward-looking statements.

You should not unduly rely on these forward-looking statements, which speak only as of the date of this prospectus. Unless required by law, we undertake no obligation to publicly update or revise any forward-looking statements to reflect new information or future events or otherwise. You should, however, review the factors and risks we describe in the reports we will file from time to time with the SEC after the date of this prospectus. See “Where you can find additional information.”

Use of proceeds

We estimate that the net proceeds to us from the sale of the shares of common stock we are offering will be approximately $ million, assuming an initial public offering price of $ per share, after deducting underwriting discounts and commissions and the estimated offering expenses. If the underwriters exercise their over-allotment option in full, we estimate the net proceeds to us from this offering will be approximately $ million.

We have no current specific plan for the proceeds. The principal purposes of this offering include to obtain additional working capital to fund anticipated operating losses, establish a public market for our common stock and facilitate our future access to public markets. We expect to use the net proceeds of this offering for working capital and general corporate purposes, including:

- clinical trial activities;
- manufacturing activities;
- preclinical research and development activities;
- capital expenditures; and
- complementary technology acquisition.

Although we have identified some types of uses above, we have and reserve broad discretion to use the proceeds from this offering differently. When and if the opportunity arises, we may use a portion of the proceeds to acquire or invest in complementary businesses, products or technologies. We currently have no commitments or agreements, and are not involved in any negotiations, to acquire any businesses, products or technologies. Pending any ultimate use of any portion of the proceeds from this offering, we intend to invest the proceeds in short-term, investment-grade and interest-bearing instruments.

Based on the current status of our product development and collaboration plans, we believe that the net proceeds of this offering, together with our cash, cash equivalents and investments, will be adequate to satisfy our capital needs through at least the end of the second quarter of 2005. See “Management’s discussion and analysis of financial condition and results of operations—Liquidity and capital resources.”

Dividend policy

We have never declared or paid any cash dividends on our common stock and do not currently anticipate declaring or paying cash dividends on our common stock in the foreseeable future. We currently intend to retain all of our future earnings, if any, to finance operations. Any future determination relating to our dividend policy will be made at the discretion of our board of directors and will depend on a number of factors, including future earnings, capital requirements, financial conditions, future prospects, contractual restrictions and other factors that our board of directors may deem relevant.

Capitalization

The following table sets forth our cash and capitalization as of September 30, 2003:

- on an actual basis;
- on a pro forma basis giving effect to our issuance of convertible promissory notes in October 2003 for net proceeds of approximately $12.7 million, and the recognition of an $11.8 million discount on the notes, as if such transaction had occurred on September 30, 2003; and
- on a pro forma as adjusted basis to further reflect:
  - the sale of shares of our common stock we are offering at an assumed initial public offering price of $ per share, after deducting underwriting discounts and commissions and estimated offering expenses to be paid by us;
  - the filing of an amended and restated certificate of incorporation to provide for an authorized capital stock of 5,000,000 shares of preferred stock and 100,000,000 shares of common stock;
  - the conversion of all 37,300,234 shares of our preferred stock outstanding as of September 30, 2003 into 37,300,234 shares of our common stock, which will become effective at the closing of this offering;
  - the net exercise of warrants outstanding as of September 30, 2003, which will expire at the closing of this offering, to purchase 4,990,344 shares of our common stock at a weighted average exercise price of $0.05 per share, resulting in the issuance of shares of common stock, assuming an initial public offering price of $ per share;
  - the conversion of shares of our preferred stock issuable upon the net exercise of warrants outstanding as of September 30, 2003, which will expire at the closing of this offering, to purchase 471,959 shares of our preferred stock at a weighted average exercise price of $1.32 per share, resulting in the issuance of shares of common stock, assuming an initial public offering price of $ per share;
  - the conversion of warrants outstanding as of September 30, 2003 to purchase 256,353 shares of our preferred stock into warrants to purchase 256,353 shares of our common stock, which will become effective at the closing of this offering; and
  - the conversion of the convertible promissory notes we issued in October 2003 into approximately 7,268,905 shares of our common stock, and the recognition of approximately $11.8 million in interest expense associated with the discount on the notes, which will become effective upon the closing of this offering.

Capitalization

	As of September 30, 2003		
	Actual	Pro forma	Pro forma as adjusted
	(unaudited, in thousands, except share and per share data)		
Cash, cash equivalents and short-term investments	$ 5,405	$ 18,126	$
Long-term obligations, less current portion	1,400	2,273	1,400
Redeemable convertible preferred stock; 37,300,234 shares issued and outstanding, actual and pro forma; no shares issued and outstanding, pro forma as adjusted; $76,520 aggregate preference in liquidation, actual and pro forma	64,604	64,604	—
Redeemable convertible preferred stock warrants	1,072	1,072	—
Stockholders' equity (deficit):			
Preferred stock, $0.001 par value per share; 42,000,000 shares authorized, actual and pro forma; 5,000,000 shares authorized, pro forma as adjusted; no shares issued and outstanding, actual, pro forma and pro forma as adjusted	—	—	—
Common stock, par value $0.001 per share; 70,000,000 shares authorized, actual and pro forma; 100,000,000 shares authorized, pro forma as adjusted; 8,402,636 shares issued and outstanding, actual and pro forma; shares issued and outstanding, pro forma as adjusted	8	8	
Additional paid-in capital	24,064	35,912	
Deferred stock compensation	(2,993)	(2,993)	(2,993)
Accumulated other comprehensive income	2	2	2
Deficit accumulated during the development stage	(81,302)	(81,302)	(93,150)
Total stockholders' equity (deficit)	(60,221)	(48,373)	
Total capitalization	$ 6,855	$ 19,576	$

The table above should be read in conjunction with our financial statements and related notes included in this prospectus. This table is based on 8,402,636 shares of our common stock outstanding as of September 30, 2003 and excludes:

- 256,353 shares of our common stock issuable upon the exercise of warrants outstanding as of September 30, 2003 at a weighted average exercise price of $1.44 per share;
- 3,985,560 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2003 under our 1996 Stock Option Plan at a weighted average exercise price of $0.81 per share; and
- 3,500,000 shares of our common stock reserved for future issuance under our 2003 Stock Plan, 600,000 shares of our common stock reserved for future issuance under our 2003 Employee Stock Purchase Plan and 500,000 shares of our common stock reserved for future issuance under our 2003 Directors' Stock Option Plan, as of September 30, 2003.

Dilution

If you invest in our common stock, your interest will be diluted to the extent of the difference between the public offering price per share you pay in this offering and the net tangible book value per share of our common stock immediately after this offering. Our net tangible book value as of September 30, 2003 was approximately $(60.2) million, or $(7.17) per share of common stock. Net tangible book value per share is equal to our total tangible assets minus total liabilities, all divided by the number of shares of common stock outstanding as of September 30, 2003. Our pro forma as adjusted net tangible book value as of September 30, 2003, before we receive the net proceeds from and issue shares in this offering, was approximately $18.2 million, or $ per share of common stock. Pro forma as adjusted net tangible book value per share, before we receive the net proceeds from and issue shares in this offering, gives effect to:

- the conversion of all 37,300,234 shares of our preferred stock outstanding as of September 30, 2003 into 37,300,234 shares of our common stock, which will become effective at the closing of this offering;
- the conversion of warrants outstanding as of September 30, 2003 to purchase 256,353 shares of our preferred stock into warrants to purchase 256,353 shares of our common stock, which will become effective at the closing of this offering;
- the net exercise of warrants outstanding as of September 30, 2003, which will expire at the closing of this offering, to purchase 4,990,344 shares of our common stock at a weighted average exercise price of $0.05 per share, resulting in the issuance of shares of common stock, assuming an initial public offering price of $ per share;
- the conversion of shares of our preferred stock issuable upon the net exercise of warrants outstanding as of September 30, 2003, which will expire at the closing of this offering, to purchase 471,959 shares of our preferred stock at a weighted average exercise price of $1.32 per share, resulting in the issuance of shares of common stock, assuming an initial public offering price of $ per share; and
- our issuance of convertible promissory notes in October 2003 for net proceeds of approximately $12.7 million, their conversion into approximately 7,268,905 shares of our common stock and the recognition of approximately $11.8 million in interest expense associated with the discount on the notes.

Dilution

After giving effect to the sale of the shares of common stock we are offering at an assumed initial public offering price of $ per share, and after deducting underwriting discounts and commissions and our estimated offering expenses, our pro forma as adjusted net tangible book value as of September 30, 2003 would have been approximately $ million, or $ per share of common stock. This represents an immediate increase in pro forma net tangible book value of $ per share to existing stockholders and an immediate dilution of $ per share to new investors. The following table illustrates this calculation on a per share basis:

Assumed initial public offering price per share		$
Net tangible book value per share as of September 30, 2003, actual	($7.17)	
Increase attributable to the issuance of convertible promissory notes, their conversion into shares of our common stock, the recognition of interest expense associated with the discount on the notes, the conversion of our convertible preferred stock and the exercise and conversion of warrants		
Pro forma as adjusted net tangible book value as of September 30, 2003, before we receive the net proceeds from and issue shares in this offering		
Pro forma increase per share attributable to the offering		
Pro forma as adjusted net tangible book value per share after this offering		
Pro forma dilution per share to new investors		$

If the underwriters exercise their over-allotment option in full, pro forma as adjusted net tangible book value as of September 30, 2003 will increase to $ per share, representing an increase to existing stockholders of $ per share, and there will be an immediate dilution of $ per share to new investors.

The following table summarizes, on a pro forma as adjusted basis as of September 30, 2003, after giving effect to this offering, at an assumed initial public offering price of $ per share, and the pro forma adjustments referred to above, the total number of shares of our common stock purchased from us and the total consideration and average price per share paid by existing stockholders and by new investors:

	Total shares		Total consideration		Average price per share
	Number	%	Amount	%	
Existing stockholders		%	$ 88,960,000	%	$
New investors					
Total		100.0%	$	100.0%	

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

- the pro forma as adjusted percentage of shares of our common stock held by existing stockholders will decrease to approximately % of the total number of pro forma as adjusted shares of our common stock outstanding after this offering; and
- the pro forma as adjusted number of shares of our common stock held by new public investors will increase to , or approximately % of the total pro forma as adjusted number of shares of our common stock outstanding after this offering.

Dilution

The tables and calculations above are based on 8,402,636 shares of our common stock outstanding as of September 30, 2003 and exclude:

- 256,353 shares of our common stock issuable upon the exercise of warrants outstanding as of September 30, 2003 at a weighted average exercise price of $1.44 per share;
- 3,985,560 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2003 under our 1996 Stock Option Plan at a weighted average exercise price of $0.81 per share; and
- 3,500,000 shares of our common stock reserved for future issuance under our 2003 Stock Plan, 600,000 shares of our common stock reserved for future issuance under our 2003 Employee Stock Purchase Plan and 500,000 shares of our common stock reserved for future issuance under our 2003 Directors' Stock Option Plan, as of September 30, 2003.

The exercise of outstanding options and warrants having an exercise price less than the initial public offering price will increase dilution to new investors.

Selected financial data

This section presents our historical financial data. The following should be read with, and is qualified in its entirety by reference to, the financial statements included in this prospectus, including the notes to the financial statements, and the information under "Management's discussion and analysis of financial condition and results of operations." The statement of operations data for the years ended December 31, 2000, 2001 and 2002 and the balance sheet data as of December 31, 2001 and 2002 have been derived from our audited financial statements included elsewhere in this prospectus. The statement of operations data for the years ended December 31, 1998 and 1999 and the balance sheet data as of December 31, 1998, 1999 and 2000 have been derived from our audited financial statements that are not included in this prospectus. The statement of operations data for the nine-month periods ended September 30, 2002 and 2003 and the balance sheet data as of September 30, 2003 have been derived from our unaudited condensed financial statements included elsewhere in this prospectus. The unaudited condensed financial statements have been prepared on a basis consistent with that of our audited financial statements and include all adjustments we consider necessary for the fair presentation of the information. Operating results for the nine months ended September 30, 2003 are not necessarily indicative of the results that may be expected for the entire year ending December 31, 2003.

	Years ended December 31,					Nine months ended September 30,	
Statement of operations data	**1998**	**1999**	**2000**	**2001**	**2002**	**2002**	**2003**
	(in thousands, except per share data)					(unaudited)	
Revenue:							
Collaborative agreement	$ —	$ —	$ —	$ —	$ —	$ —	$ 145
Government grant	—	16	98	30	—	—	—
Total revenue	—	16	98	30	—	—	145
Operating expenses:							
Research and development	4,317	5,471	11,257	14,701	14,663	10,888	10,112
General and administrative	1,427	1,654	2,403	5,204	4,979	3,978	3,112
Total operating expenses	5,744	7,125	13,660	19,905	19,642	14,866	13,224
Loss from operations	(5,744)	(7,109)	(13,562)	(19,875)	(19,642)	(14,866)	(13,079)
Other income (expense), net	298	162	621	363	189	168	(85)
Net loss	(5,446)	(6,947)	(12,941)	(19,512)	(19,453)	(14,698)	(13,164)
Accretion of preferred stock	—	—	—	(8,411)	(8,001)	(8,001)	—
Net loss applicable to common stockholders	$ (5,446)	$ (6,947)	$ (12,941)	$ (27,923)	$ (27,454)	$ (22,699)	$ (13,164)
Basic and diluted net loss per common share	$ (0.86)	$ (1.15)	$ (2.16)	$ (4.03)	$ (3.52)	$ (2.97)	$ (1.61)
Shares used in basic and diluted net loss per common share calculation	6,355	6,050	6,003	6,936	7,809	7,650	8,161
Pro forma basic and diluted net loss per common share (unaudited)(1)					$ (0.44)		$ (0.29)
Shares used in pro forma basic and diluted net loss per common share calculation (unaudited)(1)					44,550		45,451

(1) The pro forma basic and diluted net loss per share reflects the weighted effect of the assumed conversion of redeemable convertible preferred stock. See note 12 to our financial statements for information regarding computation of basic and diluted net loss per share and pro forma basic and diluted net loss per share.

Selected financial data

Balance sheet data	As of December 31, 1998	1999	2000	2001	2002	As of September 30, 2003
			(in thousands)			(unaudited)
Cash, cash equivalents and short-term investments	$ 12,152	$ 7,363	$ 23,926	$ 21,098	$ 17,344	$ 5,405
Working capital	11,589	6,100	21,785	19,135	15,570	3,335
Total assets	16,044	10,055	28,479	24,727	21,535	9,367
Long-term obligations, less current portion	941	854	952	1,046	1,514	1,400
Redeemable convertible preferred stock and warrants	23,390	23,405	49,053	57,629	65,673	65,676
Deficit accumulated during the development stage	(9,285)	(16,232)	(29,173)	(48,685)	(68,138)	(81,302)
Total stockholders' deficit	(8,939)	(15,804)	(25,384)	(36,260)	(48,125)	(60,221)

Management's discussion and analysis of financial condition and results of operations

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

OVERVIEW

We are a biotechnology company developing a new class of therapeutic products that enhance the body's natural immune responses to treat cancer, infectious diseases and other medical conditions associated with weakened immune systems. We produce our therapeutic products, which consist of activated, patient-specific T cells, using our patented and proprietary Xcellerate Technology. We use blood collected from the patient to generate activated T cells, which we call Xcellerated T Cells. Our Xcellerate Technology rapidly activates and expands the patient's T cells outside of the body. These Xcellerated T Cells are then administered to the patient. We believe our Xcellerate Technology can produce Xcellerated T Cells in sufficient numbers to generate rapid and potent immune responses to treat a variety of medical conditions.

Since our inception in 1996, we have focused our activities primarily on the development of these therapeutic products. We are a development-stage company and have incurred significant losses since our inception. As of September 30, 2003, our deficit accumulated during the development stage was $81.3 million. Our operating expenses consist of research and development expenses and general and administrative expenses.

We have recognized revenues from inception through September 30, 2003 of approximately $389,000 from sublicense fees, payments under a collaborative agreement and income from a National Institutes of Health Phase I Small Business Innovation Research, or SBIR, grant in CLL. We intend to continue to apply for other grants in the future. We currently do not market any products and will not for several years, if at all. Accordingly, we do not expect to have any product sales or royalty revenue for a number of years. Our net losses are a result of research and development and general and administrative expenses incurred to support our operations. We anticipate incurring net losses over at least the next several years as we complete our clinical trials, apply for regulatory approvals, continue development of our technology and expand our operations.

Research and development

To date, our research and development expenses have consisted primarily of costs incurred for drug discovery and research, preclinical development, clinical trials and regulatory activities. Research and development activity-related costs include:

- payroll and personnel-related expenses;
- clinical trial and regulatory-related costs;
- laboratory supplies;

- contractual costs associated with developing antibodies and beads;
- technology license costs;
- rent and facility expenses for our laboratory and cGMP-grade manufacturing facilities; and
- scientific consulting fees.

Our research and development efforts to date have primarily focused on the development of our proprietary Xcellerate Technology and Xcellerated T Cells. From inception through September 30, 2003, we incurred research and development expenses of approximately $63.3 million, substantially all of which relate to the research and development of this technology. Currently, we are focusing our efforts on advancing our product through clinical trials. Because of the risks and uncertainties inherent in the clinical trials and regulatory process, we are unable to estimate with any certainty the length of time or expenses to continue development of Xcellerated T Cells for commercialization. However, we expect our research and development expenses to increase as we continue to improve our proprietary Xcellerate Technology and develop Xcellerated T Cells for additional clinical indications.

General and administrative expenses

Our general and administrative expenses are costs associated with supporting our operations, including payroll and personnel-related expenses and professional fees. In addition, rent and facility expenses for our administrative office area and other general office support activities are also included in our general and administrative expenses.

CRITICAL ACCOUNTING POLICIES

We have based our discussion and analysis of our financial condition and results of operations on our financial statements, which we have prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and assumptions that affect the amounts reported in the financial statements. Actual results could differ from those estimates. While note 1 to our financial statements summarizes each of our significant accounting policies that we believe is important to the presentation of our financial statements, we believe the following accounting policies to be critical to the estimates and assumptions used in the preparation of our financial statements.

Stock-based compensation

We have adopted the disclosure-only provisions of Financial Accounting Standards Board (FASB) Statement of Financial Accounting Standards No. 123, *Accounting for Stock-Based Compensation* (SFAS 123). Accordingly, we apply Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees* (APB 25), and related interpretations in accounting for stock options. Pursuant to APB 25, we recognize employee stock-based compensation expense based on the intrinsic value of the option at the date of grant. Deferred stock-based compensation includes amounts recorded when the exercise price of an option is lower than the fair value of the underlying common stock on the date of grant. We amortize deferred stock-based compensation over the vesting period of the option using the graded vesting method.

We record stock options granted to non-employees using the fair value approach in accordance with SFAS 123 and Emerging Issues Task Force Consensus Issue No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*. We periodically revalue the options to non-employees over their vesting terms. We determine the fair value of options granted to non-employees using the Black-Scholes option-pricing model.

We determine the fair value of our common stock for purposes of these calculations based on our review of the primary business factors underlying the value of our common stock on the date these option grants are made or revalued, viewed in light of this offering and the expected initial public offering price per share.

Revenue recognition

To date, we have generated no revenues from sales of products. Revenues relate to fees received for licensed technology, cost reimbursement contracts and an SBIR grant awarded to us by the National Institutes of Health. We recognize revenue associated with up-front license fees and research and development funding payments ratably over the relevant periods specified in the agreement, which generally is the research and development period. We recognize revenue under research and development cost-reimbursement agreements as the related costs are incurred. We recognize revenue related to grant agreements as the related research and development expenses are incurred.

Cash, cash equivalents and investments

We classify all investment securities as available-for-sale, carried at fair value. We report unrealized gains and losses as a separate component of stockholders' deficit. We include amortization, accretion, interest and dividends, realized gains and losses and declines in value judged to be other-than-temporary on available-for-sale securities in interest income. Statement of Financial Accounting Standards No. 115, *Accounting for Certain Investments in Debt and Equity Securities*, and Securities and Exchange Commission (SEC) Staff Accounting Bulletin (SAB) 59, *Accounting for Noncurrent Marketable Equity Securities*, provide guidance on determining when an investment is other-than-temporarily impaired. This evaluation depends on the specific facts and circumstances. Factors that we consider in determining whether an other-than-temporary decline in value has occurred include: the market value of the security in relation to its cost basis; the financial condition of the investee; and the intent and ability to retain the investment for a sufficient period of time to allow for possible recovery in the market value of the investment.

RESULTS OF OPERATIONS

Nine months ended September 30, 2003 and 2002

Revenue

Revenue was approximately $145,000 in the nine months ended September 30, 2003, consisting of funds received under a cost-reimbursement agreement. We recognized no revenue in the nine months ended September 30, 2002.

Research and development

Research and development expenses represented approximately 76% and 73% of our operating expenses for the nine months ended September 30, 2003 and 2002, respectively. Research and development expenses decreased 7.1%, from $10.9 million in the nine months ended September 30, 2002 to $10.1 million in the nine months ended September 30, 2003. The decrease was primarily due to a reduction in technology license costs and non-cash stock compensation. Technology license costs totaled $729,000 in the nine months ended September 30, 2002, representing the value of stock and cash paid as an initial fee for a license we obtained from an academic institution. We incurred no technology license costs in the nine months ended September 30, 2003. Non-cash stock compensation decreased from $909,000 in the nine months ended September 30, 2002 to $593,000 in the nine months ended September 30, 2003, as a result of a reduction in the number of options granted and a decrease in

management's estimate of the fair market value per share of common stock. Decreases in research and development expenses were partially offset by an increase of $290,000 in contractual payments relating to developing our antibody technology, in addition to increases in clinical trial and laboratory supplies costs. The increase in payments related to our antibody technology resulted from the third-party manufacture of the antibodies that we use in our Xcellerate Technology. Since we store these antibodies in our inventory for use when needed in clinical trials and research and development activities, the manufacture of these antibodies occurs periodically, resulting in a corresponding increase in expense from time to time.

General and administrative

General and administrative expenses represented approximately 24% and 27% of our operating expenses for the nine months ended September 30, 2003 and 2002, respectively. General and administrative expenses decreased 22%, from $4.0 million in the nine months ended September 30, 2002 to $3.1 million in the nine months ended September 30, 2003. The decrease was due primarily to a decrease in non-cash stock compensation and the absence of expenses related to an initial public offering registration process that we initiated and terminated in the first half of 2002. Non-cash stock compensation decreased 57%, from $1.1 million in the nine months ended September 30, 2002 to $472,000 in the nine months ended September 30, 2003, as a result of a reduction in the number of options granted and a decrease in management's fair market value per share of common stock. Costs we incurred in association with the initial public offering registration process in the nine months ended September 30, 2002 totaled $272,000.

Other income (expense)

Other income, comprised primarily of interest income and interest expense, totaled $168,000 in the nine months ended September 30, 2002, compared to other expense of $85,000 in the nine months ended September 30, 2003. Interest income decreased 69%, from $367,000 in the nine months ended September 30, 2002 to $112,000 in the nine months ended September 30, 2003, due to decreased cash and investment balances upon which interest is earned and declining interest rates. Interest expense increased 2.1%, from $192,000 in the nine months ended September 30, 2002 to $196,000 in the nine months ended September 30, 2003, due primarily to higher debt balances related to equipment financings.

Years ended December 31, 2002 and 2001

Revenue

Revenue was approximately $30,000 in the year ended December 31, 2001, consisting of income from a National Institutes of Health SBIR grant. We recognized no revenue in the year ended December 31, 2002.

Research and development

Research and development expenses represented approximately 75% and 74% of our operating expenses for the years ended December 31, 2002 and 2001, respectively. Research and development expenses totaled $14.7 million in each of the years ended December 31, 2002 and 2001. While total expenses were the same for 2002 and 2001, several individual components of research and development expense fluctuated significantly between the years. Technology license costs, contractual payments relating to developing our bead technology and salary and other personnel-related expenses increased from 2001 to 2002. Technology license costs comprised the largest increase and totaled $829,000 in the year ended December 31, 2002, representing the value of stock and cash paid for a license we obtained from an

academic institution. We incurred no technology license costs in the year ended December 31, 2001. These increases were offset by a reduction of $1.1 million in contractual payments relating to developing our antibody technology, in addition to reduced non-cash compensation expense. The higher level of payments in 2001 related to our antibody technology resulted from the third-party manufacture of the antibodies that we use in our Xcellerate Technology. Since we store these antibodies in our inventory for use when needed in clinical trials and research and development activities, the manufacture of these antibodies occurs periodically, resulting in a corresponding increase in expense from time to time. The reduction in non-cash compensation expense resulted primarily from a decrease in management's estimate of the fair market value per share of common stock.

General and administrative

General and administrative expenses represented approximately 25% and 26% or our operating expenses for the years ended December 31, 2002 and 2001, respectively. General and administrative expenses decreased 4.3%, from $5.2 million in the year ended December 31, 2001 to $5.0 million in the year ended December 31, 2002. The decrease was due primarily to an $880,000 reduction in professional fees related to an initial public offering that we withdrew in 2001, partially offset by a $351,000 increase in non-cash stock compensation and increases in salary and other personnel-related expenses. The increase in non-cash stock compensation resulted from an increase in the number of options granted.

Other income (expense)

Other income, comprised primarily of interest income and interest expense, decreased 48%, from $363,000 in the year ended December 31, 2001 to $189,000 in the year ended December 31, 2002. Interest income decreased 33%, from $698,000 in the year ended December 31, 2001 to $467,000 in the year ended December 31, 2002, due to decreased cash and investment balances upon which interest is earned and declining interest rates. Interest expense increased 2.7%, from $260,000 in the year ended December 31, 2001 to $267,000 in the year ended December 31, 2002, due primarily to higher debt balances related to equipment financings.

Years ended December 31, 2001 and 2000

Revenue

Revenue was approximately $30,000 in the year ended December 31, 2001 and $98,000 in the year ended December 31, 2000 and consisted of an SBIR grant from the National Institutes of Health.

Research and development

Research and development expenses represented approximately 74% and 82% of our operating expenses for the years ended December 31, 2001 and 2000, respectively. Research and development expenses increased 31%, from $11.3 million in the year ended December 31, 2000 to $14.7 million in the year ended December 31, 2001. The $3.4 million increase was primarily due to contractual payments relating to developing our antibody technology, an increase in non-cash stock compensation, increased rent and facilities-related expenses and laboratory supplies. Increases in non-cash stock compensation resulted from an increase in management's estimate of the fair market value per share of common stock. Contractual payments relating to developing our antibody technology increased $1.7 million, non-cash stock compensation increased $1.2 million and rent and facilities-related expenses increased $1.1 million. Increases in research and development expenses were partially offset by a $1.4 million reduction in contractual payments relating to developing our bead technology, in addition to a decrease in technology license costs. The significant expense in 2000 associated with our bead technology resulted from

payments to a third party for certain development activities conducted. These activities are nonrecurring, and we do not expect this level of cost related to development of our bead technology to occur in the future.

General and administrative

General and administrative expenses represented approximately 26% and 18% or our operating expenses for the years ended December 31, 2001 and 2000, respectively. General and administrative expenses increased 117%, from $2.4 million in the year ended December 31, 2000 to $5.2 million in the year ended December 31, 2001, due primarily to $1.1 million in expenses related to an initial public offering that we subsequently withdrew, in addition to increases in non-cash stock compensation and salary and other personnel-related expenses. Increases in non-cash stock compensation resulted from an increase in management's estimate of the fair market value per share of common stock.

Other income (expense)

Other income, comprised primarily of interest income and interest expense, decreased 42%, from $621,000 in the year ended December 31, 2000 to $363,000 in the year ended December 31, 2001. Interest income decreased 20%, from $868,000 in the year ended December 31, 2000 to $698,000 in the year ended December 31, 2001, due to decreased cash balances upon which interest is earned and declining interest rates. Interest expense increased 5.3%, from $247,000 in the year ended December 31, 2000 to $260,000 in the year ended December 31, 2001, due primarily to higher debt balances related to equipment financings.

STOCK-BASED COMPENSATION

During the nine months ended September 30, 2003, we recorded deferred stock-based compensation totaling $2.1 million. During the years ended December 31, 2001 and 2002, we recorded deferred stock-based compensation totaling $1.7 million and $3.2 million, respectively. We amortize the deferred stock-based compensation to expense using the graded vesting method. As of September 30, 2003, there was $3.0 million of deferred stock-based compensation to be amortized in future periods as follows: $495,000 for the three months ending December 31, 2003, $1.6 million in 2004, $642,000 in 2005, $257,000 in 2006 and $43,000 in 2007. In 2001 and 2002, we granted non-employee stock options to purchase 395,000 and 35,000 shares of our common stock, respectively. During the nine months ended September 30, 2003, we issued options and warrants to non-employees to purchase 90,000 shares of our common stock. We determined the fair value of options and warrants granted to non-employees using the Black-Scholes option-pricing model. We will periodically measure this value as the underlying options vest. Total stock-based compensation expense was $1.1 million and $65,000 for the years ended December 31, 2001 and 2002, respectively, and $236,000 for the nine months ended September 30, 2003.

INCOME TAXES

We have incurred net operating losses since inception, and we have consequently not paid any federal, state or foreign income taxes. As of December 31, 2002, we had net operating loss carryforwards of approximately $55.9 million and research and development tax credit carryforwards of approximately $3.0 million. If not utilized, the net operating loss and tax credit carryforwards will expire at various dates beginning in 2011. If we do not achieve profitability, our net operating loss carryforwards may be lost. In addition, the change-in-ownership provisions of the Internal Revenue Code of 1986, as amended, may substantially limit utilization of net operating loss and tax credit carryforwards annually. We are currently not subject to these limitations. However, any future annual limitations may result in the expiration of our net operating loss and tax credit carryforwards before utilization.

Our deferred tax assets consist primarily of net operating loss carryforwards. Because of our history of operating losses, we do not have a sufficient basis to project that future income will be sufficient to realize the deferred tax assets during the carryforward period. As a result, we have provided a full valuation allowance on the net deferred tax assets for all periods presented. The valuation allowance has increased each fiscal year primarily due to that fiscal year's net operating loss carryforward.

LIQUIDITY AND CAPITAL RESOURCES

As of September 30, 2003, we had cash, cash equivalents and short-term investments of $5.4 million, with cash equivalents being held in highly liquid money market accounts with financial institutions. Cash, cash equivalents and short-term investments were $23.9 million as of December 31, 2000, $21.1 million as of December 31, 2001, and $17.3 million as of December 31, 2002.

In October 2003, we raised net proceeds of $12.7 million from the sale of 6% convertible promissory notes. These convertible promissory notes will convert into approximately 7,268,905 shares of common stock at the closing of this offering. If this offering does not close, the convertible promissory notes will be payable upon demand in October 2004, unless the holders of a majority of the aggregate principal amount of the notes elect after February 2004 to accelerate the maturity date, in which case we will have to repay the $12.7 million aggregate principal amount of the notes plus accrued and unpaid interest. Additionally, holders of our preferred stock may elect to require us to redeem their shares at any time at the original price paid per share. As of September 30, 2003, 37,300,234 shares of our preferred stock were outstanding. If the holders of these shares elect to require us to redeem their shares, we would have to pay an aggregate redemption price of approximately $76.5 million. However, the holders of our preferred stock will not have the right to force us to redeem their shares after their shares convert into shares of our common stock, which will occur immediately before completion of our initial public offering.

We have financed our operations since inception through private placements of equity securities, grant revenue, fees from a sublicense agreement, payments under a collaborative agreement, equipment financings and interest income earned on cash, cash equivalents and investments. From inception through September 30, 2003, we have raised net proceeds of $75.6 million from private equity financings. Since our inception to September 30, 2003, we have received $389,000 in revenue, $5.6 million in equipment financings and $3.4 million in interest income. To date, inflation has not had a material effect on our business.

In August 2003, the National Institutes of Health awarded us a $1.2 million SBIR grant to help fund our clinical trial to evaluate the use of Xcellerated T Cells to treat patients with CLL. The National Institutes of Health recently announced clarifications to the eligibility requirements for their SBIR grants. As a result, it is uncertain whether we may be eligible to receive any funds under this grant. Accordingly, we do not intend to accept any funds from this grant until this uncertainty is resolved.

Since our inception, investing activities, other than purchases and maturities of investments, have consisted primarily of purchases of property and equipment. As of September 30, 2003, our investment in property and equipment was $5.4 million. We anticipate our capital expenditures will increase in the future as we construct and renovate our planned manufacturing plant and expand our current facilities.

Net cash used in operating activities was $11.6 million for the nine months ended September 30, 2002 and $11.2 million for the nine months ended September 30, 2003. Net cash used in operating activities was $11.2 million in the year ended December 31, 2000, $15.1 million in the year ended December 31, 2001 and $15.2 million in the year ended December 31, 2002. Expenditures in these periods were

generally a result of research and development expenses and general and administrative expenses in support of our operations.

We have entered into agreements to develop bead and antibody technology that require significant cash expenditures, including an agreement with Dynal under which we have agreed to make payments totaling $3.0 million upon the accomplishment of bead development activities. Additionally, we have two agreements with Lonza under which we agreed to make payments to develop and produce cGMP-grade antibodies totaling $4.9 million. As of September 30, 2003, we have paid $2.5 million to Dynal and the entire $4.9 million to Lonza. Under our license agreement with Genetics Institute, we must spend no less than $500,000 annually on research and development activities related to product development until the first commercial sale of a product.

The following summarizes our long-term contractual obligations as of December 31, 2002 (in thousands):

		Payments due by period			
Contractual obligations	**Total**	**Less than 1 year**	**1 to 3 years**	**4 to 5 years**	**After 5 years**
Operating leases	$ 10,395	$ 1,469	$ 3,086	$ 2,474	$ 3,366
Equipment financing	1,991	818	1,052	121	—
Total(1)	$ 12,386	$ 2,287	$ 4,138	$ 2,595	$ 3,366

(1) Does not include commitments for product development spending under the Genetics Institute license agreement, as described above and does not include commitments for payment of the convertible promissory notes issued in October 2003.

We expect to use the net proceeds from this offering to fund clinical trial activities, manufacturing and preclinical research and development activities and for other general corporate purposes, including capital expenditures, technology acquisition and working capital to fund anticipated operating losses. See "Use of proceeds."

Based on the current status of our product development and collaboration plans, we believe that the net proceeds of this offering, together with our cash, cash equivalents and investments, will be adequate to satisfy our capital needs through at least the end of the second quarter of 2005. However, we may need additional financing prior to that time to, among other things, support our product development for Phase II or Phase III clinical trials. Furthermore, we expect to require additional funding before we are able to generate revenue, if at all, from our potential products. Additional financing may not be available on favorable terms, if at all. If we are unable to raise additional funds when we need them, we may have to delay, reduce or eliminate some or all of our development programs or our clinical trials. We also may have to license technologies to others that we would prefer to develop internally.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

For a description of our related party transactions, see "Certain relationships and related party transactions."

RECENT ACCOUNTING PRONOUNCEMENTS

In June 2002, the FASB issued SFAS 146, *Accounting for Costs Associated with Exit or Disposal Activities*, which addresses accounting for restructuring, discontinued operation, plant closing or other

exit or disposal activity. SFAS 146 requires companies to recognize costs associated with exit or disposal activities when they are incurred rather than at the date of a commitment to an exit or disposal plan. SFAS 146 is to be applied prospectively to exit or disposal activities initiated after December 31, 2002. We do not expect the adoption of SFAS 146 to have a material impact on our financial position or results of operations.

In November 2002, the FASB issued FIN 45, *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others, and Interpretation of FASB Statements No. 5, 57 and 107 and Rescission of FASB Interpretation No. 34*. FIN 45 clarifies the requirements of SFAS 5, *Accounting for Contingencies*, relating to a guarantor's accounting for, and disclosure of, the issuance of certain types of guarantees. The disclosure provisions of FIN 45 apply to financial statements for the periods ending after December 15, 2002. However, the provisions for initial recognition and measurement apply on a prospective basis to guarantees that are issued or modified after December 31, 2002. We do not expect the adoption of FIN 45 to have a material impact on our financial position or results of operations.

In January 2003, the FASB issued FIN 46, *Consolidation of Variable Interest Entities*. FIN 46 clarifies the application of Accounting Research Bulletin No. 51, *Consolidated Financial Statements*, to entities in which the equity investors do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. FIN 46 applies immediately to variable interest entities created after January 31, 2003 and to variable interest entities in which an enterprise obtains an interest after that date. It applies in the first fiscal year or interim period beginning after June 15, 2003 to variable interest entities in which an enterprise holds a variable interest that it acquired before February 1, 2003. FIN 46 applies to public enterprises as of the beginning of the applicable interim or annual period. We do not believe there will be a material effect on our financial condition or results of operations from the adoption of the provisions of FIN 46.

In November 2002, the Emerging Issues Task Force reached a consensus on Issue No. 00-21, *Revenue Arrangements with Multiple Deliverables* (EITF Issue No. 00-21). This Issue provides guidance on how to account for arrangements that involve the delivery or performance of multiple products, services and/or rights to use assets. The provisions of EITF Issue No. 00-21 will apply to revenue arrangements entered into in fiscal periods beginning after June 15, 2003. We are currently evaluating the effect that the adoption of EITF Issue No. 00-21 will have on our financial statements.

In May 2003, the FASB issued SFAS 150, *Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity*. SFAS 150 establishes standards for how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity. SFAS 150 requires that an issuer classify a financial instrument that is within SFAS 150's scope as a liability by reporting the cumulative effect of a change in accounting principle. The requirements of SFAS 150 apply to the first fiscal period beginning after December 15, 2004. We are currently evaluating the impact of adopting SFAS 150.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest rate risk

Our short-term investments as of September 30, 2003 consisted of $1.5 million in federal agency obligations and $1.3 million in highly rated corporate bonds with contractual maturities of one year or

less. Due to the short-term nature of our investments, we believe that our exposure to market interest rate fluctuations is minimal. The corporate bonds in which we invest are rated "A" or better by both Moody's and Standard and Poor's. Our cash and cash equivalents are held primarily in highly liquid money market accounts. A hypothetical 10% change in short-term interest rates from those in effect at September 30, 2003 would not have a significant impact on our financial position or on our expected results of operations. We do not currently hold any derivative financial instruments.

Because interest rates on our equipment financing obligations are fixed at the beginning of the repayment term, exposure to changes in interest rates is limited to new financings.

Foreign currency risk

For antibody development and supply services provided by Lonza, we must make payments denominated in British pounds. As a result, from time to time, we are exposed to currency exchange risks. We do not engage in currency hedging, and, if the British pound strengthens against the US dollar, our payments to Lonza will increase in US dollar terms. We have paid a total of $4.9 million to Lonza under our agreements with them as of September 30, 2003, consisting of approximately $252,000, $1.7 million and $1.6 million during the years ended December 31, 2000, 2001 and 2002, respectively, and $1.3 million during the nine months ended September 30, 2003. At September 30, 2003, we had no outstanding obligations or future contractual commitments to Lonza. However, we may elect to purchase additional antibodies from Lonza, in which case we would have to make payments in British pounds, exposing us to currency exchange risks in the future.

Business

OVERVIEW

We are a biotechnology company developing a new class of therapeutic products that enhance the body's natural immune responses to treat cancer, infectious diseases and other medical conditions associated with weakened immune systems. We derive our therapeutic products from a patient's own T cells, which are cells of the immune system that orchestrate immune responses and can detect and eliminate cancer cells and infected cells in the body. We use our patented and proprietary Xcellerate Technology to generate activated T cells, which we call Xcellerated T Cells, from blood that is collected from the patient. Activated T cells are T cells that have been stimulated to carry out immune functions. Our Xcellerate Technology is designed to rapidly activate and expand the patient's T cells outside of the body. These Xcellerated T Cells are then administered to the patient.

We believe, based on clinical trials that, our Xcellerate Technology can produce Xcellerated T Cells in sufficient numbers to generate rapid and potent immune responses to treat a variety of medical conditions. Our Xcellerate Technology is designed to consistently increase the quantity and restore the quality and diversity of T cells of patients with weakened immune systems. We believe we can efficiently manufacture Xcellerated T Cells for therapeutic applications. In addition, based on clinical studies, we believe Xcellerated T Cells are generally well tolerated and can be easily administered to patients in an outpatient clinical setting. We expect Xcellerated T Cells may be used alone or in combination with other complementary treatments. We and other clinical investigators have completed or are conducting clinical trials in the following indications:

- **Chronic lymphocytic leukemia, or CLL.** In our ongoing Phase I/II clinical trial in CLL, treatment with Xcellerated T Cells resulted in approximately 50% or greater reductions in the size of enlarged lymph nodes and of enlarged spleens in all six patients who have been evaluated.
- **Multiple myeloma.** In our ongoing Phase I/II clinical trial, we have shown that treatment with Xcellerated T Cells led to rapid recovery of T cells and lymphocytes in all 28 evaluable patients with multiple myeloma following treatment with high-dose chemotherapy and autologous stem cell transplantation. Similar results have also been observed using an earlier version of our proprietary technology in an ongoing 40-patient independent physician-sponsored clinical trial in the same clinical setting. Previous independent clinical studies have demonstrated a correlation between patient survival and the speed of recovery of lymphocytes following treatment with chemotherapy and stem cell transplantation.
- **Non-Hodgkin's lymphoma.** In a physician-sponsored clinical trial, the results of which were recently published in a peer-reviewed journal, 16 non-Hodgkin's lymphoma patients undergoing high-dose chemotherapy and autologous stem cell transplantation were treated with T cells activated with an earlier version of our proprietary technology. In this group of patients with a very poor prognosis, there were several patients with long-term survival and complete responses, which mean the absence of detectable disease using conventional detection methods.
- **Kidney cancer.** In our completed Phase I clinical trial in 25 patients with metastatic kidney cancer, treatment with Xcellerated T Cells and low doses of the T cell activating agent, interleukin-2, or IL-2, led to a median survival of 21 months. Previous independent clinical studies have demonstrated median survival of patients with metastatic kidney cancer of approximately 12 months. The results of this study were recently published in a peer-reviewed journal.
- **Prostate cancer.** In our recently completed Phase I/II clinical trial in prostate cancer, treatment with Xcellerated T Cells led to greater than 50% decreases in the serum tumor marker, prostate specific

antigen, or PSA, in two out of 19 patients. In some independent clinical studies, decreases in PSA levels have been shown to correlate with increased patient survival.

- **HIV.** In a physician-sponsored clinical trial in HIV patients who had low T cell counts, treatment with T cells activated using an earlier version of our proprietary technology increased the patient population's average T cell count to within normal levels and maintained this normal count for at least one year following therapy. The results of this study were recently published in a peer-reviewed journal. In several independent clinical studies, increased levels of T cells have been shown to correlate with increased patient survival and improved clinical outcome.

In clinical trials, treatment with Xcellerated T Cells was generally well tolerated. Side effects were similar to those observed with infusions of other kinds of cells, such as red blood cells or frozen cell products, and typically minor, including fever, chills, increased heart rate, nausea and sweating.

Based on these clinical results, we believe there are several major clinical opportunities for Xcellerated T Cells. We plan to initially focus our development efforts in those clinical indications that we believe have significant commercial opportunities and offer the most rapid path to regulatory approval. We believe hematological malignancies, including CLL, multiple myeloma and non-Hodgkin's lymphoma, represent major potential markets for Xcellerated T Cells. In addition, these types of cancer are generally incurable, which means that Xcellerated T Cells may qualify for fast track approval by the FDA, which could shorten the time to potential regulatory approval and commercialization. We plan to initiate one or more pivotal clinical trials in these hematological malignancies in 2005.

BACKGROUND

T cells and the immune system

T cells are critically important to a properly functioning immune system. The immune system is responsible for protecting the body from foreign invaders and eliminating tumor cells and pathogens, including bacteria, viruses and fungi. Classically, the immune system is divided into two arms, known as humoral immunity and cell-mediated immunity. Humoral immune responses are mediated by antibodies, which several biopharmaceutical companies have developed into major commercial products to treat a range of diseases, including cancer, infectious diseases and autoimmune diseases. Cell-mediated immunity also plays a critical role in fighting many of these illnesses. T cells, the most common type of lymphocyte, play the central role in cell-mediated immunity. We believe T cells may be used to treat cancer, infectious diseases and autoimmune diseases.

Healthy individuals have a few hundred billion T cells that circulate throughout the body. Upon encountering tumor cells or pathogens, T cells become activated and recognize and eliminate them from the body. They do this by performing several important functions. First, T cells stimulate many other components of the immune system that are required for effective immune responses. For example, activated T cells control the proliferation and differentiation of other lymphocytes, B cells, which make antibodies that help fight infections. Additionally, activated T cells recognize and mark abnormal cells, such as tumor cells or infected cells, for destruction by the immune system. Activated T cells also participate directly in killing tumor cells and infectious agents, such as viruses.

Every T cell carries its own distinct receptor, the T cell receptor, which is capable of recognizing a specific antigen. Antigens are substances produced by tumor cells, viruses, bacteria or other pathogens that cause disease and may be distinguishable from substances produced by healthy cells. Healthy individuals have a population of T cells that expresses millions of different T cell receptors. It is this

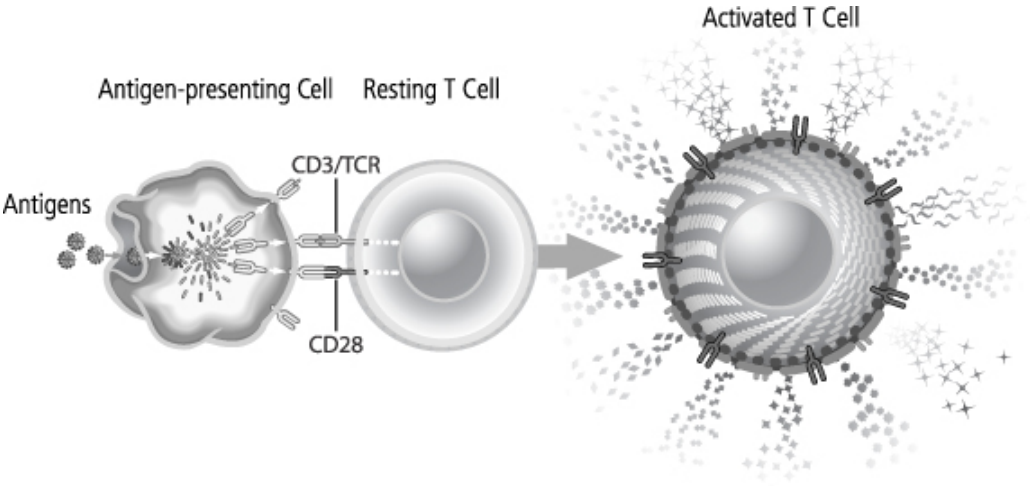
broad spectrum of T cell receptors that provides the diverse T cell repertoire that makes it possible for the immune system to recognize and respond to a wide variety of harmful pathogens that cause disease.

Activation of T cells

T cells remain in a resting state until they become activated upon encountering antigens expressed by infected cells or tumor cells. Although activation depends on the specificity of binding of an antigen to a T cell receptor, all T cells display similar characteristics upon activation. For example, when T cells undergo activation, they become more sensitive to stimulation by antigens. This makes activated T cells especially effective at eradicating pathogens that would otherwise escape recognition from the immune system. In addition, upon activation, T cells rapidly multiply to large numbers in the body. Accordingly, it is the process of activation that makes T cells potent therapeutic agents.

Two signals are required to activate T cells, Signal 1 and Signal 2, which are delivered by two molecules, CD3 and CD28, present on the surface of T cells. Signal 1 occurs when the CD3 molecule, which is tightly associated with the T cell receptor, is stimulated by engagement of the receptor by an antigen taken up, processed and presented by an antigen-presenting cell. Signal 2 occurs when the same antigen-presenting cell engages the CD28 molecule on the T cell. When the CD3 and CD28 molecules are stimulated, T cells become activated and produce an immune response. If only Signal 1 is generated, T cells are only partially activated and die quickly. If only Signal 2 is generated, no immune response occurs at all. Only the simultaneous delivery of both Signal 1 and Signal 2 generates activated T cells that can function properly in the body and survive for prolonged periods.

When a T cell becomes activated, it produces a number of different molecules to carry out its many functions. Some of these molecules, known as cytokines, are secreted by the T cell while other molecules are expressed on the surface of the T cell. Many of these molecules activate other cellular elements of the immune system. The activated T cell also produces several toxic substances that are responsible for directly killing pathogens. Several different molecules that a T cell produces in proper amounts work together to generate an effective immune response. Many of these molecules are extremely potent and would be extremely toxic if they were administered intravenously or by other routes that allow them to circulate throughout the body. The activated T cell is able to control the production and site of delivery of these molecules in order to generate a safe immune response that is concentrated at the site of disease.



The dangers of T cell deficiencies

The quantity, quality and diversity of T cells are critically important for a properly functioning immune system.

- **Quantity.** A variety of treatments for cancer and autoimmune diseases destroy T cells, including chemotherapy, radiation and some monoclonal antibodies. In addition, many diseases, such as HIV and several kinds of congenital immunodeficiencies, are associated with low numbers of T cells. When the number of T cells decreases significantly, the human immune system is less able to defend the body against cancer and infectious diseases.
- **Quality.** In many diseases, such as cancer and HIV, T cells have a reduced ability to generate effective immune responses. Many chemotherapy drugs and immunosuppressive agents also depress the activity and function of T cells. Defective T cells may not be able to respond to normal signals required for an effective immune response. These T cells may produce insufficient numbers of molecules required either to mark tumor cells for destruction or to directly destroy them.
- **Diversity.** A decreased diversity of T cell receptors is observed in many diseases, including cancer, HIV and autoimmune diseases. This decreased spectrum of T cell receptors narrows the ability of T cells to recognize a broad array of antigens. This may reduce a patient's ability to respond to and eliminate cancer and infectious diseases.

In many patients, decreases in the quantity, quality and diversity of T cells occur together. This puts patients at an increased risk of developing serious and often life-threatening infectious diseases as well as cancer. For example, patients with autoimmune diseases treated with immunosuppressive drugs have an increased risk of infections. Additionally, transplant patients treated with similar drugs have an increased risk of infections and non-Hodgkin's lymphoma. Patients with HIV have an increased risk of developing non-Hodgkin's lymphoma and multiple myeloma. Patients with certain types of congenital immunodeficiencies have an increased risk of developing infections as well as non-Hodgkin's lymphoma and gastric cancer. In each of these medical conditions, patients often have poorly functioning T cells that are reduced in number and have limited diversity, which makes these patients particularly susceptible to infection and cancer.

Conversely, the presence of a sufficient number of healthy T cells is associated with improved therapeutic outcome in patients with cancer, HIV and autoimmune diseases. At the time of diagnosis, patients with non-Hodgkin's lymphoma who have higher lymphocyte counts have better survival. Several recent independent clinical studies have shown that cancer patients who experience more rapid and complete recovery of lymphocytes after chemotherapy have improved survival and clinical outcome. Improved prognosis has been well documented in HIV patients whose T cell counts significantly increased after anti-HIV therapy. These patients demonstrate improvements in T cell function as well as in T cell receptor repertoire diversity after successful treatment. Restoring healthy T cell diversity has also been associated with remission of disease in patients with certain autoimmune diseases.

Current approaches to activate the immune system and their limitations

There has been a major clinical focus on developing therapeutic agents to strengthen and activate a patient's immune system. Many of these agents are used to activate the patient's T cells inside the body. These therapeutic agents include:

- **Cytokines.** Cytokines, such as IL-2, are potent chemical messengers produced by the immune system that stimulate T cells and generate an immune response. Although cytokines have demonstrated therapeutic effects in cancer and infectious diseases, they are associated with serious and sometimes

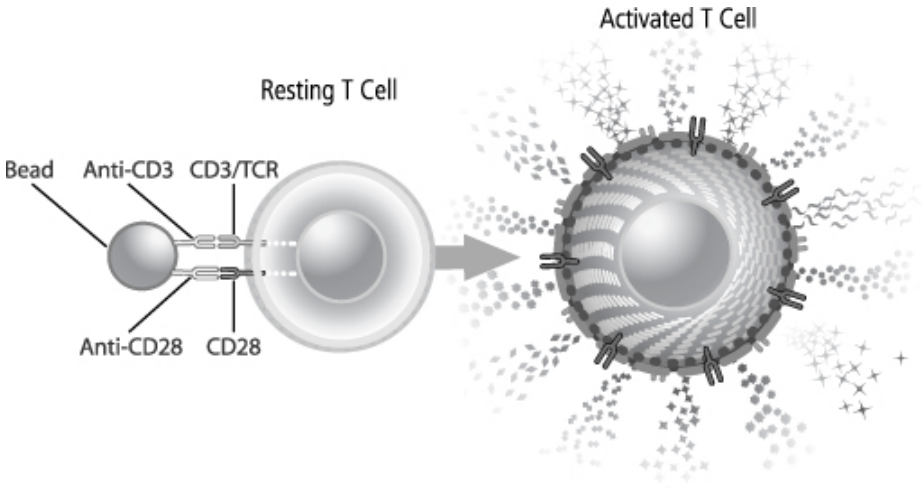
life-threatening side effects when administered to patients. In order to reduce adverse effects, these drugs are often given at decreased doses, which may compromise their therapeutic effects.

- **Monoclonal antibodies.** A variety of different monoclonal antibodies are being developed that target molecules expressed on the surface of T cells. Some of these target molecules activate T cells, while others inhibit T cell activation. By blocking the molecules that inhibit T cell activation, T cell activity can be increased. These antibodies have demonstrated limited therapeutic activity, and some of these molecules have been associated with serious side effects due to overactive T cells.
- **Adjuvants.** Other therapeutic agents known as adjuvants have also been developed to stimulate immune responses. Some of the most potent adjuvants are derived from bacteria that make a variety of molecules that stimulate immune responses. Adjuvants are used for some clinical applications, but their use is limited due to toxicity. Recently, several of the molecules produced by bacteria that activate the immune system have been identified, and some are being developed as immunotherapeutic agents. However, it is unclear whether these individual molecules will retain the therapeutic effects of whole adjuvants.
- **Vaccines.** A number of different vaccines are under development to treat cancer and HIV. These vaccines are made up of antigens expressed by tumor cells or HIV and are often administered with adjuvants. Patients are treated with the goal of stimulating T cells to respond to antigens, so that the T cells become activated and destroy the cancer or virus. However, many patients with cancer or HIV have deficiencies in the quantity, quality or diversity of their T cells, which may limit their ability to generate an effective response to the vaccine. This may be one reason vaccines have been ineffective in treating cancer and HIV.
- **Dendritic cells.** Cells of the immune system known as dendritic cells are being used to stimulate immune responses in patients with cancer. In healthy individuals, dendritic cells deliver both Signal 1 and Signal 2, which activate T cells. For most clinical applications, a patient's own dendritic cells are grown outside of the body and then administered back to the patient. However, the ability to generate dendritic cells varies from patient to patient. Recently, it has been documented that dendritic cells under some circumstances may also make molecules that inhibit T cell responses. In addition, many patients with cancer or HIV have T cell deficiencies, which may limit their ability to respond to dendritic cells. Accordingly, dendritic cells may be limited in their ability to activate patients' T cells and generate effective immune responses.
- **Activated T cells generated using other methods.** To overcome the limitations of activating T cells inside of the body, researchers have attempted to activate and grow patients' T cells *ex vivo*, or outside of the body, before administering them for therapeutic applications. The development of monoclonal antibodies, which are proteins derived from a single clone of antibody-producing cells that bind to well-defined targets, made it possible to develop reagents that bind to the CD3 molecule and deliver Signal 1 to T cells. These antibodies are used to activate and grow T cells outside of the body. However, the process generates only one of the two signals required to activate T cells. Without Signal 2, this results in limited activity, growth and survival of T cells in the laboratory as well as after their administration into patients. Some recent approaches use antigens to target T cell receptors to generate antigen-specific T cells. However, these approaches result in a restricted T cell response that may not be effective for many clinical applications requiring broader T cell responses.

OUR SOLUTION

Our therapeutic approach

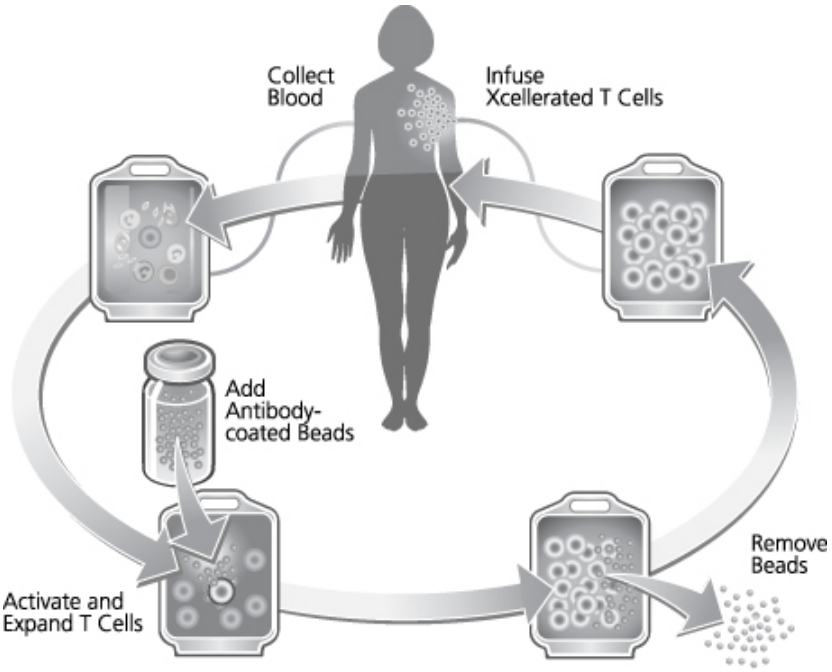
We have developed our patented and proprietary Xcellerate Technology, which can be used to consistently activate and grow large numbers of T cells outside of the body for therapeutic applications. The cells generated with this process, which we call Xcellerated T Cells, have the broad diversity of T cell receptors that we believe are required to recognize and eliminate cancer and infectious diseases. These activated T cells secrete a wide spectrum of molecules, such as cytokines, and express a broad range of molecules on their cell surfaces to generate an effective immune response. In addition, T cells generated using an earlier version of our proprietary technology have been shown to survive for more than one year after infusion in patients. We believe the long-term survival of these cells may lead to sustained therapeutic responses.



Our patented Xcellerate Technology is used in a process that employs magnetic beads, which are plastic-coated magnetic microspheres, densely covered with two monoclonal antibodies that deliver Signal 1 and Signal 2 to activate T cells. One of the monoclonal antibodies delivers Signal 1 to T cells by binding directly to the CD3 molecule. Our Xcellerate Technology also uses another monoclonal antibody that binds to the CD28 molecule to deliver Signal 2 to T cells. We attach both of these monoclonal antibodies to the surface of magnetic beads. When T cells bind to the monoclonal antibodies on these magnetic beads, they become activated and significantly increase in number. We believe these magnetic beads can provide the signals required to activate and grow a broad spectrum of T cells characterized by a diverse T cell receptor repertoire. These Xcellerated T Cells are then administered to the patient with the goal of restoring the health of the patient's immune system and ability to eliminate cancer and infectious diseases.

To produce Xcellerated T Cells, white blood cells, a rich source of T cells, are first collected from a patient's blood in an outpatient clinical setting using a standard procedure called leukapheresis. These cells are sent to our cGMP manufacturing facility, where they are frozen and stored. When needed, the cells are thawed and processed in a closed system to avoid exposure to the outside environment, reducing the risk of microbial contamination. In this process, the patient's white blood cells are placed in a sterile, custom disposable bioreactor containing a solution of nutrients and a low level of IL-2 that sustains the

growth of the T cells. We then add our microscopic magnetic beads. These beads are covered with our two monoclonal antibodies, which deliver Signal 1 and Signal 2 to activate the T cells in the solution. During an approximately 10-day period after the application of the beads, the T cells become activated and rapidly increase in number. At the end of this period, the antibody-coated magnetic beads are substantially removed with a magnetic device. The Xcellerated T Cells are then frozen for increased shelf life. We have documented that we can store the Xcellerated T Cells in a frozen state for at least 12 months without significant loss of activity. When requested by the physician, the frozen Xcellerated T Cells are shipped to the outpatient clinic where they are thawed and administered by intravenous infusion in approximately two hours.



For safety purposes and regulatory compliance, we have established procedures designed to track patients' cells during the manufacture and shipment of Xcellerated T Cells. Each patient receives a unique identifying number that also contains a code for the clinical site where they are being treated. This unique identifying number is used to track, monitor and record all documentation, labels and materials relating to the production of the patient's Xcellerated T Cells from blood collection through infusion of the final product. Before the product is shipped to the clinical site, we conduct quality control procedures in our laboratory. These procedures are designed to assure that Xcellerated T Cells meet strict quality control criteria such as T cell purity, dosage, potency, safety and sterility.

Benefits of Xcellerated T Cells

We believe Xcellerated T Cells may be an effective treatment for cancer and infectious diseases and may have the following clinical benefits:

- **Increased T cell quantity.** Our Xcellerate Technology can be used to activate and grow more than 100 billion T cells, representing a 250-fold increase in T cells during the manufacturing process. One

hundred billion T cells represents 25% to 30% of the total number of T cells found in healthy individuals. We believe this number of Xcellerated T Cells is sufficient to generate therapeutic effects in patients with cancer, infectious diseases and autoimmune diseases. In our ongoing Phase I/II clinical trial in multiple myeloma, we already have evidence that treatment with Xcellerated T Cells leads to rapid T cell and lymphocyte recovery in patients treated with high-dose chemotherapy and autologous stem cell transplantation.

- **Prolonged T cell survival.** In a clinical trial, T cells activated using an earlier version of our proprietary technology have been documented to survive in the body for more than a year after their administration. We believe the prolonged survival of Xcellerated T cells may enable less frequent administration than existing therapeutic products for cancer and infectious diseases.
- **Improved T cell quality.** Xcellerated T Cells can secrete a broad spectrum of cytokines and express many important surface molecules required to generate an effective immune response. In laboratory studies, our Xcellerate Technology has been used to restore healthy immune responses in T cells from patients with leukemia. These Xcellerated T Cells have been shown to mark patients' leukemic cells for destruction by the immune system. The studies have also shown that the Xcellerated T Cells directly kill the patient's tumor cells. In our ongoing Phase I/II clinical trial in CLL, patients treated with Xcellerated T Cells have shown approximately 50% or greater reductions in the size of their enlarged lymph nodes and spleens.
- **Broadened T cell diversity.** Our Xcellerate Technology generates T cells with a broad variety of T cell receptors. We have shown in the laboratory that our Xcellerate Technology can be used to significantly broaden the diversity of the narrow T cell repertoire found in many cancer patients. In laboratory studies, one of our scientific founders has independently demonstrated similar results in a clinical trial in HIV patients. In our Phase I/II ongoing clinical trial in multiple myeloma, we have preliminary evidence that Xcellerated T Cells can be used to restore a broad T cell repertoire after administration into patients.
- **Favorable side effect profile.** Xcellerated T Cells are produced from T cells originating from the patient. We believe that using a patient's own cells may result in a safer product than chemotherapy drugs. Xcellerated T Cells and T cells generated using an earlier version of our proprietary technology have been administered to over 100 patients in clinical trials. The therapy has been generally well-tolerated. The side effects associated with administration of Xcellerated T Cells are typically minor and similar to those observed with infusions of other kinds of cells, such as red blood cells or frozen cell products.
- **Complementary to other therapies.** We believe Xcellerated T Cells have a favorable side effect profile and provide a novel therapeutic approach to treat cancer and infectious diseases. Accordingly, we believe they may be complementary to current therapies, such as chemotherapy, radiation and monoclonal antibodies. Xcellerated T Cells may help repair the damage to the immune system caused by chemotherapy or other drugs that suppress the immune system. In addition, we believe Xcellerated T Cells may be combined with anti-viral drugs as well as therapies that activate the immune system, such as cancer vaccines. We and other clinical investigators have performed both preclinical animal studies as well as laboratory studies using patients' tissues demonstrating the feasibility of using this approach to improve the potential efficacy of combining T cells activated with our proprietary technology with cancer vaccines.

Benefits of our Xcellerate Technology

We believe our Xcellerate Technology may have the following benefits:

- ***Ex vivo* process.** We designed our Xcellerate Technology to be used outside of the body. This allows us to grow and monitor Xcellerated T Cells in a controlled environment where we can provide optimal conditions for the activation and growth of T cells.

- **Broad clinical applications.** Based on recent clinical trials, we believe our Xcellerate Technology can be applied to a variety of diseases. We have demonstrated in the laboratory as well as in our cGMP manufacturing facility that our Xcellerate Technology can be used to activate and grow T cells from patients with a variety of cancers, including kidney cancer, prostate cancer, non-Hodgkin's lymphoma, multiple myeloma and leukemia. Other clinical investigators have used an earlier version of our proprietary technology to activate and grow T cells from HIV patients for clinical applications. Recently, we have demonstrated in the laboratory that we can use our Xcellerate Technology to activate and grow T cells from patients with autoimmune diseases, including rheumatoid arthritis, systemic lupus erythematosus and scleroderma.
- **Ease of administration.** We initially collect a patient's white blood cells, a rich source of T cells, in a standard outpatient procedure called leukapheresis. After our process is completed, Xcellerated T Cells are administered in approximately two hours using a routine intravenous procedure in an outpatient clinic. This is similar to what is performed today in most oncology practices where chemotherapy, monoclonal antibodies and red blood cell transfusions are administered intravenously.
- **Reproducible and cost-effective manufacturing.** We use the same standardized process to produce Xcellerated T Cells for all patients. Other than our proprietary components, our Xcellerate Technology incorporates commercially available products and standard clinical and blood bank supplies, which enables us to efficiently manufacture Xcellerated T Cells. We do not require materials that must be obtained by surgery, such as samples of the patient's tumor. We can freeze the cells we initially collect from our patients as well as freeze the Xcellerated T Cells we generate from those cells. We have documented storage of Xcellerated T Cells in our facility for at least 12 months without significant loss of activity. Freezing may enable us to generate several Xcellerated T Cell treatments from one manufacturing procedure. In addition, we believe freezing should allow us to supply Xcellerated T Cells to patients throughout the United States from a central manufacturing site.

OUR STRATEGY

Our goal is to be a leader in the field of T cell therapy and to leverage our expertise in T cell activation to develop and commercialize products to treat patients with cancer, infectious diseases, autoimmune diseases and compromised immune systems. Key elements of our strategy include the following:

- **Maximize speed to market.** We plan to initiate one or more pivotal clinical trials in CLL, multiple myeloma or non-Hodgkin's lymphoma in 2005. We believe these clinical indications provide the most rapid and cost-effective commercialization strategy for Xcellerated T Cells. We believe that focusing on life-threatening diseases can facilitate rapid entry into the market for Xcellerated T Cells. The FDA has adopted fast track approval and priority trial procedures for therapies that address life-threatening diseases, and we may apply for fast track designation. In addition, we intend to apply for FDA orphan drug status for Xcellerated T Cells for those cancers that qualify, including CLL, multiple myeloma and kidney cancer.
- **Expand the application of Xcellerated T Cells.** In addition to cancer and HIV, we believe Xcellerated T Cells can be used to treat patients with other illnesses, including infectious diseases, such as hepatitis. In addition, we are studying the potential therapeutic benefits of Xcellerated T Cells in patients with autoimmune diseases treated with immunosuppressive drugs and in patients with compromised immune systems, such as those with congenital immunodeficiencies. We may also expand the application of Xcellerated T Cells to other types of cancer. We are also exploring the use of Xcellerated T Cells in patients with autoimmune diseases who have been treated with immunosuppressive drugs. In addition to our own clinical trials, our scientific founders are conducting a number of independent clinical studies using an earlier version of our proprietary technology for additional clinical applications. Based on the results of their studies, we may pursue some of these clinical opportunities using Xcellerated T Cells.

- **Leverage complementary technologies and therapies.** Xcellerated T Cells may be effective in combination with current treatments for cancer and infectious diseases, such as chemotherapy. We believe Xcellerated T Cells may help ameliorate the effects of immunosuppression associated with treatment of autoimmune diseases. We also intend to explore opportunities to combine complementary technologies and therapies, such as cancer vaccines and monoclonal antibodies, with Xcellerated T Cells. In addition, we may supplement our internal efforts by acquiring or licensing technologies and product candidates that complement our Xcellerate Technology.
- **Retain key commercialization rights and pursue strategic partnerships.** We intend to retain marketing and commercialization rights in North America for products in specialized markets, such as cancer. We may seek development and marketing support for clinical indications that have broader patient populations in North America. In addition, we plan to pursue strategic partnerships with biopharmaceutical companies to obtain development and marketing support for territories outside North America, such as Europe and Asia.
- **Enhance manufacturing capabilities.** We have a major focus on developing an efficient and cost-effective process to manufacture Xcellerated T Cells. We currently produce T cells for clinical trials using a cost-effective process that is readily scaleable. We intend to make additional improvements to our manufacturing procedures and components, which should further reduce the costs of manufacturing. In addition, we plan to optimize our manufacturing process for other disease indications in the future.
- **Expand our intellectual property.** We have a portfolio of issued patents and patent applications that we own or exclusively license, which we believe provides patent coverage for our Xcellerate Technology. As we continue to improve our Xcellerate Technology, including developing process improvements and improving the activity and the specificity of Xcellerated T Cells, we intend to file patents to protect these improvements.

CLINICAL APPLICATIONS

The table below summarizes the current status of clinical trial applications that use our proprietary technology:

Disease and indication	Clinical trial status	Sponsor	# of patients treated/planned
Cancer—Hematological malignancies			
CLL	Ongoing Phase I/II	Xcyte	11/18
Multiple myeloma			
ø Post-autologous stem cell transplant	Ongoing Phase I/II	Xcyte	33/35
	Ongoing Phase I/II	Physician	40/40
ø Non-transplant	Planned Phase II(1)	Xcyte	—
Non-Hodgkin's lymphoma	Completed Phase I	Physician	16/16
	Planned Phase II(2)	Xcyte	—
Cancer—Solid tumors			
Kidney cancer	Completed Phase I/II	Xcyte	25/25
Prostate cancer	Completed Phase I/II	Xcyte	19/20
HIV	Completed Phase I	Physician	8/8
	Ongoing Phase II	Physician	12/24

(1) We plan to initiate this Phase II clinical trial with 30 patients in the first quarter of 2004.
(2) We plan to initiate this Phase II clinical trial with 40 patients in the second quarter of 2004.

Cancer

The American Cancer Society estimates that 1.3 million new cases of cancer will occur in the United States in 2003. Many cancer patients are treated with chemotherapy drugs, which often have limited efficacy and are associated with severe and sometimes life-threatening side effects. Physicians have recently begun to recognize the important role that the immune system may play in controlling cancer. As a result, immune-based therapeutic products, such as monoclonal antibodies, have become important drugs used to treat patients with cancer. These therapeutic products have become more widely used not only because of their efficacy, but also because they are generally better tolerated than chemotherapy.

Hematological malignancies

Hematological malignancies are cancers of the blood or bone marrow. The American Cancer Society estimates that there will be approximately 106,200 new cases of hematological malignancies in the United States in 2003. Hematological malignancies include leukemia, non-Hodgkin's lymphoma, multiple myeloma and Hodgkin's lymphoma. Because hematological malignancies have usually spread throughout the body by the time of diagnosis, they typically require treatment with chemotherapy. Recently, immune-based therapeutic products have been developed to treat some hematological malignancies. Most kinds of hematological malignancies, including CLL, multiple myeloma and the vast majority of non-Hodgkin's lymphomas, are cancers of lymphocytes known as B cells. In healthy individuals, T cells control the proliferation of B cells. However, in patients with B cell malignancies, T cells are abnormal, and this may contribute to uncontrolled B cell proliferation and tumor progression.

CLL

- **Background.** According to third party sources, approximately 73,000 patients have CLL in the United States, and there will be 7,300 new cases of CLL and 4,400 deaths due to this disease in the United States in 2003. The disease is characterized by proliferation of malignant lymphocytes in the bone marrow, lymph nodes and spleen, which leads to an increase in white blood cell counts, as well as enlarged lymph nodes and spleens in most patients. A number of chemotherapy drugs can be used to treat leukemia. Recently, the FDA approved two drugs, fludarabine, a chemotherapy agent, and Campath, a monoclonal antibody, to treat CLL. These drugs are effective in some patients but do not cure the disease. Both fludarabine and Campath are powerful drugs that destroy all lymphocytes, including those that are normal as well as malignant. Consequently, patients treated with these drugs suffer from severe T cell deficiencies, which increase the risk of infection.
- **Clinical data.** In 2003, we began treating patients with CLL with a single infusion of Xcellerated T Cells with no other therapy in a Phase I/II clinical trial. The National Institutes of Health awarded us an SBIR grant of approximately $1.2 million to help fund this trial. We plan to treat a minimum of three patients at each of three different dose levels of 10, 30 and 60-100 billion Xcellerated T Cells and a total of approximately 18 patients in this clinical trial. Serious injury has sometimes occurred with other therapeutic agents used to treat CLL due to rapid destruction of leukemic cells. To reduce this risk, we are starting with a low dose in this trial and are gradually increasing the dose of Xcellerated T Cells. A total of 11 patients have been treated to date with early clinical results available on the first six patients. The treatment has been well tolerated. In addition, we have documented approximately 50% or greater reduction in the size of enlarged lymph nodes and of enlarged spleens in all six evaluable patients.

We plan to initiate a randomized, Phase II clinical trial in which patients will be treated with Campath with or without subsequent treatment with Xcellerated T Cells. Use of Campath is a standard treatment for CLL but increases the risk of infection in part because Campath eradicates nearly all T cells for several months following treatment. In addition, although Campath can decrease leukemic cell counts in

the blood, it has less therapeutic activity in the lymph nodes of CLL patients. Accordingly, we believe there is a strong clinical rationale for combining Xcellerated T Cells with Campath.

Multiple myeloma

- **Background.** Multiple myeloma is a form of cancer that usually originates in the bone marrow and has metastasized to multiple bone sites by the time of diagnosis. According to third-party sources, approximately 47,000 patients have multiple myeloma in the United States, approximately 14,600 new patients will be diagnosed with multiple myeloma and 10,900 patients will die of the disease in the United States in 2003. Chemotherapy has been the most common form of treatment for multiple myeloma. More recently, physicians started using drugs such as Velcade and thalidomide to treat this disease. These drugs can temporarily reduce the tumor load in patients with myeloma but only rarely eradicate the disease. The most effective therapeutic approach for treatment of multiple myeloma is high-dose chemotherapy followed by autologous stem cell transplantation. However, this therapy is not curative, and only approximately 25% of patients achieve a complete response. In addition, patients whose lymphocyte counts recover slowly after transplant have a poor clinical outcome. We believe that administering Xcellerated T Cells may be able to accelerate lymphocyte recovery and improve the clinical outcome of these patients.

- **Clinical data.** In December 2002, we initiated an ongoing Phase I/II clinical trial in which we plan to treat 35 patients with multiple myeloma. Patients are being treated with a single infusion of Xcellerated T Cells three days following high-dose chemotherapy and autologous stem cell transplantation. In this trial we have treated 33 patients with a single infusion of Xcellerated T Cells. Treatment with Xcellerated T Cells has been generally well tolerated. Lymphocyte recovery and T cell recovery in all 28 evaluable patients has been much more rapid than observed in a comparable group of patients who did not receive Xcellerated T Cells after stem cell transplantation. Rapid lymphocyte recovery has been correlated with improved prognosis and increased survival in previous independent clinical studies.

  Additionally, we and others have demonstrated that the diversity of the T cell receptor repertoire is extremely limited in patients with multiple myeloma. In our clinical trial, the T cell receptor repertoire demonstrated a normal pattern in four of the first five evaluable patients by four weeks after stem cell transplantation. In contrast, in multiple myeloma patients who do not receive Xcellerated T Cells, it typically takes more than a year for the limited T cell receptor repertoire to return to normal after transplant. We believe the improvements in the time to lymphocyte recovery and diversity of the T cell repertoire may lead to a better clinical outcome in these patients. We are currently monitoring these patients for infections, days in hospital and other clinical parameters that may be associated with immune recovery. We are also evaluating tumor responses and expect that preliminary data will become available during the first half of 2004.

  In an ongoing Phase I clinical trial, one of our scientific founders and his collaborators have treated 40 multiple myeloma patients with activated T cells following high-dose chemotherapy and autologous stem cell transplantation. These patients received T cells activated using an earlier version of our proprietary technology. Administration of activated T cells was generally well-tolerated and associated with rapid lymphocyte and T cell recovery. In addition, tumor responses have been documented in a majority of these patients.

We are planning to initiate a Phase II clinical trial in multiple myeloma in the non-transplant setting. We plan to enroll approximately 30 patients who have failed prior therapies. Patients in this planned trial will be randomized to treatment with either a single infusion of Xcellerated T Cells alone or treatment

with the drug fludarabine followed by a single infusion of Xcellerated T Cells. This trial is designed to evaluate whether treatment with Xcellerated T Cells is effective as a stand-alone therapy and whether fludarabine can enhance the anti-tumor effects of Xcellerated T Cells in patients with multiple myeloma.

Non-Hodgkin's lymphoma

- **Background.** Non-Hodgkin's lymphoma is a cancer that originates in the lymph nodes of the body. According to third-party sources, approximately 300,000 patients have non-Hodgkin's lymphoma, and approximately 53,000 new patients will be diagnosed with this disease in the United States in 2003. About 60% of newly diagnosed patients have an aggressive disease course, while approximately 40% of patients have a slow growing, low-grade form of the disease. Chemotherapy and radiation are used to treat patients with non-Hodgkin's lymphoma. More recently, immune-based therapeutic products, such as the monoclonal antibody Rituxan, have increasingly been used alone or in combination with chemotherapy. Patients with low-grade lymphoma often respond to Rituxan treatment, but they cannot be cured with any form of therapy. These patients eventually become refractory to all forms of therapy and die from their disease. Patients with aggressive non-Hodgkin's lymphoma may be cured with chemotherapy treatment. However, most patients relapse or fail to respond to therapy and have a poor prognosis. Some of these patients may be treated with high-dose chemotherapy followed by an autologous stem cell transplant, but there are few patients with long-term survival.

- **Clinical data.** A physician-sponsored clinical trial was conducted in 16 non-Hodgkin's lymphoma patients with aggressive disease and a poor prognosis. The patients were treated with high-dose chemotherapy and an autologous stem cell transplant followed by administration of a single infusion of activated T cells generated using an earlier version of our proprietary technology. In this group of patients with a very poor prognosis, there were several patients with long-term survival and complete responses, which mean the absence of detectable disease using conventional detection methods. The results of this clinical trial were published in the medical journal *Blood* in September 2003.

We believe administration of Xcellerated T Cells may increase the lymphocyte counts of patients with low-grade lymphoma. Recent studies have demonstrated a correlation between lymphocyte counts in patients with low-grade lymphoma and their survival. In addition, low-grade lymphoma has many similar characteristics to CLL. However, in contrast to CLL, tumor cells are rarely found on routine examination of the blood in patients with lymphoma. The primary site of disease in patients with low-grade lymphoma is the lymph nodes. Based on the effects that we have documented in the lymph nodes in patients with CLL, we plan to initiate a Phase II clinical trial to test whether Xcellerated T Cells can be used to treat patients with low-grade lymphoma.

Solid tumors

Solid tumors are cancers that originate in organs of the body. The American Cancer Society estimates that there will be over one million new patients with solid tumors, such as breast, prostate, kidney, lung, liver and colon cancers and approximately 500,000 people will die from these types of cancers in the United States in 2003. These cancers are typically treated with surgery or radiation. Chemotherapy is used with limited success in treating solid tumors such as breast cancer, but it is generally ineffective in curing patients once the cancer has spread or metastasized. Recently, immune-based therapeutic products, including monoclonal antibodies, such as Herceptin, are being used to treat patients with solid tumors, such as breast cancer and ovarian cancer.

Kidney cancer

- Background. The American Cancer Society estimates that approximately 31,900 patients will be diagnosed with kidney cancer in the United States in 2003. Approximately one-third of the patients

with kidney cancer will develop metastatic disease. Once patients develop metastatic disease, they have a very poor prognosis with an average survival of approximately one year. According to third-party sources, the five-year survival for patients with metastatic kidney cancer is less than 5%, and approximately 12,000 deaths are expected to occur in the United States in 2003. The only drug currently approved by the FDA for treating metastatic kidney cancer is IL-2, a cytokine that activates T cells and increases lymphocyte counts. However, the FDA-approved regimen requires extremely high doses of IL-2, which are associated with serious and life-threatening side effects. Several recent clinical studies have demonstrated a strong correlation between the increase in lymphocyte counts that occurs with IL-2 therapy and clinical outcome in patients with metastatic kidney cancer. We believe administration of Xcellerated T Cells may improve the clinical outcome in these patients by boosting lymphocyte counts.

- **Clinical data.** In February 2003, we completed a Phase I/II clinical trial of Xcellerated T Cells in 25 patients with metastatic kidney cancer. In this clinical trial, patients were treated with two infusions of Xcellerated T Cells approximately four weeks apart. After each infusion of Xcellerated T Cells, patients were treated with low doses of IL-2. The therapy was generally well-tolerated. We also observed significant reduction of bone metastases in two patients. Furthermore, lymphocyte counts significantly increased with treatment, and there was a trend to increased post-infusion survival in patients achieving higher lymphocyte counts. The median survival in these patients was 21 months. Several independent clinical trials have shown that the median survival in patients with metastatic kidney cancer is approximately 12 months. The results of our clinical trial were reported in the medical journal *Clinical Cancer Research* in September 2003.

We are evaluating the feasibility of a pivotal clinical trial in kidney cancer. We are also evaluating partnership opportunities to support further development of this clinical indication.

Prostate cancer

- **Background.** Prostate cancer is the most common form of cancer in men in the United States. The American Cancer Society estimates that there will be 220,900 new cases and approximately 28,900 patients will die of prostate cancer in the United States in 2003. Patients with prostate cancer can be cured by surgery if the disease is localized. However, once the disease spreads to other organs, it cannot be cured with the current standard treatment, which is hormonal therapy. For patients with advanced prostate cancer who have failed standard hormonal therapy, there are currently no treatments that have been demonstrated to improve survival.

- **Clinical data** In June 2003, we completed a Phase I/II clinical trial in 19 patients with hormone-refractory prostate cancer. Patients were treated with a single infusion of Xcellerated T Cells. The
therapy was generally well tolerated and led to significant and sustained increases in patients' lymphocyte counts. Two patients demonstrated greater than 50% decreases in serum levels of the tumor marker, PSA. In some independent clinical studies, decreases in PSA levels have been shown to correlate with improved survival in patients with prostate cancer.

HIV

- **Background.** According to third party sources, there are over 800,000 individuals infected with HIV in the United States. HIV patients are at increased risk of infections and cancer. In HIV, patients' T cells become infected with the virus, leading to low numbers of T cells and an extremely narrow T cell receptor repertoire. According to independent clinical studies, it has been shown that increasing T cell count and restoring T cell repertoire are associated with improved clinical outcome. Patients with HIV are currently treated with combinations of anti-viral drugs known as highly active antiretroviral

therapy, or HAART. Although HAART is effective in suppressing the virus and delaying the onset of acquired immunodeficiency syndrome, or AIDS, HAART often ceases being effective in a significant number of patients. HAART is also associated with serious side effects.

- **Clinical data.** One of our scientific founders independently demonstrated in the laboratory that T cells activated using an earlier version of our proprietary technology were resistant to infection with HIV. Based on this observation, he and his collaborators conducted a preclinical study in an HIV model in monkeys and a clinical trial in HIV patients who had decreased T cell counts. The preclinical monkey model study showed that T cells activated using our proprietary technology administered after one month of anti-viral drug therapy suppressed viral infection for more than a year. The results of this study were published in the medical journal *Blood* in January 2002. In the human clinical trial, eight HIV patients were administered T cells activated using an earlier version of our proprietary technology. The results were published in the medical journal *Nature Medicine* in January 2002, where it was reported that the treatment increased the average of the patient population's T cell counts to within the normal range for at least one year following initiation of therapy. In laboratory studies, the investigators also demonstrated that they were able to restore a broad T cell receptor diversity in the T cells that were produced using this technology.

Based on these preclinical and clinical studies, we have initiated preclinical studies and plan to conduct clinical trials using Xcellerated T Cells to treat patients infected with HIV. In addition, one of our scientific founders is independently conducting clinical trials using genetically modified T cells grown using an earlier version of our proprietary technology to treat patients infected with HIV, the results of which are not yet available.

Autoimmune diseases

An overactive immune system is believed to play a central role in a variety of illnesses classified as autoimmune diseases, including rheumatoid arthritis, systemic lupus erythematosus and scleroderma. Attempts to control the disease with therapeutic agents that suppress the immune system are often effective. However, some patients have more serious forms of these diseases and do not respond to conventional therapy, while others experience serious side effects from these chronic immunosuppressive therapies. Recently, high-dose chemotherapy and/or radiation have been used with autologous stem cell transplantation to eradicate these patients' diseased immune systems in an attempt to cure several of these diseases. Although effective in many patients, this form of therapy has been associated with serious and life-threatening toxicities. Many scientists now believe that certain populations of T cells play a central role in causing several autoimmune diseases. This is manifested by narrowing of the T cell receptor repertoire, which has been shown to return to normal when patients with some of these diseases achieve remission. Many therapeutic agents are available that can selectively eliminate T cells without causing the serious toxicities associated with the intensive regimens used with stem cell transplantation. We believe that if our Xcellerate Technology can be used to generate healthy T cells from patients with autoimmune diseases, it may be possible to administer Xcellerated T Cells to restore a healthy immune system after patients are treated with drugs that eliminate T cells in the body.

We have demonstrated in laboratory studies that our Xcellerate Technology can be used to activate and grow T cells from patients with several autoimmune diseases, including rheumatoid arthritis, systemic lupus erythematosus and scleroderma. These studies have also shown that we can restore the narrow T cell repertoire characteristic of many of these patients to a more normal diverse pattern using our Xcellerate Technology. We plan to initiate a clinical trial using this approach in patients with serious forms of autoimmune diseases if future preclinical studies achieve successful results.

RESEARCH AND DEVELOPMENT

As of November 20, 2003, we had a total of 31 employees dedicated to research and development, including eight with advanced degrees. We spent approximately $50.7 million from January 1, 2000 through September 30, 2003 on the research and development of our Xcellerate Technology and Xcellerated T Cells. Our internal research and development efforts are focused on:

- **Improving our Xcellerate Technology.** We intend to continuously evaluate and improve our Xcellerate Technology. We have reduced the overall average process time for manufacturing Xcellerated T Cells from 14 days to approximately 10 days. We have developed methods that further simplify our Xcellerate Technology, allowing us to increase our production yield, reduce labor and materials and lower the costs associated with the production of Xcellerated T Cells.
- **Increasing the therapeutic activity of Xcellerated T Cells.** We intend to continuously evaluate and improve the therapeutic activity of Xcellerated T Cells. We are currently evaluating whether other molecules of the immune system or genes could be used to improve the therapeutic activity of Xcellerated T Cells. We are working with several groups to evaluate using Xcellerated T Cells in conjunction with recently discovered antigens to specifically target cancers and infectious diseases associated with those antigens. We have conducted laboratory studies demonstrating that we can generate large numbers of antigen-specific Xcellerated T Cells with anti-tumor activity in several types of cancer, including melanoma, breast cancer, kidney cancer and lung cancer.
- **Developing additional clinical indications for Xcellerated T Cells.** There are many medical conditions that are associated with deficiencies in T cells. We are currently studying the potential to use Xcellerated T Cells to treat these illnesses. For example, patients with autoimmune diseases are treated with immunosuppressive drugs that damage their immune systems. We have demonstrated in laboratory studies that we can activate and grow T cells and restore a normal T cell repertoire in patients with several of these diseases. In addition, we are planning to study the use of Xcellerated T Cells in patients with congenital immunodeficiencies. Finally, we are interested in exploring the potential therapeutic use of Xcellerated T Cells in the elderly, who often have weakened immune systems.

MANUFACTURING AND SUPPLY

We designed, built and operate our pilot facility in Seattle, Washington in accordance with cGMP. We use this facility to manufacture Xcellerated T Cells for clinical trials. We have also leased an additional facility that we intend to develop to manufacture Xcellerated T Cells for our planned clinical trials and, if we obtain FDA approval, initial commercialization. We expect to begin manufacturing Xcellerated T Cells at this facility in the second half of 2004. Except for our antibody-coated beads and custom bioreactor system, all of the components that are required to implement our Xcellerate Technology are commercially available products and standard clinical and blood bank supplies.

In August 1999, we entered into a contract with Dynal for the cGMP-grade manufacture of our antibody-coated beads for clinical and future commercial uses. For completed milestones, we have paid Dynal $2.5 million as of September 30, 2003 and, assuming the remaining milestones are completed, we will be obligated to pay an additional $0.5 million. The agreement will terminate in August 2009 or earlier upon material breach by either party. The term may be extended for an additional five years by either party.

In June 2000, we entered into two service agreements with Lonza, which were subsequently amended, for the cGMP-grade manufacture of the two monoclonal antibodies for use with our antibody-coated

beads. Under the terms of these agreements, we are obligated to make payments to Lonza. We have paid $4.9 million as of September 30, 2003. These agreements may be terminated by either party for breach.

COMPETITION

The biotechnology and pharmaceutical industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. Many entities, including pharmaceutical and biotechnology companies, academic institutions and other research organizations are actively engaged in the discovery, research and development of products that could compete with our products under development. They may also compete with us in recruiting and retaining skilled scientific talent.

There are numerous pharmaceutical and biotechnology companies that are developing therapies for cancer and infectious disease generally, and many of these companies are focused on activating the immune system using therapeutic agents, including monoclonal antibodies, cytokines, vaccines, adjuvants, dendritic cells, nucleotides and cells. We are currently aware of several companies developing *ex vivo* cell-based immunotherapy products as a method of treating cancer and infectious diseases. These competitors include Antigenics, Inc., CancerVax Corporation, Cell Genesys, Inc., CellExSys, Inc., Dendreon Corporation, Favrille, Inc., Genitope Corporation, IDM, S.A., Kirin Pharmaceutical and Valeocyte Therapies. Even if our Xcellerate Technology proves successful, we might not be able to remain competitive in this rapidly advancing area of technology. Some of our potential competitors may have more financial and other resources, larger research and development staffs and more experienced capabilities in researching, developing and testing products. Some of these companies also have more experience than us in conducting clinical trials, obtaining FDA and other regulatory approvals and manufacturing, marketing and distributing medical products. Smaller companies may successfully compete with us by establishing collaborative relationships with larger pharmaceutical companies or academic institutions. Our competitors may succeed in developing, obtaining patent protection for or commercializing their products more rapidly than us. A competing company developing, or acquiring rights to, a more effective therapeutic product for the same diseases targeted by us, or one that offers significantly lower costs of treatment, could render our products noncompetitive or obsolete.

INTELLECTUAL PROPERTY

We rely on a combination of patent, trademark, copyright and trade secret laws to protect our proprietary technologies and products. We aggressively seek US and international patent protection to further our business strategy and for major components of our Xcellerate Technology, including important antibody components and methods of T cell activation. We also rely on trade secret protection for our confidential and proprietary information. We enter into licenses to technologies we view as necessary.

We have a portfolio of issued patents and patent applications, which we believe provides patent coverage for our Xcellerate Technology. As of September 30, 2003, we owned or held exclusive rights to six issued patents and numerous pending patent applications in the United States in the field of or directed to *ex vivo* T cell stimulation. Two of the issued patents relate to methods of stimulating T cells utilized by our Xcellerate Technology and expire in 2019 and 2020, while two other issued patents, which expire in 2016, relate to a method of stimulating T cells and an antibody that we are not currently using. The final two issued patents expire in 2020 and are in the field of or directed to immunosuppression and the treatment and prevention of immune disorders and immunorejection of transplanted material. We also

have numerous currently pending foreign patent applications and five issued foreign patents corresponding to our T cell stimulation technology.

In general, we apply for patent protection of methods and products relating to immunotherapy for treatment of cancer, immune deficiencies, autoimmune diseases and infectious diseases. With respect to proprietary know-how that is not patentable, we have chosen to rely on trade secret protection and confidentiality agreements to protect our interests. We have taken security measures to protect our proprietary know-how, technologies and confidential data and continue to explore further methods of protection.

We require all employees, consultants and collaborators to enter into confidentiality agreements, and all employees and most consultants enter into invention assignment agreements with us. The confidentiality agreements generally provide that all confidential information developed or made known to the individual during the course of such relationship will be kept confidential and not disclosed to third parties, except in specified circumstances. These invention agreements generally provide that all inventions conceived by the individual in the course of rendering services to us will be our exclusive property. We cannot assure you, however, that these agreements will provide meaningful protection or adequate remedies for any breach or that our trade secrets will not otherwise become known or be independently discovered by our competitors. Any of these events could adversely affect our competitive position in the marketplace.

In the case of a strategic partnership or other collaborative arrangement which requires the sharing of data, our policy is to disclose to our partner, under controlled circumstances, only data that is relevant to the partnership or arrangement during the contractual term of the strategic partnership or collaborative arrangement, subject to a duty of confidentiality on the part of our partner or collaborator. Disputes may arise as to the ownership and corresponding rights in know-how and inventions resulting from research by us and our corporate partners, licensors, scientific collaborators and consultants. We cannot assure you that we will be able to maintain our proprietary position or that third parties will not circumvent any proprietary protection we have. Our failure to maintain exclusive or other rights to these technologies could harm our competitive position.

To continue developing and commercializing our current and future products, we may license intellectual property from commercial or academic entities to obtain the rights to technology that is required for our discovery, research, development and commercialization activities.

In preparation for the commercial distribution of our products and services if we obtain FDA approval, we have filed a number of trademark applications.

CORPORATE COLLABORATIONS

Part of our strategy is to establish corporate collaborations with pharmaceutical, biopharmaceutical and biotechnology companies for the development and commercialization of our Xcellerate Technology. We focus our efforts on partnering our technologies in markets and diseases that we do not plan to pursue on our own. We target collaborators that have the expertise and capability to develop, manufacture, obtain regulatory approvals for and commercialize our Xcellerate Technology. In our corporate collaborations, we seek to cover our research and development expenses through research funding, milestone payments and technology or license fees. We also seek to retain significant downstream participation in product sales through either profit sharing or product royalties paid on annual net sales.

Taiwan Cell Therapy Company

- In August 2003, we entered into a letter of intent with Taiwan Cell Therapy Company, or TCTC, a company newly formed under the laws of Taiwan. Under this letter of intent we are obligated, subject to certain conditions, to grant TCTC an exclusive license to our Xcellerate Technology in the cellular immunotherapy field in Australia and Asia, excluding Japan, and a non-exclusive license to our Xcellerate Technology outside the cellular immunotherapy field worldwide. The parties' obligations under the letter of intent are conditioned upon, among other things, TCTC closing, or obtaining commitments for, at least US$25 million in equity financing on or before December 30, 2003 and the parties' negotiation of a definitive agreement on or before November 30, 2003.
- The letter of intent sets forth certain terms to be incorporated into a definitive agreement, including our obligation to transfer our Xcellerate Technology, including manufacturing capability, to TCTC and to provide training to TCTC on the use and manufacture of our Xcellerate Technology. The business terms of the letter of intent include issuance of 2% of TCTC's equity to us, potential royalties on net sales and sublicensing revenue, as well as up to US$10 million in license issue fees and potential milestone payments based on clinical trials conducted by TCTC and us. In addition, if we enter into a definitive agreement, we are obligated to purchase US$2.5 million of TCTC equity on the same terms and conditions as the other investors and, under certain circumstances, to pay a percentage of any revenue we receive from granting license rights to our Xcellerate Technology in Japan. Both parties will have diligence obligations to pursue our Xcellerate Technology in their respective territories, and TCTC will have the right to market our Xcellerate Technology in any country in which we will not seek market approval for our Xcellerate Technology within a specified period of time following US approval of our first product.
- The letter of intent will terminate in the event a definitive agreement is not executed prior to November 30, 2003 or if either party elects to terminate it earlier upon material breach by the other party or in our or TCTC's sole discretion subject to payment of a US$200,000 break-up fee.

Technology licenses

Where consistent with our strategy, we seek to obtain technologies that complement and expand our existing technology base. We have licensed and will continue to license technology from selected research and academic institutions, as well as other organizations. Under these license agreements, we generally seek to obtain unrestricted sublicense rights. We are generally obligated under these agreements to pursue product development, make development milestone payments and pay royalties on any product sales. We have not been required to pay any royalties through September 30, 2003. In addition to license agreements, we seek relationships with other entities that may benefit us and support our business goals.

- **Diaclone S.A.** In October 1999, we entered into a license agreement with Diaclone S.A., a French corporation. Under the agreement, Diaclone granted us an exclusive, worldwide license to the monoclonal antibody and the cell line that produces the antibody that binds to the CD28 molecule for the development and commercialization of the antibody for all *ex vivo* uses. We are currently obligated to purchase all our requirements for this monoclonal antibody from Diaclone until we begin preparing for Phase III clinical trials. This agreement has a term of 15 years from the date of first approval by the FDA or its foreign equivalent of a product based on the licensed antibody. We currently do not have FDA approval of any products based on the licensed antibody. At the end of the term, we will have a perpetual, irrevocable, royalty-free, exclusive license. We paid an initial non-refundable license fee of US$75,000 to Diaclone and are required to pay royalties if our product is approved and commercialized.
- **Fred Hutchinson Cancer Research Center.** In October 1999, we entered into a license agreement with the Fred Hutchinson Cancer Research Center. Under the agreement, the Fred Hutchinson Cancer

Research Center granted us a non-exclusive, worldwide license to make, use and sell the monoclonal antibody that binds to the CD3 molecule for T cell stimulation for *ex vivo* uses. We paid an up-front licensing fee of $25,000 to the Fred Hutchinson Cancer Research Center, and we are obligated to pay the Fred Hutchinson Cancer Research Center a royalty fee if our products are commercialized. On December 1, 2000, we amended this license agreement to broaden the field of use to include any *ex vivo* use involving therapeutic and research applications in exchange for an additional non-refundable up-front fee of $25,000 and the issuance of 150,000 shares of our common stock to the Fred Hutchinson Cancer Research Center. This license will remain in effect for 15 years following commercialization of our product.

- **Genetics Institute.** In July 1998, we entered into a license agreement with Genetics Institute, now a subsidiary of Wyeth, Inc. Under the agreement, Genetics Institute granted us an exclusive license for methods of *ex vivo* activation or expansion of human T cells for treatment and prevention of infectious diseases, cancer and immunodeficiency. The technology underlying these methods originated from two of our scientific founders and their collaborators and create the basis for our Xcellerate Technology. The term of the Genetics Institute license runs until the end of the enforceable term of any patents issued for the methods licensed. To date, two patents whose terms expire in 2016 and two other patents whose terms expire in 2019 and 2020 have been issued for the methods licensed. In consideration of the license, we paid a non-refundable up-front license fee of approximately $53,000, issued 145,875 shares of our preferred stock to Genetics Institute and issued a warrant under which Genetics Institute has the right to purchase 194,500 additional shares of our preferred stock, which will convert into a warrant to purchase our common stock after the closing of this offering. We are also obligated to pay royalties to Genetics Institute on sales of products covered by the patents licensed to us under the agreement.

GOVERNMENTAL REGULATION

Governmental authorities in the United States and other countries extensively regulate the preclinical and clinical testing, approval, manufacturing, labeling, storage, record-keeping, reporting, advertising, promotion, import, export, marketing and distribution, among other things, of immunotherapy products and other drugs and biological products. In the United States, the FDA, under the Federal Food, Drug, and Cosmetic Act, the Public Health Service Act and other federal statutes and regulations, subjects pharmaceutical products to rigorous review and regulation. If we do not comply with applicable requirements, we may be fined, our products may be recalled or seized, our clinical trials may be suspended or terminated, our production may be partially or totally suspended, the government may refuse to approve our marketing applications or allow us to distribute our products and we may be subject to an injunction and/or criminally prosecuted. The FDA also has the authority to revoke previously granted marketing authorizations.

In order to obtain approval of a new product from the FDA, we must, among other requirements, submit proof of safety and efficacy as well as detailed information on the manufacture, quality, composition and labeling of the product in a new drug application or a biologics license application. In most cases, this proof entails extensive laboratory tests and preclinical and clinical trials. This testing, the preparation of necessary applications, the processing of those applications by the FDA and review of the applications by an FDA advisory panel of outside experts are expensive and typically take many years to complete. Additionally, the FDA recently formed a new division that will regulate biologic products, such as Xcellerated T Cells. The processes and requirements associated with this new division may cause delays and additional costs in obtaining regulatory approval of our products or regulatory authorization for our clinical trials. The FDA may not act quickly or favorably in reviewing these applications, or may deny

approval altogether, and we may encounter significant difficulties or costs in our efforts to obtain FDA approval, which could delay or preclude us from marketing any products we may develop. The FDA may also require post-marketing testing and surveillance to monitor the effects of approved products or place conditions on any approval that could restrict the commercial applications of these products. The FDA may withdraw product approval if we fail to comply with regulatory standards, if we encounter problems following initial marketing or if new safety or other issues are discovered regarding our products after approval. With respect to patented products or technologies, delays imposed by the governmental approval process may materially reduce or eliminate the period during which we will have the exclusive right to exploit the products or technologies.

In order to conduct research to obtain regulatory approval for marketing, we must submit information to the FDA on the planned research in the form of an investigational new drug application. The investigational new drug application must contain, among other things, an investigational plan for the therapy, a study protocol, information on the study investigators, preclinical data, such as toxicology data, and other known information about the investigational compound. An investigational new drug application generally must be submitted by a commercial sponsor who intends to collect data on the safety and efficacy of a new drug or biological product prior to conducting human trials and submitting an application for marketing approval. In certain circumstances, an investigational new drug application may also be submitted which allows physicians to gain an initial understanding of the compound through an expanded access program. Data from expanded access trials can generally be used to support the safety, but not the efficacy, of a product.

After an investigational new drug application becomes effective, a sponsor may commence human clinical trials. The sponsor typically conducts human clinical trials in three sequential phases, but the phases may overlap. In Phase I clinical trials, the product is generally tested in a small number of patients or healthy volunteers primarily for safety at one or more doses. In Phase II, in addition to safety, the sponsor typically evaluates the efficacy of the product in a patient population somewhat larger than Phase I clinical trials. It is customary in cancer clinical trials for the FDA to allow companies to combine Phase I and Phase II clinical trials into a Phase I/II clinical trial. Phase III clinical trials typically involve additional testing for safety and clinical efficacy in an expanded population at geographically dispersed test sites and are intended to generate the pivotal data on which a marketing application will be based. The studies must be adequate and well-controlled and otherwise conform to appropriate scientific and legal standards.

Prior to the commencement of each clinical trial, the sponsor must submit to the FDA a clinical plan, or protocol, accompanied by the approval of an institutional review board responsible for protecting the welfare of study subjects for a site participating in the trials. The sponsor must also ensure that investigators obtain informed consent from all study subjects prior to commencement of each study, and the sponsor must comply with monitoring, reporting and so-called good clinical practice requirements throughout the conduct of the study, among other legal requirements. The FDA may prevent an investigational new drug application from taking effect, or may order the temporary or permanent discontinuation of a clinical trial, at any time. An institutional review board may also prevent a study from going forward, or may temporarily or permanently discontinue a clinical trial, at any time. If a study is not conducted in accordance with applicable legal requirements and sound scientific standards, the data from the study may be deemed invalid and unusable.

The sponsor must submit to the FDA the results of the preclinical and clinical trials, together with, among other things, detailed information on the manufacture, quality and composition of the product, in the form of a new drug application or, in the case of a biologic, a biologics license application. The application must also contain proposed labeling for the product setting forth the proposed conditions of

use for which the applicant is seeking approval and be accompanied by the payment of a significant user fee. The FDA can refuse to file an application if it is deemed not sufficiently complete to permit review, or has some other deficiency.

Because the FDA is regulating Xcellerated T Cells as a biologic, we must submit biologics license applications to the FDA to obtain approval of our products. A biologics license application requires data showing the safety, purity and potency of the product. In a process which generally takes several years or more, the FDA reviews this application and, when and if it decides that adequate data are available to show that the new compound is both safe and effective and that other applicable requirements have been met, approves the drug or biologic for marketing. Prior to issuing a denial or an approval, the FDA often will seek recommendations from one of its advisory committees of independent experts. The amount of time taken for this approval process is a function of a number of variables, including the quality of the submission and studies presented, the potential contribution that the compound will make in improving the treatment of the disease in question, the recommendations of the FDA advisory committee and the workload at the FDA. It is possible that our Xcellerate Technology will not successfully proceed through this approval process or that the FDA will not approve our applications in any specific period of time, or at all. Any approval, if obtained, could be limited or could be made contingent on burdensome post-approval commitments or could be otherwise restricted.

Congress enacted the Food and Drug Administration Modernization Act of 1997, in part, to ensure the availability of safe and effective drugs, biologics and medical devices by expediting the FDA review process for new products. The Modernization Act establishes a statutory program for the approval of fast track products, including qualifying biologics. We may, from time to time, decide to request fast track approval for Xcellerated T Cells. A fast track product is defined as a new drug or biologic intended for the treatment of a serious or life-threatening disease or condition that demonstrates the potential to address unmet medical needs for this disease or condition. Under the fast track program, the sponsor of a new drug or biologic may request the FDA to designate the drug or biologic as a fast track product at any time during the clinical development of the product.

The Modernization Act specifies that the FDA must determine whether the product qualifies for fast track designation within 60 days of receipt of the sponsor's request. The FDA can base approval of a marketing application for a fast track product on an effect on a clinical endpoint or on another "surrogate" endpoint that is reasonably likely to predict clinical benefit. The FDA may subject approval of an application for a fast track product to post-approval studies to validate the surrogate endpoint or confirm the effect on the clinical endpoint and prior review of all promotional materials. In addition, the FDA may withdraw its approval of a fast track product on an expedited basis on a number of grounds, including the sponsor's failure to conduct any required post-approval study with due diligence.

If the FDA's preliminary review of clinical data suggests that a fast track product may be effective, the agency may initiate review of sections of a marketing or license application for a fast track product before the sponsor completes the entire application. This rolling review may be available if the applicant provides a schedule for submission of remaining information and pays applicable user fees. However, the time periods specified under the Prescription Drug User Fee Act concerning timing goals to which the FDA has committed in reviewing an application do not begin until the sponsor submits the entire application.

We have requested, and may from time to time continue to request, orphan drug status for Xcellerated T Cells. Orphan drug designation may be granted to those products developed to treat diseases or conditions that affect fewer than 200,000 persons in the United States. We believe that some of our target cancer patient populations meet these criteria. Under the law, the developer of an orphan drug

may be entitled to seven years of market exclusivity following the approval of the product by the FDA, exemption from user fee payments to the FDA and a 50% tax credit for the amount of money spent on human clinical trials. We cannot predict whether the FDA will grant either an orphan drug or fast track designation or whether our products will ultimately receive FDA approval or orphan drug market exclusivity. We also cannot predict the ultimate impact, if any, of the fast track process or orphan drug status on the timing, likelihood or scope of FDA approval of our immunotherapy products. Even if we are able to obtain FDA approval with orphan drug marketing exclusivity, other competing products may still be approved if they are deemed to be sufficiently different than our products, or clinically superior or under certain other circumstances. This could reduce or eliminate the value of any orphan drug marketing exclusivity.

The FDA may, during its review of a new drug application or biologics license application, ask for additional test data. If the FDA does ultimately approve the product, it may require post-marketing testing, including potentially expensive Phase IV studies, and surveillance to monitor the safety and effectiveness of the product. In addition, the FDA may in some circumstances impose restrictions on the use of the product, which may be difficult and expensive to administer, may affect whether the product is commercially viable and may require prior approval of promotional materials.

Before approving a new drug application or biologics license application, the FDA will also inspect the facilities where the product is manufactured and will not approve the product unless the manufacturing facilities are in compliance with cGMP. In addition, the manufacture, holding and distribution of a product must remain in compliance with cGMP following approval. Manufacturers must continue to expend time, money and effort in the area of production and quality control and record keeping and reporting to ensure full compliance with those requirements.

The labeling, advertising, promotion, marketing and distribution of a drug or biologic product must be in compliance with FDA regulatory requirements. Our distribution of pharmaceutical samples to physicians must comply with the Prescription Drug Marketing Act. In addition, manufacturers are required to report adverse events and errors and accidents in the manufacturing process. Changes to an approved product, or changes to the manufacturing process, may require the filing of a supplemental application for FDA review and approval. Failure to comply with applicable requirements can lead to the FDA demanding that production and shipment cease, and, in some cases, that the manufacturer recall products or to FDA enforcement actions that can include seizures, injunctions and criminal prosecution. These failures can also lead to FDA withdrawal of approval to market the product. Where the FDA determines that there has been improper promotion or marketing, it may require corrective communications such as “Dear Doctor” letters. Even if we comply with FDA and other requirements, new information regarding the safety or effectiveness of a product, or a change in the law or regulations, could lead the FDA to modify or withdraw a product approval.

In addition to FDA requirements, our manufacturing, sales, promotion, and other activities following product approval are subject to regulation by numerous other regulatory authorities, including, in the United States, the Centers for Medicare & Medicaid Services, other divisions of the Department of Health and Human Services and state and local governments. Among other laws and requirements, our sales, marketing and scientific/educational programs must comply with the Federal Medicare-Medicaid anti-fraud and abuse statutes and similar state laws. Our pricing and rebate programs must comply with the Medicaid rebate requirements of the Omnibus Budget Reconciliation Act of 1990. If products are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply. All of our activities are potentially subject to federal and state consumer protection and unfair competition laws.

We are also subject to regulation by the Occupational Safety & Health Administration, or OSHA, and the Environmental Protection Agency, or EPA, and to various laws and regulations relating to safe working conditions, laboratory and manufacturing practices and the use and disposal of hazardous or potentially hazardous substances, including radioactive compounds used in connection with our research and development activities, and we may in the future be subject to other federal, state or local laws or regulations. OSHA, the EPA or other regulatory agencies may promulgate regulations that may affect our research and development programs. We are also subject to regulation by the Department of Transportation and to various laws and regulations relating to the shipping of cells and other similar items. We are unable to predict whether any agency will adopt any regulation that could limit or impede our operations.

Depending on the circumstances, failure to meet these other applicable regulatory requirements can result in criminal prosecution, fines or other penalties, injunctions, recall or seizure of products, partial or total suspension of production, denial or withdrawal of pre-marketing product approval or refusal to allow us to enter into supply contracts, including government contracts.

Sales of pharmaceutical products outside the United States are subject to foreign regulatory requirements that vary widely from country to country. Whether or not we have obtained FDA approval, we must obtain approval of a product by comparable regulatory authorities of foreign countries prior to the commencement of marketing the product in those countries. The time required to obtain this approval may be longer or shorter than that required for FDA approval. The foreign regulatory approval process includes all the risks associated with FDA regulation set forth above, as well as country-specific regulations, including in some countries price controls.

In May 2000, we filed our initial Phase I investigational new drug application, or IND, involving Xcellerated T Cells to treat metastatic kidney cancer. The FDA allowed us to start the trial in June 2000. The trial was completed in February 2003. In September 2001, we amended the IND to add a Phase I study of Xcellerated T Cells to treat hormone refractory prostate cancer. The trial was completed in June 2003. In August 2002, we amended the IND to add a Phase I/II to treat multiple myeloma patients post autologous stem cell transplantation. We anticipate completion of the trial by June 2004. In November 2002, we amended the IND to add a Phase I/II study to treat CLL. We anticipate completion of the trial in the first half of 2004. In September 2003, we amended the IND to add a randomized Phase II study to treat multiple myeloma patients with and without fludarabine. We anticipate completion of the trial by the second half of 2005.

LEGAL PROCEEDINGS

From time to time, we may be involved in various legal proceedings in the ordinary course of business. Although it is not feasible to predict the outcome of these proceedings or any claims made against us, we do not anticipate that the ultimate liability of these proceedings or claims will have a materially adverse effect on our financial position or results of operations.

On July 26, 2000, Karen Lenahan filed suit against the University of Chicago, the University of Chicago Hospitals, Central DuPage Hospital and various doctors, seeking to recover damages in an unspecified amount in excess of $100,000 arising out of the death of Mrs. Lenahan’s husband, Shawn Lenahan. The complaint, filed in the Circuit Court of Cook County, Illinois, alleged that the physicians committed medical malpractice. Mr. Lenahan was treated in an independent clinical trial using technology similar to ours. This trial was initiated prior to our licensing of this technology. The complaint was amended to add additional defendants, and, on February 26, 2001, a second amended complaint was filed that

named us as a defendant. The second amended complaint attempted to allege that we participated in an unlawful conspiracy to induce Mr. Lenahan to participate in a drug protocol for an experimental treatment for his non-Hodgkin's lymphoma.

On May 7, 2001, we filed a motion seeking to dismiss the conspiracy claims, the only counts in the second amended complaint in which we were named as a defendant. On June 29, 2001, the court granted the motion to dismiss. On July 27, 2001, the plaintiff filed a fourth amended complaint, which again named us as a defendant and attempted to allege that we and our co-defendants unlawfully conspired against Mr. Lenahan. On August 31, 2001, we filed a motion to dismiss the conspiracy claims against us. On February 25, 2002, the court granted the motion to dismiss. However, the court granted the plaintiff one final chance to file an amended complaint. On March 26, 2002, the plaintiff filed a fifth amended complaint, which alleged similar claims as the fourth amended complaint. We filed a motion to dismiss the conspiracy claims, and, on July 22, 2002, the court granted our motion to dismiss the plaintiff's fifth amended complaint with prejudice. On August 20, 2002, the plaintiff filed a notice of appeal in the Appellate Court of Illinois, First Judicial District, from the circuit court's order granting our motion to dismiss. On April 7, 2003, we filed our response brief, and, on April 21, 2003, the plaintiff filed a reply brief. We cannot predict when we will obtain a decision on the appeal. We deny having committed any conspiracy against Mr. Lenahan and intend to vigorously defend this lawsuit. However, because of the nature of the complaint against us, we cannot predict the probability of a favorable or unfavorable outcome or estimate the amount or range of potential loss.

EMPLOYEES

As of November 20, 2003, we had 69 employees, 31 of whom are directly involved in research and development and 24 of whom are involved in manufacturing operations. We consider our relations with our employees to be good.

FACILITIES

We currently lease a total of approximately 62,500 square feet of space at two facilities. We lease approximately 22,000 square feet of office and laboratory space and a pilot cell manufacturing facility in Seattle, Washington, with monthly payments of approximately $48,000. The lease on this space expires in October 2006, and we have options to renew for two additional five-year terms. We also lease approximately 40,500 square feet of space in Bothell, Washington, with monthly payments of approximately $77,000. We plan to renovate 20,000 square feet of this facility for the manufacture Xcellerated T Cells for our planned clinical trials and, if we obtain regulatory approval, initial commercialization. The initial lease term on this space expires December 2010, and we have options to renew until December 2020. Under the terms of the lease, we also have rights to negotiate for further expansion space in the building.

Scientific advisory board

Our Scientific Advisory Board is our network of medical, scientific and clinical advisors and collaborators who consult with our scientists. In addition, our Scientific Advisory Board members, none of whom are our employees, advise us regarding our research and development programs, the design of our clinical trials as well as other medical and scientific matters relating to our business. The following persons serve on our Scientific Advisory Board:

Joseph Bertino, M.D., is the Associate Director of the Cancer Institute of New Jersey and University Professor of Medicine and Pharmacology at the University of Medicine and Dentistry of New Jersey.

Jeffrey Bluestone, Ph.D., is one of our scientific founders and is a Professor at the University of California, San Francisco and the Director of the UCSF Diabetes Center.

Edward Clark, Ph.D., is a Professor of Immunology and a Professor of Microbiology at the University of Washington.

John Hansen, M.D., is a Member of Clinical Research at the Fred Hutchinson Cancer Research Center and Professor of Medicine at the University of Washington.

Carl June, M.D., is one of our scientific founders and is the Vice Chairman of the Department of Molecular and Cellular Engineering at the University of Pennsylvania.

Hyam Levitsky, M.D., is a Professor of Oncology, Medicine and Urology at Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins University.

Ronald Levy, M.D., is the Chief of the Division of Medical Oncology at the Stanford Medical Center.

Gerald Nepom, M.D., Ph.D., is the Director, Benaroya Research Institute at Virginia Mason.

E. Donnall Thomas, M.D., is a Member and former Director of Clinical Research at the Fred Hutchinson Family Cancer Research Center. Dr. Thomas was awarded the 1990 Nobel Prize in Medicine.

Craig Thompson, M.D., is one of our scientific founders and is the Scientific Director of the Abramson Family Cancer Research Institute at the University of Pennsylvania.

Robert M. Williams, Ph.D., is a University Distinguished Professor, Department of Chemistry, at Colorado State University. Dr. Williams is also a member of our board of directors.

Management

EXECUTIVE OFFICERS AND DIRECTORS

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

Name	Age	Position(s)
Ronald J. Berenson, M.D.	51	President, Chief Executive Officer and Director
Stewart Craig, Ph.D.	42	Chief Operating Officer and Vice President
Mark Frohlich, M.D.	42	Medical Director and Vice President
Mark L. Bonyhadi, Ph.D.	49	Vice President of Research
Kathi L. Cordova, C.P.A.	43	Senior Vice President of Finance and Treasurer
Joanna S. Black, J.D.	30	General Counsel, Vice President and Secretary
Robert E. Curry, Ph.D.	57	Director
Jean Deleage, Ph.D.	63	Director
Dennis Henner, Ph.D.	52	Director
Peter Langecker, M.D., Ph.D.	52	Director
Robert T. Nelsen, M.B.A.	40	Director
Stephen N. Wertheimer, M.M.	53	Director
Robert M. Williams, Ph.D.	50	Director

Ronald J. Berenson, M.D., is our founder and has served as our President, Chief Executive Officer and as a member of our board of directors since our inception. From April 1989 until February 1995, Dr. Berenson held several positions at CellPro, Inc., a stem cell therapy company that he founded, with his last positions being Executive Vice President and Chief Medical and Scientific Officer. Dr. Berenson also served on the board of directors of CellPro, Inc. from July 1984 to March 1989 and currently serves on the board of directors of the Fred Hutchinson Cancer Research Center Foundation and Calypso Medical Technologies, Inc. Dr. Berenson was a faculty member at the Fred Hutchinson Cancer Research Center, where he last held the position of Assistant Member. Dr. Berenson is a board-certified internist and medical oncologist who completed his medical oncology fellowship training at Stanford University Medical Center. Dr. Berenson received a B.S. in biology from Stanford University and an M.D. from Yale University School of Medicine.

Stewart Craig, Ph.D., has served as our Chief Operating Officer and Vice President since October 1999. From July 1996 to September 1999, Dr. Craig served as Vice President of Development and Operations at Osiris Therapeutics, Inc., a stem cell therapy company. From January 1994 to June 1996, Dr. Craig served as Vice President of Product and Process Development at SyStemix Inc., a stem cell and gene therapy company. From June 1987 to December 1993, Dr. Craig held the positions of Group Leader and Senior Scientist at British Biotech, a biotechnology company. Dr. Craig received a B.Sc. in biochemistry and a Ph.D. in physical biochemistry from the University of Newcastle upon Tyne, UK.

Mark Frohlich, M.D., has served as our Medical Director since October 2001 and has served as our Vice President since January 2002. From July 1998 to October 2001, Dr. Frohlich held the position of Assistant Adjunct Professor of Medicine at the University of California at San Francisco. From July 1994 to June 1998, Dr. Frohlich completed his fellowship in medical oncology at the University of California at San Francisco. Dr. Frohlich received a B.S. in electrical engineering and economics from Yale University and an M.D. from Harvard Medical School.

Mark L. Bonyhadi, Ph.D., has served as our Vice President of Research since January 2003. Dr. Bonyhadi previously served as our Director of Research from January 2002 to January 2003,

Director of Strategic Scientific Development from April 2001 to December 2001 and Director of Biological Research from May 1997 to March 2001. From September 1990 to April 1997, Dr. Bonyhadi served as Senior Scientist with SyStemix, Inc., a stem cell and gene therapy company. Dr. Bonyhadi received a B.A. in biology from Reed College and a Ph.D. in immunology from the University of California at Berkeley.

Kathi L. Cordova, C.P.A., has served as our Senior Vice President of Finance and Treasurer since September 2003. Ms. Cordova previously served as our Vice President of Finance from March 1997 to September 2003. From February 1994 to February 1997, Ms. Cordova held the position of Assistant Controller in a joint venture between American Life Insurance Company, a subsidiary of American International Group, an insurance company, and Italy's Confederazione Italiana Sindicati dei Lavoratori, a labor union. From August 1991 to January 1994, Ms. Cordova served as Management Associate with the Life Division of American International Group, an insurance company. Ms. Cordova received a B.A. in international relations from Stanford University and an MA in international relations from The Johns Hopkins University.

Joanna S. Black, J.D., has served as our General Counsel and Secretary since January 2002 and has served as our Vice President since September 2003. From September 1998 to January 2002, Ms. Black worked as an attorney at Venture Law Group, A Professional Corporation, a law firm. From August 1997 to August 1998, Ms. Black worked as an attorney at Wilson Sonsini Goodrich & Rosati, P.C., a law firm. Ms. Black received a B.A. in economics and public policy from Stanford University and a J.D. from Columbia University School of Law.

Robert E. Curry, Ph.D., has served as one of our directors since July 2002 and from May 2000 to January 2002. Dr. Curry has been a Venture Partner at Alliance Technology Ventures, a venture capital firm, since July 2002. Dr. Curry previously served as a General Partner of Sprout Group from May 1991 to June 2002. He currently is a director of Emerald Bio-Agricultural Corporation, a medical products company, and Tripath Imaging, Inc., a cancer therapy company. Dr. Curry received a B.S. in physics from the University of Illinois and an M.S. and Ph.D. in chemistry from Purdue University.

Jean Deleage, Ph.D., has served as one of our directors since August 1996. Dr. Deleage is a founder and managing director of Alta Partners, a venture capital firm, and was previously a founder of Burr, Egan, Deleage & Company and Sofinnova Ventures, Inc., a venture capital fund. Dr. Deleage is director of Crucell, Kosan Biosciences and Rigel Pharmaceuticals, Inc. and several private companies, all biopharmaceutical companies. Dr. Deleage received an M.S. in electrical engineering from the Ecole Supérieure d'Electricité and a Ph.D. in economics from the Sorbonne.

Dennis Henner, Ph.D., has served as one of our directors since July 2002. Dr. Henner has been a General Partner at MPM Capital, a venture capital firm, since May 2001. From April 1996 to February 2001, Dr. Henner held the positions of Senior Vice President of Research and Vice President of Research at Genentech, Inc., a biotechnology company. Dr. Henner is currently director of biotechnology companies Tercica Medica, Inc., Rigel, Inc., Synergia Pharma, Inc. and Rinat Neuroscience Corporation. Dr. Henner received his B.A. in Life Sciences and his Ph.D. from the Department of Microbiology at the University of Virginia.

Peter Langecker, M.D., Ph.D., has served as one of our directors since December 1999. Since October 1999, Dr. Langecker has served as Chief Medical Officer and Vice President of Clinical Affairs of BioMedicines, Inc., a biotechnology company. From July 1997 to September 1999, Dr. Langecker served as Vice President of Clinical Affairs of Sugen, Inc., a biotechnology company. From July 1995 to July 1997, Dr. Langecker served as Vice President of Clinical Research of Coulter Pharmaceutical, Inc., a biotechnology company. Before that, Dr. Langecker held various medical positions at Ciba Geigy and

Schering-Plough. Dr. Langecker received an M.D. and a Ph.D. in medical sciences from Ludwig Maximilians University in Munich.

Robert T. Nelsen, M.B.A., has served as one of our directors since August 1996. Since 1992, Mr. Nelsen has served as a managing director of ARCH Venture Partners, a venture capital firm. Mr. Nelsen also serves as a director of Adolor Corporation (ADLR), an analgesics development company, Caliper Technologies Corporation (CALP), a biochip company, and Illumina Corporation (ILMN), a biotechnology company. Mr. Nelsen received a B.S. in biology and economics from the University of Puget Sound and an M.B.A. from the University of Chicago.

Stephen N. Wertheimer, M.M., has served as one of our directors since November 2003. Mr. Wertheimer has served as a managing director of W Capital Partners, a private equity firm since 2001. From 1996 to 2001, Mr. Wertheimer held the position of managing director of CRT Capital Group. Mr. Wertheimer is currently director of El Paso Electric Company, an electric utility, and Trikon Technologies, Inc., a semiconductor equipment company. Mr. Wertheimer received an M.M. from the Kellogg School, Northwestern University, and earned a B.S. in finance and economics at Indiana University.

Robert M. Williams, Ph.D., has served as one of our directors and a member of our Scientific Advisory Board since November 1996. Since September 1980, Professor Williams has served as a Professor of Chemistry at Colorado State University, and, in 2001, he was appointed University Distinguished Professor. During his career, Professor Williams has provided consulting services to several biotechnology and pharmaceutical companies, including Cubist Pharmaceutical Company, Microcide Pharmaceuticals, Hoffman-La Roche, G.D. Searle, W.R. Grace, NewBiotics ChemGenex, Nutrasweet and EPIX Medical, Inc. Professor Williams received a B.A. in chemistry from Syracuse University and a Ph.D. in organic chemistry from the Massachusetts Institute of Technology. Following graduate school, Professor Williams served as a postdoctoral fellow at Harvard University. He has served as a visiting professor at the University of California, Berkeley in 1990 and at Harvard University from 1994 to 1995.

BOARD COMPOSITION

Our board of directors is currently comprised of eight directors. Following the closing of this offering, the board will be divided into three classes, with each director serving a three-year term and one class being elected at each year's annual meeting of stockholders. Dr. Langecker and Dr. Williams will be in the class of directors whose initial term expires at the 2004 annual meeting of stockholders. Dr. Deleage, Dr. Henner and Mr. Wertheimer will be in the class of directors whose initial term expires at the 2005 annual meeting of stockholders. Dr. Berenson, Dr. Curry and Mr. Nelsen will be in the class of directors whose initial term expires at the 2006 annual meeting of stockholders.

BOARD COMMITTEES

Our board of directors has established an audit committee, a compensation committee and a pricing committee.

The audit committee currently consists of Dr. Curry, Dr. Deleage and Mr. Wertheimer. The audit committee is responsible for assuring the integrity of our financial control, audit and reporting functions and reviews with our management and our independent auditors the effectiveness of our financial controls and accounting and reporting practices and procedures. In addition, the audit committee reviews the qualifications of our independent auditors, is responsible for their appointment, compensation, retention and oversight and reviews the scope, fees and results of activities related to audit and non-audit services. Prior to the formation of the audit committee, the full board of directors conducted the

responsibilities of the audit committee, which met annually with representatives of our independent auditors, including in executive sessions where members of management were excused.

The pricing committee consists of Dr. Berenson, Dr. Deleage, Dr. Curry and Mr. Nelsen. The pricing committee is responsible for determining the terms of this initial public offering, including, but not limited to, determining the number of shares to be sold by us and the initial public offering price per share.

Effective upon this offering, the compensation committee will consist of Dr. Curry, Mr. Nelsen and Dr. Langecker. The compensation committee's principal responsibility is to administer our stock plans and to set the salary and incentive compensation, including stock option grants, for our Chief Executive Officer and other executive officers.

DIRECTOR COMPENSATION

Our seven outside directors are compensated with options to purchase our common stock. The only cash compensation they receive is reimbursement for out-of-pocket expenses incurred in connection with attending board and committee meetings. In November 1996, Dr. Deleage and Dr. Williams were each awarded non-statutory options for 30,000 shares of our common stock. In November 1999, Dr. Langecker was awarded a non-statutory option for 30,000 shares of our common stock. These shares vest over a four-year period at a rate of 25% of the total number of shares one year after the date of grant, with the remaining shares vesting monthly in equal installments over the next 36 months. In November 2003, Dr. Williams was awarded non-statutory options for 15,000 fully vested shares of our common stock in connection with his service on our Scientific Advisory Board. Directors who are our employees are eligible to participate in our 1996 Stock Option Plan and, effective at the closing of this offering, will also be eligible to participate in our 2003 Stock Plan and 2003 Employee Stock Purchase Plan. Until the closing of this offering, directors who are not our employees have been eligible to participate in our 1996 Stock Option Plan. Effective at the closing of this offering, directors who are not our employees will be eligible to participate in our 2003 Directors' Stock Option Plan as well as our 2003 Stock Plan but will no longer be eligible to participate in our 1996 Stock Option Plan.

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

Dr. Deleage, Mr. Nelsen, Dr. Curry and Dr. Berenson served on our compensation committee in 2002. During 2002, none of our executive officers served as a director or member of the compensation committee of any other entity that had any executive officer who served on our board of directors or on our compensation committee.

LIMITATIONS ON LIABILITY AND INDEMNIFICATION OF OFFICERS AND DIRECTORS

Our amended and restated certificate of incorporation, which will be effective upon the closing of this offering, limits the liability of our directors to the maximum extent permitted by Delaware law. Delaware law provides that a corporation may eliminate the personal liability of its directors for monetary damages for breach of their fiduciary duties as directors, except liability for any of the following acts:

- Ø breach of their duty of loyalty to us or our stockholders;
- Ø acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- Ø unlawful payments of dividends or unlawful stock repurchases or redemptions; and
- Ø any transaction from which the director derived an improper personal benefit.

Our amended and restated bylaws, which will be effective upon the closing of this offering, provide that we will indemnify our directors, officers, employees and other agents to the fullest extent permitted by the Delaware General Corporation Law. Our amended and restated bylaws also permit us to secure insurance on behalf of any officer, director, employee or other agent of ours for any liability arising out of his or her actions in such capacity, regardless of whether the Delaware General Corporation Law would permit a corporation to indemnify for such liability.

We have obtained directors' and officers' insurance providing indemnification for all of our directors, officers and employees for certain liabilities. In addition to the indemnification provided for in our amended and restated bylaws, we have entered into agreements to indemnify our directors and executive officers. These agreements, among other things, indemnify our directors and executive officers for expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by any of them in any action or proceeding arising out of his or her services as a director, officer, employee, agent or fiduciary of ours, any subsidiary of ours or any other company or enterprise to which he or she provides services at our request. We believe that these provisions and agreements are necessary to attract and retain qualified persons as directors and executive officers. At present, there is no litigation or proceeding involving any of our directors or officers in which indemnification is required or permitted, and we are not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

EXECUTIVE COMPENSATION

The following table summarizes the compensation paid to, awarded to or earned during 2002 by our Chief Executive Officer and each of our four other most highly compensated executive officers whose total salary and bonus exceeded $100,000 for services rendered to us in all capacities during 2002. The executive officers listed in the table below are referred to in this prospectus as our named executive officers.

Summary compensation table

Name and principal position(s)	Annual compensation for 2002		Long-term compensation Securities underlying options	All other compensation
	Salary	Bonus		
Ronald J. Berenson, M.D. President and Chief Executive Officer	$ 239,276	$ 25,051	$ —	$ 595(1)
Stewart Craig, Ph.D. Chief Operating Officer and Vice President	205,714	51	—	527(2)
Kathi L. Cordova, C.P.A. Senior Vice President of Finance and Treasurer	139,588	74	—	391(3)
Mark Frohlich, M.D Medical Director and Vice President	172,183	16,043	—	534(4)
Lewis Chapman Chief Business Officer	100,403	40,051	—	312(5)

(1) Dr. Berenson received other compensation consisting of the payment of insurance premiums for group term life benefits in the amount of $595.
(2) Dr. Craig received other compensation consisting of the payment of insurance premiums for group term life benefits in the amount of $527.
(3) Ms. Cordova received other compensation consisting of the payment of insurance premiums for group term life benefits in the amount of $391.
(4) Dr. Frohlich received other compensation consisting of the payment of insurance premiums for group term life benefits in the amount of $534.
(5) Mr. Chapman received other compensation consisting of the payment of insurance premiums for group term life insurance in the amount of $312. Mr. Chapman's employment with us ended in August 2003.

Management

The following table provides summary information concerning the individual grants of stock options to each of our named executive officers for the fiscal year ended December 31, 2002. The exercise price per share was valued by our board of directors on the date of grant, and each option was issued at the estimated fair market value on the date of grant based upon the purchase price paid by investors for shares of our preferred stock, taking into account the liquidation preferences and other rights, privileges and preferences associated with such preferred stock.

Each option represents the right to purchase one share of our common stock. The options generally vest over four years. See "Management—Equity compensation plan information" for more details regarding these options. In 2002, we granted options to purchase an aggregate of 1,960,998 shares of our common stock to various officers, employees, directors and others.

The potential realizable value at assumed annual rates of stock price appreciation for the option term represents hypothetical gains that could be achieved for the respective options if exercised at the end of the option term. SEC rules specify the 0%, 5% and 10% assumed annual rates of compounded stock price appreciation, which do not represent our estimate or projection of our future common stock prices. These amounts represent assumed rates of appreciation in the value of our common stock from the initial public offering price, assuming an initial public offering price of $ per share. Actual gains, if any, on stock option exercises depend on the future performance of our common stock and overall stock market conditions. The amounts reflected in the table may not necessarily be achieved.

Option grants in fiscal year 2002(1)

Named executive officer	Number of securities underlying options granted	Percentage of total options granted to employees	Exercise price per share	Market price per share of underlying security on grant date	Expiration date	Potential realizable value at assumed annual rates of stock appreciation for option term		
						0%	5%	10%
Ronald J. Berenson, M.D.	250,000	12.98%	$ 1.00	$ —	10/23/12	$ —	$ —	$ —
Stewart Craig, Ph.D.	200,000	10.38	1.00	—	01/30/12	—	—	—
Mark Frohlich, M.D.	160,000	8.30	1.00	—	01/30/12	—	—	—
Kathi L. Cordova, C.P.A.	80,000	4.15	1.00	—	01/30/12	—	—	—
Lewis Chapman(2)	400,000	20.76	1.00	—	07/23/12	—	—	—

(1) These options were granted under our 1996 Stock Option Plan and vest over a four-year period.
(2) Mr. Chapman's employment with us ended in August 2003, and his option grant terminated in November 2003.

Management

The following table shows information as of December 31, 2002 concerning the number and value of exercised options and unexercised options held by each of our named executive officers. There was no public trading market for our common stock as of December 31, 2002. Accordingly, the value of the unexercised in-the-money options listed below has been calculated on the basis of the assumed initial public offering price of $ per share, less the applicable exercise price per share multiplied by the number of shares underlying the options.

Aggregated option exercises during 2002 and year-end option values

Named executive officer	Shares acquired upon exercise	Value realized	Number of securities underlying unexercised options at December 31, 2002		Value of unexercised in-the-money options at December 31, 2002	
			Exercisable	Unexercisable	Exercisable	Unexercisable
Ronald J. Berenson, M.D.	—	$ —	158,333	241,667	$	$
Stewart Craig, Ph.D.	—	—	286,666	163,334		
Mark Frohlich, M.D.	—	—	40,999	159,001		
Kathi L. Cordova, C.P.A.	—	—	39,666	65,334		
Lewis Chapman(1)	—	—	—	400,000		

(1) Mr. Chapman's employment with us ended in August 2003, and his option grant terminated in November 2003.

EMPLOYMENT AGREEMENTS

Ms. Black's employment agreement, dated December 31, 2001, provides for at-will employment for an unspecified term. Under this agreement, Ms. Black is entitled to an annual base salary of $150,000 per year and an initial stock option grant for 50,000 shares of our common stock. This employment agreement also provides that Ms. Black will receive severance payments equal to three months of her then current base salary, paid ratably over a three-month period, and three months of continued health coverage if her employment is terminated other than for cause and she signs a standard release of any claims against us.

Mr. Chapman's employment agreement, dated May 29, 2002, provides for at-will employment for an unspecified term. Under this agreement, Mr. Chapman is entitled to an annual base salary of $200,000 per year, an initial stock option grant for 400,000 shares of our common stock, a one-time signing bonus of $40,000 and a one-time home purchase bonus of $35,000. This employment agreement also provides that Mr. Chapman will receive severance payments equal to six months of his then current base salary, paid ratably over a six-month period, and six months of continued health coverage if his employment is terminated other than for cause and he signs a standard release of any claims against us. Mr. Chapman's employment with us ended in August 2003, and we are currently making these severance payments to him.

Dr. Frohlich's employment agreement, dated August 27, 2001, provides for at-will employment for an unspecified term. Under this agreement, Dr. Frohlich is entitled to an annual base salary of $170,000, an initial stock option grant for 40,000 shares of our common stock, a one-time signing bonus of $40,000 and a loan of $50,000 for a down payment of a principal residence. This employment agreement also provides that Dr. Frohlich will receive severance payments equal to three months of his then current base salary, paid ratably over a three-month period, and three months of continued health coverage if his employment is terminated other than for cause and he signs a standard release of any claims against us. In this event, Dr. Frohlich's employment agreement provides that we will forgive up to $40,000 of the amount loaned to him for a down payment on a principal residence.

EQUITY COMPENSATION PLAN INFORMATION

2003 Stock Plan

Our 2003 Stock Plan was adopted by our board of directors in September 2003 and will be submitted for approval by our stockholders prior to completion of this offering. This plan provides for the grant of incentive stock options to employees (including employee directors) and nonstatutory stock options and stock purchase rights to employees, directors and consultants. The purposes of this plan are to attract and retain the best available personnel, to provide additional incentives to our employees and consultants and to promote the success of our business. A total of 3.5 million shares of common stock will be reserved for issuance under this plan. The number of shares reserved for issuance under this plan will automatically increase on the first day of each fiscal year beginning in 2005 and ending in 2010 by the lesser of:

- 600,000 shares;
- 4% of the number of shares of our common stock outstanding on the last day of the immediately preceding fiscal year; or
- any lesser number of shares that our board of directors determines.

All share numbers reflected in this plan summary, as well as the exercise price or purchase price applicable to outstanding options or purchase rights, will be automatically proportionately adjusted in the event we undertake certain changes in our capital structure, such as a stock split, stock dividend or other similar transaction.

The administrator of the plan is our board of directors or a committee of our board. In the case of options and stock purchase rights intended to qualify as "performance-based compensation" within the meaning of Section 162(m) of the Internal Revenue Code of 1986, as amended, the committee will consist of two or more "outside directors" within the meaning of Section 162(m). In addition, in administering the plan, we intend to comply with other applicable legal and regulatory requirements as may apply from time to time, including any NASDAQ listing requirements. The administrator determines the terms of options and stock purchase rights granted under this plan, including the number of shares subject to the award, the exercise or purchase price and the vesting and/or exercisability of the award and any other conditions to which the award is subject. No employee, however, may receive awards for more than 1 million shares under this plan in any fiscal year. Incentive stock options granted under this plan must have an exercise price of at least 100% of the fair market value of the common stock on the date of grant. Incentive stock options granted to an employee who holds more than 10% of the total voting power of all classes of our stock or any parent or subsidiary's stock cannot be less than 110% of the fair market value of the common stock on the date of grant. The exercise price of nonstatutory stock options and the purchase price of stock purchase rights will be the price determined by the administrator, although nonstatutory stock options and stock purchase rights granted to our Chief Executive Officer and our four other most highly compensated officers will generally equal at least 100% of the grant date fair market value if we intend that the awards to those individuals will qualify as "performance-based compensation" within the meaning of Section 162(m) of the Internal Revenue Code. Payment of the exercise or purchase price may be made in cash or any other consideration determined by the administrator.

The administrator will determine the term of options granted under this plan, which may not exceed 10 years, or 5 years in the case of an incentive stock option granted to a holder of more than 10% of the total voting power of all classes of our stock or a parent or subsidiary's stock. Generally, an option

granted under this plan is non-transferable, other than by will or the laws of descent or distribution, and may be exercised during the lifetime of the optionee only by the optionee. However, the administrator may, in its discretion, provide for the limited transferability of non-statutory stock options granted under this plan. We generally have the right to repurchase any stock issued pursuant to stock purchase rights granted under this plan upon the termination of the holder's employment or consulting relationship with us for any reason, including death or disability. The repurchase price is the exercise price of the stock purchase right or the fair market value of the shares at the date of the repurchase, whichever is less. This repurchase right will lapse at a rate that the administrator may determine.

If we sell all or substantially all of our assets or if we are acquired by another corporation, each outstanding option and stock purchase right may be assumed or an equivalent award may be substituted by the successor corporation, with appropriate adjustments made to both the price and number of shares subject to the option or purchase right. If the successor does assume the outstanding options and purchase rights, the lesser of 25% of the shares subject to an option or initially subject to repurchase or the remaining unvested shares will vest immediately prior to the closing of the transaction, and, if the holder is "involuntarily terminated" within one year after the closing, the lesser of another 25% of the shares subject to the option or initially subject to repurchase or the remaining unvested shares will vest on termination. "Involuntary termination" includes termination by us without cause, a reduction in the optionholder's base salary of more than 20% (except where there is a similar reduction in the base salaries of similarly situated employees) or relocation of the optionholder's principal work site by more than 50 miles. If the successor corporation does not assume options and purchase rights or substitute equivalent options or purchase rights, then vesting of all shares subject to options will accelerate fully, all repurchase rights will lapse immediately prior to the closing of the transaction and options and purchase rights will terminate as of the closing of the transaction.

The administrator has authority to amend or terminate this plan, but no action may be taken that impairs the rights of any holder of an outstanding option or stock purchase right without the holder's consent. In addition, we must obtain stockholder approval of amendments to the plan as required by applicable law. Unless terminated earlier by the board of directors, this plan will terminate in 2013.

1996 Stock Option Plan

Our 1996 Stock Option Plan was adopted by our board of directors in September 1996. As of September 30, 2003:

- 3,985,560 shares of common stock were issuable upon exercise of outstanding options granted under this option plan at a weighted average exercise price of $0.81;
- 816,406 shares of common stock were issued upon exercise of options at purchase prices ranging between $0.10 and $1.00; and
- 1,611,367 shares of common stock remained available for future grants under this plan.

The board of directors amended this plan in September 2003 to increase the number of shares reserved for issuance under the plan by an additional 2 million to 6.4 million shares. The amended plan will be submitted to our stockholders for approval prior to completion of this offering. All share numbers reflected in this plan summary, as well as the exercise price applicable to outstanding options, will be automatically proportionately adjusted in the event we make certain changes in our capital structure, such as a stock split, stock dividend or other similar transaction.

The terms of the awards under this plan are generally the same as the terms of the awards that may be issued under the 2003 Stock Plan, except for the following features:

- only options can be granted under this plan;
- stock options granted under this plan are non-transferable except by will or the laws of descent and distribution; and
- options granted to residents of California prior to the closing of this offering must meet certain specific requirements with respect to a minimum 20% vesting per year, a minimum post-termination exercise period of 30 days in circumstances other than death or disability (and 6 months in the case of death or disability) and a minimum exercise price of 85% of fair market value for non-statutory options.

If we sell all or substantially all of our assets, or if we are acquired by another corporation, each outstanding option may be assumed or an equivalent award substituted by the successor corporation, with appropriate adjustments made to both the price and number of shares subject to the option. If the successor assumes the outstanding options or substitutes equivalent options, 25% of the shares subject to each option that are unvested immediately prior to the consummation of the transaction will vest immediately prior to the closing of the transaction. If the successor corporation does not assume options or substitute equivalent options or a comparable cash incentive program based on the value of the options at the closing, then vesting of all shares subject to options will accelerate fully immediately prior to the closing of the transaction unless otherwise provided under an individual grant.

2003 Employee Stock Purchase Plan

Our 2003 Employee Stock Purchase Plan was adopted by our board of directors in September 2003 and will be submitted for approval by our stockholders prior to completion of this offering. A total of 600,000 shares of common stock will be reserved for issuance under this plan, none of which have been issued as of the date of this prospectus. The number of shares reserved for issuance under this plan will automatically increase on the first day of each of our fiscal years beginning in 2005 and ending in 2010 by the lesser of:

- 300,000 shares;
- 1% of the number of shares of common stock outstanding on the last day of the immediately preceding fiscal year; or
- any lesser number of shares that our board of directors determines.

All share numbers reflected in this plan summary, as well as the purchase price applicable to outstanding purchase rights, will be automatically proportionately adjusted in the event we make certain changes in our capital structure, such as a stock split, stock dividend or other similar transaction. If approved by our stockholders, this plan becomes effective upon the date of this offering. Unless terminated earlier by our board of directors, this plan terminates in 2023.

This plan, which is intended to qualify under Section 423 of the Internal Revenue Code, allows employees to purchase our common stock at a discount from the market price through payroll deductions. The plan will be implemented by a series of offering periods, each of which has a duration of approximately six months, commencing generally on May 1 and November 1 of each year. We expect the first offering period to commence on the effective date of the registration statement of which this prospectus is a part and end on April 30, 2004. Each eligible employee will automatically be granted an option to participate in the plan and will be automatically enrolled in the first offering period. Payroll

deductions and continued participation in the initial offering period will not be determined until after the effective date of the Form S-8 registration statement, which we intend to file to register the shares reserved for issuance under this plan, as described below. At the end of each offering period, an automatic purchase will be made for participants.

Our board of directors, or a committee appointed by the board, will administer this plan. In addition, in administering the plan, we intend to comply with other applicable legal and regulatory requirements as may apply from time to time, including any NASDAQ listing requirements. Our employees, including officers and employee directors or employees of any majority-owned subsidiary designated by the board, are eligible to participate in this plan if they are customarily employed by us or any such subsidiary for at least 20 hours per week and more than five months per year. The plan prohibits granting purchase rights to an employee in the following circumstances:

- where, immediately after the grant, the employee would own stock and/or hold outstanding rights to purchase stock equaling 5% or more of the total voting power or value of all classes of our stock or the stock of our subsidiaries; or
- where the option would permit the employee to purchase stock under this plan at a rate that exceeds $25,000 per calendar year in which the option is outstanding.

This plan permits eligible employees to purchase common stock through payroll deductions of up to 15% of an employee's eligible cash compensation, which includes salary, bonuses and other wage payments made by us to the participants. A participant may purchase a maximum of 2,500 shares of our common stock under this plan in any one offering period.

Amounts deducted and accumulated by plan participants are used to purchase shares of our common stock at the end of each six-month offering period. The purchase price is equal to 85% of the fair market value of the common stock at the beginning of the offering period or at the end the offering period, whichever is less. Employees may end their participation in this plan at any time during an offering period, and participation ends automatically on termination of employment.

If we merge or consolidate with or into another corporation or sell all or substantially all of our assets, each right to purchase stock under this plan may be assumed, or an equivalent right substituted, by the successor corporation. However, if the successor corporation refuses to assume each purchase right or to substitute an equivalent right, the board of directors will shorten any ongoing offering period so that employees' rights to purchase stock under this plan are exercised prior to the transaction. Our board of directors may extend future offering periods to up to 27 months and may increase or decrease the maximum contribution rate of an employee's eligible cash compensation. Our board of directors has the power to amend or terminate this plan as long as the action does not adversely affect any outstanding rights to purchase stock under the plan. However, our board of directors may amend or terminate this plan or an offering period even if it would adversely affect outstanding purchase rights in order to avoid our incurring adverse accounting charges or if the board of directors determines that termination of the plan or offering period is in our best interests and the best interests of our stockholders. We must obtain stockholder approval for any amendment to the purchase plan to the extent required by law.

2003 Directors' Stock Option Plan

Our 2003 Directors' Stock Option Plan was adopted by our board of directors in September 2003 and will be submitted for approval by our stockholders prior to completion of this offering. If approved by our stockholders, this plan will become effective on the effective date of the registration statement of

which this prospectus is a part. A total of 500,000 shares of common stock will be reserved for issuance under the this plan, all of which remain available for future grants as of the date of this prospectus. All share numbers reflected in this plan summary, as well as the exercise price applicable to outstanding options, will be automatically proportionately adjusted in the event we make certain changes in our capital structure, such as a stock split, stock dividend or other similar transaction.

This plan is designed to work automatically, without administration. However, to the extent administration is necessary, it will be performed by our board of directors. It is expected that any conflicts of interest that may arise will be addressed by abstention of any interested director from both deliberations and voting regarding matters in which the director has a personal interest. Unless terminated earlier by the board of directors, this plan will terminate in 2013.

This plan provides that each person who becomes a non-employee director after the completion of this offering will be granted a non-statutory stock option to purchase 25,000 shares of our common stock on the date when the person first becomes a member of our board of directors. On the date of each annual meeting of our stockholders, each of our non-employee directors (including non-employee directors who did not receive the 25,000 share grant described above) will be granted an option to purchase 10,000 shares of common stock if, on that date, the director has served on our board of directors for at least six months. The exercise price of all stock options granted under this plan will be equal to the fair market value of the common stock on the date of grant of the option. This plan provides that one third of the total number of shares subject to each option granted to a new director will vest 12 months after the date of grant. Afterwards, the remaining shares will vest in equal monthly installments over the next two years so that the option will be fully vested after three years. Annual options granted to directors will vest in full on the day prior to the first anniversary of the date of the grant of the option.

All options granted under this plan will have a term of 10 years and an exercise price equal to the fair market value on the date of grant. If a non-employee director ceases to serve as a director for any reason other than death or disability, he or she may, within the 90 days after the date he or she ceases to be a director, exercise options that were vested as of the date of termination. If the former director does not exercise the option within this 90-day period, the option will terminate. If a director’s service terminates as a result of his or her disability or death, or if a director dies within three months following termination, the director or his or her estate may exercise options that were vested as of the date of termination or death at any time during the 12 months after the date of termination or death. Options granted under this plan are generally non-transferable by the option holder other than by will or the laws of descent or distribution, pursuant to a qualified domestic relations order or to family members or family trusts or foundations. Generally, only the option holder or a permitted transferee may exercise the option during the lifetime of the option holder.

If we are acquired by another corporation, each option outstanding under this plan will be assumed or equivalent options will be substituted by our acquirer, unless our acquirer does not agree to this assumption or substitution. If our acquirer does not agree to assume the options or substitute them, the options will terminate upon consummation of the transaction to the extent not previously exercised. In connection with an acquisition, the vesting of each outstanding option will accelerate in full, and each director holding options under this plan will have the right to exercise his or her options immediately before the consummation of the acquisition as to all shares underlying the options. Our board of directors may amend or terminate this plan as long as doing so does not adversely affect any outstanding option and we obtain stockholder approval for any amendment to the extent required by applicable law.

401(k) plan

Effective February 1, 1997, we established a tax-qualified employee savings and retirement plan, or 401(k) plan, which covers all of our employees. This plan is intended to qualify under Section 401 of the Internal Revenue Code so that contributions by us to the plan, if any, will be deductible by us when made. Under this plan, eligible employees may elect to reduce their current compensation and defer their pre-tax earnings, subject to the Internal Revenue Service's annual contribution limits. Deferral contributions are fully vested at all times. This plan permits, but does not require, discretionary matching contributions by a percentage amount that our board of directors may annually determine. The plan also permits additional discretionary contributions by us on behalf of all participants in the plan. These additional company contributions vest 25% per year of service and will be fully vested after four years of service. The trustee under the plan invests an employee's account balance under the plan in accordance with the employee's written direction. To the extent an employee directs the investment of his or her account balance under the plan, the Employment Retirement Income Security Act relieves the trustee from liability for any loss resulting from the employee's direction of the investment.

Certain relationships and related party transactions

During the last three fiscal years, there has not been any transaction or series of similar transactions to which we were or are a party in which the amount involved exceeded or exceeds $60,000 and in which any of our directors or executive officers, any holder of more than 5% of any class of our voting securities or any member of the immediate family of any of these persons had or will have a direct or indirect material interest, other than the compensation arrangements described in “Management” and the transactions described below.

We believe that we have executed all of the transactions described below on terms no less favorable to us than we could have obtained from unaffiliated third parties. It is our intention to ensure that all future transactions between us and our officers, directors and principal stockholders and their affiliates are approved by a majority of our board of directors, including a majority of the independent and disinterested members of our board of directors, and are on terms no less favorable to us than those that we could obtain from unaffiliated third parties.

From our inception through September 30, 2003, we issued the following securities to various investors in private placement transactions:

- 6,334,212 shares of Series A preferred stock to investors including, but not limited to, entities affiliated with Alta Partners, ARCH Venture Partners, CV Sofinnova Venture Partners and Sprout Group at a purchase price of $0.95 per share in August 1996;
- 3,757,205 shares of Series B preferred stock to investors including, but not limited to, entities affiliated with Alta Partners, ARCH Venture Partners, CV Sofinnova Venture Partners and Sprout Group at a purchase price of $1.10 per share in August 1997;
- 7,185,630 shares of Series C preferred stock to investors including, but not limited to, entities affiliated with Alta Partners, ARCH Venture Partners, CV Sofinnova Venture Partners, Falcon Technology Partners, Fluke Capital Management, TGI Fund (W Capital Partners acquired these shares from TGI Fund), Sprout Group and Vulcan Ventures at a purchase price of $1.67 per share in July 1998;
- 10,109,825 shares of Series D preferred stock to investors including, but not limited to, entities affiliated with Alta Partners, ARCH Venture Partners, MPM Capital, Sprout Group, Vector Fund, Vulcan Ventures and TGI Fund (W Capital Partners acquired these shares from TGI Fund) at a purchase price of $2.78 per share in May 2000 and August 2000;
- 4,750,095 shares of Series E preferred stock to investors including, but not limited to, entities affiliated with Alta Partners, ARCH Venture Partners, China Development Industrial Bank Inc., MPM Capital, Sprout Group, Vulcan Ventures and TGI Fund (W Capital Partners acquired these shares from TGI Fund) at a purchase price of $2.78 per share in November 2001; and
- 4,444,251 shares of Series F preferred stock to investors including, but not limited to, entities affiliated with Alta Partners, ARCH Venture Partners, RiverVest Venture Fund, Sprout Group, Vector Fund and V-Sciences Investments Pte Ltd at a purchase price of $2.78 per share in February and March 2002.

In addition, we issued:

- 2,999,910 shares of common stock and 526,300 shares of Series A preferred stock in exchange for all of the outstanding capital stock of CellGenEx, Inc. in August 1997 and April 1998; and
- 145,875 shares of Series B preferred stock in July 1998 and 20,000 shares of common stock in June 1999 in connection with license agreements.

Certain relationships and related party transactions

In addition, as of September 30, 2003, warrants to purchase an aggregate of 728,312 shares of preferred stock issued since our inception remained outstanding, and warrants to purchase an aggregate of 4,990,344 shares of common stock issued in August 2000, November 2001, February 2002 and March 2002 remained outstanding.

Since our inception, we have engaged in transactions with our executive officers, directors and holders of more than 5% of our voting securities and their respective affiliates. The following table summarizes the number of shares of our stock purchased by our executive officers, directors and 5% stockholders and persons and entities associated with them in private placement transactions. Each share of each series of preferred stock converts automatically upon closing of this offering into one share of common stock.

Investor(1)	Common stock	Series A preferred stock	Series B preferred stock	Series C preferred stock	Series D preferred stock	Series E preferred stock	Series F preferred stock
Directors and executive officers							
Ronald J. Berenson, M.D.(2)	2,373,256	57,895	—	—	—	—	—
Robert M. Williams, Ph.D. .	200,000	—	—	—	—	—	—
Entities affiliated with directors							
Alta Partners(3)	—	1,894,737	805,281	971,331	584,547	351,677	8,035
ARCH Venture Partners(4)	—	789,469	2,045,454	1,119,265	1,321,942	935,251	899,104
Sprout Group(5)	—	2,631,579	545,454	1,142,937	323,741	356,079	3,634
MPM Capital(6)	483,453	—	—	—	4,316,547	719,424	—
5% stockholders							
Ronald J. Berenson, M.D.(2)	2,373,256	57,895	—	—	—	—	—
Alta Partners(3)	—	1,894,737	805,281	971,331	584,547	351,677	8,035
ARCH Venture Partners(4)	—	789,469	2,045,454	1,119,265	1,321,942	935,251	899,104
Sprout Group(5)	—	2,631,579	545,454	1,142,937	323,741	356,079	3,634
MPM Capital(6)	483,453	—	—	—	4,316,547	719,424	—
W Capital Partners Ironworks, L.P.(7)	—	—	—	1,796,410	286,022	301,601	—
Vector Fund	—	—	—	—	719,425	—	1,114,889
Vulcan Ventures	80,575	—	—	598,802	719,424	719,424	—

(1) See "Principal stockholders" for more details on shares held by these purchasers.
(2) Includes shares held in trust.
(3) Dr. Deleage is managing director of Alta Partners.
(4) Mr. Nelsen is a managing director of entities affiliated with ARCH Venture Partners.
(5) Dr. Curry is a consultant of Sprout Group.
(6) Dr. Henner is a general partner of MPM Capital.
(7) Mr. Wertheimer is a managing director of W Capital Partners.

In connection with our acquisition of all the outstanding capital stock of CellGenEx, we issued warrants to purchase 368,410 shares of Series A preferred stock at $0.95 per share in August 1997. In addition, in connection with our Series D preferred stock private placement, we issued warrants to purchase 1,132,287 shares of common stock at $0.30 per share in August 2000. In connection with our Series E preferred stock private placement, we issued warrants to purchase 2,588,176 shares of common stock at $0.01 per share in November 2001. In connection with our Series F preferred stock private placement, we issued warrants to purchase 2,909,161 shares of common stock at $0.01 per share in February and March 2002.

Certain relationships and related party transactions

The following table summarizes the number of shares of common stock and preferred stock issuable pursuant to warrants granted to 5% stockholders, directors, executive officers and entities affiliated with our executive officers and directors in private placement transactions:

Investor(1)	Shares of common stock underlying warrants	Shares of Series A preferred stock underlying warrants
Alta Partners(2)	261,312	—
ARCH Venture Partners(3)	1,146,760	276,307
Sprout Group(4)	232,101	—
MPM Asset Management LLC(5)	391,686	—
W Capital Partners Ironworks, L.P.(6)	196,239	—
Vector Fund	687,570	—
Vulcan Ventures	391,686	—

(1) See "Principal stockholders" for more details on shares held by these purchasers.
(2) Dr. Deleage is managing director of Alta Partners.
(3) Mr. Nelsen is a managing director of entities affiliated with ARCH Venture Partners.
(4) Dr. Curry is a consultant of Sprout Group.
(5) Dr. Henner is a general partner of MPM Capital.
(6) Mr. Wertheimer is a managing director of W Capital Partners.

In July 1999, we entered into a License Agreement with Genecraft, Inc., or Genecraft, of which Dr. Jeffrey Ledbetter, our former Chief Scientific Officer and one of our scientific founders, is a principal founder. Under this agreement, in return for royalties we granted an exclusive sublicense to Genecraft for the rights to several pending patent applications that we are not using in the field of *in vivo* activation of T cells.

We have entered into indemnification agreements with our officers and directors containing provisions which require us, among other things, to indemnify our officers and directors against liabilities that may arise by reason of their status or service as officers or directors (other than liabilities arising from willful and other misconduct) and to advance their expenses incurred as a result of any proceeding against them as to which they could be indemnified. See "Management—Limitations on liability and indemnification of officers and directors."

We maintain key person life insurance, under which we are the beneficiary, on Dr. Berenson in the amount of $2 million.

In connection with our acquisition of all of the outstanding capital stock of CellGenEx, Inc., we reserved an aggregate of 1,582,340 shares of our common stock in a milestone pool for issuance to our scientific founders, Drs. Jeffrey Bluestone, Carl June, Jeffrey Ledbetter and Craig Thompson, upon the achievement of scientific milestones determined by a milestone committee. In February 2001, we entered into a settlement agreement with each of Drs. Bluestone, June and Thompson to terminate the milestone pool, and no option grants were made pursuant to the Milestone Pool. In addition, we entered into a consulting agreement with each of Drs. Bluestone, June and Thompson under which each agreed to consult with us and to continue to serve on our Scientific Advisory Board. In exchange for these services, each consultant was awarded non-statutory stock options for an aggregate of 125,000 shares of our common stock, consisting of one option to purchase 50,000 shares of our common stock at an exercise price of $0.50 per share and a second option to purchase 75,000 shares of our common stock at an exercise price of $1.00 per share. Forty percent of these shares vested upon the execution of the consulting agreement and $^{1}/_{48}$ of the remaining shares subject to the option vest each following month. Dr. Ledbetter, our former Chief Scientific Officer, waived his rights to the milestone pool in connection with his resignation in March 1999.

Certain relationships and related party transactions

Dr. Frohlich's employment agreement, dated August 27, 2001, provides that we will forgive over the next two years up to $40,000 in loans made to him by the Company in connection with commencement of his employment.

James R. Berenson, M.D., a brother of our President and Chief Executive Officer, has acted as and will continue to act as a principal investigator for some of our clinical trials run by a site management organization called Oncotherapeutics.

In October 2003, we issued and sold convertible promissory notes in an aggregate amount of approximately $12.7 million to investors, including, but not limited to, Alta Partners, ARCH Venture Partners, MPM Capital, The Sprout Group, Vector Partners, Vulcan Ventures and W Capital Partners Ironworks. These convertible promissory notes will be converted into approximately 7,268,905 shares of our common stock upon completion of this offering.

In October 2003, in connection with the sale of convertible promissory notes, we issued to participants warrants to purchase shares of preferred stock issued in our next equity financing at the then applicable price per share. However, if we have not closed a qualifying equity financing, and we have not completed this initial public offering, on or before the maturity date of the convertible promissory notes, then the warrants will instead be exercisable for our Series F Preferred Stock at an exercise price of $2.78 per share (adjusted for stock splits and similar transactions). If we complete our initial public offering prior to the earlier of the next equity financing or February 2004, these warrants will not be exercisable on or prior to completion of this offering and will terminate upon completion of this offering.

Principal stockholders

The following table shows information known to us with respect to the beneficial ownership of our common stock as of November 14, 2003 by:

- each of our directors;
- each named executive officer;
- each person or group of affiliated persons known by us to beneficially own more than 5% of our common stock; and
- all of our directors and executive officers as a group.

Beneficial ownership and percentage ownership are determined in accordance with the rules of the SEC. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, shares of common stock underlying options and warrants that are exercisable within 60 days of November 14, 2003 are considered to be outstanding. To our knowledge, except as indicated in the footnotes to the following table and subject to community property laws where applicable, the persons named in this table have sole voting and investment power with respect to all shares of our common stock shown as beneficially owned by them.

The following table reflects the conversion of all 37,300,234 shares of our preferred stock outstanding as of November 14, 2003 into an aggregate of 37,300,234 shares of our common stock, which will become effective at the closing of this offering. This table is based on 45,703,820 shares of our common stock outstanding as of November 14, 2003 and shares outstanding immediately after this offering. The address for those individuals for which an address is not otherwise indicated is: c/o Xcyte Therapies, Inc., 1124 Columbia Street, Suite 130, Seattle, Washington 98104.

Principal stockholders

Name and address of beneficial owner	Number of shares owned(1)	Number of shares underlying options or warrants	Percent of shares beneficially owned: Before this offering	Percent of shares beneficially owned: After this offering
Directors and named executive officers				
Ronald J. Berenson, M.D.(2)	2,431,151	224,999	5.8%	%
Stewart Craig, Ph.D.	—	331,666	*	
Mark Frohlich, M.D.	—	93,832	*	
Kathi L. Cordova, C.P.A.(3)	75,000	60,666	*	
Jean Deleage, Ph.D.(4) c/o Alta Partners One Embarcadero Center Suite 4050 San Francisco, CA 94111	4,615,608	291,312	10.7	
Peter Langecker, M.D., Ph.D.	—	30,000	*	
Robert T. Nelsen(5) c/o ARCH Venture Partners 8725 W. Higgins Road, Suite 290 Chicago, IL 60631	7,110,485	1,423,067	18.1	
Robert E. Curry, Ph.D.(6) c/o The Sprout Group 3000 Sand Hill Road Building 1, Suite 170 Menlo Park, CA 94025	5,003,424	232,101	11.4	
Dennis Henner, Ph.D.(7) c/o MPM Asset Management LLC 111 Huntington Avenue 31st Floor Boston, MA 02199	5,519,424	391,686	12.8	
Stephen N. Wertheimer(8) c/o W Capital Partners 245 Park Avenue 39th Floor New York, NY 10167	2,384,033	196,239	5.6	
Robert M. Williams, Ph.D.	200,000	45,000	*	
All executive officers and directors as a group (13 persons)	27,339,125	3,440,858	62.6	
5% stockholders				
Alta Partners(4) One Embarcadero Center Suite 4050 San Francisco, CA 94111	4,615,608	291,312	10.7	
Arch Venture Partners(5) 8725 W. Higgins Road, Suite 290 Chicago, IL 60631	7,110,485	1,423,067	18.1	
The Sprout Group(6) 3000 Sand Hill Road Building 1, Suite 170 Menlo Park, CA 94025	5,003,424	232,101	11.4	
MPM Capital(7) c/o MPM Asset Management LLC 111 Huntington Avenue 31st Floor Boston, MA 02199	5,519,424	391,686	12.8	
W Capital Partners Ironworks, L.P.(8) 245 Park Avenue 39th Floor New York, NY 10167	2,384,033	196,239	5.6	
Ronald J. Berenson, M.D.(2)	2,431,151	224,999	5.8	
Vector Fund(9) 1751 Lake Cook Road Suite 350 Deerfield, IL 60015	1,834,314	687,570	5.4	
Vulcan Ventures(10) 505 Orion Station 505 Fifth Avenue South Suite 900 Seattle, WA 98104	2,118,225	391,686	5.4	

* *Represents beneficial ownership of less than 1%.*

Principal stockholders

(1) Shares of preferred stock are shown on an as-converted basis.
(2) Includes 2,162,282 shares of common stock, 158,231 of which are subject to repurchase, and 57,895 shares of Series A preferred stock held by Dr. Berenson; and 210,974 shares of common stock held by the Irrevocable Intervivos Trust Agreement of Ronald J. Berenson and Cheryl L. Berenson.
(3) Includes 75,000 shares of common stock.
(4) Includes 1,840,086 shares of Series A preferred stock, 787,294 shares of Series B preferred stock, 949,635 shares of Series C preferred stock, 571,491 shares of Series D preferred stock and 351,677 shares of Series E preferred stock held by Alta California Partners, L.P.; 255,475 shares of common stock issuable upon the exercise of immediately exercisable warrants held by Alta California Partners, L.P.; 54,651 shares of Series A preferred stock, 17,987 shares of Series B preferred stock, 21,696 shares of Series C preferred stock, 13,056 shares of Series D preferred stock and 8,035 shares of Series F preferred stock held by Alta Embarcadero Partners, L.L.C.; 5,837 shares of common stock issuable upon the exercise of immediately exercisable warrants held by Alta Embarcadero Partners, L.L.C.; and 30,000 shares of common stock issuable upon the exercise of immediately exercisable options held by Dr. Deleage, none of which are subject to a repurchase right. Dr. Deleage is a general partner of each of these partnerships, shares voting and dispositive power with respect to the shares held by each of these entities and disclaims beneficial ownership of the shares in which he has no pecuniary interest.
(5) Includes 631,579 shares of Series A preferred stock and 363,636 shares of Series B preferred stock held by ARCH Venture Fund II, L.P.; 157,890 shares of Series A preferred stock, 1,681,818 shares of Series B preferred stock, 1,119,265 shares of Series C preferred stock, 1,321,942 shares of Series D preferred stock and 935,251 shares of Series E preferred stock; 276,307 shares of Series A preferred stock and 657,248 shares of common stock issuable upon the exercise of immediately exercisable warrants held by ARCH Venture Fund III, L.P.; and 899,104 shares of Series F preferred stock and 489,512 shares of common stock issuable upon the exercise of immediately exercisable warrants held by Healthcare Focus Fund, L.P. Mr. Nelsen is a managing director of the general partner of the general partner of the general partner of ARCH Venture Fund II, L.P. Mr. Nelsen is a managing director of the general partner of ARCH Venture Fund III, L.P. Mr. Nelsen is a managing director of the general partner of the general partner of the Healthcare Focus Fund, L.P. Mr. Nelsen shares voting and dispositive power with respect to the shares held by each of these entities and disclaims beneficial ownership of the shares in which he has no pecuniary interest.
(6) Includes 52,632 shares of Series A preferred stock, 10,909 shares of Series B preferred stock, 22,859 shares of Series C preferred stock, 6,475 shares of Series D preferred stock and 7,194 shares of Series E preferred stock held by DLJ Capital Corporation; 4,642 shares of common stock issuable upon the exercise of immediately exercisable warrants held by DLJ Capital Corporation; 263,158 shares of Series A preferred stock, 54,545 shares of Series B preferred stock, 114,294 shares of Series C preferred stock, 32,374 shares of Series D preferred stock and 35,971 shares of Series E preferred stock held by DLJ First ESC, L.P.; 23,209 shares of common stock issuable upon the exercise of immediately exercisable warrants held by DLJ First ESC, L.P.; 2,289,197 shares of Series A preferred stock, 474,488 shares of Series B preferred stock, 994,235 shares of Series C preferred stock, 281,622 shares of Series D preferred stock and 312,914 shares of Series E preferred stock held by Sprout Capital VII, L.P.; 201,905 shares of common stock issuable upon the exercise of immediately exercisable warrants held by Sprout Capital VII, L.P.; 26,592 shares of Series A preferred stock, 5,512 shares of Series B preferred stock, 11,549 shares of Series C preferred stock, 3,270 shares of Series D preferred stock and 3,634 shares of Series F preferred stock held by the Sprout CEO Fund, L.P.; and 2,345 shares of common stock issuable upon the exercise of immediately exercisable warrants held by the Sprout CEO Fund, L.P. Dr. Curry is a general partner of each of these partnerships, shares voting and dispositive power with respect to the shares held by of these entities and disclaims beneficial ownership of the shares in which he has no pecuniary interest.
(7) Includes 7,494 shares of common stock, 66,906 shares of Series D preferred stock and 11,151 shares of Series E preferred stock held by MPM Asset Management Investors 2000 B, LLC; 6,071 shares of common stock issuable upon the exercise of immediately exercisable warrants held by MPM Asset Management Investors 2000 B, LLC; 114,578 shares of common stock, 1,023,022 shares of Series D preferred stock and 170,504 shares of Series E preferred stock held by MPM Bioventures GMBH & Co. Parallel-Beteiligungs KG; 92,830 shares of common stock issuable upon the exercise of immediately exercisable warrants held by MPM Bioventures GMBH & Co. Parallel-Beteiligungs KG.; 35,921 shares of common stock, 320,719 shares of Series D preferred stock and 53,453 shares of Series E preferred stock held by MPM Bioventures II, L.P.; 29,102 shares of common stock issuable upon the exercise of immediately exercisable warrants held by MPM Bioventures II, L.P.; 325,460 shares of common stock, 2,905,900 shares of Series D preferred stock and 484,316 shares of Series E preferred stock held by MPM Bioventures II-QP, L.P.; and 263,683 shares of common stock issuable upon the exercise of immediately exercisable warrants held by MPM Bioventures II-QP, L.P. Dr. Henner is a general partner of each of these entities, shares voting and dispositive power with respect to the shares held by each of these entities and disclaims beneficial ownership of the shares in which he has no pecuniary interest.
(8) Includes 1,796,410 shares of Series C preferred stock, 286,022 shares of Series D preferred stock and 301,601 shares of Series E preferred stock held by W Capital Partners Ironworks, L.P., and 196,239 shares of common stock issuable upon the exercise of immediately exercisable warrants held by W Capital Partners Ironworks, L.P. Mr. Wertheimer is the managing director of W Capital Partners Ironworks, L.P., shares voting and dispositive power with respect to this partnership and disclaims beneficial ownership of the shares in which he has no pecuniary interest.
(9) Includes 539,569 shares of Series D preferred stock, 809,194 shares of Series F preferred stock and 500,992 shares of common stock issuable upon the exercise of immediately exercisable warrants held by Vector Later-Stage Equity Fund II (QP) LP.; 179,856 shares of Series D preferred stock, 269,731 shares of Series F preferred stock and 166,998 shares of common stock issuable upon the exercise of immediately exercisable warrants held by Vector Later-Stage Equity Fund II L.P.; and 35,964 shares of Series F preferred stock and 19,580 shares of common stock issuable upon the exercise of immediately exercisable warrants held by Palivacinni Partners, LLC. The general partner of Vector Later-Stage Equity Fund II, L.P. and Vector Later-Stage Equity Fund II (QP) L.P. is Vector Fund Management, L.L.C., which has appointed Vector Fund Management, L.P. as the manager of the shares. There is no single person at the funds that exercises voting or investment control over the shares held by the funds. Voting and investment control over the shares is held by an internal investment committee of Vector Fund Management, L.P.
(10) Includes 80,575 shares of common stock, 598,802 shares of Series C preferred stock, 719,424 shares of Series D preferred stock and 719,424 shares of Series E preferred stock held by Vulcan Ventures, Inc.; and 391,686 shares of common stock issuable upon the exercise of immediately exercisable warrants held by Vulcan Ventures, Inc. Paul G. Allen has investment and voting control over of these shares.

Description of capital stock

GENERAL

Our amended and restated certificate of incorporation, which will become effective upon the closing of this offering, authorizes the issuance of up to 100 million shares of common stock, par value $0.001 per share, and 5 million shares of preferred stock, par value $0.001 per share. The rights and preferences of the preferred stock may be established from time to time by our board of directors. As of September 30, 2003, 8,402,636 shares of common stock were issued and outstanding and 37,300,234 shares of preferred stock convertible into 37,300,234 shares of common stock upon the completion of this offering were issued and outstanding. As of September 30, 2003, we had 79 common stockholders of record and 44 preferred stockholders of record.

Immediately after the closing of this offering, we will have approximately shares of common stock outstanding, which is based on 8,402,636 shares of our common stock outstanding as of September 30, 2003, after giving effect to:

- the conversion of all 37,300,234 shares of our preferred stock outstanding as of September 30, 2003 into 37,300,234 shares of our common stock, which will become effective at the closing of this offering;
- the net exercise of warrants outstanding as of September 30, 2003, which will expire at the closing of this offering, to purchase 4,990,344 shares of our common stock with a weighted average exercise price of $0.05 per share, resulting in the issuance of shares of common stock, assuming an initial public offering price of $ per share;
- the conversion of shares of our preferred stock issuable upon the net exercise of warrants outstanding as of September 30, 2003, which will expire at the closing of this offering, to purchase 471,959 shares of our preferred stock with a weighted average exercise price of $1.32 per share, resulting in the issuance of shares of common stock, assuming an initial public offering price of $ per share; and
- our issuance of convertible promissory notes in October 2003 for net proceeds of approximately $12.7 million, their conversion into approximately 7,268,905 shares of our common stock and the recognition of approximately $11.8 million in interest expense associated with the discount on the notes.

The description below gives effect to the filing of our amended and restated certificate of incorporation and the adoption of our amended and restated bylaws and is qualified in its entirety by reference to these documents, copies of which are filed as exhibits to the registration statement of which this prospectus is a part.

COMMON STOCK

Each holder of common stock is entitled to one vote for each share on all matters to be voted upon by the stockholders, and there are no cumulative voting rights. Subject to preferences to which holders of preferred stock issued after the sale of the common stock being offered may be entitled, holders of common stock are entitled to receive ratably those dividends, if any, that may be declared from time to time by our board of directors out of funds legally available for the payment of dividends. In the event of a liquidation, dissolution or winding up of us, holders of our common stock would be entitled to share in our assets remaining after the payment of liabilities and the satisfaction of any liquidation preference granted to holders of any outstanding shares of preferred stock. Holders of our common stock have no preemptive or conversion rights or other subscription rights, and there are no redemption or sinking fund provisions applicable to our common stock. All outstanding shares of common stock are, and the shares

of common stock offered by us in this offering, when issued and paid for, will be, fully paid and nonassessable. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock which we may designate in the future.

PREFERRED STOCK

Upon the closing of this offering, our board of directors will be authorized, subject to any limitations prescribed by law, without stockholder approval, to issue from time to time up to an aggregate of 5 million shares of preferred stock in one or more series. Each series of preferred stock will have the rights and preferences, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, as our board of directors determines. The issuance of preferred stock could adversely affect the voting power of holders of our common stock and the likelihood that holders of our common stock will receive dividend payments and payments upon liquidation. In addition, the issuance of preferred stock could have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from attempting to acquire, a majority of our outstanding voting stock. We have no present plans to issue any shares of preferred stock.

WARRANTS

As of September 30, 2003, the following warrants were outstanding:

- warrants that expire between July 2006 and February 2009 to purchase at a weighted average exercise price of $1.44 per share an aggregate of 256,353 shares of our preferred stock, which are convertible into an aggregate of 256,353 shares of common stock;
- warrants that will expire upon the closing of this offering to purchase an aggregate of 471,959 shares of our preferred stock at a weighted average exercise price of $1.32 per share; and
- warrants that will expire upon the closing of this offering to purchase an aggregate of 4,990,344 shares of our common stock at a weighted average exercise price of $0.05 per share.

REGISTRATION RIGHTS

We and the holders of our preferred stock, certain holders of warrants to purchase our preferred stock and certain holders of our common stock entered into an investor rights agreement, dated May 25, 2000, as amended on August 8, 2000, October 18, 2000, November 13, 2001, February 5, 2002, May 22, 2002 and August 9, 2003. This investors rights agreement provides these holders with customary demand and piggyback registration rights with respect to the shares of common stock held by them and common stock to be issued upon conversion or exercise of preferred stock and warrants held by them. In addition, the holders of our preferred stock are entitled to receive quarterly and annual financial statements, subject to certain conditions and limitations.

Demand registration

According to the terms of the investor rights agreement, the holders of 44,051,323 shares of our common stock or warrants to purchase shares of our common stock have the right to require us to register their shares with the SEC for resale to the public. To demand such a registration, holders who hold together an aggregate of at least 50% of the shares having registration rights must request a

registration statement to register shares for an aggregate offering price of at least $10 million, net of underwriting discounts and commissions. We are not required to effect more than two demand registrations. We have currently not effected, or received a request for, any demand registrations. We may defer the filing of a demand registration statement for a period of up to 90 days once in any 12-month period.

Piggyback registration

If we file a registration statement for a public offering of any of our securities solely for cash, other than a registration statement relating solely to our stock plans, the holders of demand registration rights will have the right to include their shares in the registration statement.

Form S-3 registration

At any time after we become eligible to file a registration statement on Form S-3, holders of shares of common stock having demand and piggyback registration rights may require us to file a Form S-3 registration statement. We are obligated to file only one Form S-3 registration statement in any six-month period. Furthermore, the aggregate offering proceeds of the requested Form S-3 registration, before deducting underwriting discounts and expenses, must be at least $500,000. We may defer one registration request for 120 days in any 12-month period.

These registration rights are subject to certain conditions and limitations, including the right of the underwriters of an offering to limit the number of shares of common stock to be included in the registration. We are generally required to bear the expenses of all registrations, except underwriting discounts and commissions. However, we will not pay for any expenses of any demand registration if the request is subsequently withdrawn by the holders of a majority of the securities to be registered. The investors rights agreement also contains our commitment to indemnify the holders of registration rights for losses attributable to statements or omissions by us incurred with registrations under the agreement. The registration rights terminate five years after the closing of this offering.

ANTI-TAKEOVER EFFECTS OF PROVISIONS OF OUR AMENDED AND RESTATED CERTIFICATE OF INCORPORATION AND BYLAWS AND DELAWARE AND WASHINGTON LAW

Provisions of our amended and restated certificate of incorporation and bylaws, which will become effective upon the closing of this offering, may have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from attempting to acquire, control of us. These provisions could limit the price that investors might be willing to pay in the future for shares of our common stock. Our amended and restated bylaws and certificate of incorporation eliminate the right of stockholders to call special meetings of stockholders or to act by written consent without a meeting and require advance notice for stockholder proposals and director nominations, which may preclude stockholders from bringing matters before an annual meeting of stockholders or from making nominations for directors at an annual meeting of stockholders. The authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change control of us. These and other provisions may have the effect of deterring hostile takeovers or delaying changes in control of us or our management. In addition, we are subject to Section 203 of the Delaware General Corporation Law, which, subject to certain exceptions, generally prohibits a Delaware corporation from engaging in any business combination with any interested stockholder, unless:

- prior to the business combination, our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;

- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of our voting stock outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding:
  - shares owned by persons who are directors and also officers; and
  - shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or after the time the stockholder became an interested stockholder, the business combination is:
  - approved by our board of directors; and
  - authorized at an annual or special meeting of our stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of our outstanding voting stock which is not owned by the interested stockholder.

In general, the Delaware General Corporation Law defines an interested stockholder to be an entity or person that beneficially owns 15% or more of the outstanding voting stock of the corporation or any entity or person that is an affiliate or associate of such entity or person.

The Delaware General Corporation Law generally defines business combination to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, lease, exchange, mortgage, pledge, transfer or other disposition of 10% or more of the assets of the corporation or its majority-owned subsidiary that involves interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to certain exceptions, any transaction involving the corporation that has the effect of increasing the interested stockholder's proportionate share of the stock of any class or series of the corporation; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

The laws of the State of Washington, where our principal executive offices are located, impose restrictions on certain transactions between certain foreign corporations and significant stockholders. Chapter 23B.19 of the Washington Business Corporation Act, or the WBCA, generally prohibits a target corporation, with certain exceptions, from engaging in certain significant business transactions with an acquiring person for a period of five years after the acquiring person first became an acquiring person, unless the transaction or the purchase of shares by the acquiring person is approved by a majority of the members of the target corporation's board of directors prior to the time the acquiring person first became an acquiring person. An acquiring person is generally a person or group of persons who beneficially owns 10% or more of the voting securities of the target corporation. Prohibited transactions include, among other things:

- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the target corporation;
- a merger or consolidation with, disposition of assets to, or issuance or redemption of stock to or from, the acquiring person;

- termination of 5% or more of the employees of the target corporation as a result of the acquiring person's acquisition of 10% or more of the shares of the target corporation; and
- allowing the acquiring person to receive a disproportionate benefit as a stockholder;

After the five-year period, a significant business transaction may take place as long as it complies with certain fair price provisions of the statute. A target corporation includes a foreign corporation if:

- the corporation has a class of voting shares registered pursuant to Sections 12 or 15 of the Securities Exchange Act of 1934, as amended;
- the corporation's principal executive office is located in Washington;
- the corporation has either:
  - more than 10% of its stockholders of record resident in Washington;
  - more than 10% of its shares owned of record by Washington residents; or
  - 1,000 or more stockholders of record resident in Washington;
- a majority of the corporation's employees are Washington residents or more than 1,000 Washington residents are employees of the corporation; and
- a majority of the corporation's tangible assets are located in Washington or the corporation has more than $50 million of tangible assets located in Washington.

Because a corporation may not opt out of this statute, we anticipate this statute will apply to us. Depending on whether we meet the definition of a target corporation, Chapter 23B.19 of the WBCA may have the effect of delaying, deterring or preventing a change in control of us.

NASDAQ NATIONAL MARKET LISTING

We have applied to have our common stock approved for quotation on The Nasdaq National Market under the symbol "XCYT."

TRANSFER AGENT AND REGISTRAR

The transfer agent and registrar for our common stock is American Stock Transfer and Trust Company. Its address is 59 Maiden Lane, New York, NY 10038, and its telephone number is (212) 936-5100.

Shares eligible for future sale

Prior to this offering, there has been no public market for our common stock. Future sales of substantial amounts of our common stock in the public market, or the perception that these sales could occur, could adversely affect the price of our common stock.

Based on the number of shares outstanding as of September 30, 2003, we will have approximately shares of our common stock outstanding after the completion of this offering (approximately shares if the underwriters exercise their overallotment option in full). Of those shares, the shares of common stock sold in this offering (shares if the underwriters exercise their overallotment option in full) will be freely transferable without restriction, unless purchased by our affiliates. The remaining shares of common stock to be outstanding immediately following the completion of this offering, which are "restricted securities" under Rule 144 of the Securities Act of 1933, or Rule 144, as well as any other shares held by our affiliates, may not be resold except pursuant to an effective registration statement or an applicable exemption from registration, including an exemption under Rule 144.

All of our officers and directors, and substantially all security holders have entered into lock-up agreements pursuant to which they have generally agreed, subject to certain exceptions, not to offer or sell any shares of common stock or securities convertible into or exchangeable or exercisable for shares of common stock for a period of 180 days from the date of this prospectus without the prior written consent of UBS Securities LLC. See "Underwriting."

After the offering, the holders of shares of our common stock (including shares issuable upon exercise of outstanding warrants) will be entitled to registration rights. For more information on these registration rights, see "Description of capital stock—Registration rights."

In general, under Rule 144, as currently in effect, an affiliate of ours who beneficially owns shares of our common stock that are not restricted securities, or a person who beneficially owns for more than one year shares of our common stock that are restricted securities, may generally sell, within any three-month period, a number of shares that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately shares immediately after this offering; and
- the average weekly trading volume of our common stock on The Nasdaq National Market during the four preceding weeks.

Sales under Rule 144 are also subject to requirements with respect to manner of sale, notice and the availability of current public information about us. Generally, a person who was not our affiliate at any time during the three months before the sale, and who has beneficially owned shares of our common stock that are restricted securities for at least two years, may sell those shares without regard to the volume limitations, manner of sale restrictions, notice requirements or the requirements with respect to availability of current public information about us.

Generally, an employee, officer, director or consultant who purchased shares of our common stock before the effective date of the registration statement of which this prospectus is a part, or who holds options as of that date, pursuant to a written compensatory plan or contract may rely on the resale provisions of Rule 701 under the Securities Act. Under Rule 701, these persons who are not our affiliates may generally sell their eligible securities, commencing 90 days after the effective date of the registration statement of which this prospectus is a part, without having to comply with the public information,

holding period, volume limitation or notice provisions of Rule 144. These persons who are our affiliates may generally sell their eligible securities under Rule 701, commencing 90 days after the effective date of the registration statement of which this prospectus is a part, without having to comply with Rule 144's one-year holding period restriction.

Neither Rule 144 nor Rule 701 supersedes the contractual obligations of our security holders set forth in the lock-up agreements described above.

The shares of our common stock that were outstanding on September 30, 2003 as adjusted to reflect the conversion of our preferred stock in connection with this initial public offering will become eligible for sale, pursuant to Rule 144 or Rule 701, without registration approximately as follows:

- Ø shares of common stock will be immediately eligible for sale in the public market without restriction;
- Ø shares of common stock will be eligible for sale in the public market under Rule 144 or Rule 701, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, subject to the volume, manner of sale and other limitations under those rules; and
- Ø the remaining shares of common stock will become eligible under Rule 144 for sale in the public market from time to time after the effective date of the registration statement of which this prospectus is a part upon expiration of their respective holding periods.

The above does not take into consideration the effect of the lock-up agreements described above.

STOCK OPTIONS

We have reserved an aggregate of 6.4 million shares of our common stock for issuance under our 1996 Stock Option Plan, 3.5 million shares of our common stock for issuance under our 2003 Stock Plan, 500,000 shares of our common stock for issuance under our 2003 Directors' Stock Option Plan and 600,000 shares of our common stock for issuance under our 2003 Employee Stock Purchase Plan. As of September 30, 2003, we had outstanding options under our 1996 Stock Option Plan to purchase 3,985,560 shares of our common stock. We intend to register the shares subject to these plans and the options on a registration statement under the Securities Act of 1933 on Form S-8 following this offering. Subject to the lock-up agreements, the restrictions imposed under the 1996 Stock Option Plan, the 2003 Stock Plan, the 2003 Directors' Stock Option Plan, the 2003 Employee Stock Purchase Plan and related option agreements, shares of common stock issued under these plans or agreements after the effective date of any registration statement on Form S-8 will be available for sale in the public market without restriction to the extent that they are held by persons who are not our affiliates.

Underwriting

We are offering the shares of our common stock described in this prospectus through the underwriters named below. UBS Securities LLC, U.S. Bancorp Piper Jaffray Inc. and Wells Fargo Securities, LLC are the representatives of the underwriters. We have entered into an underwriting agreement with the representatives. Subject to the terms and conditions of the underwriting agreement, each of the underwriters has severally agreed to purchase the number of shares of common stock listed next to its name in the following table:

Underwriters	Number of shares
UBS Securities LLC	
U.S. Bancorp Piper Jaffray Inc.	
Wells Fargo Securities, LLC	
Total	

The underwriting agreement provides that the underwriters must buy all of the shares if they buy any of them. However, the underwriters are not required to take or pay for the shares covered by the underwriters' over-allotment option described below.

Our common stock is offered subject to a number of conditions, including:

- receipt and acceptance of our common stock by the underwriters; and
- the underwriters' right to reject orders in whole or in part.

In connection with this offering, certain of the underwriters or securities dealers may distribute prospectuses electronically.

OVER-ALLOTMENT OPTION

We have granted the underwriters an option to buy up to an aggregate of additional shares of our common stock. The underwriters may exercise this option solely for the purpose of covering over-allotments, if any, made in connection with this offering. The underwriters have 30 days from the date of this prospectus to exercise this option. If the underwriters exercise this option, they will each purchase additional shares approximately in proportion to the amounts specified in the table above.

COMMISSIONS AND DISCOUNTS

Shares sold by the underwriters to the public will initially be offered at the offering price set forth on the cover of this prospectus. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to $ per share from the public offering price. Any of these securities dealers may resell any shares purchased from the underwriters to other brokers or dealers at a discount of up to $ per share from the public offering price. If all the shares are not sold at the public offering price, the representatives may change the offering price and the other selling terms. Sales of shares made outside of the United States may be made by affiliates of the underwriters.

Underwriting

The underwriters have informed us that they do not expect discretionary sales to exceed 5% of the shares of common stock to be offered.

The following table shows the per share and total underwriting discounts and commissions we will pay to the underwriters assuming both no exercise and full exercise of the underwriters' option to purchase up to an additional shares.

	No exercise	Full exercise
Per share	$	$
Total	$	$

We estimate that the total expenses of this offering payable by us, not including the underwriting discounts and commissions, will be approximately .

NO SALES OF SIMILAR SECURITIES

We, our executive officers and directors and substantially all of our existing stockholders have entered into lock-up agreements with the underwriters. Under these agreements, we and each of these persons generally may not, without the prior written approval of UBS Securities LLC, offer, sell, contract to sell or otherwise dispose of directly or indirectly or hedge our common stock or securities convertible into or exchangeable for or exercisable for our common stock, subject to certain exceptions. These restrictions will be in effect for a period of 180 days after the date of this prospectus. At any time and without public notice, UBS Securities LLC may, in their sole discretion, release some or all of the securities from these lock-up agreements.

INDEMNIFICATION AND CONTRIBUTION

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act. If we are unable to provide this indemnification, we will contribute to payments the underwriters may be required to make in respect of those liabilities.

NASDAQ NATIONAL MARKET QUOTATION

We have applied to have our common stock approved for quotation on The Nasdaq National Market under the trading symbol "XCYT."

PRICE STABILIZATION, SHORT POSITIONS

In connection with this offering, the underwriters may engage in activities that stabilize, maintain or otherwise affect the price of our common stock, including:

- stabilizing transactions;
- short sales;
- purchases to cover positions created by short sales;
- imposition of penalty bids; and
- syndicate covering transactions.

Stabilizing transactions consist of bids or purchases made for the purpose of preventing or retarding a decline in the market price of our common stock while this offering is in progress. These transactions may also include making short sales of our common stock, which involve the sale by the underwriters of a greater number of shares of common stock than they are required to purchase in this offering and purchasing shares of common stock in the open market to cover positions created by short sales. Short sales may be "covered short sales," which are short positions in an amount not greater than the underwriters' over-allotment option referred to above, or may be "naked short sales," which are short positions in excess of that amount.

The underwriters may close out any covered short position by either exercising their over-allotment option, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the price of shares available for purchase in the open market compared to the price at which they may purchase shares through the over-allotment option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market that could adversely affect investors who purchased in this offering.

The underwriters also may impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of that underwriter in stabilizing or short covering transactions.

As a result of these activities, the price of our common stock may be higher that the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued by the underwriters at any time. The underwriters may carry out these transactions on The Nasdaq National Market, in the over-the-counter market or otherwise.

DETERMINATION OF OFFERING PRICE

Prior to this offering, there was no public market for our common stock. The initial public offering price will be determined by negotiation by us and the representatives of the underwriters. The principal factors to be considered in determining the initial public offering price include:

- the information set forth in this prospectus and otherwise available to representatives;
- our history and prospects and the history of, and prospects for, the industry in which we compete;
- our past and present financial performance and an assessment of our management;
- our prospects for future earnings and the present state of our development;
- the general condition of the securities markets at the time of this offering;
- the recent market prices of, and demand for, publicly traded common stock of generally comparable companies; and
- other factors deemed relevant by the underwriters and us.

DIRECTED SHARE PROGRAM

At our request, certain of the underwriters have reserved up to 5% of the common stock being offered by this prospectus for sale at the initial public offering price to our directors, officers, employees and other individuals associated with us and members of their families. The sales will be made by UBS Securities LLC through a directed share program. We do not know if these persons will choose to purchase all or any portion of these reserved shares, but any purchases they do make will reduce the number of shares available to the general public. These persons must commit to purchase no later than the close of business on the day following the date of this prospectus. Any employees or other persons purchasing these reserved shares will be prohibited from disposing of or hedging the shares for a period of at least 180 days after the date of this prospectus.

AFFILIATIONS

Certain of the underwriters and their affiliates have in the past provided and may from time to time provide certain commercial banking, financial advisory, investment banking and other services for us for which they were and will be entitled to receive separate fees.

The underwriters and their affiliates may from time to time in the future engage in transactions with us and perform services for us in the ordinary course of their business.

Legal matters

The validity of the common stock we are offering will be passed upon for us by Heller Ehrman White & McAuliffe LLP, Seattle, Washington. Dewey Ballantine LLP, East Palo Alto, California, is counsel for the underwriters in connection with this offering. As of the date of this prospectus, investment partnerships associated with Heller Ehrman White & McAuliffe LLP and individual attorneys of Heller Ehrman White & McAuliffe LLP beneficially own an aggregate of 16,188 shares of our Series D preferred stock and warrants to purchase 1,812 shares of our common stock. These shares of Series D preferred stock will convert into 16,188 shares of our common stock upon completion of this offering.

Experts

The financial statements of Xcyte Therapies, Inc. at December 31, 2002 and 2001, and for each of the three years in the period ended December 31, 2002 and for the period from inception (January 5, 1996) to December 31, 2002, appearing in this prospectus and registration statement have been audited by Ernst & Young LLP, independent auditors, as set forth in their report thereon (which contains an emphasis paragraph describing conditions that adversely affect our liquidity as described in Note 1 to the financial statements) appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

Where you can find more information

We have filed with the SEC a registration statement on Form S-1 under the Securities Act of 1933 with respect to the shares of common stock we are offering. This prospectus does not contain all of the information in the registration statement and the exhibits to the registration statement. For further information with respect to us and our common stock, we refer you to the registration statement and to the exhibits to the registration statement. Statements contained in this prospectus about the contents of any contract or any other document are not necessarily complete, and, in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

You may read and copy the registration statement of which this prospectus is a part at the SEC's Public Reference Room, which is located at 450 Fifth Street, N.W., Washington, D.C. 20549. You can request copies of the registration statement by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the SEC's Public Reference Room. In addition, the SEC maintains an Internet website, which is located at *www.sec.gov*, that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. You may access the registration statement of which this prospectus is a part at the SEC's Internet website. Upon completion of this offering, we will be subject to the information reporting requirements of the Securities Exchange Act of 1934, and we will file reports, proxy statements and other information with the SEC.

We maintain an Internet website at *www.xcytetherapies.com*. We have not incorporated by reference into this prospectus the information on our website, and you should not consider it to be a part of this prospectus.

This prospectus includes statistical data that were obtained from industry publications. These industry publications generally indicate that the authors of these publications have obtained information from sources believed to be reliable but do not guarantee the accuracy and completeness of their information. While we believe these industry publications to be reliable, we have not independently verified their data.

Index to financial statements

REPORT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

The Board of Directors
Xcyte Therapies, Inc.

We have audited the accompanying balance sheets of Xcyte Therapies, Inc. (a development stage company) (the Company) as of December 31, 2001 and 2002, and the related statements of operations, stockholders' deficit and cash flows for each of the three years in the period ended December 31, 2002 and for the period from inception (January 5, 1996) to December 31, 2002. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

Since the date of completion of our audits of the accompanying financial statements and initial issuance of our report thereon dated April 25, 2003, the Company, as discussed in Note 1, has experienced a decrease in its cash and cash equivalents and short-term investments and continues to incur substantial operating losses that adversely affect the Company's current results of operations and liquidity. Note 1 describes management's plans to address these issues.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Xcyte Therapies, Inc. (a development stage company) at December 31, 2001 and 2002, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2002 and for the period from inception (January 5, 1996) to December 31, 2002, in conformity with accounting principles generally accepted in the United States.

/s/ Ernst & Young LLP

Seattle, Washington
April 25, 2003,
except for the second paragraph of Note 1 and Note 13,
as to which the date is October 9, 2003

Xcyte Therapies, Inc. (a development stage company)

BALANCE SHEETS

(in thousands, except share and per share data)	December 31, 2001	December 31, 2002	September 30, 2003 (unaudited)	Pro forma stockholders' equity at September 30, 2003 (Note 12) (unaudited)
Assets				
Current assets:				
Cash and cash equivalents	$ 21,098	$ 3,728	$ 2,633	
Short-term investments	—	13,616	2,772	
Prepaid expenses and other current assets	349	699	442	
Total current assets	21,447	18,043	5,847	
Property and equipment, net	2,303	2,613	2,414	
Deposits and other assets	977	879	1,106	
Total assets	$ 24,727	$ 21,535	$ 9,367	
Liabilities and stockholders' equity (deficit)				
Current liabilities:				
Accounts payable	$ 1,023	$ 595	$ 851	
Accrued compensation and related benefits	387	339	406	
Other accrued liabilities	259	721	436	
Current portion of equipment financings	643	818	819	
Total current liabilities	2,312	2,473	2,512	
Equipment financings, less current portion	738	1,052	858	
Other liabilities	308	462	542	
Commitments and contingencies:				
Redeemable convertible preferred stock, Issued and outstanding—32,809,142, 37,253,393 and 37,300,234 shares as of December 31, 2001, December 31, 2002 and September 30, 2003, respectively (no shares, pro forma)				
Aggregate preference in liquidation—$64,120, $76,475 and $76,520 at December 31, 2001, December 31, 2002 and September 30, 2003, respectively	56,552	64,540	64,604	
Redeemable convertible preferred stock warrants	1,077	1,133	1,072	
Stockholders' equity (deficit):				
Preferred stock, $0.001 par value per share Authorized—42,000,000 shares (5,000,000 shares, pro forma) Designated redeemable and convertible—41,909,976 shares issued and outstanding—no shares as of December 31, 2001, December 31, 2002 and September 30, 2003, respectively (no shares pro forma)	—	—	—	$ —
Common stock, par value $0.001 per share Authorized—70,000,000 shares (100,000,000 shares, pro forma) Issued and outstanding—7,437,380, 8,381,539 and 8,402,636 shares as of December 31, 2001, December 31, 2002 and September 30, 2003, respectively (45,702,870 shares, pro forma)	7	8	8	46
Additional paid-in capital	14,482	21,881	24,064	89,702
Deferred stock compensation	(2,064)	(1,880)	(2,993)	(2,993)
Accumulated other comprehensive income	—	4	2	2
Deficit accumulated during the development stage	(48,685)	(68,138)	(81,302)	(81,302)
Total stockholders' equity (deficit)	$ (36,260)	$ (48,125)	$ (60,221)	$ 5,455
Total liabilities and stockholders' equity (deficit)	$ 24,727	$ 21,535	$ 9,367	

The accompanying notes are an integral part of these financial statements.

Xcyte Therapies, Inc. (a development stage company)

STATEMENTS OF OPERATIONS

	Year ended December 31,			Period from inception (January 5, 1996) to December 31, 2002	Nine months ended September 30,		Period from inception (January 5, 1996) to September 30, 2003
	2000	2001	2002		2002	2003	
	(in thousands, except share and per share data)				(unaudited)	(unaudited)	(unaudited)
Revenue:							
License fee	$ —	$ —	$ —	$ —	$ —	$ —	$ 100
Collaborative agreement	—	—	—	100	—	145	145
Government grant	98	30	—	144	—	—	144
Total revenue	98	30	—	244	—	145	389
Operating expenses:							
Research and development	11,257	14,701	14,663	53,140	10,888	10,112	63,252
General and administrative	2,403	5,204	4,979	17,129	3,978	3,112	20,241
Total operating expenses	13,660	19,905	19,642	70,269	14,866	13,224	83,493
Loss from operations	(13,562)	(19,875)	(19,642)	(70,025)	(14,866)	(13,079)	(83,104)
Other income (expense):							
Interest income	868	698	467	3,323	367	112	3,435
Interest expense	(247)	(260)	(267)	(1,242)	(192)	(196)	(1,438)
Loss on sale of equipment	—	(75)	(11)	(194)	(7)	(1)	(195)
Other income (expense), net	621	363	189	1,887	168	(85)	1,802
Net loss	(12,941)	(19,512)	(19,453)	(68,138)	(14,698)	(13,164)	(81,302)
Accretion of preferred stock	—	(8,411)	(8,001)	(16,412)	(8,001)	—	(16,412)
Net loss applicable to common stockholders	$ (12,941)	$ (27,923)	$ (27,454)	$ (84,550)	$ (22,699)	$ (13,164)	$ (97,714)
Basic and diluted net loss per common share	$ (2.16)	$ (4.03)	$ (3.52)		$ (2.97)	$ (1.61)	
Shares used in computation of basic and diluted net loss per common share	6,002,557	6,935,989	7,808,653		7,650,271	8,161,450	

The accompanying notes are an integral part of these financial statements.

Xcyte Therapies, Inc. (a development stage company)

STATEMENTS OF CHANGES IN STOCKHOLDERS' DEFICIT

	Common stock		Additional paid-in capital	Deferred stock compensation	Deficit accumulated during the development stage	Accumulated other comprehensive income (loss)	Total
	Shares	Amount					
	(in thousands, except share data)						
Common stock issued upon incorporation	3,374,634	$ 3	$ —	$ —	$ —	$ —	$ 3
Deferred stock-based compensation	—	—	7	(7)	—	—	—
Amortization of deferred compensation	—	—	—	2	—	—	2
Common stock issued August 1996 for technology license, valued at $0.001 per share	198,609	—	—	—	—	—	—
Net loss		—	—	—	(551)	—	(551)
Balance at December 31, 1996	3,573,243	3	7	(5)	(551)	—	(546)
Common stock repurchases	(635,000)	(1)	—	—	—	—	(1)
Common stock issued August 1997 in acquisition, valued at $0.11 per share	2,999,910	3	327	—	—	—	330
Deferred stock-based compensation	—	—	9	(9)	—	—	—
Amortization of deferred compensation	—	—	—	4	—	—	4
Common stock issued January 1997 for technology license, valued at $0.001 per share	407,198	1	—	—	—	—	1
Stock options exercised	12,750	—	1	—	—	—	1
Net loss	—	—	—	—	(3,288)	—	(3,288)
Balance at December 31, 1997	6,358,101	6	344	(10)	(3,839)	—	(3,499)
Repurchase of founder's stock	(88,542)	—	—	—	—	—	—
Stock options exercised	250	—	—	—	—	—	—
Deferred stock-based compensation	—	—	8	(8)	—	—	—
Amortization of deferred compensation	—	—	—	6	—	—	6
Net loss	—	—	—	—	(5,446)	—	(5,446)
Balance at December 31, 1998	6,269,809	6	352	(12)	(9,285)	—	(8,939)
Common stock returned for technology license termination	(400,000)	—	—	—	—	—	—
Common stock issued June 1999 for technology license, valued at $0.10 per share	20,000	—	2	—	—	—	2
Deferred stock-based compensation	—	—	720	(720)	—	—	—
Amortization of deferred compensation	—	—	—	93	—	—	93
Stock options exercised	53,770	—	5	—	—	—	5
Change in unrealized loss on investments	—	—	—	—	—	(18)	(18)
Net loss	—	—	—	—	(6,947)	—	(6,947)
Comprehensive loss							(6,965)
Balance at December 31, 1999	5,943,579	6	1,079	(639)	(16,232)	(18)	(15,804)
Common stock issued December 2000 for technology license, valued at $4.96 per share	150,000	—	744	—	—	—	744
Issuance of common stock warrants	—	—	2,716	—	—	—	2,716
Deferred stock-based compensation	—	—	1,988	(1,988)	—	—	—
Amortization of deferred compensation	—	—	—	770	—	—	770
Remeasurement and issuance of stock options in exchange for consulting services	—	—	112	—	—	—	112
Stock options exercised	709,149	1	227	—	—	—	228
Change in unrealized loss on investments	—	—	—	—	—	18	18
Net loss	—	—	—	—	(12,941)	—	(12,941)
Comprehensive loss							(12,923)
Balance at December 31, 2000	6,802,728	7	6,866	(1,857)	(29,173)	—	(24,157)
Common stock repurchased	(13,333)	—	(2)	—	—	—	(2)
Warrants issued November 2001 and beneficial conversion in preferred stock	—	—	13,060	—	—	—	13,060
Deferred stock-based compensation	—	—	1,652	(1,652)	—	—	—
Amortization of deferred compensation	—	—	—	1,445	—	—	1,445
Remeasurement and issuance of stock options in exchange for consulting services	—	—	1,122	—	—	—	1,122
Stock options and warrants exercised	647,985	—	195	—	—	—	195
Accretion of redeemable convertible preferred stock	—	—	(8,411)	—	—	—	(8,411)
Net loss and comprehensive loss	—	—	—	—	(19,512)	—	(19,512)
Balance at December 31, 2001	7,437,380	$ 7	$ 14,482	$ (2,064)	$ (48,685)	$ —	$ (36,260)

The accompanying notes are an integral part of these financial statements.

Xcyte Therapies, Inc. (a development stage company)

STATEMENTS OF CHANGES IN STOCKHOLDERS' DEFICIT (continued)

	Common stock		Additional paid-in capital	Deferred stock compensation	Accumulated deficit during the development stage	Accumulated other comprehensive income (loss)	Total
	Shares	Amount					
	(in thousands, except share data)						
Balance at December 31, 2001	7,437,380	$ 7	$ 14,482	$ (2,064)	$ (48,685)	$ —	$(36,260)
Common stock issued May 2002 for technology license, valued at $1.94 per share	350,000	—	679	—	—	—	679
Warrants issued February and March 2002 and beneficial conversion in preferred stock	—	—	12,325	—	—	—	12,325
Deferred stock-based compensation	—	—	3,188	(3,188)	—	—	—
Amortization of deferred compensation, net of reversal of $867 for terminated employees	—	—	(867)	3,372	—	—	2,505
Remeasurement and issuance of stock options in exchange for consulting services	—	—	65	—	—	—	65
Stock options and warrants exercised	594,159	1	10	—	—	—	11
Accretion of redeemable convertible preferred stock	—	—	(8,001)	—	—	—	(8,001)
Change in unrealized gain on investments	—	—	—	—	—	4	4
Net loss	—	—	—	—	(19,453)	—	(19,453)
Comprehensive loss							(19,449)
Balance at December 31, 2002	8,381,539	8	21,881	(1,880)	(68,138)	4	(48,125)
Deferred stock-based compensation (unaudited)	—	—	2,088	(2,088)	—	—	—
Amortization of deferred compensation, net of reversal of $146 for terminated employees (unaudited)	—	—	(146)	975	—	—	829
Remeasurement and issuance of stock options in exchange for consulting services (unaudited)	—	—	236	—	—	—	236
Stock options and warrants exercised (unaudited)	21,097	—	5	—	—	—	5
Change in unrealized gain on investments (unaudited)	—	—	—	—	—	(2)	(2)
Net loss (unaudited)	—	—	—	—	(13,164)	—	(13,164)
Comprehensive loss (unaudited)							(13,166)
Balance at September 30, 2003 (unaudited)	8,402,636	$ 8	$ 24,064	$ (2,993)	$ (81,302)	$ 2	$(60,221)

The accompanying notes are an integral part of these financial statements.

Xcyte Therapies, Inc. (a development stage company)

STATEMENTS OF CASH FLOWS

	Years ended December 31,			Period from inception (January 5, 1996) to December 31, 2002	Nine months ended September 30,		Period from Inception (January 5, 1996) to September 30, 2003
	2000	2001	2002		2002	2003	
	(in thousands)				(unaudited)		(unaudited)
Cash flows from operating activities							
Net loss	$ (12,941)	$ (19,512)	$ (19,453)	$ (68,138)	$ (14,698)	$ (13,164)	$ (81,302)
Adjustments to reconcile net loss to net cash used in operating activities:							
Non-cash research and development expense for technology licenses	744	—	679	1,716	679	—	1,716
Amortization of investment premiums, net	—	—	217	217	162	49	266
Non-cash stock compensation expense	882	2,567	2,570	6,124	1,999	1,065	7,189
Non-cash interest expense from warrant issuances	21	44	55	138	40	37	175
Non-cash rent expense from warrant issuances	—	34	34	68	26	26	94
Depreciation and amortization	670	766	823	3,851	604	634	4,485
Loss on sale of property and equipment	—	75	11	194	7	1	195
Changes in assets and liabilities:							
Decrease in receivable from lessor	232	—	—	—	—	—	—
(Increase) decrease in prepaid expenses and other current assets	(384)	140	(350)	(663)	(220)	257	(606)
(Increase) decrease in deposits and other assets	(1,242)	766	63	(456)	73	(251)	(707)
Increase (decrease) in accounts payable	330	(312)	(428)	595	(370)	257	852
Increase (decrease) in accrued liabilities	499	333	568	1,522	87	(139)	1,383
Net cash used in operating activities	(11,189)	(15,099)	(15,211)	(55,032)	(11,611)	(11,228)	(66,260)
Cash flows from investing activities							
Purchases of property and equipment	(799)	(888)	(1,144)	(5,922)	(1,036)	(436)	(6,358)
Proceeds from sale of property and equipment	—	31	—	64	—	—	64
Net cash acquired in acquisition	—	—	—	437	—	—	437
Purchases of investments available-for-sale	—	—	(26,975)	(32,791)	(21,544)	(16,947)	(49,738)
Purchases of investments held-to-maturity	—	—	—	(17,732)	—	—	(17,732)
Proceeds from sales and maturities of investments available-for-sale	7,257	—	13,146	31,550	5,893	27,739	59,289
Proceeds from sales and maturities of investments, held-to-maturity	—	—	—	5,145	—	—	5,145
Net cash provided by (used in) investing activities	6,458	(857)	(14,973)	(19,249)	(16,687)	10,356	(8,893)
Cash flows from financing activities							
Net proceeds from issuances of preferred stock	27,988	13,111	12,313	75,554	12,313	—	75,554
Common stock repurchased	—	(2)	—	(3)	—	—	(3)
Proceeds from stock options and warrants exercised	228	195	11	439	9	5	444
Proceeds from equipment financings	977	706	1,304	5,139	1,168	444	5,583
Principal payments on equipment financings	(660)	(882)	(814)	(3,120)	(569)	(672)	(3,792)
Net cash provided by (used in) financing activities	28,533	13,128	12,814	78,009	12,921	(223)	77,786
Net increase (decrease) in cash and cash equivalents	23,802	(2,828)	(17,370)	3,728	(15,377)	(1,095)	2,633
Cash and cash equivalents at beginning of period	124	23,926	21,098	—	21,098	3,728	—
Cash and cash equivalents at end of period	$ 23,926	$ 21,098	$ 3,728	$ 3,728	$ 5,721	$ 2,633	$ 2,633
Supplemental cash flow information							
Interest paid	$ 229	$ 216	$ 212	$ 1,129	$ 151	$ 158	$ 1,287

The accompanying notes are an integral part of these financial statements.

NOTES TO FINANCIAL STATEMENTS
(Information as of September 30, 2003, for the nine months ended September 30, 2002 and 2003 and for the period from inception (January 5, 1996) to September 30, 2003 is unaudited)

1. Organization and significant accounting policies

Organization

Xcyte Therapies, Inc. (the Company), a development stage enterprise, operates in one business segment, developing products based on T cell activation to treat cancer, infectious diseases and other medical conditions associated with compromised immune systems. As a development stage enterprise, substantially all efforts of the Company have been devoted to performing research and experimentation, conducting clinical trials, developing and acquiring intellectual properties, raising capital and recruiting and training personnel.

Liquidity

The Company has experienced losses since its inception, including a net loss for the nine months ended September 30, 2003. Net losses may continue for at least the next several years as we proceed with the development of our technologies. The size of these losses will depend on the creation of revenue from the commercialization and development of our technologies, if any, and on the level of our expenses. The Company's cash, cash equivalents and short-term investments have decreased from $17.3 million as of December 31, 2002 to $5.4 million as of September 30, 2003. In October 2003 we issued convertible notes for net proceeds of approximately $12.7 million. The notes convert to common stock upon the closing of an initial public offering. These convertible notes are due in October 2004, or on or after February 1, 2004 should a majority of the noteholders so elect, if not converted prior to that date. If the notes do not convert, we will require additional funding to continue our business activities through December 31, 2004. We believe that sufficient additional funding will be available to meet the Company's projected operating and capital requirements through December 31, 2004, and the Company is considering various options, including securing additional equity financing and obtaining new collaborators. If the Company raises additional capital by issuing equity or convertible debt securities, existing stockholders may experience substantial dilution. If the Company requires additional financing, there can be no assurance that it will be available on satisfactory terms, or at all. If the Company is unable to secure additional financing on reasonable terms, or is unable to generate sufficient new sources of revenue through arrangements with customers, collaborators and licensees, the Company will be forced to take substantial restructuring actions, which may include significantly reducing the Company's anticipated level of expenditures, the sale of some or all of the Company's assets, or obtaining funds by entering into financing or collaborative agreements on unattractive terms, or the Company will not be able to fund operations.

Unaudited interim financial information

The financial information as of September 30, 2003 and for the nine months ended September 30, 2002 and 2003 and the period from inception (January 5, 1996) to September 30, 2003 is unaudited. In the opinion of management, all adjustments (consisting of normal recurring adjustments) considered necessary for a fair presentation have been included. Operating results for the nine months ended September 30, 2003 are not necessarily indicative of results that may be expected for the entire year.

Cash, cash equivalents and investments

Cash equivalents include highly liquid investments with a maturity on the date of purchase of three months or less. The Company's cash equivalents consist of money market securities. While cash and cash equivalents held by financial institutions may at times exceed federally insured limits, management

NOTES TO FINANCIAL STATEMENTS — (continued)
(Information as of September 30, 2003, for the nine months ended September 30, 2002 and 2003 and for the period from inception (January 5, 1996) to September 30, 2003 is unaudited)

believes that no material credit or market risk exposure exists due to the high quality of the institutions. The Company has not experienced any losses on such accounts.

All investment securities are classified as available-for-sale and are carried at fair value. Unrealized gains and losses are reported in a separate component of stockholders' deficit. Amortization, accretion, interest and dividends, realized gains and losses and declines in value judged to be other-than-temporary on available-for-sale securities are included in interest income. The cost of securities sold is based on the specific-identification method. Investments in securities with maturities of less than one year or which management intends to use to fund current operations are classified as short-term investments.

The Company evaluates whether an investment is other-than-temporarily impaired. This evaluation is dependent on the specific facts and circumstances. Factors that are considered in determining whether an other-than-temporary decline in value has occurred include: the market value of the security in relation to its cost basis; the financial condition of the investee; and the intent and ability to retain the investment for a sufficient period of time to allow for recovery in the market value of the investment.

Property and equipment

Property and equipment is stated at cost and is depreciated using the straight-line method over the assets' useful lives, which are six years for equipment and furniture and fixtures and three years for computer equipment. Leasehold improvements are amortized over the lesser of their estimated useful lives or the term of the lease.

Impairment of long-lived assets

In accordance with the provisions of Statement of Financial Accounting Standards No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets* (SFAS 144), the Company reviews long-lived assets, including property and equipment, for impairment whenever events or changes in business circumstances indicate that the carrying amounts of the assets may not be fully recoverable. An impairment loss will be recognized when estimated undiscounted future cash flows expected to result from the use of an asset and its eventual disposition are less than its carrying amount. In that event, a loss is recognized based on the amount by which the carrying value exceeds the fair value of the long-lived asset.

Revenue recognition

To date, the Company has generated no revenues from sales of products. Revenues relate to fees received for licensed technology, cost reimbursement contracts and a Small Business Innovation Research (SBIR) grant awarded to the Company by the National Institutes of Health. Revenue associated with up-front license fees and research and development funding payments are recognized ratably over the relevant periods specified in the agreement, generally the research and development period. Revenue under research and development cost-reimbursement agreements is recognized as the related costs are incurred. Revenue related to grant agreements is recognized as related research and development expenses are incurred.

NOTES TO FINANCIAL STATEMENTS — (continued)
(Information as of September 30, 2003, for the nine months ended September 30, 2002 and 2003 and for the period from inception (January 5, 1996) to September 30, 2003 is unaudited)

Other comprehensive income (loss)

Other comprehensive income (loss) includes certain changes in equity that are excluded from net income (loss). The Company's only other comprehensive income (loss) is unrealized gain (loss) on investments.

Research and development expenses

Research and development expenses are charged to expense as incurred and include, but are not limited to, personnel costs, lab supplies, depreciation, amortization and other indirect costs.

Segments

The Company has adopted Statement of Financial Accounting Standards No. 131, *Disclosure about Segments of an Enterprise and Related Information* (SFAS 131), and related disclosures about its products, services, geographic areas and major customers. The Company has determined that it operates in only one segment.

Stock-based compensation

The Company has adopted the disclosure-only provisions of Statement of Financial Accounting Standards No. 123, *Accounting for Stock-Based Compensation* (SFAS 123), as amended by SFAS No. 148, *Accounting for Stock-Based Compensation—Transition and Disclosure*, and applies Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees* (APB 25), and related interpretations in accounting for stock options. Accordingly, employee stock-based compensation expense is recognized based on the intrinsic value of the option at the date of grant.

As required under SFAS No. 123, the pro forma effects of stock-based compensation on net loss are estimated at the date of grant using the Black-Scholes option-pricing model. The Black-Scholes option-pricing model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, the existing models do not, in management's opinion, necessarily provide a reliable single measure of the fair value of the Company's employee stock options.

The fair value of these options was estimated at the date of grant using the Black-Scholes option-pricing model with the following weighted average assumptions for the years ended December 31, 2000, 2001 and 2002 and the nine months ended September 30, 2002 and 2003: risk-free interest rates of 5.61%, 4.5%, 5.0%, 5.0% and 5.0%, respectively; a dividend yield of 0% for all periods; expected volatility of 75% to 80% for all periods; and weighted average expected lives of the options of 3.7, 4, 4, 4 and 4 years, respectively. The estimated weighted average fair value of stock options granted during 2000, 2001 and 2002 and the nine months ended September 30, 2002 and 2003 was $2.71, $4.60, $2.28, $2.48 and $2.59 per share of common stock, respectively.

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For purposes of pro forma disclosures, the estimated fair value of the options is amortized to expense over the vesting period of the related options. The Company's pro forma information follows (in thousands, other than per share information):

	Year ended December 31,			Nine months ended September 30,	
	2000	2001	2002	2002	2003
Net loss applicable to common stockholders, as reported	$ (12,941)	$ (27,923)	$ (27,454)	$ (22,699)	$ (13,164)
Add: Employee stock-based compensation, as reported	770	1,445	2,505	1,999	829
Deduct: Stock-based compensation determined under the fair value method	(798)	(1,591)	(2,879)	(2,258)	(1,032)
Pro forma net loss	$ (12,969)	$ (28,069)	$ (27,828)	$ (22,958)	$ (13,367)
Basic and diluted pro forma net loss per share	$ (2.16)	$ (4.05)	$ (3.56)	$ (3.00)	$ (1.64)

Stock options granted to non-employees are recorded using the fair value approach in accordance with SFAS 123 and Emerging Issues Task Force Consensus (EITF) Issue No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services* (EITF 96-18). The options to non-employees are subject to periodic revaluation over their vesting terms.

Deferred stock compensation includes amounts recorded when the exercise price of an option is lower than the fair value of the underlying common stock on the date of grant. Deferred stock-based compensation is amortized over the vesting period of the underlying option using the graded-vesting method.

Income taxes

The Company accounts for income taxes utilizing the liability method in accordance with Statement of Financial Accounting Standards No. 109, *Accounting for Income Taxes* (SFAS 109). Deferred tax assets or liabilities are recorded for all temporary differences between financial and tax reporting. A valuation allowance is recorded when it is more likely than not that the deferred tax asset will not be recovered.

Net loss per share

Basic net loss per share is computed by dividing net loss applicable to common stockholders by the weighted average number of common shares outstanding for the period. Common stock equivalents, including redeemable convertible preferred stock, stock options and warrants are excluded from the computation of diluted loss per share as their effect is anti-dilutive. For the periods presented, there is no difference between the basic and diluted net loss per share.

Financial instruments

Financial instruments, including cash and cash equivalents and payables, are recorded at cost, which approximates fair value based on the short-term maturities of these instruments. The fair value of

NOTES TO FINANCIAL STATEMENTS — (continued)
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investments is determined based on quoted market prices. Refer to Note 2 for further information on the fair value of investments. Based on the borrowing rates currently available to the Company for loans with similar terms, management believes that the carrying value of equipment financing arrangements approximates fair value.

Use of estimates

The preparation of financial statements in conformity with generally accepted accounting principles in the United States requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Recent accounting pronouncements

In June 2002, the FASB issued SFAS 146, *Accounting for Costs Associated with Exit or Disposal Activities*, which addresses accounting for restructuring, discontinued operations, plant closings or other exit or disposal activity. SFAS 146 requires companies to recognize costs associated with exit or disposal activities when they are incurred rather than at the date of a commitment to an exit or disposal plan. SFAS 146 is to be applied prospectively to exit or disposal activities initiated after December 31, 2002. The adoption of SFAS 146 had no initial impact on the Company's financial statements.

In November 2002, the FASB issued FIN 45, *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others, and Interpretation of FASB Statements No. 5, 57 and 107 and Rescission of FASB Interpretation No. 34.* FIN 45 clarifies the requirements of SFAS 5, *Accounting for Contingencies*, relating to the guarantor's accounting for, and disclosure of, the issuance of certain types of guarantees. The disclosure provisions of FIN 45 are effective for financial statements of periods ending after December 15, 2002. However, the provisions for initial recognition and measurement are effective on a prospective basis for guarantees that are issued or modified after December 31, 2002. The adoption of FIN 45 had no initial impact on the Company's financial statements.

In November 2002, the Emerging Issues Task Force reached a consensus on Issue No. 00-21, *Revenue Arrangements with Multiple Deliverables*. EITF Issue No. 00-21 provides guidance on how to account for arrangements that involve the delivery or performance of multiple products, services and/or rights to use assets. The provisions of EITF Issue No. 00-21 will apply to revenue arrangements entered into in fiscal periods beginning after June 15, 2003. The adoption of EITF Issue No. 00-21 had no initial impact on the Company's financial statements.

In January 2003, the FASB issued FIN 46, *Consolidation of Variable Interest Entities*. FIN 46 clarifies the application of Accounting Research Bulletin No. 51, *Consolidated Financial Statements*, to certain entities in which the equity investors do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. FIN 46 applies immediately to variable interest entities created after January 31, 2003 and to variable interest entities in which an enterprise obtains an interest after that date. It applies in the first fiscal year or interim period beginning after June 15, 2003 to variable interest entities in which an enterprise holds a variable interest that it acquired before February 1, 2003. FIN 46

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applies to public enterprises as of the beginning of the applicable interim or annual period. The Company does not believe there will be a material effect upon its financial condition or results of operations from the adoption of the provisions of FIN 46.

In May 2003, the FASB issued SFAS 150, *Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity*. SFAS 150 establishes standards for how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity. SFAS 150 requires that an issuer classify a financial instrument that is within its scope as a liability by reporting the cumulative effect of a change in accounting principle. The requirements of SFAS 150 are to be applied to the first fiscal period beginning after December 15, 2004. The Company is currently evaluating the impact of adopting SFAS 150 and does not expect there to be a significant impact upon adoption.

Reclassifications

Certain prior year amounts have been reclassified to conform to current year presentation.

2. Investments

A summary of investments follows (in thousands):

	December 31, 2002			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Federal agency obligations	$ 1,532	$ 1	$ —	$ 1,533
Corporate bonds	9,859	5	(2)	9,862
Municipal bonds	2,221	—	—	2,221
Total	$ 13,612	$ 6	$ (2)	$ 13,616

	September 30, 2003			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Federal agency obligations	$ 1,514	$ 1	$ —	$ 1,515
Corporate bonds	1,256	1	—	1,257
Total	$ 2,770	$ 2	$ —	$ 2,772

The Company has realized no gains or losses upon the sale of available-for-sale securities during the years ended December 31, 2000, 2001 and 2002 and the nine months ended September 30, 2003. All investments held at December 31, 2002 and September 30, 2003 have contractual maturities within one year. During the year ended December 31, 2001, the Company held only cash and cash equivalents and no investments.

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3. Property and equipment

Property and equipment consists of the following (in thousands):

	December 31,		September 30, 2003
	2001	2002	
Equipment	$ 2,270	$ 2,957	$ 3,325
Furniture and fixtures	191	197	199
Leasehold improvements	769	916	938
Computer equipment	612	888	926
Property and equipment, gross	3,842	4,958	5,388
Less accumulated amortization and depreciation	(1,539)	(2,345)	(2,974)
Property and equipment, net	$ 2,303	$ 2,613	$ 2,414

Depreciation expense totaled $470,000, $632,000 and $823,000 during the years ended December 31, 2000, 2001 and 2002, respectively, and $634,000 during the nine months ended September 30, 2003.

4. Employee note receivable

During the year ended December 31, 2001, the Company made a $50,000 secured loan to an employee in connection with an individual employment agreement. The loan bears interest at an annual rate of 8.24% and is repayable in equal quarterly installments over four years. The note balance of $50,000, $36,000 and $30,000 at December 31, 2001 and 2002 and September 30, 2003, respectively, has been classified in deposits and other assets. Interest earned on the note has been immaterial to date.

5. Significant agreements

Technology licenses

In 1998, the Company entered into a license agreement with Genetics Institute, under which the Company was granted the use of several patents for intellectual property in exchange for the payment of a nonrefundable fee of approximately $53,000, 145,875 shares of Series B preferred stock and warrants to purchase 194,500 shares of Series B preferred stock at $1.10 per share. The nonrefundable fee was charged to research and development expense when paid. The Company, or sublicensee, is required to spend no less than $500,000 annually on research and development activities related to product development until the first commercial sale of a product. In 1999, the Company entered into a license and supply agreement with Diaclone S.A., in which the Company was granted a license to develop and commercialize a specific antibody. In consideration for the license, the Company paid and charged to research and development expense a $75,000 nonrefundable fee. In addition, the Company entered into a license agreement with the Fred Hutchinson Cancer Research Center in which the Company was granted a license to develop and commercialize a specific antibody. In consideration for the license, the Company paid nonrefundable license fees of $50,000. The Company also agreed to issue 150,000 shares of common stock, valued at $744,000, to the Fred Hutchinson Cancer Research Center. The Company charged research and development expense for all nonrefundable fees paid and the value of the common stock issued.

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During the year ended December 31, 2002, the Company entered into a license agreement with the Trustees of the University of Pennsylvania, whereby the Company was granted the right to use certain intellectual property in exchange for payment of nonrefundable license fees of $150,000. The Company also agreed to issue 350,000 shares of common stock, valued at $679,000, to the Trustees of the University of Pennsylvania. The Company charged research and development expense for all nonrefundable fees paid and the value of common stock issued. In October 2003, the Company notified the University of Pennsylvania that it was terminating the license agreement. This termination is effective until December 29, 2003, following the 60 day notice period as required pursuant to the terms of the license agreement.

All license agreements require the payment of royalties by the Company based on sales and services. No royalty payments have been required or paid through December 31, 2002.

Manufacturing and supply contracts

The Company entered into a development and supply agreement with Dynal S.A. during the year ended December 31, 1999. The Company has agreed to make nonrefundable payments totaling $3.0 million for certain development activities conducted by Dynal S.A. As of December 31, 2002, the Company had made payments totaling $2.0 million under the agreement ($2.5 million as of September 30, 2003), which were charged to research and development expense. Of the Company's remaining $1.0 million in payments, $500,000 was accrued at December 31, 2002 and paid in January 2003. The remaining $500,000 payment is payable upon the achievement of specified milestones per the development work plans. As estimated completion dates of the milestone activities are speculative and subject to delivery and acceptance of the product from Dynal to the Company, the Company will expense such payment in the period the products are delivered and accepted. Under the terms of the supply agreement, the Company is required to buy a minimum $250,000 of beads in the first 12 months after the development phase ends and $500,000 of beads annually thereafter over the remaining term of the agreement, which expires in 2009 or earlier upon breach by either party. The term may be extended five years by either party.

During the year ended December 31, 2000, the Company entered into development and supply agreements with Lonza Biologics PLC (Lonza). Under the terms of the agreements, the Company is obligated to make payments in British pounds. Exchange rate gains and losses have been insignificant to date. The Company paid approximately $252,000, $1.7 million and $1.6 million under the agreements during the years ended December 31, 2000, 2001 and 2002, respectively, and $1.3 million during the nine months ended September 30, 2003, all of which were charged to research and development expense. As of September 30, 2003, the Company had no significant remaining contractual obligations to Lonza.

Corporate collaborations

In March 2003, the Company entered into an agreement with Fresenius Biotechnology GmbH, a wholly owned subsidiary of Fresenius AG. Under the terms of the agreement, which expired in August 2003, Fresenius was granted the right to use the Company's Xcellerate Technology to conduct a Phase I/II HIV gene therapy study in Europe. The Company is required to transfer its Xcellerate Technology, including manufacturing capability, to Fresenius and supply all antibody-coated beads required by Fresenius to support the trial. Fresenius is required to reimburse the Company for expenses associated with transferring the technology and supplying the antibody-coated beads. As of September 30, 2003, the Company had recognized $145,000 as revenue related to the reimbursement of its costs.

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SBIR grant

In August 2003, the Company was awarded a $1.2 million SBIR grant by the National Institutes of Health (NIH) to help fund the Company's clinical trial evaluating the use of Xcellerated T Cells to treat patients with chronic lymphocytic leukemia. As of September 30, 2003, the Company has incurred costs of approximately $408,000 that may be reimburseable pursuant to the grant. Recently changed eligibility rules announced by the NIH may impact amounts ultimately received under this grant. Accordingly, no revenue will be recognized with respect to this grant until this uncertainty is resolved.

6. Redeemable convertible preferred stock and warrants

Preferred stock

A summary of redeemable convertible preferred stock follows (in thousands, except share data):

	December 31, 2002				September 30, 2003			
	Shares authorized and designated	Issued and outstanding shares	Aggregate redemption and liquidation preference	Carrying value	Shares authorized and designated	Issued and outstanding shares	Aggregate redemption and liquidation preference	Carrying value
Series A	7,300,080	6,860,512	$ 6,517	$ 6,596	7,300,080	6,907,353	$ 6,562	$ 6,660
Series B	4,097,580	3,903,080	4,293	4,293	4,097,580	3,903,080	4,293	4,293
Series C	7,212,316	7,185,630	12,000	11,976	7,212,316	7,185,630	12,000	11,976
Series D	10,300,000	10,109,825	28,105	25,263	10,300,000	10,109,825	28,105	25,263
Series E	6,500,000	4,750,095	13,205	8,411	6,500,000	4,750,095	13,205	8,411
Series F	6,500,000	4,444,251	12,355	8,001	6,500,000	4,444,251	12,355	8,001
	41,909,976	37,253,393	$ 76,475	$ 64,540	41,909,976	37,300,234	$ 76,520	$ 64,604

From inception through December 31, 1999, the Company issued 6,334,212 shares of Series A preferred stock at $0.95 per share for proceeds of $6.0 million; 3,757,205 shares of Series B preferred stock at $1.10 per share for proceeds of $4.1 million; and 7,185,630 shares of Series C preferred stock at $1.67 per share for proceeds of $12.0 million. The Company also issued an additional 526,300 shares of Series A preferred stock in conjunction with a business acquisition. The value of the Series A preferred stock of $579,000 was included in the determination of the purchase price of the acquired business. The Company also issued 145,875 shares of Series B preferred stock to acquire technology licenses. These shares were valued at $1.10 per share for an aggregate amount of $160,000. There were no significant costs associated with the Series A, B and C private placements.

During the year ended December 31, 2000, the Company completed a private placement of 10,109,825 shares at $2.78 per share of Series D redeemable preferred stock for $28.0 million, net of offering costs of $117,000. In connection with the offering, holders of the Series D preferred stock received 1,132,287 warrants to purchase shares of common stock at an exercise price of $0.30 per share. The warrants were valued at $2.7 million using the Black-Scholes option-pricing model. The warrants expire in August 2005 or upon the completion of an initial public offering of the Company's common stock. Of the total net proceeds of $28.0 million, $2.7 million has been recorded in paid-in capital and $25.3 million has been recorded as redeemable convertible preferred stock.

During the year ended December 31, 2001, the Company completed a private placement of 4,750,095 shares at $2.78 per share of Series E redeemable preferred stock for $13.1 million, net of offering costs of

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$145,000. In connection with the offering, holders of the Series E preferred stock received warrants to purchase 2,586,162 shares of common stock at an exercise price of $0.01 per share. The warrants expire in November 2006 or upon completion of an initial public offering. The net proceeds from the Series E preferred stock offering were allocated based on the relative fair values of the warrants, using the Black-Scholes option-pricing model, and the preferred stock. The Company assigned $4.6 million to the value of the warrants and $8.4 million to the value of the preferred stock. After allocating a portion of the proceeds to the common stock warrants, the effective conversion price of the preferred stock was at a discount to the price of the common stock into which the preferred stock is convertible. The discount associated with the beneficial conversion feature is limited to the proceeds allocated to the preferred stock, or $8.4 million. Accordingly, the preferred stock was initially recorded at zero. The Company has recognized the amortization of the discount associated with the beneficial conversion of $8.4 million as a charge to additional paid-in capital (also shown as a deduction to arrive at net loss applicable to common stockholders) and a credit to preferred stock immediately upon issuance since the preferred stock may be converted into common stock at any time, at the holder's option. The remaining discount of $4.6 million will be amortized at the time that redemption by the holders is considered probable or the preferred stock is converted into common stock. Management believes that it is unlikely that the investors would redeem the preferred stock due to the Company's plan for an initial public offering.

During the year ended December 31, 2002, the Company completed a private placement of 4,444,251 shares at $2.78 per share of Series F redeemable preferred stock for $12.3 million, net of offering costs of $30,000. In connection with the offering, holders of the Series F preferred stock received 2,419,649 warrants to purchase shares of common stock at an exercise price of $0.01 per share. The warrants expire in February 2007 or upon completion of an initial public offering of the Company's common stock. The net proceeds from the Series F preferred stock offering were allocated based on the relative fair values of the warrants, using the Black-Scholes option-pricing model, and the preferred stock. The Company assigned $4.3 million to the value of the warrants and $8.0 million to the value of the preferred stock. After allocating a portion of the proceeds to the common stock warrants, the effective conversion price of the preferred stock was at a discount to the price of the common stock into which the preferred stock is convertible. The discount associated with the beneficial conversion is limited to the proceeds allocated to the preferred stock, or $8.0 million. The Company has recognized the amortization of the discount associated with the beneficial conversion of $8.0 million as a charge to additional paid-in capital (also shown as a deduction to arrive at net loss applicable to common stockholders) and a credit to preferred stock immediately upon issuance since the preferred stock may be converted into common stock at any time, at the holder's option. The remaining discount of $4.3 million will be amortized at the time that redemption by the holders is considered probable or the preferred stock is converted into common stock. Management believes that it is unlikely that the investors would redeem the preferred stock due to the Company's plan for an initial public offering.

Holders of Series A, B, C, D, E and F preferred stock have preferential rights to noncumulative dividends at a rate of $0.076, $0.088, $0.1336, $0.2224, $0.2224 and $0.2224 per share, respectively, when and if declared by the Company's board of directors. The holders are entitled to the number of votes equal to the number of shares of common stock into which the preferred stock could be converted. In the event of liquidation, the holders of Series A, B, C, D, E and F preferred stock have preferential rights to liquidation payments of $0.95, $1.10, $1.67, $2.78, $2.78 and $2.78 per share, respectively, plus any accrued but unpaid dividends. After the distributions to the holders of preferred stock have been made,

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the remaining assets of the Company available for distribution to stockholders will be distributed pro rata among the holders of common stock and preferred stock.

The preferred stock can be converted, at the option of the holder, one-for-one into common stock subject to adjustment for antidilutive events. The conversion price for Series A, B, C, D, E and F preferred stock is $0.95, $1.10, $1.67, $2.78, $2.78 and $2.78, respectively. Each share of the preferred stock will automatically be converted into shares of common stock upon the closing of an initial public offering, provided that the price per share is not less than $4.00 and the aggregate gross proceeds to the Company are not less than $20.0 million.

In addition, the Company has granted registration rights, preferential rights in liquidation and rights of first offer to the preferred stockholders and is precluded from carrying out certain actions without the approval of the majority of the preferred stockholders voting as a group.

As of December 31, 2002, the preferred stock is redeemable at the option of the holder, upon the vote of a majority of the outstanding shares of preferred stock. The Series A, B, C, D, E and F redemption prices are $0.95, $1.10, $1.67, $2.78, $2.78 and $2.78 per share, respectively.

Warrants

From inception through December 31, 1999, warrants were issued to purchase 368,410 shares of Series A preferred stock in connection with a business acquisition at an exercise price of $0.95 per share. The value of the warrants of $330,000 was included in the determination of the purchase price of the business. In addition, warrants to purchase 71,158 shares of Series A preferred stock at $0.95 per share and warrants to purchase 12,315 shares of Series C preferred stock at $1.67 per share were issued in connection with equipment financing. The estimated fair value of the warrants issued of $64,000 and $15,000, respectively, was recorded as an additional financing cost and is being amortized over the term of the loan as interest expense. The warrants to purchase 71,158 shares of Series A preferred stock were exercised in March 2003 through a net exercise, resulting in the issuance of 46,841 shares of Series A preferred stock. In addition, the Company issued warrants to purchase 194,500 shares of Series B preferred stock as partial consideration for a technology license. The warrants were issued at an exercise price of $1.10 per share, and the estimated fair value of the warrants of $131,000 was charged to research and development expense.

During the years ended December 31, 2000, 2001 and 2002 and the nine months ended September 30, 2003, the Company issued warrants to purchase 14,371, 23,741, 23,741 and 1,234 shares, respectively, of Series C, D, E and F preferred stock at an exercise price of $1.67, $2.78, $2.78 and $2.78 per share, respectively, in connection with equipment financing. The estimated fair value of the warrants issued of $36,000, $113,000, $56,000 and $3,000, respectively, was recorded as additional financing cost and is being amortized over the term of the loan as interest expense using the effective interest method.

During the year ended December 31, 2000, the Company issued a warrant for the purchase of 80,000 shares of Series D preferred stock at an exercise price of $2.78 per share, in connection with a lease for a manufacturing facility. The estimated fair value of the warrant of $340,000 was recorded as deferred rent and is being recognized as additional rent expense over the initial term of the lease.

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During the year ended December 31, 2001, the Company issued a warrant for the purchase of 10,000 shares of Series E preferred stock at an exercise price of $2.78 per share for services provided in connection with the private placement of Series E redeemable preferred stock. The estimated fair value of the warrants of $48,000 was included in offering costs of the placement.

Warrants expire at various dates from August 2005 to February 2012. 470,725 and 471,959 warrants outstanding at December 31, 2002 and September 30, 2003, respectively will expire upon the closing of an initial public offering. All remaining preferred stock warrants, (327,511 at December 31, 2002 and 256,353 at September 30, 2003) that do not expire upon the closing of a public offering, will convert to common stock warrants upon the closing of an initial public offering. The Company has valued the warrants issued during the years ended December 31, 2000, 2001 and 2002 and the nine months ended September 30, 2003 using the Black-Scholes option-pricing model with the following assumptions: no dividend yields; life of 5 years to 10 years; risk-free interest rates of 4.5% to 5.42%; and volatility of 75% to 80%.

7. Stock option plan

Under the Company's Amended and Restated 1996 Stock Option Plan (1996 Plan), 4.4 million shares of common stock have been reserved for grants to employees, directors and consultants as of December 31, 2002. In September 2003, the 1996 Plan was amended to increase common stock reserved for grants to 6.4 million shares and certain outstanding stock options were modified to accelerate vesting for employees with a five-year vesting schedule to a four-year schedule. There was no immediate accounting impact to this change. However, if employees benefit from the change, the appropriate stock compensation charge will be recorded in the period in which there was a benefit to the employee(s) based upon the measurement of the intrinsic value of the related stock options on the date of modification. The term of the 1996 Plan is 10 years unless terminated earlier by the Board of Directors. Options granted under the 1996 Plan may be designated as incentive or nonqualified at the discretion of the 1996 Plan administrator. The vesting period, exercise price and expiration period of options are also established at the discretion of the 1996 Plan administrator. Vesting periods are typically four or five years, and incentive stock options are exercisable at no less than the fair market value at the date of grant, and nonqualified stock options are exercisable at prices determined by the 1996 Plan administrator. In no event shall the term of any incentive stock option exceed 10 years.

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Shares issued upon exercise of options that are unvested are restricted and subject to repurchase by the Company at the original exercise price upon termination of employment, and such restrictions lapse over the original vesting schedule. During the year ended December 31, 2000, the Board of Directors amended the 1996 Plan to allow options granted to certain executives to become exercisable immediately. Three executives elected to early exercise stock options for 513,858 shares of restricted common stock in the year ended December 31, 2000. During the year ended December 31, 2001, the Company repurchased 13,333 shares of restricted stock. The shares were repurchased in an amount equal to the original purchase price of the shares. At December 31, 2002, there were a total of 261,080 shares of restricted common stock outstanding and subject to repurchase (189,877 shares at September 30, 2003). A summary of stock option activity and related information follows:

	Years ended December 31,						Nine months ended September 30, 2003	
	2000		2001		2002			
	Options	Weighted average exercise price	Options	Weighted average exercise price	Options	Weighted average exercise price	Options	Weighted average exercise price
Outstanding at beginning of period	1,222,125	$ 0.14	1,139,268	$ 0.24	1,880,606	$ 0.53	3,358,067	$ 0.77
Granted at fair value	—	—	—	—	697,750	1.00	—	—
Granted at less than fair value	999,094	0.38	820,500	0.91	1,263,248	1.00	1,044,750	1.00
Canceled	(372,802)	0.16	(66,516)	0.30	(476,793)	0.78	(396,160)	0.97
Exercised	(709,149)	0.32	(12,646)	0.17	(6,744)	0.36	(21,097)	0.22
Outstanding at end of period	1,139,268	$ 0.24	1,880,606	$ 0.53	3,358,067	$ 0.77	3,985,560	$ 0.81

The following summarizes information about stock options outstanding and exercisable at December 31, 2002:

				Exercisable	
Range of exercise price	Number of options	Outstanding weighted average remaining contractual life (years)	Weighted average exercise price	Number of options	Weighted average exercise price
$0.10-$0.11	186,416	4.37	$ 0.10	186,416	$ 0.10
$0.17	434,021	6.87	0.17	422,311	0.17
$0.30-$0.50	432,931	7.87	0.43	331,751	0.44
$1.00	2,304,699	9.12	1.00	312,930	1.00
	3,358,067	8.40	$ 0.77	1,253,408	$ 0.44

The number of options exercisable at December 31, 2000, 2001 and 2002 was 669,821, 1,026,385 and 1,253,408, respectively. The weighted average exercise price of options vested and exercisable at December 31, 2000, 2001 and 2002 was $0.15, $0.30 and $0.46, respectively.

During the years ended December 31, 2000, 2001 and 2002 and the nine months ended September 30, 2003, the Company granted options to purchase a total of 122,500, 395,000, 35,000 and 15,000 shares

NOTES TO FINANCIAL STATEMENTS — (continued)
(Information as of September 30, 2003, for the nine months ended September 30, 2002 and 2003 and for the period from inception (January 5, 1996) to September 30, 2003 is unaudited)

of common stock, respectively, to consultants and Scientific Advisory Board members for services to be performed through October 2007. In accordance with SFAS 123 and EITF 96-18, options granted to consultants and Scientific Advisory Board members are periodically revalued over the related service periods. The Company recorded stock compensation of $112,000, $1.1 million and $65,000 during the years ended December 31, 2000, 2001 and 2002, respectively, and $236,000 during the nine months ended September 30, 2003, related to consulting services.

During the years ended December 31, 2000, 2001 and 2002 and the nine months ended September 30, 2003, in connection with the grant of certain options to employees, the Company recorded deferred stock compensation of $2.0 million, $1.7 million, $3.2 million and $2.1 million, respectively, representing the difference between the exercise price and the subsequently determined fair value of the Company's common stock on the date such stock options were granted. The subsequently determined fair value of the Company's common stock was $5.31 during the years ended December 31, 2000 and 2001, ranged from $1.00 to $3.82 during the year ended December 31, 2002 and ranged from $1.00 to $3.26 during the nine months ended September 30, 2003. Deferred stock compensation is being amortized on a graded vesting method. During the years ended December 31, 2000, 2001 and 2002 and the nine months ended September 30, 2003, the Company recorded non-cash deferred stock compensation expense of $770,000, $1.4 million, $2.5 million and $829,000, respectively.

8. Common stock

Common stock reserved for future issuance at December 31, 2002 and September 30, 2003 is as follows:

Description	December 31, 2002	September 30, 2003
1996 Stock Option Plan		
Options granted and outstanding	3,358,067	3,985,560
Options reserved for future grant	259,957	1,611,367
Series A preferred stock	7,300,080	7,300,080
Series B preferred stock	4,097,580	4,097,580
Series C preferred stock	7,212,316	7,212,316
Series D preferred stock	10,300,000	10,300,000
Series E preferred stock	6,500,000	6,500,000
Series F preferred stock	6,500,000	6,500,000
Preferred stock warrants	798,236	728,312
Common stock warrants	4,915,344	4,990,344
	51,241,580	53,225,559

Milestone pool

Pursuant to a business acquisition prior to January 1, 1999, the Company reserved 1,582,340 shares of common stock (Milestone Pool) for the Company's possible acquisition of new technology from the scientific founders of the acquired business. During the year ended December 31, 2001, the Milestone Pool was terminated. In exchange for the termination of all rights to the remaining Milestone Pool shares, these scientific founders entered in consulting agreements and were granted options to purchase a

NOTES TO FINANCIAL STATEMENTS — (continued)
(Information as of September 30, 2003, for the nine months ended September 30, 2002 and 2003 and for the period from inception (January 5, 1996) to September 30, 2003 is unaudited)

total of 375,000 shares of the Company's common stock, of which 150,000 shares immediately vested. The remaining options vest over the four-year consulting term and will be periodically revalued and recognized as expense over the related service period. During the years ended December 31, 2001 and 2002 and the nine months ended September 30, 2003, the Company recorded stock-based compensation of $980,000, $30,000 and $100,000, respectively.

Common stock warrants

During the years ended December 31, 2000, 2001 and 2002, the Company issued warrants to purchase 1,132,287, 2,586,162 and 2,419,649 shares of common stock, respectively, to private investors in connection with the issuance of Series D, E and F preferred stock. During the nine months ended September 30, 2003, the Company issued warrants to purchase 75,000 shares of common stock in connection with a consulting arrangement. During the years ended December 31, 2001 and 2002, warrants to purchase 635,339 and 587,415 shares of common stock were exercised, respectively. No warrants were exercised during the year ended December 31, 2000 or the nine months ended September 30, 2003.

9. Income taxes

At December 31, 2002, the Company had operating loss carryforwards of approximately $55.9 million and research and development tax credit carryforwards of $3.0 million for federal income tax reporting purposes. The net operating losses and tax credits will expire beginning in 2011 if not previously utilized. In certain circumstances, as specified in the Internal Revenue Code of 1986, as amended, due to ownership changes, the Company's ability to utilize its net operating loss carryforwards may be limited.

Deferred income taxes reflect the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. The significant components of deferred taxes are as follows (in thousands):

	December 31,	
	2001	2002
Deferred tax assets:		
Net operating loss carryforwards	$ 13,959	$ 19,008
Research and development tax credit	2,265	2,972
License agreements	302	562
Other	161	230
	16,687	22,772
Less valuation allowance	(16,532)	(22,679)
Net deferred tax assets	155	93
Deferred tax liabilities:		
Depreciation	(155)	(93)
Net deferred taxes	$ —	$ —

NOTES TO FINANCIAL STATEMENTS — (continued)
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A valuation allowance has been recorded for deferred tax assets because realization is primarily dependent on generating sufficient taxable income prior to the expiration of net operating loss carryforwards. The valuation allowance for deferred tax assets increased $4.3 million, $6.5 million and $6.1 million during the years ended December 31, 2000, 2001 and 2002, respectively, principally due to net operating losses recorded during those periods. There have been no offsets or other deductions to the valuation allowance in any period since the Company's inception.

10. Long-term obligations and lease obligations

The Company has commitments for noncancelable operating leases for a manufacturing facility, building space and office equipment. The building lease includes rent escalation clauses (3% annually) and has two five-year renewal options. The manufacturing facility lease contains annual rent escalations of 4.5% and an option to renew the lease for two additional five-year periods. In addition to base rent, the Company is required to pay a pro rata share of the operating costs related to the manufacturing facility and building leased space. The Company was required to provide security under the manufacturing lease agreement totaling $435,000 in the form of cash and issued a preferred stock warrant to the lessor.

The Company has financed the acquisition of laboratory and scientific equipment, furniture and fixtures, computer equipment and leasehold improvements through financing arrangements with various third parties. In connection with the financings, the Company has issued preferred stock warrants to the third parties. At December 31, 2002, the Company has one financing arrangement under which it may borrow up to $1.7 million. At September 30, 2003, borrowings under this arrangement are limited to $500,000 until the Company receives additional funding acceptable to the lender. At September 30, 2003, the Company has $170,000 available to it under the outstanding arrangement, which expires in January 2004 unless renewed. In July 2003, the Company entered into a financing arrangement with a new lender. Under the terms of the agreement, the Company may borrow up to $2.5 million to finance the acquisition of laboratory and scientific equipment, furniture and fixtures, computer equipment and leasehold improvements. At September 30, 2003, the Company has $2.4 million available to it under the outstanding arrangement, which expires in April 2004 unless renewed. Outstanding borrowings under the current and previous financing arrangements were $1.5 million and $2.0 at December 31, 2001 and 2002, respectively, and $1.8 million at September 30, 2003. Outstanding borrowings require monthly principal and interest payments and mature at various dates through 2007. Interest rates applicable to the outstanding borrowings at December 31, 2002 range from 9.18% to 14.12%. The weighted average interest rates for borrowings outstanding during the years ended December 31, 2000, 2001 and 2002 and the nine months ended September 30, 2003 were 13.24%, 12.66%, 11.09% and 10.48%, respectively. Borrowings are secured by the acquired assets that have a net book value of $2.2 million at December 31, 2002. Under all agreements, the Company is required to comply with certain nonfinancial covenants.

NOTES TO FINANCIAL STATEMENTS — (continued)
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Future minimum payments under operating leases and equipment financing arrangements at December 31, 2002 are as follows (in thousands):

	Equipment financings arrangements	Operating leases
Year ended December 31,		
2003	$ 818	$ 1,469
2004	661	1,514
2005	391	1,572
2006	121	1,416
2007	—	1,058
Thereafter	—	3,366
	1,991	$ 10,395
Less unamortized discount	(121)	
Less current portion	(818)	
Long-term equipment obligations	$ 1,052	

Rent expense totaled $643,000, $1.6 million and $1.6 million during each of the years ended December 31, 2000, 2001 and 2002 and $1.2 million during the nine months ended September 30, 2003, respectively.

11. Commitments and contingencies

The Company has been named as a defendant in a complaint involving several other parties. Due to the uncertainty of litigation, the Company's management and external legal counsel are unable to determine the ultimate outcome of the matter or estimate the amount or range of potential loss, if any, which may arise.

NOTES TO FINANCIAL STATEMENTS — (continued)
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12. Net loss per share

The calculation of basic and diluted loss per share is as follows (in thousands, except share and per share data):

	Year ended December 31,			Nine months ended September 30,	
	2000	2001	2002	2002	2003
Net loss	$ (12,941)	$ (19,512)	$ (19,453)	$ (14,698)	$ (13,164)
Accretion of preferred stock	—	(8,411)	(8,001)	(8,001)	—
Net loss applicable to common stockholders	$ (12,941)	$ (27,923)	$ (27,454)	$ (22,699)	$ (13,164)
Weighted average common shares	6,067,480	7,405,576	8,121,940	7,975,686	8,390,884
Weighted average common shares subject to repurchase	(64,923)	(469,587)	(313,287)	(325,415)	(229,434)
Weighted average number of shares used for basic and diluted per share amounts	6,002,557	6,935,989	7,808,653	7,650,271	8,161,450
Basic and diluted net loss per common share	$ (2.16)	$ (4.03)	$ (3.52)	$ (2.97)	$ (1.61)
Pro forma (unaudited):					
Weighted average shares used above			7,808,653		8,161,450
Pro forma adjustment to reflect weighted effect of assumed conversion of redeemable convertible preferred stock			36,741,509		37,289,253
Pro forma weighted average shares outstanding			44,550,162		45,450,703
Pro forma basic and diluted net loss per share			$ (0.44)		$ (0.29)

The Company has excluded all redeemable convertible preferred stock, redeemable convertible preferred stock warrants, common stock warrants and outstanding stock options from the calculation of diluted net loss per common share because all securities are antidilutive for the periods presented. The total number of shares excluded from the calculations of diluted net loss per common share was 31,073,109, 38,547,353 and 46,325,040 for the years ended December 31, 2000, 2001 and 2002, respectively, and 46,103,704 and 47,004,450 for the nine months ended September 30, 2002 and 2003, respectively.

13. Subsequent events

Initial public offering

In September 2003, the Company's Board of Directors authorized the Company to file a registration statement with the Securities and Exchange Commission for an initial public offering of its common stock (the Offering). Upon completion of the Offering, the Company will amend and restate its Certificate of Incorporation to authorize the issuance of up to 100 million shares of common stock, par value $0.001 per share, and 5 million shares of preferred stock, par value $0.001 per share, the rights and preferences of which may be established from time to time by the Board of Directors. If the Company's Offering is consummated, all of the outstanding redeemable convertible preferred stock will be automatically converted into common stock, and 471,959 redeemable convertible preferred stock

NOTES TO FINANCIAL STATEMENTS — (continued)
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warrants will expire upon the closing of the Offering. All remaining preferred stock warrants (256,353) which do not expire upon the closing will convert to common stock warrants upon the closing of the Offering. Unaudited pro forma stockholders' equity as of September 30, 2003, reflects the effect of the assumed conversion of the preferred stock and preferred stock warrants into common stock warrants.

If the Offering is consummated, all related costs will be offset against the proceeds in equity. If not consummated, the costs will be charged to expense in the period the Offering is terminated. At September 30, 2003, the Company has deferred $277,000 of costs related to the Offering.

Other stock plans

In connection with the Offering, the Board of Directors authorized, subject to final stockholder approval, the following additional plans.

The 2003 Stock Plan (2003 Plan) provides for the grant of incentive stock options and stock purchase rights to employees (including employee directors) and non-statutory stock options to employees, directors and consultants. A total of 3.5 million shares of common stock have been reserved for issuance under the 2003 Plan. The number of shares reserved for issuance under the 2003 Plan will be subject to an automatic annual increase on the first day of each fiscal year beginning in 2005 and ending in 2010 equal to the lesser of 600,000 shares, 4% of the number of outstanding shares of common stock on the last day of the immediately preceding fiscal year or such lesser number of shares as the Board of Directors determines. With respect to options granted under the 2003 Plan, the term of options may not exceed 10 years. In no event may an employee receive awards for more than 1 million shares under the 2003 Plan in any fiscal year.

A total of 500,000 shares of common stock has been reserved for issuance under the 2003 Directors' Stock Option Plan (2003 Directors' Plan). Under the 2003 Directors' Plan, each non-employee director who first becomes a non-employee director after the effective date of the plan will receive an automatic initial grant of an option to purchase 25,000 shares of common stock upon becoming a member of the Board of Directors. On the date of each annual meeting of stockholders, each non-employee director will be granted an option to purchase 10,000 shares of common stock if, on such a date, the director has served on the Board of Directors for at least six months. The 2003 Directors' Plan provides that each option granted to a new director shall vest at the rate of one-third of the total number of shares subject to such option 12 months after the date of grant, with the remaining shares vesting thereafter in equal monthly installments over the next two years so that the option will be fully vested after three years. Each annual option granted to a director vests in full at the end of one year. All options granted under the 2003 Directors' Plan have a term of 10 years and an exercise price equal to the fair market value on the date of the grant.

A total of 600,000 shares of common stock have been reserved for issuance under the 2003 Employee Stock Purchase Plan (2003 Employee Plan). The number of shares reserved for issuance under the 2003 Employee Plan will be increased on the first day of each of the fiscal years in 2005 to 2010 by the lesser of 300,000 shares, 1% of the number of outstanding shares of common stock on the last day of the immediately preceding fiscal year or such lesser number of shares as the Board of Directors determines. Unless terminated earlier by the Board of Directors, the 2003 Employee Plan will terminate in September 2023.

NOTES TO FINANCIAL STATEMENTS — (continued)
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Corporate collaborations

The Company has a letter of intent to establish an alliance with Taiwan Cellular Therapy Company, or TCTC, a company newly formed under the laws of Taiwan, to develop and market our Xcellerate Technology in Australia and Asia, excluding Japan. The letter of intent requires the Company to negotiate in good faith a definitive agreement with TCTC on or before November 30, 2003. The letter of intent provides that the definitive agreement is subject to, among other things, TCTC closing, or obtaining commitments for, at least $25 million in equity financing on or before December 30, 2003. If the Company elects not to proceed with the alliance for any reason, other than for a good faith inability to negotiate a definitive agreement, and the Company enters into an agreement with a third party in Australia or Asia before February 22, 2004, the Company will be required to pay a break-up fee of $200,000 to TCTC.

The Company has agreed to reserve the rights to its Xcellerate Technology in Australia and Asia for TCTC until at least December 30, 2003. If the Company completes an alliance with TCTC, the Company will be required to expend significant resources to transfer technology to TCTC and assist them in developing and manufacturing components of the Xcellerate Technology. The Company will also be required to invest $2.5 million in TCTC's equity financing.

Convertible promissory notes

In October 2003, the Company issued Convertible Promissory Notes for $12.7 million. Interest on the unpaid principal amount of the Notes accrues annually at a rate of 6 percent. Principal and any accrued but unpaid interest under these Notes are due and payable upon demand by the holder at any time after October 2004; provided, however, that on or after February 1, 2004, the holders of at least a majority of the aggregate principal amount of the Notes may elect to accelerate the maturity to a date after February 1, 2004.

In connection with the issuance of the Notes, the holders of the Notes received warrants to purchase additional shares of the Company's stock at a price defined in the warrant agreement. If an initial public offering occurs prior to the maturity date of the Notes and the closing of the next private financing, then the warrants will be null and void.

If the Company consummates its initial public offering in which all of the Company's outstanding shares of preferred stock convert into shares of common stock, prior to the maturity date, the entire principal amount of, and accrued but unpaid interest on these Notes will be converted into shares of the Company's common stock simultaneously with the closing of the initial public offering.

The number of shares to be issued upon conversion shall be equal to the quotient obtained by dividing (A) the entire principal amount of the Notes plus accrued but unpaid interest as of the closing by (B) $1.75, rounded to the nearest whole share. The Company will recognize $11.8 million in interest expense relating to the discount on the Notes associated with the beneficial conversion feature.

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Part II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other expenses of issuance and distribution

The following table sets forth the costs and expenses, other than underwriting discounts and commissions, payable by us in connection with the sale of common stock being registered. All amounts are estimates except the SEC registration fee, the NASD filing fee and The Nasdaq National Market listing fee.

	Amount
SEC registration fee	$ 6,068
NASD filing fee	8,000
Nasdaq National Market listing fee	5,000
Printing and engraving expenses	75,000
Legal fees and expenses	150,000
Accounting fees and expenses	375,000
Blue sky qualification fees and expenses	*
Transfer agent and registrar fees	3,500
Miscellaneous fees and expenses	*
Total	$ *

* *To be filed by amendment.*

Item 14. Indemnification of directors and officers

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation to grant, indemnity to directors and officers in terms sufficiently broad to permit indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act of 1933, as amended. Article XIV of our Amended and Restated Certificate of Incorporation (Exhibit 3.2 hereto) and Article VI of our Amended and Restated Bylaws (Exhibit 3.3 hereto), provide for indemnification of our directors and officers, and permits indemnification of our employees and other agents to the maximum extent permitted under the laws of Delaware. Delaware law provides that a corporation may eliminate the personal liability of its directors for monetary damages for breach of their fiduciary duties as directors, except liability for:

- breach of their duty of loyalty to the corporation or its stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions; and
- any transaction from which the director derived an improper personal benefit.

In addition, we intend to enter into indemnification agreements (Exhibit 10.1 hereto) with our officers and directors. The underwriting agreement (Exhibit 1.1 hereto) also provides for cross-indemnification among us, and the underwriters with respect to certain matters, including matters arising under the Securities Act. We maintain directors' and officers' liability insurance.

Part II

Item 15. Recent Sales of Unregistered Securities

Since September 30, 2000, we have sold and issued the following securities:

1. As of September 30, 2003, we had granted and issued options to purchase 3,985,560 shares of our common stock with a weighted average price of $0.81 to a number of our employees, directors and consultants pursuant to our 1996 stock incentive compensation plan. Among those receiving options were Ronald J. Berenson, Joanna S. Black, Mark Frohlich, Mark L. Bonyhadi, Kathi L. Cordova, Stewart Craig, Jean Deleage, Peter Langecker and Robert M. Williams.

2. As of September 30, 2003, we had issued an aggregate of 816,406 shares of our common stock to executive officers, directors and employees upon the exercise of stock options granted pursuant to our 1996 stock incentive compensation plan with an aggregate exercise price of $234,564. Among those that we have issued shares to were Ronald J. Berenson and Kathi L. Cordova.

3. In December 2000, we granted and issued a warrant with an expiration date of the earlier of either the closing of this offering or December 7, 2005, to purchase 80,000 shares of Series D Preferred Stock at an exercise price of $2.78 to Hibbs/Woodinville Associates, LLC in connection with a lease.

4. In December 2000, we issued 150,000 shares of our common stock to the Fred Hutchinson Cancer Research Center in connection with a license agreement.

5. In July 2001, we granted and issued a warrant with an expiration date of July 17, 2008 to purchase 23,741 shares of Series D Preferred Stock at an exercise price of $2.78 to General Electric Capital Corporation in connection with a loan agreement.

6. In November 2001, we issued 4,750,095 shares of our Series E Preferred Stock to investors, including but not limited to Alta Partners, ARCH Venture Corporation, MPM Capital, entities affiliated with Sprout Group and W Capital Partners Ironworks, L.P. for an aggregate cash consideration of $13,205,264.

7. In November 2001, we granted and issued warrants with an expiration date of the earlier of either the closing of this offering or November 12, 2006, to purchase an aggregate of 2,586,162 shares of common stock at an exercise price of $0.01 per share to our Series E investors for an aggregate cash consideration of $2,586, in connection with our Series E financing.

8. In November 2001, we granted and issued a warrant with an expiration date of the earlier of either the closing of this offering or August 8, 2005 to purchase 10,000 shares of Series E Preferred Stock at an exercise price of $2.78 to Chun-Te Liao in connection with consulting services.

9. In February and March 2002, we issued 4,444,251 shares of our Series F Preferred Stock to investors, including but not limited to Alta Partners, ARCH Venture Corporation, RiverVest, and affiliates of Sprout Group and W Capital Partners Ironworks, L.P. for an aggregate cash consideration of $12,355,018.

10. In February and March 2002, we granted and issued warrants with an expiration date of the earlier of either the closing of this offering or February and March 2012 to purchase an aggregate of 2,419,649 shares of common stock at an exercise price of $0.01 per share to our Series F investors for an aggregate cash consideration of $2,420, in connection with our Series F financing.

11. In February 2002, we granted and issued a warrant with an expiration date of February 7, 2009 to purchase 23,741 shares of Series F Preferred Stock at an exercise price of $2.78 to General Electric Capital Corporation in connection with a loan agreement.

12. In May 2002, we issued 350,000 shares of our common stock to the Trustees of the University of Pennsylvania in connection with a license agreement.

13. In April 2003, we granted and issued a warrant with an expiration date of April 1, 2008 to purchase 35,000 shares of common stock at an exercise price of $1.00 to Inkeun Lee in connection with consulting services.

14. In April 2003, we granted and issued a warrant with an expiration date of April 1, 2008 to purchase 40,000 shares of common stock at an exercise price of $1.00 to Inkeun Lee in connection with consulting services.

15. In July 2003, we granted and issued a warrant with an expiration date of the earlier of July 17, 2010 or the closing of this offering to purchase 464 shares of Series F Preferred Stock at an exercise price of $2.78 to Oxford Finance Corporation in connection with equipment loan.

16. In September 2003, we granted and issued a warrant with an expiration date of the earlier of September 5, 2010 or the closing of this offering to purchase 770 shares of Series F Preferred Stock at an exercise price of $2.78 to Oxford Finance Corporation in connection with equipment loan.

17. In October 2003, we sold convertible promissory notes in an aggregate amount of approximately $12.7 million to investors, including but not limited to Alta Partners, ARCH Venture Partners, MPM Capital, Sprout Group, Vector Fund, Vulcan Ventures and W Capital Partners Ironworks L.P. These convertible promissory notes will convert into 7,268,905 shares of our common stock upon completion of this offering.

18. In October 2003, in connection with the sale of convertible promissory notes, we issued warrants to purchase shares of either preferred stock issued in our next equity financing at the then applicable price per share, or, if we have not had a next equity financing on or before the maturity date of the convertible promissory notes, our Series F Preferred Stock at an exercise price of $2.78 per share. The warrants are not exercisable on or prior to completion of this offering and terminate upon completion of this offering.

The issuances described in Items 1 and 2 were deemed exempt from registration under the Securities Act in reliance upon Rule 701 promulgated under the Securities Act promulgated under Section 3(b) thereof on the basis that the transactions were pursuant to a compensation benefit plan and contracts relating to employment or pursuant to the Section 4(2), thereof on the basis that the transactions did not involve a public offering. In addition, the issuances of the above securities described in Items 3 through 18 were deemed to be exempt from registration under the Securities Act in reliance on Section 4(2) thereof on the basis that each transaction did not involve a public offering. The recipients of securities in each such transaction represented to us their intentions to acquire the securities for investment purposes only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the share certificates and warrants issued in such transactions. All recipients had adequate access, through their relationships with us and otherwise, to information about us.

Part II

Item 16. Exhibits

Exhibit number	Description
1.1*	Form of Underwriting Agreement.
3.1*	Amended and Restated Certificate of Incorporation of Xcyte Therapies, Inc.
3.2*	Form of Amended and Restated Certificate of Incorporation of Xcyte Therapies, Inc. to be filed and effective upon completion of this offering.
3.3*	Amended and Restated Bylaws of Xcyte Therapies, Inc. to be effective upon completion of this offering.
4.1**	Form of Xcyte Therapies, Inc. Stock Certificate.
5.1**	Opinion of Heller Ehrman White & McAuliffe LLP.
10.1*	Form of Indemnification Agreement between Xcyte Therapies and each of its officers and directors.
10.2*	Series E Preferred Stock and Warrant Purchase Agreement dated November 13, 2001.
10.3*	Series F Preferred Stock and Warrant Purchase Agreement dated February 5, 2002.
10.4	Convertible Note and Warrant Purchase Agreement dated October 9, 2003.
10.5	Form of Convertible Promissory Note issued in connection with Convertible Note and Warrant Purchase Agreement dated as of October 9, 2003.
10.6*	Amended and Restated Investor Rights Agreement dated February 5, 2002.
10.7*	Amendment to Amended and Restated Investor Rights Agreement dated May 22, 2002.
10.8	Waiver of Preemptive Rights and Amendment to Amended and Restated Investor Rights Agreement dated as of October 9, 2003.
10.9*	Form of Warrant to purchase Common Stock issued by Xcyte Therapies, Inc.
10.10*	Warrant to purchase Series D Preferred Stock dated December 7, 2000 issued by Xcyte Therapies, Inc. in favor of Hibbs/Woodinville Associates, LLC.
10.11*	Form of Warrant to purchase Series F Preferred Stock issued by Xcyte Therapies, Inc. in favor of General Electric Capital Corporation.
10.12*	Series E Preferred Stock Purchase Warrant issued by Xcyte Therapies in favor of Chun-Te Liao dated November 30, 2001.
10.13*	Warrant to purchase Common Stock issued by Xcyte Therapies, Inc. in favor of Inkeun Lee dated April 1, 2003.
10.14*	Warrant to purchase Common Stock issued by Xcyte Therapies, Inc. in favor of Inkeun Lee dated April 1, 2003.
10.15*	Master Security Agreement between Xcyte Therapies, Inc. and Oxford Finance Corporation dated July 1, 2003.
10.16*	Warrant to purchase Series F Preferred Stock issued by Xcyte Therapies, Inc. in favor of Oxford Finance Corporation dated July 17, 2003.
10.17*	Warrant to purchase Series F Preferred Stock issued by Xcyte Therapies, Inc. in favor of Oxford Finance Corporation dated September 5, 2003.
10.18	Form of Stock Purchase Warrant issued in connection with Convertible Note and Warrant Purchase Agreement dated as of October 9, 2003.

Part II

Exhibit number	Description
10.19*	Senior Loan and Security Agreement dated July 1, 1999 between Xcyte Therapies, Inc. and Phoenix Leasing Incorporated.
10.20*	Master Security Agreement dated January 15, 2000 between Xcyte Therapies, Inc. and General Electric Capital Corporation.
10.21*	Facility Lease dated June 21, 1999 between Xcyte Therapies, Inc. and Alexandria Real Estate Equities, Inc.
10.22*	First Amendment to Lease dated October 23, 2001 to Lease dated June 21, 1999 between Xcyte Therapies, Inc. and Alexandria Real Estate Equities, Inc.
10.23*	Second Amendment to Lease dated March 26, 2003 between Xcyte Therapies, Inc. and Alexandria Real Estate Equities, Inc.
10.24*	Facility Lease dated December 7, 2000 between Xcyte Therapies, Inc. and Hibbs/ Woodinville Associates, LLC.
10.25*	Amended and Restated 1996 Stock Option Plan.
10.26*	2003 Stock Plan.
10.27*	2003 Employee Stock Purchase Plan.
10.28*	2003 Directors' Stock Option Plan.
10.29†	Agreement dated August 28, 2003 between Xcyte Therapies, Inc. and Taiwan Cell Therapy Company, as amended.
10.30†	Amendment No. 1 to Letter of Intent dated August 28, 2003 between Xcyte Therapies, Inc. and Taiwan Cell Therapy Company, effective as of October 6, 2003.
10.31†	Amendment No. 2 to Letter of Intent dated August 28, 2003 between Xcyte Therapies, Inc. and Taiwan Cell Therapy Company, effective as of November 14, 2003.
10.32†	License and Supply Agreement dated October 15, 1999 between Xcyte Therapies, Inc. and Diaclone S.A., as amended.
10.33†	Development and Supply Agreement dated August 1, 1999 between Xcyte Therapies, Inc. and Dynal S.A.
10.34†*	License Agreement dated July 8, 1998 between Xcyte Therapies, Inc., and Genetics Institute, Inc.
10.35†*	Non-Exclusive License Agreement dated October 20, 1999 between Xcyte Therapies, Inc. and the Fred Hutchinson Cancer Research Center, as amended.
10.36†*	Services Agreement dated June 6, 2000 between Xcyte Therapies, Inc. and Lonza Biologics PLC.
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10.39†*	Amendment No. 3 to the Services Agreement dated June 6, 2000 between Xcyte Therapies, Inc. and Lonza Biologics PLC.
10.40†*	Amendment No. 4 to the Services Agreement dated June 6, 2000 between Xcyte Therapies, Inc. and Lonza Biologics PLC.
10.41†*	Amendment No. 5 to the Services Agreement dated June 6, 2000 between Xcyte Therapies, Inc. and Lonza Biologics PLC.

Part II

Exhibit number	Description
10.42†*	Services Agreement dated June 6, 2000 between Xcyte Therapies, Inc. and Lonza Biologics PLC.
10.43†*	Amendment No. 2 to the Services Agreement dated June 6, 2000 between Xcyte Therapies, Inc. and Lonza Biologics PLC.
10.44†*	Amendment No. 3 to the Services Agreement dated June 6, 2000 between Xcyte Therapies, Inc. and Lonza Biologics PLC.
10.45*	Employment Agreement between Xcyte Therapies, Inc. and Mark Frohlich, M.D. dated as of August 27, 2001.
10.46*	Employment Agreement between Xcyte Therapies, Inc. and Joanna S. Black, J.D. dated as of December 31, 2001.
23.1	Consent of Ernst & Young LLP, Independent Auditors.
23.2**	Consent of Heller Ehrman White & McAuliffe LLP (included in Exhibit 5.1).
24.1*	Power of Attorney (see page II-7).

* Filed Previously
** To be filed by amendment.
† Certain information in these exhibits has been omitted and filed separately with the Securities and Exchange Commission pursuant to a confidential treatment request under 17 C.F.R. Sections 200.80(b)(4), 200.83 and 230.406.

Item 17. Undertakings

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

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

The undersigned registrant hereby undertakes that:

(1) for purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective; and

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

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Amendment No. 1 to Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Seattle, State of Washington on November 21, 2003.

XCYTE THERAPIES, INC.

By: *

Ronald J. Berenson, M.D.
President and Chief Executive Officer

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

Signature	Title	Date
*	President, Chief Executive Officer and Director (Principal Executive Officer)	November 21, 2003
Ronald J. Berenson, M.D.		
*	Senior Vice President of Finance and Treasurer (Principal Financial and Accounting Officer)	November 21, 2003
Kathi L. Cordova		
*	Director	November 21, 2003
Robert E. Curry, Ph.D.		
*	Director	November 21, 2003
Jean Deleage, Ph.D.		
*	Director	November 21, 2003
Dennis Henner, Ph.D.		
*	Director	November 21, 2003
Peter Langecker, M.D., Ph.D.		
*	Director	November 21, 2003
Robert T. Nelsen		
*	Director	November 21, 2003
Robert M. Williams, Ph.D.		
*	Director	November 21, 2003
Stephen N. Wertheimer		

*By: /s/ JOANNA S. BLACK

Joanna S. Black,
Attorney-in-fact

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Exhibit index

Exhibit number	Description
1.1*	Form of Underwriting Agreement.
3.1*	Amended and Restated Certificate of Incorporation of Xcyte Therapies, Inc.
3.2*	Form of Amended and Restated Certificate of Incorporation of Xcyte Therapies, Inc. to be filed and effective upon completion of this offering.
3.3*	Amended and Restated Bylaws of Xcyte Therapies, Inc. to be effective upon completion of this offering.
4.1**	Form of Xcyte Therapies, Inc. Stock Certificate.
5.1**	Opinion of Heller Ehrman White & McAuliffe LLP.
10.1*	Form of Indemnification Agreement between Xcyte Therapies and each of its officers and directors.
10.2*	Series E Preferred Stock and Warrant Purchase Agreement dated November 13, 2001.
10.3*	Series F Preferred Stock and Warrant Purchase Agreement dated February 5, 2002.
10.4	Convertible Note and Warrant Purchase Agreement dated October 9, 2003.
10.5	Form of Convertible Promissory Note issued in connection with Convertible Note and Warrant Purchase Agreement dated as of October 9, 2003.
10.6*	Amended and Restated Investor Rights Agreement dated February 5, 2002.
10.7*	Amendment to Amended and Restated Investor Rights Agreement dated May 22, 2002.
10.8	Waiver of Preemptive Rights and Amendment to Amended and Restated Investor Rights Agreement dated as of October 9, 2003.
10.9*	Form of Warrant to purchase Common Stock issued by Xcyte Therapies, Inc.
10.10*	Warrant to purchase Series D Preferred Stock dated December 7, 2000 issued by Xcyte Therapies, Inc. in favor of Hibbs/Woodinville Associates, LLC.
10.11*	Form of Warrant to purchase Series F Preferred Stock issued by Xcyte Therapies, Inc. in favor of General Electric Capital Corporation.
10.12*	Series E Preferred Stock Purchase Warrant issued by Xcyte Therapies in favor of Chun-Te Liao dated November 30, 2001.
10.13*	Warrant to purchase Common Stock issued by Xcyte Therapies, Inc. in favor of Inkeun Lee dated April 1, 2003.
10.14*	Warrant to purchase Common Stock issued by Xcyte Therapies, Inc. in favor of Inkeun Lee dated April 1, 2003.
10.15*	Master Security Agreement between Xcyte Therapies, Inc. and Oxford Finance Corporation dated July 1, 2003.
10.16*	Warrant to purchase Series F Preferred Stock issued by Xcyte Therapies, Inc. in favor of Oxford Finance Corporation dated July 17, 2003.
10.17*	Warrant to purchase Series F Preferred Stock issued by Xcyte Therapies, Inc. in favor of Oxford Finance Corporation dated September 5, 2003.
10.18	Form of Stock Purchase Warrant issued in connection with Convertible Note and Warrant Purchase Agreement dated as of October 9, 2003.
10.19*	Senior Loan and Security Agreement dated July 1, 1999 between Xcyte Therapies, Inc. and Phoenix Leasing Incorporated.
10.20*	Master Security Agreement dated January 15, 2000 between Xcyte Therapies, Inc. and General Electric Capital Corporation.
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24.1*	Power of Attorney (see page II-7).

* Filed Previously.
** To be filed by amendment.
† Certain information in these exhibits has been omitted and filed separately with the Securities and Exchange Commission pursuant to a confidential treatment request under 17 C.F.R. Sections 200.80(b)(4), 200.83 and 230.406.

XCYTE THERAPIES, INC.

CONVERTIBLE NOTE AND WARRANT PURCHASE AGREEMENT

October 9, 2003

XCYTE THERAPIES, INC.

CONVERTIBLE NOTE AND WARRANT PURCHASE AGREEMENT

This Convertible Note and Warrant Purchase Agreement (the "Agreement") is made as of the 9th day of October, 2003, by and between Xcyte Therapies, Inc., a Delaware corporation (the "Company") and each of the purchasers listed on Exhibit A attached to this Agreement (each a "Purchaser" and together the "Purchasers").

RECITALS

The Company desires to issue and sell, and each Purchaser desires to purchase, a convertible promissory note in substantially the form attached to this Agreement as Exhibit B (the "Note") which shall be convertible on the terms stated therein into equity securities of the Company, and a warrant to purchase Preferred Stock of the Company in substantially the form attached to this Agreement as Exhibit C (the "Warrant"). The Notes, the Warrants and the equity securities issuable upon conversion or exercise thereof (and any securities issuable upon conversion of such equity securities) are collectively referred to herein as the "Securities."

The Company desires to amend its Amended and Restated Investor Rights Agreement dated as of February 5, 2002, a copy of which is attached hereto as Exhibit D (the "Rights Agreement") to include the shares issuable upon conversion of the Notes, and upon exercise of the Warrants (and any securities issuable upon conversion of such equity securities), as "Registrable Securities" thereunder.

AGREEMENT

In consideration of the mutual promises contained herein and other good and valuable consideration, receipt of which is hereby acknowledged, the parties to this Agreement agree as follows:

1. **Purchase and Sale of Notes and Warrants.**

(a) **Sale and Issuance of Notes and Warrants.** Subject to the terms and conditions of this Agreement, each Purchaser agrees to purchase at the Closing (as defined below) and the Company agrees to sell and issue to each Purchaser (i) a Note in the principal amount set forth opposite such Purchaser's name on Exhibit A, and (ii) a Warrant to purchase the number of shares of Preferred Stock as set forth in such Purchaser's Warrant. The purchase price of the Note and Warrant shall be equal to 100% of the principal amount of such Note. The Company's agreements with each of the Purchasers are separate agreements, and the sales of the Notes and Warrants to each of the Purchasers are separate sales.

(b) **Purchase Price Allocation.** The Company and the Purchasers, having adverse interests as a result of arm's length bargaining, agree that (i) neither the Purchasers nor any of their partners have rendered or agreed to render any services to the Company in

connection with this Agreement or the issuance of the Notes and the Warrants; (ii) the Warrants are not being issued as compensation; and (iii) the assumed prices at which the Notes would be issued if they were issued apart from the Warrants are 99.8% of the principal amount thereof. The Purchasers recognize that this Agreement determines, to the extent applicable, the original issue discount on the Notes to be taken into account by the issuer thereof and the Purchasers for income tax purposes, and they agree to adhere to this Agreement for such purposes.

(c) **Closing; Delivery.**

(i) The purchase and sale of the Notes and Warrants shall take place at the offices of Venture Law Group, a Professional Corporation, 4750 Carillon Point, Kirkland Washington, at 10:00 a.m., on October 9, 2003, or at such other time and place as the Company and the Purchasers mutually agree upon, orally or in writing (which time and place are designated as the "Closing").

(ii) At the Closing, the Company shall deliver to each Purchaser in the Closing the Note and Warrant to be purchased by such Ppaurchaser against (1) payment of the purchase price therefor by check payable to the Company or by wire transfer to a bank designated by the Company, (2) delivery of a counterpart signature page to this Agreement and (3) delivery of a validly completed and executed IRS Form W-8 BEN or IRS Form W-9, as applicable, establishing such Purchaser's exemption from withholding tax, which forms are attached to this Agreement as Exhibit E (the "Exemption Forms").

2. **Agreements.** Each Purchaser understands and agrees that in connection with the conversion of the Notes into, and exercise of the Warrants for, equity securities of the Company, such Purchaser will be required to become a party to the Rights Agreement in order to include the Securities as "Registrable Securities" thereunder and to include each Purchaser as an "Investor" thereunder.

3. **Representations and Warranties of the Company.** The Company hereby represents and warrants to each Purchaser that, except as set forth on the Schedule of Exceptions attached hereto as Exhibit F, which exceptions shall be deemed to be representations and warranties as if made hereunder:

(a) **Organization, Good Standing and Qualification.** The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and has all requisite corporate power and authority to carry on its business as now conducted and as proposed to be conducted. The Company is duly qualified to transact business and is in good standing in each jurisdiction in which the failure so to qualify would have a material adverse effect on its business or properties.

(b) **Authorization.**

(i) The Agreement, the Notes, the Common Stock issuable upon conversion of the Notes (the "Conversion Shares") and the Warrants have been duly authorized by the Board of Directors of the Company. The Agreement, the Notes and the Warrants, when

executed and delivered by the Company, shall constitute valid and legally binding obligations of the Company, enforceable against the Company in accordance with their respective terms except as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, and other laws of general application affecting enforcement of creditors' rights generally, and as limited by laws relating to the availability of specific performance, injunctive relief, or other equitable remedies. All corporate action on the part of the Company, its officers, directors and stockholders necessary for the execution and delivery of, and the consummation of the transactions contemplated by the Agreement, the performance of all obligations of the Company under the Agreement, the Notes and the Warrants has been taken or will be taken on or prior to the Closing. Notwithstanding the foregoing, in connection with the exercise of the Warrants and conversion of such Warrants into Common Stock, the Company has not obtained the necessary corporate approvals for the authorization of any of the securities issued in the Next Private Financing (as defined in the Warrants) or the Common Stock issuable upon conversion of the Warrants. As of the Closing, the Amended and Restated Certificate of Incorporation shall be in the form attached hereto as Exhibit G.

(ii) The Conversion Shares, when issued in compliance with the provisions of the Notes, will be validly issued, fully paid and nonassessable and will be free of any liens or encumbrances known to, or caused or created by, the Company; provided, however, that the Conversion Shares may be subject to restrictions on transfer under state and/or federal securities laws as set forth herein, as may be required by changes in such laws and as contemplated by the Purchase Agreement, Rights Agreement and Notes.

(iii) Except as set forth herein or in the Rights Agreement, no entity has any right of first refusal or any preemptive rights in connection with the issuance of the Notes, the Conversion Shares, the Warrants or capital stock issued upon exercise thereof or any future issuances of securities by the Company.

(c) **Capitalization.**

(i) As of the Closing, the authorized capital of the Company shall consist of: (x) 70,000,000 shares of Common Stock, and (y), 42,000,000 shares of Preferred Stock (the "Preferred Stock"), of which 7,300,080 have been designated Series A Preferred Stock, 4,097,580 have been designated Series B Preferred Stock, 7,212,316 have been designated Series C Preferred Stock, 10,300,000 have been designated Series D Preferred Stock, 6,500,000 have been designated Series E Preferred Stock and 6,500,000 have been designated Series F Preferred Stock. As of the Closing, 8,402,636 shares of Common Stock, warrants to purchase 4,990,344 shares of Common Stock, 6,907,353 shares of Series A Preferred Stock, warrants to purchase 368,410 shares of Series A Preferred Stock, 3,903,080 shares of Series B Preferred Stock, warrants to purchase 194,500 shares of Series B Preferred Stock, 7,185,630 shares of Series C Preferred Stock, and warrants to purchase 26,686 shares of Series C Preferred Stock, 10,109,825 shares of Series D Preferred Stock, warrants to purchase 103,741 shares of Series D Preferred Stock, 4,750,095 shares of Series E Preferred Stock, warrants to purchase 10,000 shares of Series E Preferred Stock, 4,444,251 shares of Series F Preferred Stock and warrants to purchase 24,975 shares of Series F Preferred Stock will be outstanding.

(ii) Except as set forth in this Agreement and the exhibits thereto, there are no outstanding options, warrants, rights (including conversion or preemptive rights) or agreements for the purchase or acquisition from the Company of any shares of its capital stock except that the Company has reserved (x) the shares for issuance upon conversion of the Notes in an IPO (as defined in the Notes), (y) Common Stock issuable upon conversion of the Company's Preferred Stock, (z) 6,400,000 shares of Common Stock reserved for issuance pursuant to stock option plans adopted by the Company of which 3,985,560 options have been granted and remain outstanding, with 1,611,367 shares remaining for grant as of the Closing. The Company hereby covenants to the Purchasers that it has reserved for issuance, and will continue to reserve for issuance, the maximum number of shares of Common Stock issuable upon conversion of the Notes.

(d) **Subsidiaries.** The Company does not presently own or control, directly or indirectly, any interest in any other corporation, association, or other business entity.

(e) **Governmental Consents**.

(i) No consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any federal, state or local governmental authority on the part of the Company is required in connection with the consummation of the transactions contemplated by the Agreement.

(ii) No consent, approval, waiver or other action by any person under any contract, agreement, indenture, lease, instrument or other document to which the Company is a party or bound is required or necessary for the execution, delivery and performance of, or the consummation of the transactions contemplated by, the Agreement by the Company.

(f) **Proprietary Information.** Each former and present employee, consultant and officer of the Company has executed and each future employee, consultant and officer will execute, the Company's standard form of Proprietary Information Agreement. The Company, after reasonable investigation, is not aware that any of its employees, officers or consultants are in violation thereof, and the Company will use its best efforts to prevent any such violation.

(g) **Patents and Trademarks.** The Company has sufficient title and ownership of all patents, trademarks, service marks, trade names, copyrights, trade secrets, information, proprietary rights and processes necessary for its business as now conducted and as proposed to be conducted without any conflict with or infringement of the rights of others. There are no outstanding options, licenses, or agreements of any kind relating to the foregoing, nor is the Company bound by or a party to any options, licenses or agreements of any kind with respect to the patents, trademarks, service marks, trade names, copyrights, trade secrets, licenses, information, proprietary rights and processes of any other person or entity. The Company has not received any communications alleging that the Company has violated or, by conducting its business as proposed, would violate any of the patents, trademarks, service marks, trade names, copyrights or trade secrets or other proprietary rights of any other person or entity. The Company

is not aware that any of its employees is obligated under any contract (including licenses, covenants or commitments of any nature) or other agreement, or subject to any judgment, decree or order of any court or administrative agency, that would interfere with the use of his or her best efforts to promote the interests of the Company or that would conflict with the Company's business as proposed to be conducted. Neither the execution nor delivery of this Agreement, nor the carrying on of the Company's business by the employees of the Company, nor the conduct of the Company's business as proposed, will, to the best of the Company's knowledge, conflict with or result in a breach of the terms, conditions or provisions of, or constitute a default under, any contract, covenant or instrument under which any of such employees is now obligated. The Company does not believe it is or will be necessary to utilize any inventions of any of its employees (or people it currently intends to hire) made prior to their employment by the Company.

(h) **Financial Statements.** The Company has made available to each Purchaser (i) its audited balance sheet as of December 31, 2002 and unaudited statement of income for the period from January 1, 2003 to June 30, 2003 and audited financial statements as of December 31, 2002 and unaudited financial statements as of June 30, 2003 (collectively the "Financial Statements"). The Financial Statements, together with the notes thereto, are complete and correct in all material respects and have been prepared in accordance with generally accepted accounting principles applied on a consistent basis throughout the periods indicated, except as disclosed therein, and present fairly the financial condition and position of the Company as of June 30, 2003; provided, however, that the unaudited financial statements are subject to normal recurring year-end audit adjustments (which are not expected to be material), and do not contain all footnotes required under generally accepted accounting principles.

(i) **Changes.** Since June 30, 2003, there has not been:

(i) Any change in the assets, liabilities, financial condition or operations of the Company from that reflected in the Financial Statements, other than changes in the ordinary course of business, or any other event or condition of any character, any of which individually or in the aggregate has had or is expected to have a material adverse effect on such assets, liabilities, financial condition or operations of the Company;

(ii) Any resignation or termination of any key officers or key employees of the Company; and the Company, to the best of its knowledge, does not know of the impending resignation or termination of employment of any such officer or employee;

(iii) Any material change, except in the ordinary course of business, in the contingent obligations of the Company by way of guaranty, endorsement, indemnity, warranty or otherwise;

(iv) Any damage, destruction or loss, whether or not covered by insurance, materially and adversely affecting the properties, business or prospects or financial condition of the Company;

(v) Any direct or indirect loans made by the Company to, or any material change in, any compensation arrangement or agreement with, any stockholder, employee, officer or director of the Company, other than advances made in the ordinary course of business;

(vi) Any declaration or payment of any dividend or other distribution of the assets of the Company;

(vii) Any debt, obligation or liability incurred, assumed or guaranteed by the Company, except those for immaterial amounts and for current liabilities incurred in the ordinary course of business; or any waiver by the Company of a valuable right or of a material debt owed to it;

(viii) Any sale, assignment or transfer of any patents, trademarks, copyrights, trade secrets or other intangible assets; and

(ix) To the Company's knowledge, any change in any material agreement to which the Company is a party or by which it is bound which materially and adversely affects the business, assets, liabilities, financial condition, operations or prospects of the Company, including compensation agreements with the Company's employees.

(j) **Liabilities.** The Company has no material liabilities and knows of no material contingent liabilities not disclosed in the Financial Statements, except current liabilities incurred in the ordinary course of business subsequent to June 30, 2003, which have not been, either in any individual case or in the aggregate, materially adverse.

(k) **Litigation.** There is no action, suit, proceeding or investigation pending or currently threatened against the Company that questions the validity of this Agreement or the right of the Company to enter into it, or to consummate the transactions contemplated hereby, or which might result, either individually or in the aggregate, in any material adverse changes in the assets, condition, affairs or prospects of the Company, financially or otherwise, or any change in the current equity ownership of the Company, nor is the Company aware that there is any basis for the foregoing. The foregoing includes, without limitation, actions pending or threatened (or any basis therefor known to the Company) involving the prior employment of any of the Company's employees, their use in connection with the Company's business of any information or techniques allegedly proprietary to any of their former employers, or their obligations under any agreements with prior employers. The Company is not a party or subject to the provisions of any order, writ, injunction, judgment or decree of any court or government agency or instrumentality. There is no action, suit, proceeding or investigation by the Company currently pending or which the Company intends to initiate.

(l) **Compliance with Other Instruments.** The Company is not in violation or default of any provision of its Certificate or Bylaws or any provision of any mortgage, indenture, contract, agreement, instrument, judgment, order, writ, or decree to which it is a party or by which it is bound or, to its knowledge, of any provision of federal or state statute, rule or

regulation applicable to the Company which would materially and adversely affect the business, assets, liabilities, financial condition, operations or prospects of the Company. The execution, delivery and performance of this Agreement and the consummation of the transactions contemplated hereby and thereby will not result in any such material violation or be in conflict with or constitute, with or without the passage of time and giving of notice, either a default under any such provision, instrument, judgment, order, writ, decree or contract or an event which results in the creation of any lien, charge or encumbrance upon any assets of the Company.

(m) **Offering.** Subject in part to the accuracy of the Purchasers' representations set forth in Section 3 hereof, the offer, sale and issuance of the Notes and Warrants as contemplated by this Agreement and the issuance of the Notes, the Warrants and the Conversion Shares are exempt from the registration requirements of the Securities Act of 1933, as amended (the "Securities Act"), and the registration, qualification or compliance requirements of any applicable blue sky or other state securities laws, and neither the Company nor any authorized agent acting on its behalf will take any action that would cause the loss of any such exemption.

(n) **Agreements; Action**.

(i) There are no agreements, understandings or proposed transactions between the Company and any of its officers, directors, affiliates, or any affiliate thereof.

(ii) There are no agreements, understandings, instruments, contracts or proposed transactions to which the Company is a party or by which it is bound which involve (x) obligations of, or payments to the Company in excess of $100,000, or (y) the license of any patent, copyright, trade secret or other proprietary right to or from the Company (other than licenses arising from the purchase of "off-the-shelf" products) or (z) obligations of, or payments by, the Company to any officer, director, employee or family member of any such individual.

(iii) The Company has not (x) declared or paid any dividends, or authorized or made any distribution upon or with respect to any class or series of its capital stock, (y) incurred any indebtedness for money borrowed or incurred any other liabilities individually in excess of $50,000 or in excess of $100,000 in the aggregate, (z) made any loans or advances to any person, other than ordinary advances for travel expenses, or (aa) sold, exchanged or otherwise disposed of any of its assets or rights, other than in the ordinary course of business.

(iv) The Company is not a party to and is not bound by any contract, agreement or instrument, or subject to any restriction under its Certificate or Bylaws, which materially adversely affects its business as now conducted and as proposed to be conducted.

(v) The Company has not engaged in the past twelve (12) months in any discussion (x) with any representative of any corporation or corporations regarding the consolidation or merger of the Company with or into any such corporation or corporations, (y) with any corporation, partnership, association or other business entity or any individual regarding

the sale, conveyance or disposition of all or substantially all of the assets of the Company, or (z) regarding any other form of liquidation, dissolution or winding up of the Company.

(o) **Title to Property and Assets.** The Company owns its property and assets free and clear of all mortgages, liens, loans and encumbrances, except such encumbrances and liens which arise in the ordinary course of business and do not materially impair the Company's ownership or use of such property or assets. With respect to the property and assets it leases, the Company is in compliance with such leases and, to the best of its knowledge, holds a valid leasehold interest free of any liens, claims or encumbrances.

(p) **Disclosure.** The Company has fully provided each Purchaser with all the information which such Purchaser has requested for deciding whether to purchase the Notes and Warrants and all information which the Company believes is reasonably necessary to enable such Purchaser to make such decision. To the best of the Company's knowledge, neither this Agreement, the Notes, the Warrants, nor any other statements or certificates made or delivered in connection herewith, when taken as a whole, contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements herein or therein not misleading.

(q) **Labor Agreements and Actions.** The Company is not bound by or subject to (and none of its assets or properties is bound by or subject to) any written or oral, express or implied, contract, commitment or arrangement with any labor union, and no labor union has requested or, to the knowledge of the Company, has sought to represent any of the employees, representatives or agents of the Company. There is no strike or other labor dispute involving the Company pending, or to the knowledge of the Company threatened, which could have a material adverse effect on the assets, properties, financial condition, operating results, or business of the Company (as such business is presently conducted and as it is proposed to be conducted), nor is the Company aware of any labor organization activity involving its employees. To the best of its knowledge, the Company is not aware that any officer or key employee, or that any group of key employees, intends to terminate their employment with the Company, nor does the Company have a present intention to terminate the employment of any of the foregoing. The employment of each officer and employee of the Company is terminable at the will of the Company.

(r) **Tax Returns, Payments and Elections.** The Company has filed all tax returns and reports as required by law. These returns and reports are true and correct in all material respects. The Company has paid all taxes and other assessments due, except those contested by it in good faith which are listed in the Schedule of Exceptions, attached hereto as Exhibit F. The provision for taxes of the Company as shown in the Financial Statements is adequate for taxes due or accrued as of the date thereof. The Company has not elected pursuant to the Internal Revenue Code of 1986, as amended (the "Code"), to be treated as a Subchapter S corporation or a collapsible corporation pursuant to Section 1362(a) or Section 341(f) of the Code, respectively, nor has it made any other elections pursuant to the Code (other than elections which relate solely to methods of accounting, depreciation or amortization) which would have a material effect on the Company, its financial condition, its business as presently conducted or proposed to be conducted or any of its properties or material assets.

(s) **Obligations of Management.** Each officer of the Company is currently devoting his or her full-time to the conduct of the business of the Company. The Company is not aware of any officer or key employee of the Company planning to work less than full-time at the Company in the future.

(t) **Real Property Holding Corporation.** The Company is not a real property holding corporation within the meaning of Section 897(c)(2) of the Code and any regulations promulgated thereunder.

(u) **Investment Company Act.** The Company is not an "investment company," or a company "controlled" by an "investment company," within the meaning of the Investment Company Act of 1940, as amended.

4. **Representations and Warranties of the Purchasers.** Each Purchaser hereby represents and warrants to the Company that:

(a) **Authorization.** Such Purchaser has full power and authority to enter into this Agreement. This Agreement, when executed and delivered by the Purchaser, will constitute a valid and legally binding obligation of the Purchaser, enforceable in accordance with its terms, except as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, and any other laws of general application affecting enforcement of creditors' rights generally, and as limited by laws relating to the availability of a specific performance, injunctive relief, or other equitable remedies.

(b) **Purchase Entirely for Own Account.** This Agreement is made with the Purchaser in reliance upon the Purchaser's representation to the Company, which by the Purchaser's execution of this Agreement, the Purchaser hereby confirms, that the Securities to be acquired by the Purchaser will be acquired for investment for the Purchaser's own account, not as a nominee or agent, and not with a view to the resale or distribution of any part thereof, and that the Purchaser has no present intention of selling, granting any participation in, or otherwise distributing the same. By executing this Agreement, the Purchaser further represents that the Purchaser does not presently have any contract, undertaking, agreement or arrangement with any person to sell, transfer or grant participations to such person or to any third person, with respect to any of the Securities. The Purchaser has not been formed for the specific purpose of acquiring any of the Securities.

(c) **Knowledge.** The Purchaser is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Securities.

(d) **Restricted Securities.** The Purchaser understands that the Securities have not been, and will not be, registered under the Securities Act, by reason of a specific exemption from the registration provisions of the Securities Act which depends upon, among other things, the bona fide nature of the investment intent and the accuracy of the Purchaser's representations as expressed herein. The Purchaser understands that the Securities are "restricted securities"

under applicable U.S. federal and state securities laws and that, pursuant to these laws, the Purchaser must hold the Securities indefinitely unless they are registered with the Securities and Exchange Commission and qualified by state authorities, or an exemption from such registration and qualification requirements is available. The Purchaser acknowledges that the Company has no obligation to register or qualify the Securities for resale, except as contemplated by inclusion in the Rights Agreement per Section 6(d) below. The Purchaser further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements including, but not limited to, the time and manner of sale, the holding period for the Securities, and on requirements relating to the Company which are outside of the Purchaser's control, and which the Company is under no obligation and may not be able to satisfy.

(e) **No Public Market.** The Purchaser understands that no public market now exists for any of the securities issued by the Company, that the Company has made no assurances that a public market will ever exist for the Securities.

(f) **Legends.** The Purchaser understands that the Securities, and any securities issued in respect thereof or exchange therefor, may bear one or all of the following legends:

(i) "THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH SALE OR DISTRIBUTION MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933."

(ii) Any legend required by the Blue Sky laws of any state to the extent such laws are applicable to the shares represented by the certificate so legended.

(g) **Accredited Investor.** The Purchaser is an accredited investor as defined in Rule 501(a) of Regulation D promulgated under the Securities Act.

(h) **Foreign Investors.** If a Purchaser is not a United States person (as defined by Rule 902(k) under the Securities Act), such Purchaser hereby represents that it has satisfied itself as to the full observance of the laws of its jurisdiction in connection with any invitation to subscribe for the Securities or any use of this Agreement, including (i) the legal requirements within its jurisdiction for the purchase of the Securities, (ii) any foreign exchange restrictions applicable to such purchase, (iii) any governmental or other consents that may need to be obtained and (iv) the income tax and other tax consequences, if any, that may be relevant to the purchase, holding, redemption, sale or transfer of the Securities. Such Purchaser's subscription and payment for, and his or her continued beneficial ownership of the Securities, will not violate any applicable securities or other laws of Purchaser's jurisdiction. Such Purchaser also hereby represents that such Purchaser is not a "10-percent shareholder" as defined in Section 871(h) of the Internal Revenue Code of 1986, as amended.

5. **Conditions of the Purchasers' Obligations at Closing.** The obligations of each Purchaser to the Company under this Agreement are subject to the fulfillment, on or before the Closing, of each of the following conditions, unless otherwise waived:

(a) **Representations and Warranties.** The representations and warranties of the Company contained in Section 3 shall be true on and as of the Closing with the same effect as though such representations and warranties had been made on and as of the date of the Closing.

(b) **Qualifications.** All authorizations, approvals or permits, if any, of any governmental authority or regulatory body of the United States or of any state that are required in connection with the lawful issuance and sale of the Securities pursuant to this Agreement shall be obtained and effective as of the Closing.

(c) **Officer's Certificate.** The President of the Company shall deliver to counsel for the Purchasers at the Closing a certificate certifying that the condition specified in Section 5(a) has been fulfilled and stating that there shall have been no adverse change in the business, affairs, prospects, operations, properties, assets, liabilities or condition of the Company since the date of this Agreement.

(d) **Secretary's Certificate.** The Secretary of the Company shall deliver to the Purchasers at the Closing a certificate certifying (i) the Company's Amended and Restated Certificate of Incorporation, (ii) the resolutions of the Board of Directors of the Company approving the Agreement and the transactions contemplated hereby and thereby, and (iii) resolutions of the stockholders of the Company approving the Amended and Restated Certificate of Incorporation.

6. **Conditions of the Company's Obligations at Closing.** The obligations of the Company to each Purchaser under this Agreement are subject to the fulfillment, on or before the Closing, of each of the following conditions, unless otherwise waived:

(a) **Representations and Warranties.** The representations and warranties of each Purchaser contained in Section 4 shall be true on and as of the Closing with the same effect as though such representations and warranties had been made on and as of the Closing.

(b) **Qualifications.** All authorizations, approvals or permits, if any, of any governmental authority or regulatory body of the United States or of any state that are required in connection with the lawful issuance and sale of the Securities pursuant to this Agreement shall be obtained and effective as of the Closing.

(c) **Delivery of Form W-8 BEN or Form W-9**. Each Purchaser shall have completed and delivered to the Company a validly executed IRS Form W-8 BEN or IRS Form W-9, as applicable, establishing such Purchaser's exemption from withholding tax.

(d) **Amendment to Investor Rights Agreement**. The Rights Agreement shall be amended to include the Securities as "Registrable Securities" thereunder and to include each Purchaser as an "Investor" thereunder.

(e) **Filing of Amended and Restated Certificate of Incorporation.** The Company shall have filed an Amended and Restated Certificate of Incorporation with the Secretary of State of Delaware on or prior to the Closing giving effect to certain amendments approved by its Board of Directors in connection with this transaction, which Amended and Restated Certificate of Incorporation shall continue to be in full force and effect as of the Closing.

7. **Miscellaneous.**

(a) **Survival of Warranties.** The warranties, representations and covenants of the Company and Purchasers contained in or made pursuant to this Agreement shall survive the execution and delivery of this Agreement and the Closing and shall in no way be affected by any investigation of the subject matter thereof made by or on behalf of the Purchasers or the Company.

(b) **Successors and Assigns.** The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

(c) **Governing Law.** This Agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the State of Washington, without giving effect to principles of conflicts of law.

(d) **Counterparts.** This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument.

(e) **Titles and Subtitles.** The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

(f) **Notices.** Any notice required or permitted by this Agreement shall be in writing and shall be deemed sufficient upon receipt, when delivered personally or by courier, overnight delivery service or confirmed facsimile, or 48 hours after being deposited in the U.S. mail as certified or registered mail with postage prepaid, if such notice is addressed to the party to be notified at such party's address or facsimile number as set forth below or as subsequently modified by written notice.

(g) **Finder's Fee.** Each party represents that it neither is nor will be obligated for any finder's fee or commission in connection with this transaction. Each Purchaser agrees to indemnify and to hold harmless the Company from any liability for any commission or compensation in the nature of a finder's fee (and the costs and expenses of defending against

such liability or asserted liability) for which each Purchaser or any of its officers, employees, or representatives is responsible. The Company agrees to indemnify and hold harmless each Purchaser from any liability for any commission or compensation in the nature of a finder's fee (and the costs and expenses of defending against such liability or asserted liability) for which the Company or any of its officers, employees or representatives is responsible.

(h) **Amendments and Waivers.** Any term of this Agreement may be amended or waived only with the written consent of the Company and the holders of at least a majority of the aggregate principal amount of the Notes issued under the Agreement; provided, however, that any amendment hereof that would materially adversely affect a Purchaser in a manner different from all other Purchasers shall also require the consent of such Purchaser. Any amendment or waiver effected in accordance with this Section 7(h) shall be binding upon each Purchaser and each transferee of the Securities, each future holder of all such Securities, and the Company.

(i) **Severability.** If one or more provisions of this Agreement are held to be unenforceable under applicable law, the parties agree to renegotiate such provision in good faith, in order to maintain the economic position enjoyed by each party as close as possible to that under the provision rendered unenforceable. In the event that the parties cannot reach a mutually agreeable and enforceable replacement for such provision, then (i) such provision shall be excluded from this Agreement, (ii) the balance of the Agreement shall be interpreted as if such provision were so excluded and (iii) the balance of the Agreement shall be enforceable in accordance with its terms.

(j) **Entire Agreement.** This Agreement, and the documents referred to herein constitute the entire agreement between the parties hereto pertaining to the subject matter hereof, and any and all other written or oral agreements existing between the parties hereto are expressly canceled.

(k) **Exculpation Among Purchasers.** Each Purchaser acknowledges that it is not relying upon any person, firm or corporation, other than the Company and its officers and directors, in making its investment or decision to invest in the Company. Each Purchaser agrees that no Purchaser nor the respective controlling persons, officers, directors, partners, agents, or employees of any Purchaser shall be liable for any action heretofore or hereafter taken or omitted to be taken by any of them in connection with the Securities.

(l) **Corporate Securities Law.** TO THE EXTENT APPLICABLE, THE SALE OF THE SECURITIES WHICH ARE THE SUBJECT OF THIS AGREEMENT HAS NOT BEEN QUALIFIED WITH THE COMMISSIONER OF CORPORATIONS OF THE STATE OF CALIFORNIA AND THE ISSUANCE OF THE SECURITIES OR THE PAYMENT OR RECEIPT OF ANY PART OF THE CONSIDERATION THEREFOR PRIOR TO THE QUALIFICATION IS UNLAWFUL, UNLESS THE SALE OF SECURITIES IS EXEMPT FROM THE QUALIFICATION BY SECTION 25100, 25102 OR 25105 OF THE CALIFORNIA CORPORATIONS CODE. THE RIGHTS OF ALL PARTIES TO THIS AGREEMENT ARE EXPRESSLY CONDITIONED UPON THE QUALIFICATION BEING OBTAINED UNLESS THE SALE IS SO EXEMPT

(m) **Expenses.** Upon the Closing of the purchase and sale of the Notes and Warrants as contemplated by this Agreement and receipt of invoice, the Company shall pay the fees and reasonable expenses of one counsel for the Purchasers, which fees and expenses shall not exceed $7,500.00.

[Signature Pages Follow]

The parties have executed this Convertible Note and Warrant Purchase Agreement as of the date first written above.

COMPANY:

XCYTE THERAPIES, INC.

By: /S/ RONALD J. BERENSON

Ronald J. Berenson, President

Address: 1124 Columbia Street
Suite 130
Seattle, WA 98104

Facsimile Number: 206-262-0900

**[SIGNATURE PAGE TO XCYTE THERAPIES, INC.
CONVERTIBLE NOTE AND WARRANT PURCHASE AGREEMENT]**

DLJ CAPITAL CORP.

By: /S/ PHILLIPE CHAMBON
Phillipe Chambon

Its: Managing Director

Address: 3000 Sand Hill Road
Building 3, Suite 170
Menlo Park, CA 94025

SPROUT PLAN INVESTORS, L.P.

By: DLJ LBO Plans Management Corporation II
its General Partner

By: /S/ PHILLIPE CHAMBON
Phillipe Chambon

Its: Attorney in Fact

Address: 3000 Sand Hill Road
Building 3, Suite 170
Menlo Park, CA 94025

**[SIGNATURE PAGE TO XCYTE THERAPIES, INC.
CONVERTIBLE NOTE AND WARRANT PURCHASE AGREEMENT]**

SPROUT CEO FUND, L.P.

By: DLJ Capital Corporation,
its General Partner

By: /S/ PHILLIPE CHAMBON
Phillipe Chambon

Its: Managing Director

Address: 3000 Sand Hill Road
Building 3, Suite 170
Menlo Park, CA 94025

SPROUT CAPITAL VII, L.P.

By: DLJ Capital Corporation,
its Managing General Partner

By: /S/ PHILLIPE CHAMBON
Phillipe Chambon

Its: Managing Director

Address: 3000 Sand Hill Road
Building 3, Suite 170
Menlo Park, CA 94025

**[SIGNATURE PAGE TO XCYTE THERAPIES, INC.
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ALTA CALIFORNIA PARTNERS, L.P.
By: Alta California Management Partners, L.P.

By: /S/ JEAN DELEAGE
Jean Deleage, General Partner

Address: One Embarcadero Center
Suite 4050
San Francisco, CA 94111

ALTA EMBARCADERO PARTNERS, L.L.C.

By: /S/ JEAN DELEAGE
Jean Deleage, Member

Address: One Embarcadero Center
Suite 4050
San Francisco, CA 94111

[SIGNATURE PAGE TO XCYTE THERAPIES, INC.
CONVERTIBLE NOTE AND WARRANT PURCHASE AGREEMENT]

ARCH VENTURE FUND V, L.P.,

By: ARCH VENTURE PARTNERS V, L.P.
its General Partner

By: ARCH VENTURE PARTNERS V, LLC
its General Partner

By: /S/ ROBERT NELSEN

Name: Robert Nelsen

Title: Managing Director

Address: 1000 Second Avenue
Suite 3700
Seattle, WA 98104-1053

ARCH V ENTERPRENEURS FUND, L.P.

By: ARCH VENTURE PARTNERS V, L.P.
its General Partner

By: ARCH VENTURE PARTNERS V, LLC
its General Partner

By: /S/ ROBERT NELSEN

Name: Robert Nelsen

Title: Managing Director

Address: 1000 Second Avenue
Suite 3700
Seattle, WA 98104-1053

**[SIGNATURE PAGE TO XCYTE THERAPIES, INC.
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ARCH VENTURE FUND III, L.P.,
a Delaware limited partnership

By: ARCH VENTURE PARTNERS, L.L.C.,
a Delaware limited partnership, its General Partner

By: /S/ ROBERT NELSON

Name: Robert Nelsen

Title: Managing Director

Address: 1000 Second Avenue
Suite 3700
Seattle, WA 98104-1053

**[SIGNATURE PAGE TO XCYTE THERAPIES, INC.
CONVERTIBLE NOTE AND WARRANT PURCHASE AGREEMENT]**

HEALTHCARE FOCUS FUND, L.P.,
a Delaware limited partnership

By: ARCH VENTURE PARTNERS V, L.P.,
its General Partner

By: ARCH VENTURE PARTNERS V, L.L.C.,
its General Partner

By: /S/ ROBERT NELSEN

Name: Robert Nelsen

Title: Managing Director

Address: 1000 Second Avenue
Suite 3700
Seattle, WA 98104-1053

**[SIGNATURE PAGE TO XCYTE THERAPIES, INC.
CONVERTIBLE NOTE AND WARRANT PURCHASE AGREEMENT]**

MPM ASSET MANAGEMENT INVESTORS 2000 B L.L.C.

By: /S/ NICHOLAS GALAKATOS

Name: Nicholas Galakatos

Title: Investment Manager

Address: 111 Huntington Avenue
31st Floor
Boston, MA 02199

MPM BIOVENTURES GMBH & CO. PARALLEL-BETEILIGUNGS KG

By: /S/ NICHOLAS GALAKATOS

Name: Nicholas Galakatos

Title: Investment Manager

Address: 111 Huntington Avenue
31st Floor
Boston, MA 02199

MPM BIOVENTURES II, L.P.

By: /S/ NICHOLAS GALAKATOS

Name: Nicholas Galakatos

Title: Investment Manager

Address: 111 Huntington Avenue
31st Floor
Boston, MA 02199

MPM BIOVENTURES II-QP, L.P.

By: /S/ NICHOLAS GALAKATOS

Name: Nicholas Galakatos

Title: Investment Manager

Address: 111 Huntington Avenue
31st Floor
Boston, MA 02199

FALCON TECHNOLOGY PARTNERS, L.P.

By: /S/ JAMES RATHMAN

Name: James Rathman

Title: Its General Partner

Address: 600 Dorset Road
Devon, PA 19333

**[SIGNATURE PAGE TO XCYTE THERAPIES, INC.
CONVERTIBLE NOTE AND WARRANT PURCHASE AGREEMENT]**

RIVERVEST VENTURE FUND I, L.P.

By: RiverVest Venture Partners I, L.L.C.,
its general partner

By: /S/ MARK J. MENDEL, PH.D.

Name: Mark J. Mendel, Ph.D.

Title: Manager

Address: 7733 Forsyth Boulevard
Suite 1650
St. Louis, MO 63105

**[SIGNATURE PAGE TO XCYTE THERAPIES, INC.
CONVERTIBLE NOTE AND WARRANT PURCHASE AGREEMENT]**

W CAPITAL PARTNERS IRONWORKS, L.P.

By: /S/ STEPHEN WERTHEIMER

Name: Stephen Wertheimer

Title: Managing Director

Address: 245 Park Avenue
39th Floor
New York, NY 10167

**[SIGNATURE PAGE TO XCYTE THERAPIES, INC.
CONVERTIBLE NOTE AND WARRANT PURCHASE AGREEMENT]**

VULCAN VENTURES INC.

By: Jo Allen Patton

Name: /S/ JO ALLEN PATTON

Title: Vice Chairman

Address: 505 Fifth Avenue
Suite 900
Seattle, WA 98104

**[SIGNATURE PAGE TO XCYTE THERAPIES, INC.
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VECTOR LATER-STAGE EQUITY FUND II, L.P.

By: Vector Fund Management II, L.L.C,
its General Partner

By: /S/ DOUGLAS REED

Name: Douglas Reed

Title: Managing Director

Address: 1751 Lake Cook Road
Suite 350
Deerfield, IL 60015

VECTOR LATER-STAGE EQUITY FUND II, (Q.P.) L.P.

By: Vector Fund Management II, L.L.C,
its General Partner

By: /S/ DOUGLAS REED

Name: Douglas Reed

Title: Managing Director

Address: 1751 Lake Cook Road
Suite 350
Deerfield, IL 60015

**[SIGNATURE PAGE TO XCYTE THERAPIES, INC.
CONVERTIBLE NOTE AND WARRANT PURCHASE AGREEMENT]**

1998 CO-INVESTING L.L.C.

By: /S/ JEFFREY MCDONNELL

Name: Jeffrey McDonnell

Title: Managing

Address: 1034 S. Brentwood Blvd.
Suite 1860
St. Louis, MO 63117

**[SIGNATURE PAGE TO XCYTE THERAPIES, INC.
CONVERTIBLE NOTE AND WARRANT PURCHASE AGREEMENT]**

PURCHASER

UNION CARBIDE EMPLOYEES' PENSION PLAN

By: Diamond Capital Management Inc., Its Agent

By: /s/ GUIDO VAN DRUNEN

Guido Van Drunen
Director, Alternative Investments

**[SIGNATURE PAGE TO XCYTE THERAPIES, INC.
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PURCHASER

DOW EMPLOYEES' PENSION PLAN

By: Diamond Capital Management Inc., Its Agent

By: /s/ GUIDO VAN DRUNEN

Guido Van Drunen
Director, Alternative Investments

**[SIGNATURE PAGE TO XCYTE THERAPIES, INC.
CONVERTIBLE NOTE AND WARRANT PURCHASE AGREEMENT]**

TOM A. ALBERG

By: /s/ TOM A. ALBERG

Name: Tom A. Alberg

Title:

Address: 1000 Second Avenue,
Suite 3700
Seattle, WA 98104

**[SIGNATURE PAGE TO XCYTE THERAPIES, INC.
CONVERTIBLE NOTE AND WARRANT PURCHASE AGREEMENT]**

C.V. Sofinnova Venture Partners III, L.P.

By: Sofinova Management, LLC, its general partner

By: /S/ MICHAEL POWELL, PH.D.

Name: Michael Powell, Ph.D.

Title:

Address: 140 Geary Street, 10th Floor
San Francisco, CA 94108

Michael Powell
Managing Director
Sofinnova Ventures, Inc.
Phone (415) 228-3387
Fax (415) 228-3390
powell@sofinnova.com

**[SIGNATURE PAGE TO XCYTE THERAPIES, INC.
CONVERTIBLE NOTE AND WARRANT PURCHASE AGREEMENT]**

Exhibit A -	Schedule of Purchasers
Exhibit B -	Form of Promissory Note
Exhibit C -	Form of Preferred Stock Warrant
Exhibit D -	Amended and Restated Investor Rights Agreement dated February 5, 2002
Exhibit E -	Purchaser Withholding Exemptions
Exhibit F -	Schedule of Exceptions
Exhibit G -	Form of Amended and Restated Certificate of Incorporation

EXHIBIT A

SCHEDULE OF PURCHASERS

Name/Address of Purchaser	Original Principal Amount of Note
Tom Alberg 1000 – 2nd Avenue Suite 3700 Seattle, WA 98104	$ 223,454
Sprout CEO Fund, L.P. Attn: Robert Curry 3000 Sand Hill Road, Building 3 Suite 170 Menlo Park, CA 94025	$ 1,010
Sprout Capital VII, L.P. Attn: Robert Curry 3000 Sand Hill Road, Building 3 Suite 170 Menlo Park, CA 94025	$ 86,990
DLJ Capital Corp. Attn: Robert Curry 3000 Sand Hill Road, Building 3 Suite 170 Menlo Park, CA 94025	$ 2,000
Sprout Plan Investors, L.P. Attn: Robert Curry 3000 Sand Hill Road, Building 3 Suite 170 Menlo Park, CA 94025	$ 10,000
Alta Embarcadero Partners, LLC Attn: Jean Deleage One Embarcadero Center, Suite 4050 San Francisco, CA 94111	$ 27,920
Alta California Partners, L.P. Attn: Jean Deleage One Embarcadero Center, Suite 4050 San Francisco, CA 94111	$ 1,222,080
Healthcare Focus Fund, LP c/o ARCH Venture Partners V, L.P. 8725 W. Higgins Road, Suite 290 Chicago, IL 60631 Attn: Mark McDonnell	$ 750,000

Arch Venture Fund III, L.P. Attn: Robert Nelsen 1000 Second Avenue, Suite 3700 Seattle, WA 98104	$ 575,000
Arch Venture Fund V, L.P. Attn: Robert Nelsen 1000 Second Avenue, Suite 3700 Seattle, WA 98104	$ 1,986,614
Arch V Entrepreneurs Fund, L.P. Attn: Robert Nelsen 1000 Second Avenue, Suite 3700 Seattle, WA 98104	$ 13,386
Dow Employees' Pension Plan c/o Diamond Capital Management, Inc. Dorinco 100 1320 Waldo Avenue Midland, MI 48674	$ 1,800,000
Union Carbide Employees' Pension Plan c/o Diamond Capital Management, Inc. Dorinco 100 1320 Waldo Avenue Midland, MI 48674	$ 1,200,000
Falcon Technology Partners, L.P. Attn: James Rathman 600 Dorset Road Devon, PA 19333	$ 220,000
MPM Asset Management Investors 2000 B LLC Attn: Robert W. Liptak MPM Capital 111 Huntington Avenue 31st Floor Boston, MA 02199	$ 15,500
MPM Bioventures GMBH & Co. Parallel-Beteiligungs KG Attn: Robert W. Liptak MPM Capital 111 Huntington Avenue 31st Floor Boston, MA 02199	$ 237,000
MPM Bioventures II, LP Attn: Robert W. Liptak MPM Capital 111 Huntington Avenue 31st Floor Boston, MA 02199	$ 74,300
MPM Bioventures II-QP, LP	$ 673,200

Attn: Robert W. Liptak MPM Capital 111 Huntington Avenue 31st Floor Boston, MA 02199		
RiverVest Venture Fund I, L.P. Attn: Mark J. Mendel 7733 Forsyth Boulevard, Suite 1650 St. Louis, MO 63105	$	500,000
W Capital Partners Ironworks, LP Attn: Stephen Wertheimer 245 Park Avenue 39th Floor New York, NY 10167	$	1,000,000
Vulcan Ventures Inc. 505 Fifth Avenue Suite 900 Seattle, WA 98104	$	779,130
Vector Later-Stage Equity Fund II (QP), L.P. Attn: Doug Reed 1751 Lake Cook Road, Suite 350 Deerfield, IL 60015	$	750,000
Vector Later-Stage Equity Fund II, L.P. Attn: Doug Reed 1751 Lake Cook Road, Suite 350 Deerfield, IL 60015	$	250,000
1998 Co-Investing LLC c/o J&J Management Services 1034 S. Brentwood Blvd., Suite 1860 St. Louis, MO 63117-1218 Attn: Jeffrey M. McDonnell	$	123,000
C.V. Sofinnova Venture Partners III, L.P. Attn: Michael Powell, Managing Director 140 Geary Street, 10th Floor San Francisco, CA 94108	$	200,000
Total	$	12,720,584.00

EXHIBIT B

FORM OF CONVERTIBLE PROMISSORY NOTE

EXHIBIT C

FORM OF PREFERRED STOCK WARRANT

EXHIBIT D

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

EXHIBIT E

PURCHASER WITHHOLDING EXEMPTIONS

EXHIBIT F

SCHEDULE OF EXCEPTIONS

EXHIBIT G

FORM OF AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION

Exhibit 10.5

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH SALE OR DISTRIBUTION MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933, AS AMENDED.

CONVERTIBLE PROMISSORY NOTE

$«NoteAmount»

October 9, 2003
Seattle, Washington

For value received, Xcyte Therapies, Inc., a Delaware corporation (the "Company"), promises to pay to «Holder» (the "Holder"), the principal sum of «NoteAmountSpelled» Dollars ($«NoteAmount»). Interest shall accrue from the date of this Note on the unpaid principal amount at a rate equal to six percent (6%) per annum, compounded annually, and shall be computed on the basis of actual number of days elapsed over a year of 360 days. This Note is one of a series of Convertible Promissory Notes containing substantially identical terms and conditions issued pursuant to that certain Convertible Note and Warrant Purchase Agreement dated October 9, 2003 (the "Purchase Agreement"). Such Notes are referred to herein as the "Notes," and the holders thereof are referred to herein as the "Holders." This Note is subject to the following terms and conditions.

1. **Maturity.** Subject to Section 2, principal and any accrued but unpaid interest under this Note shall be due and payable upon demand by the Holder at any time after October 9, 2004; provided, however, that on or after February 1, 2004, upon the election of the Holders of at least a majority of the aggregate principal amount of the Notes issued under the Purchase Agreement, the Maturity Date may be accelerated to a date after February 1, 2004 specified by such Holders (October 9, 2004, or such earlier specified date are collectively referred to as the "Maturity Date"). Unless previously converted in accordance with Section 2, and notwithstanding the foregoing sentence, the entire unpaid principal sum of this Note, together with accrued and unpaid interest thereon, shall become immediately due and payable upon a Change of Control (as defined below), the insolvency of the Company, the commission of any act of bankruptcy by the Company, the execution by the Company of a general assignment for the benefit of creditors, the filing by or against the Company of a petition in bankruptcy or any petition for relief under the federal bankruptcy act or the continuation of such petition without dismissal for a period of 90 days or more, or the appointment of a receiver or trustee to take possession of the property or assets of the Company. A "Change of Control" shall mean (i) the sale of all or substantially all of the assets of the Company in a single transaction or series of related transactions or (ii) any merger, reorganization, sale,

acquisition, consolidation or other transaction involving the Company in which the Company's stockholders immediately prior to such transaction, or series of related transactions, possess less than 50% of the voting power of the surviving entity (or parent, if any) immediately after the transaction or series of related transactions, provided that the term "Change of Control" shall not include a merger of the Company effected exclusively for the purpose of changing the domicile of the Company.

2. **Conversion.**

(a) **Investment by the Holder.**

(i) If the Company consummates its initial underwritten, firm commitment public offering pursuant to an effective registration under the Securities Act of 1933, as amended, in which all of the Company's outstanding preferred stock converts to common stock pursuant to Section C (4) (5.2) of the Company's Amended and Restated Certificate of Incorporation ("IPO") prior to the Maturity Date, the entire principal amount of and accrued but unpaid interest on this Note shall be converted automatically into shares of the Company's common stock, $0.001 par value per share (the "Common Stock"), simultaneously with the closing of the IPO. The number of shares of Common Stock to be issued upon such conversion shall be equal to the quotient obtained by dividing (A) the entire principal amount of this Note plus accrued but unpaid interest as of such closing by (B) $1.75 (as adjusted for stock splits, dividends, recapitalization and like transactions), rounded to the nearest whole share.

(ii) If the Company closes a subsequent, venture-backed, private equity preferred stock financing in a single transaction or series of related transactions yielding gross proceeds to the Company of at least $7,500,000 in the aggregate (excluding the conversion of the Notes) (the "Next Private Financing") prior to an IPO and prior to the Maturity Date, then, upon the election of the Holders of at least a majority of the aggregate principal amount of the Notes issued under the Purchase Agreement, the entire principal amount of this Note plus accrued but unpaid interest shall be converted automatically into shares of the Company's equity securities (the "Equity Securities") issued and sold at the close of such Next Private Financing. The number of shares of Equity Securities to be issued upon such conversion shall be equal to the quotient obtained by dividing (A) the entire principal amount of this Note plus accrued but unpaid interest by (B) the price per share of the Equity Securities, rounded to the nearest whole share, and the issuance of such shares upon such conversion shall be upon the terms and subject to the conditions applicable to the Next Private Financing.

(b) **Mechanics and Effect of Conversion.** No fractional shares of Common Stock will be issued upon conversion of this Note. In lieu of any fractional share to which the Holder would otherwise be entitled, the Company will pay to the Holder in cash the amount of the unconverted principal and interest balance of this Note that would otherwise be converted into such fractional share. Upon conversion of this Note pursuant to this Section 2, the Holder shall surrender this Note, duly endorsed, at the principal offices of the Company or any transfer agent of the Company. At its expense,

the Company will, as soon as practicable thereafter, issue and deliver to such Holder, at such principal office, a certificate or certificates for the number of shares of Common Stock to which such Holder is entitled upon such conversion, together with any other securities and property to which the Holder is entitled upon such conversion under the terms of this Note, including a check payable to the Holder for any cash amounts payable as described herein. Upon conversion of this Note pursuant to this Section 2, this Note shall be cancelled and shall no longer be an obligation of the Company.

3. **Payment.** All payments hereunder shall be made in lawful money of the United States of America at such place as the Holder hereof may from time to time designate in writing to the Company. The Company shall not prepay this Note without the written consent of the Holder, in which case any prepayment of principal shall be accompanied by a payment of accrued but unpaid interest in respect of the principal being prepaid; provided, however, that no such prepayment may be made on this Note without the Company making an offer to prepay pro rata all other outstanding Notes. Payment shall be credited first to costs of collection, if any, then to the accrued interest then due and payable and the remainder applied to principal. If any day on which a payment is due pursuant to the terms of this Note is not a day on which banks in the State of Washington are generally open (a "Business Day"), such payment shall be due on the next Business Day following, and such extension of time shall in such case be included in the computation of payment of interest due.

4. **Transfer; Successors and Assigns.** The holder of this Note may, prior to the Maturity Date, surrender this Note at the principal office of the Company for transfer or exchange. Within a reasonable time after notice to the Company from such holder of its intention to make such exchange and without expense to such holder, except for any transfer or similar tax which may be imposed on the transfer or exchange, the Company shall issue in exchange therefor another note or notes for the same aggregate principal amount as the unpaid principal amount of the Note so surrendered, having the same maturity and rate of interest, containing the same provisions and subject to the same terms and conditions as this Note. Each new Note shall be made payable to such person or persons, or transferees, as such holder may designate, and such transfer or exchange shall be made in such a manner that no gain or loss of principal or interest shall result therefrom. The Company may elect not to permit a transfer of the Note if it has not obtained satisfactory assurance that such transfer: (a) is exempt from the registration requirements of, or covered by an effective registration statement under, the Securities Act of 1933, as amended, and the rules and regulations thereunder, and (b) is in compliance with all applicable state securities laws.

5. **Governing Law.** This Note shall be governed, construed and interpreted in accordance with the laws of the State of Washington, without giving effect to principles of conflicts of law.

6. **Notices.** Any notice required or permitted by this Agreement shall be in writing and shall be deemed sufficient upon receipt, when delivered personally or by courier, overnight delivery service or confirmed facsimile, or 48 hours after being

deposited in the U.S. mail as certified or registered mail with postage prepaid, if such notice is addressed to the party to be notified at such party's address or facsimile number as set forth below or as subsequently modified by written notice.

7. **Amendments and Waivers.** Any term of this Note may be amended or waived only with the written consent of the Company and the Holders of at least a majority of the aggregate principal amount of the Notes issued under the Purchase Agreement. Any amendment or waiver effected in accordance with this Section 7 shall be binding upon the Company, each Holder and each transferee of any Note, even if they do not execute such amendment or waiver; provided, however, that any amendment hereof that would materially adversely affect the Holder in a manner different from all other Holders shall also require the consent of such Holder. A waiver of any right or remedy under this Note on any occasion shall not be a bar to exercise the same right or remedy on any subsequent occasion or of any other right or remedy at any time.

8. **Action to Collect on Note.** If this Note is not paid in accordance with its terms, the Company shall pay all costs of collection of the principal and accrued interest including, without limitation, reasonable attorney's fees, court costs and other costs incurred in connection with seeking the enforcement of payment of this Note.

9. **Loss of Note.** Upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Note or any Note exchanged for it, or surrender and cancellation of such Note (in the case of mutilation), the Company will make and deliver in lieu of such Note a new Note of like tenor.

10. **NOTICE REGARDING ORAL COMMITMENTS.** ORAL AGREEMENTS OR ORAL COMMITMENTS TO LOAN MONEY, EXTEND CREDIT, OR TO FORBEAR FROM ENFORCING PAYMENT OF A DEBT ARE NOT ENFORCEABLE UNDER WASHINGTON LAW.

11. **Presentment, Demand, Etc.** The Company hereby expressly waives presentment, demand, and protest, notice of demand, dishonor and nonpayment of this Note, and all other notices or demands of any kind in connection with the delivery, acceptance, performance, default or enforcement hereof, and hereby consents to any delays, extensions of time, renewals, waivers or modifications that may be granted or consented to by the holder hereof with respect to the time of payment or any other provision hereof.

12. **Severability.** In the event any one or more of the provisions of this Note shall for any reason be held to be invalid, illegal or unenforceable, in whole or in part or in any respect, or in the event that any one or more of the provisions of this Note operate or would prospectively operate to invalidate this Note, then and in any such event, such provision(s) only shall be deemed null and void and shall not affect any other provision of this Note and the remaining provisions of this Note shall remain operative and in full force and effect and in no way shall be affected, prejudiced, or disturbed thereby.

(Signature page follows)

COMPANY:

XCYTE THERAPIES, INC.

By: _____

Name: _____
(print)

Title: _____

Address: 1124 Columbia Street
Suite 130
Seattle, WA 98104

[SIGNATURE PAGE TO CONVERTIBLE PROMISSORY NOTE]

Exhibit 10.8

WAIVER OF PREEMPTIVE RIGHTS
AND
AMENDMENT OF
AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

The undersigned, a party to that certain Amended and Restated Investor Rights Agreement dated February 5, 2002, as amended (the "Rights Agreement") by and among Xcyte Therapies, Inc., a Delaware corporation (the "Company") and the parties identified on Schedule A and Schedule B attached thereto (the "Investors"), by execution of this document, hereby (on behalf of itself and the other parties to the Rights Agreement): (a) amends the Rights Agreement, and (b) waives its preemptive rights, in each case pursuant to Section 8.1 of the Rights Agreement and as set forth below. Capitalized terms used herein but not defined herein shall have the meaning given to them in the Rights Agreement.

1. **Waiver of Preemptive Rights**. The undersigned hereby waives its preemptive rights set forth in Section 2 of the Rights Agreement (and the notice requirements therefor) with respect to the issuance of certain Convertible Promissory Notes of the Company (the "Notes") and Warrants to purchase Preferred Stock of the Company (the "Warrants") to be issued pursuant to the terms of the Convertible Note and Warrant Purchase Agreement, dated as of October 9, 2003, between the Company and the purchasers (the "Purchasers") identified on Exhibit A thereto (the "Purchase Agreement"), and the securities issuable upon conversion of such Notes and exercise of such Warrants or other securities issuable upon conversion of such securities. Any preemptive rights of the undersigned with respect to subsequent issuances of the Company's securities shall not be affected by the waiver set forth herein.

2. **Amendment of Rights Agreement**. Pursuant to the terms of the Purchase Agreement, the Company and the Investors hereby amend the Rights Agreement in order to: (a) add the Purchasers as parties to the Rights Agreement, to the extent such Purchasers are not yet parties to the Rights Agreement, which Purchasers, upon signing a counterpart signature page to the Rights Agreement, shall be deemed an "Investor" and "Holder" thereunder and subject to all applicable rights and obligations contained therein, and (b) include in the definition of "Registrable Securities" in Section 1.1(g) of the Rights Agreement the Common Stock or other securities issued or issuable upon conversion of the Notes, the securities issuable upon exercise of the Warrants and other securities issuable upon conversion of such securities.

This Waiver of Preemptive Rights and Amendment of the Amended and Restated Investor Rights Agreement is effective as of the date the Company and the holders of at least a majority in interest of the Registrable Securities execute the same.

[Signature Page Follows]

This Waiver of Preemptive Rights and Amendment of the Amended and Restated Investor Rights Agreement may be signed in one or more counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument.

COMPANY:

XCYTE THERAPIES, INC.,
a Delaware corporation

By: /S/ RONALD J. BERENSON

SIGNATURE PAGE TO XCYTE THERAPIES, INC.
WAIVER OF PREEMPTIVE RIGHTS AND CONSENT TO AMENDMENT OF INVESTOR RIGHTS AGREEMENT

SPROUT CEO FUND, L.P.

By: DLJ Capital Corporation, its General Partner

By: /S/ PHILLIPE CHAMBON

Name: Phillipe Chambon

Title: Managing Director

Address: 3000 Sand Hill Road
Building 3, Suite 170
Menlo Park, CA 94025

SPROUT CAPITAL VII, L.P.

By: DLJ Capital Corporation, its Managing General Partner

By: /S/ PHILLIPE CHAMBON

Name: Phillipe Chambon

Title: Managing Director

Address: 3000 Sand Hill Road
Building 3, Suite 170
Menlo Park, CA 94025

ALTA CALIFORNIA PARTNERS, L.P.

By: Alta California Management Partners, L.P.

By: /S/ JEAN DELEAGE

Jean Deleage, General Partner

Address: One Embarcadero Center
Suite 4050
San Francisco, CA 94111

ALTA EMBARCADERO PARTNERS, L.L.C.

By: /S/ JEAN DELEAGE

Jean Deleage, General Partner

Address: One Embarcadero Center
Suite 4050
San Francisco, CA 94111

SIGNATURE PAGE TO XCYTE THERAPIES, INC.
WAIVER OF PREEMPTIVE RIGHTS AND CONSENT TO AMENDMENT OF INVESTOR RIGHTS AGREEMENT

ARCH VENTURE FUND III, L.P.,
a Delaware limited partnership

By: ARCH VENTURE PARTNERS, L.L.C
a Delaware limited partnership, its General Partner

By: /S/ ROBERT NELSEN

Name: Robert Nelsen

Title: Managing Director

Address: 1000 Second Avenue
Suite 3700
Seattle, WA 98104-1053

ARCH VENTURE PARTNERS II, L.P.,
a Delaware limited partnership

By: ARCH MANAGEMENT PARTNERS II, L.P.,
a Delaware limited partnership, its General Partner

By: ARCH VENTURE PARTNERS, L.P.,
a Delaware limited partnership, its General Partner

By: ARCH VENTURE CORPORATION,
an Illinois corporation, its General Partner

By: /S/ ROBERT NELSEN

Name: Robert Nelsen

Title: Managing Director

Address: 1000 Second Avenue
Suite 3700
Seattle, WA 98104-1053

HEALTHCARE FOCUS FUND, L.P.,
a Delaware limited partnership

By: ARCH VENTURE PARTNERS V, L.P.,
its General Partner

By: ARCH VENTURE PARTNERS V, L.L.C.,
its General Partner

By: /S/ ROBERT NELSEN

Name: Robert Nelsen

Title: Managing Director

Address: 1000 Second Avenue
Suite 3700
Seattle, WA 98104-1053

MPM ASSET MANAGEMENT INVESTORS 2000 B L.L.C.

By: /S/ NICHOLAS GALAKATOS

Name: Nicholas Galakatos

Title: Investment Manager

Address: 111 Huntington Avenue
31st Floor
Boston, MA 02199

MPM BIOVENTURES GMBH & CO. PARALLEL-BETEILIGUNGS KG

By: /S/ NICHOLAS GALAKATOS

Name: Nicholas Galakatos

Title: Investment Manager

Address: 111 Huntington Avenue
31st Floor
Boston, MA 02199

MPM BIOVENTURES II, L.P.

By: /S/ NICHOLAS GALAKATOS

Name: Nicholas Galakatos

Title: Investment Manager

Address: 111 Huntington Avenue
31st Floor
Boston, MA 02199

MPM BIOVENTURES II-QP, L.P.

By: /S/ NICHOLAS GALAKATOS

Name: Nicholas Galakatos

Title: Investment Manager

Address: 111 Huntington Avenue
31st Floor
Boston, MA 02199

FALCON TECHNOLOGY PARTNERS, L.P.

By: /S/ JAMES RATHMAN

James Rathman
Its General Partner

Address: 600 Dorset Road
Devon, PA 19333

SIGNATURE PAGE TO XCYTE THERAPIES, INC.
WAIVER OF PREEMPTIVE RIGHTS AND CONSENT TO AMENDMENT OF INVESTOR RIGHTS AGREEMENT

RIVERVEST VENTURE FUND I, L.P.

By: RiverVest Venture Partners I, L.L.C., its general partner

By: /S/ MARK J. MENDEL

Name: Mark J. Mendel, Ph.D.

Title: Manager

Address: 7733 Forsyth Boulevard
Suite 1650
St. Louis, MO 63105

W CAPITAL PARTNERS IRONWORKS, L.P.

By: /S/ STEPHEN WERTHEIMER

Name: Stephen Wertheimer

Title: Managing Director

Address: 245 Park Avenue
39th Floor
New York, NY 10167

VULCAN INC.

By: JO ALLEN PATTON

Name: /s/ Jo Allen Patton

Title: Vice Chairman

Address: 505 Fifth Avenue
Suite 900
Seattle, WA 98104

VECTOR LATER-STAGE EQUITY FUND II, L.P.

By: Vector Fund Management II, L.L.C,
its General Partner

By: /S/ DOUGLAS REED

Name: Douglas Reed

Title: Managing Director

Address: 1751 Lake Cook Road
Suite 350
Deerfield, IL 60015

VECTOR LATER-STAGE EQUITY FUND II, (Q.P.) L.P.

By: Vector Fund Management II, L.L.C,
its General Partner

By: /S/ DOUGLAS REED

Name: Douglas Reed

Title: Managing Director

Address: 1751 Lake Cook Road
Suite 350
Deerfield, IL 60015

PALIVACINNI PARTNER, L.L.C.

By: /S/ DOUGLAS REED

Name: Douglas Reed

Title: Managing Member

Address: 1751 Lake Cook Road
Suite 350
Deerfield, IL 60015

1998 CO-INVESTING L.L.C.

By: /S/ JEFFREY M. MCDONNELL

Name: Jeffrey M. McDonnell

Title: Manager

Address: 1034 S. Brentwood Blvd.
Suite 1860
St. Louis, MO 63117

Exhibit 10.18

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH SALE OR DISTRIBUTION MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933.

Warrant No. «WarrantNo» Date of Issuance: October 9, 2003

XCYTE THERAPIES, INC.

Preferred Stock Purchase Warrant

Xcyte Therapies, Inc., a Delaware corporation (the "Company"), for value received, hereby certifies that «Holder», or its registered or permitted successors or assigns (the "Registered Holder"), is entitled to purchase from the Company, subject to the terms set forth below, a number of fully paid and non-assessable shares of Warrant Stock (as hereinafter defined) at a purchase price per share as shall be equal to the Purchase Price (as hereinafter defined), as in effect at the time of the exercise of this Warrant. The number of securities issuable upon exercise of this Warrant and the Warrant Price are subject to adjustment as provided in this Warrant.

This Warrant is issued to the Registered Holder pursuant to a certain Convertible Note and Warrant Purchase Agreement dated October 9, 2003 among the Company, the Registered Holder and the other parties thereto (the "Purchase Agreement"), and in conjunction with a Convertible Promissory Note issued on the date hereof by the Company to the Registered Holder (the "Note"). Capitalized terms used herein but not otherwise defined herein shall have the meanings ascribed to them in the Purchase Agreement.

If prior to the Maturity Date (as defined in the Note) and prior to the closing of an IPO (as hereinafter defined), the Company closes its Next Private Financing (as hereinafter defined), then the Registered Holder shall thereafter be entitled, subject to the terms set forth herein, to purchase a number of shares of the Company's capital stock issued in the Next Private Financing (as determined pursuant to Section 1 hereof) at a purchase price per share equal to the price per share paid for such capital stock by the investors in such Next Private Financing. If as of the Maturity Date, no closing of an IPO has occurred and no closing of the Next Private Financing has occurred, then the Registered Holder shall thereafter be entitled, subject to the terms set forth herein, to purchase a number of shares of the Company's Series F Preferred Stock (as determined pursuant to Section 1 hereof) at a purchase price of $2.78 per share. The shares purchasable upon exercise of this Warrant, and the purchase price per share, each as adjusted from time to time pursuant to the provisions of this Warrant, are hereinafter referred to as the "Warrant Stock" and the "Purchase Price," respectively.

If the closing of an IPO occurs prior to the Maturity Date and the date of closing of the Next Private Financing, then this Warrant shall be null and void, without any further force or effect.

As used herein, (A) an "IPO" shall mean an initial underwritten, firm commitment public offering pursuant to an effective registration under the Securities Act of 1933, as amended (the "Securities Act"), in which all of the Company's outstanding preferred stock converts to common stock pursuant to Section C (4) (5.2) of the Company's Amended and Restated Certificate of Incorporation, as amended and in effect; and (B) the "Next Private Financing" shall mean a subsequent, venture-backed, private equity preferred stock financing in a single transaction or series of related transactions yielding gross proceeds to the Company of at least $7,500,000 in the aggregate (excluding the conversion of the Notes) in which all Notes issued pursuant to the Purchase Agreement are converted into shares of the Company's capital stock issued in such Next Private Financing in accordance with the terms of such Notes.

1. **Number of Shares of Warrant.** Subject to the terms and conditions above and hereinafter set forth, the Registered Holder is entitled, upon surrender of this Warrant, to purchase from the Company the number of shares (subject to adjustment as provided herein) of Warrant Stock equal to (a) 25% of the original principal amount of the Note issued to the Registered Holder pursuant to the Purchase Agreement divided by (b) the Purchase Price.

2. **Exercise.**

(a) **Manner of Exercise.** Subject to the terms and conditions set forth herein, this Warrant may be exercised by the Registered Holder, in whole or in part, by surrendering this Warrant, with the purchase/exercise form appended hereto as Exhibit A duly executed by such Registered Holder or by such Registered Holder's duly authorized attorney, at the principal office of the Company, or at such other office or agency as the Company may designate, accompanied by payment in full of the Purchase Price payable in respect of the number of shares of Warrant Stock purchased upon such exercise. The Purchase Price may be paid by cash, check, wire transfer, or by the surrender of promissory notes or other instruments representing indebtedness of the Company to the Registered Holder, or by any combination of the foregoing.

(b) **Effective Time of Exercise.** Each exercise of this Warrant shall be deemed to have been effected immediately prior to the close of business on the day on which this Warrant shall have been surrendered to the Company as provided in Section 2(a) above. At such time, the person or persons in whose name or names any certificates for Warrant Stock shall be issuable upon such exercise as provided in Section 2(d) below shall be deemed to have become the holder or holders of record of the Warrant Stock represented by such certificates.

(c) **Net Issue Exercise.**

(i) In lieu of exercising this Warrant in the manner provided above in Section 2(a), and without the payment by the Registered Holder of any additional consideration, the Registered Holder may elect to receive shares equal to the value of this Warrant (or the portion thereof being canceled) by surrender of this Warrant at the principal office of the

Company together with notice of such election on the purchase/exercise form appended hereto as Exhibit A duly executed by such Registered Holder or such Registered Holder's duly authorized attorney, in which event the Company shall issue to such Holder a number of shares of Warrant Stock computed using the following formula:

$$X = \frac{Y\,(A - B)}{A}$$

Where X = The number of shares of Warrant Stock to be issued to the Registered Holder pursuant to this Section 2(c)(i).

Y = The number of shares of Warrant Stock purchasable under this Warrant in respect of which the net issue election is made pursuant to this Section 2(c)(i).

A = The fair market value of one share of Warrant Stock, as determined below, at the time the net issue election is made pursuant to this Section 2(c)(i).

B = The Purchase Price, as adjusted to the date of such calculation, at the time the net issue election is made pursuant to this Section 2(c)(i).

(ii) For purposes of this Section 2(c), the fair market value of Warrant Stock shall be (A) if such Warrant Stock (or shares of the Company's capital stock into which such Warrant Stock are convertible or exchangeable) are listed on a nationally recognized securities exchange or admitted to unlisted trading privileges on such exchange or quoted in the NASDAQ System, then the fair market value of one share of Warrant Stock shall be the last reported sales price of such Warrant Stock (or the closing price of a share of the Company's capital stock for which shares of the Warrant Stock are convertible or exchangeable) reported for the business day immediately preceding the date of net issue election is made pursuant to this Section 2(c); or (B) if such Warrant Stock (or shares of the Company's capital stock into which such Warrant Stock are convertible or exchangeable) are not listed on a nationally recognized securities exchange or not admitted to unlisted trading privileges on such exchange or not quoted in the NASDAQ System, then the fair market value of one share of Warrant Stock shall be determined in good faith by the Board of Directors of the Company.

(d) **Delivery to Holder.** As soon as practicable after the exercise of this Warrant in whole or in part, and in any event within ten (10) days thereafter, the Company at its expense will cause to be issued in the name of, and delivered to, the Registered Holder, or as such Registered Holder (upon payment by such Registered Holder of any applicable transfer taxes) may direct:

(i) a certificate or certificates for the number of shares of Warrant Stock to which such Registered Holder shall be entitled, and

(ii) in case such exercise is in part only, a new warrant or warrants (dated the date hereof) of like tenor, calling in the aggregate on the face or faces thereof for the number of shares of Warrant Stock equal (without giving effect to any adjustment therein) to the

number of such shares called for on the face of this Warrant minus the number of such shares purchased by the Registered Holder upon such exercise as provided in Section 2(a) or 2(c) above.

3. **Adjustments**.

(a) **Redemption or Conversion of Preferred Stock.** If all of the Company's Preferred Stock (the "Preferred Stock") is redeemed or converted into shares of Common Stock, then this Warrant shall automatically become exercisable for that number of shares of Common Stock equal to the number of shares of Common Stock that would have been received if this Warrant had been exercised in full and the shares of Preferred Stock received thereupon had been simultaneously converted into shares of Common Stock immediately prior to such event, and the Purchase Price shall be automatically adjusted to equal the number obtained by dividing (i) the aggregate Purchase Price of the shares of Preferred Stock for which this Warrant was exercisable immediately prior to such redemption or conversion, by (ii) the number of shares of Common Stock for which this Warrant is exercisable immediately after such redemption or conversion.

(b) **Stock Splits and Dividends.** If shares of Warrant Stock shall be subdivided into a greater number of shares or a dividend in Warrant Stock shall be paid in respect of Warrant Stock, the Purchase Price in effect immediately prior to such subdivision or at the record date of such dividend shall simultaneously with the effectiveness of such subdivision or immediately after the record date of such dividend be proportionately reduced. If shares of Warrant Stock shall be combined into a smaller number of shares, the Purchase Price in effect immediately prior to such combination shall, simultaneously with the effectiveness of such combination, be proportionately increased. When any adjustment is required to be made in the Purchase Price pursuant to this Section 3(b), the number of shares of Warrant Stock purchasable upon the exercise of this Warrant shall be changed to the number determined by dividing (i) an amount equal to the number of shares issuable upon the exercise of this Warrant immediately prior to such adjustment, multiplied by the Purchase Price in effect immediately prior to such adjustment, by (ii) the Purchase Price in effect immediately after such adjustment. In connection with an adjustment of the Purchase Price pursuant to this Section 3(b), the aggregate Purchase Price payable for the total number of Warrant Stock purchasable under this Warrant (as adjusted) shall remain the same. Any adjustment under this Section 3(b) shall become effective at the close of business on the date the subdivision or combination becomes effective, or as of the record date of such dividend, or in the event no record date is fixed, upon the making of such dividend.

(c) **Mergers, Reclassification, Etc.** If there shall be any reclassification, capital reorganization or change of the Warrant Stock (other than as a result of a subdivision, combination or stock dividend provided for in Section 3(b) hereof), or any consolidation of the Company with, or merger of the Company into, another corporation or other business organization (other than a consolidation or merger in which the Company is the continuing corporation and which does not result in any reclassification or change of the Warrant Stock), or any sale or conveyance to another corporation, other business organization or other third party of all or substantially all of the assets of the Company, then, as a condition of such reclassification, reorganization, change, consolidation, merger, sale or conveyance, lawful provisions shall be made, and duly executed documents evidencing the same from the Company or its successor

shall be delivered to the Registered Holder, so that the Registered Holder shall thereafter have the right to purchase, at a total price not to exceed that payable upon the exercise of this Warrant in full, the kind and amount of shares of stock and other securities and property receivable upon such reclassification, reorganization, change, consolidation, merger, sale or conveyance by a holder of the number of shares of Warrant Stock which might have been purchased by the Registered Holder immediately prior to such reclassification, reorganization, change, consolidation, merger, sale or conveyance (or, if there are no holders of Warrant Stock at such time, by a holder of the number of shares of Company's capital stock which might have been acquired by the Registered Holder immediately prior to such reclassification, reorganization, change, consolidation, merger, sale or conveyance upon the exercise of this Warrant in full and the conversion into shares of such capital stock of all shares of Warrant Stock receivable upon such exercise), and in any such case, appropriate provisions shall be made with respect to the rights and interest of the Registered Holder to the end that the provisions hereof (including without limitation, provisions for the adjustment of the Purchase Price and the number of shares of Warrant Stock issuable hereunder) shall thereafter be applicable in relation to any shares of stock or other securities and property thereafter deliverable upon exercise hereof.

(d) **Adjustment Certificate.** When any adjustment is required to be made in the Warrant Stock or the Purchase Price pursuant to this Section 3, the Company shall promptly mail to the Registered Holder a certificate setting forth (i) a brief statement of the facts requiring such adjustment, (ii) the Purchase Price after such adjustment and (iii) the kind and amount of stock or other securities or property into which this Warrant shall be exercisable after such adjustment.

(e) **Acknowledgement.** In order to avoid doubt, it is acknowledged that the holder of this Warrant shall be entitled to the benefit of all adjustments in the number of shares of Common Stock of the Company issuable upon conversion of the Warrant Stock of the Company which occur prior to the exercise of this Warrant, including without limitation, any increase in the number of shares of Common Stock issuable upon conversion as a result of a dilutive issuance of capital stock.

4. **Transfers.**

(a) **Unregistered Security.** Each holder of this Warrant acknowledges that this Warrant, the Warrant Stock and the Common Stock of the Company have not been registered under the Securities Act, and agrees not to sell, pledge, distribute, offer for sale, transfer or otherwise dispose of this Warrant, any Warrant Stock issued upon its exercise or any Common Stock issued upon conversion of the Warrant Stock in the absence of (i) an effective registration statement under the Securities Act as to this Warrant, such Warrant Stock or such Common Stock and registration or qualification of this Warrant, such Warrant Stock or such Common Stock under any applicable U.S. federal or state securities law then in effect, or (ii) an opinion of counsel, reasonably satisfactory to the Company, that such registration and qualification are not required; provided, however, no such opinion of counsel shall be required in connection with any sale, pledge, distribution, transfer or other disposition of this Warrant, any Warrant Stock issued upon its exercise or any Common Stock issued upon conversion of the Warrant Stock is made to any person or entity that is an "accredited investor" as such term is

defined under Rule 501 promulgated by the Securities and Exchange Commission under the Securities Act. Each certificate or other instrument for Warrant Stock issued upon the exercise of this Warrant shall bear a legend substantially to the foregoing effect.

(b) **Transferability.** Subject to the provisions of Section 4(a) hereof and of Section 1.14 of the Company's Amended and Restated Investor Rights Agreement dated February 5, 2002 among the Company and certain holders of the Company's securities, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of the Warrant with a properly executed assignment (in the form of Exhibit B hereto) at the principal office of the Company.

(c) **Warrant Register.** The Company will maintain a register containing the names and addresses of the Registered Holders of this Warrant. Until any transfer of this Warrant is made in the warrant register, the Company may treat the Registered Holder of this Warrant as the absolute owner hereof for all purposes; provided, however, that if this Warrant is properly assigned in blank, the Company may (but shall not be required to) treat the bearer hereof as the absolute owner hereof for all purposes, notwithstanding any notice to the contrary. Any Registered Holder may change such Registered Holder's address as shown on the warrant register by written notice to the Company requesting such change.

5. **No Impairment.** The Company will not, by amendment of its charter or through reorganization, consolidation, merger, dissolution, sale of assets or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will (subject to Section 14 below) at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the holder of this Warrant against impairment.

6. **Exercisability; Termination; Automatic Exercise.** Prior to the earlier of (i) the Maturity Date or (ii) the closing of the Next Private Financing, this Warrant shall not be exercisable for any shares of the Company's capital stock. This Warrant shall terminate upon the earliest to occur of the following (the "Expiration Date"): (a) the close of business on October 9, 2008; or (b) the close of business on the closing date of an IPO. If the Registered Holder has not exercised this Warrant on or prior to the Expiration Date, this Warrant, to the extent it is then exercisable, shall automatically be deemed to be exercised in full in the manner set forth in Section 2(c), without any further action on behalf of the Registered Holder, immediately prior to the Expiration Date.

7. **Notices of Certain Transactions**. In case:

(a) the Company shall take a record of the holders of Warrant Stock (or other stock or securities at the time deliverable upon the exercise of this Warrant) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of stock of any class or any other securities, or to receive any other right, to subscribe for or purchase any shares of stock of any class or any other securities, or to receive any other right, or

(b) of any capital reorganization of the Company, any reclassification of the capital stock of the Company, any consolidation or merger of the Company, any consolidation or merger of the Company with or into another corporation, or any transfer of all or substantially all of the assets of the Company, or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Company, or

(d) of any redemption of the Warrant Stock or mandatory conversion of the Warrant Stock into Common Stock of the Company,

then, and in each such case, the Company will mail or cause to be mailed to the Registered Holder of this Warrant a notice specifying, as the case may be, (i) the date on which a record is to be taken for the purpose of such dividend, distribution or right, and stating the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation, winding-up, redemption or conversion is to take place, and the time, if any is to be fixed, as of which the holders of record of Warrant Stock (or such other stock or securities at the time deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation, winding-up, redemption or conversion) are to be determined. Such notice shall be mailed at least ten (10) days prior to the record date or effective date for the event specified in such notice.

8. **Reservation of Stock; Stock Fully Paid.** The Company will at all times it is exercisable reserve and keep available, solely for the issuance and delivery upon the exercise of this Warrant, such shares of (i) Warrant Stock and other stock, securities and property, as from time to time shall be issuable upon the exercise of this Warrant and (ii) Common Stock and other stock, securities and property, as from time to time shall be issuable upon the conversion of shares of Warrant Stock. All shares of stock which may be issued upon exercise of the rights represented by this Warrant will, upon issuance, be validly issued, fully paid and nonassessable, and free from all taxes, liens and charges with respect to the issue thereof.

9. **Exchange of Warrants.** Upon the surrender by the Registered Holder of any Warrant or Warrants, properly endorsed, to the Company at the principal office of the Company, the Company will, subject to the provisions of Section 4 hereof, issue and deliver to or upon the order of such Registered Holder, at the Company's expense, a new Warrant or Warrants of like tenor, in the name of such Registered Holder or as such Registered Holder (upon payment by such Registered Holder of any applicable transfer taxes) may direct, calling in the aggregate on the face or faces thereof for the number of shares of Warrant Stock called for on the face or faces of the Warrant or Warrants so surrendered.

10. **Replacement of Warrants.** Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and (in the case of loss, theft or destruction) upon delivery of an indemnity agreement (with surety if reasonably required) in an amount reasonably satisfactory to the Company, or (in the case of mutilation) upon surrender and cancellation of this Warrant, the Company will issue, in lieu thereof, a new Warrant of like tenor.

11. **Mailing of Notices.** Any notice required or permitted pursuant to this Warrant shall be in writing and shall be deemed sufficient upon receipt, when delivered personally or sent by courier, overnight delivery service or confirmed facsimile, or forty-eight (48) hours after being deposited in the regular mail, as certified or registered mail (airmail if sent internationally), with postage prepaid, addressed (a) if to the Registered Holder, to the address of the Registered Holder most recently furnished in writing to the Company and (b) if to the Company, to the address set forth below or subsequently modified by written notice to the Registered Holder.

12. **No Rights as Stockholder.** Until the exercise of this Warrant, the Registered Holder of this Warrant shall not have or exercise any rights by virtue hereof as a stockholder of the Company.

13. **No Fractional Shares.** No fractional shares of Warrant Stock will be issued in connection with any exercise hereunder. In lieu of any fractional shares which would otherwise be issuable, the Company shall pay cash equal to the product of such fraction multiplied by the fair market value of one share of Warrant Stock on the date of exercise, as determined in good faith by the Company's Board of Directors.

14. **Amendment or Waiver.** Any term of this Warrant may be amended or waived upon written consent of the Company and the holders of at least a majority of the Warrant Stock issuable upon exercise of outstanding warrants purchased pursuant to the Purchase Agreement. By acceptance hereof, the Registered Holder acknowledges that in the event the required consent is obtained, any term of this Warrant may be amended or waived with or without the consent of the Registered Holder; provided, however, that any amendment hereof that would materially adversely affect the Registered Holder in a manner different from the holders of the remaining warrants issued pursuant to the Purchase Agreement shall also require the consent of Registered Holder.

15. **Headings.** The headings in this Warrant are for purposes of reference only and shall not limit or otherwise affect the meaning of any provision of this Warrant.

16. **Governing Law.** This Warrant shall be governed, construed and interpreted in accordance with the laws of the State of Washington, without giving effect to principles of conflicts of law.

17. **Business Days.** If the last or appointed day for the taking of any action required or the expiration of any right granted herein shall be a Saturday or Sunday or a legal holiday in the State of Washington, then such action may be taken or right may be exercised on the next succeeding day which is not a Saturday or Sunday or such a legal holiday.

[Signature Page Follows.]

XCYTE THERAPIES, INC.

By: _____
Ronald J. Berenson, President

Address: 1124 Columbia Street
Suite 130
Seattle, Washington 98104

Fax Number: (206) 262-0900

[Signature Page to Preferred Stock Warrant]

EXHIBIT A

PURCHASE/EXERCISE FORM

To: **Xcyte Therapies, Inc.** Dated:

The undersigned, pursuant to the provisions set forth in the attached Warrant No. «WarrantNo», hereby irrevocably elects to (a) purchase _____ shares of the Warrant Stock covered by such Warrant and herewith makes payment of $_____, representing the full purchase price for such shares at the price per share provided for in such Warrant, or (b) exercise such Warrant for _____ shares purchasable under the Warrant pursuant to the Net Issue Exercise provisions of Section 2(c) of such Warrant.

The undersigned acknowledges that it has reviewed the representations and warranties contained in Section 4 of the Purchase Agreement (as defined in the Warrant) and by its signature below hereby makes such representations and warranties to the Company. Defined terms contained in such representations and warranties shall have the meanings assigned to them in the Purchase Agreement, provided that the term "Purchaser" shall refer to the undersigned and the term "Securities" shall refer to the Warrant Stock and the Common Stock of the Company issuable upon conversion of the Warrant Stock.

The undersigned further acknowledges that it has reviewed the market standoff provisions set forth in Section 1.14 of the Amended and Restated Investor Rights Agreement dated February 5, 2002 among the Company and certain holders of the Company's securities and agrees to be bound by such provisions.

Signature: _____

Name (print): _____

Title (if applic.): _____

Company (if applic.): _____

EXHIBIT B

ASSIGNMENT FORM

FOR VALUE RECEIVED, _____ hereby sells, assigns and transfers all of the rights of the undersigned under the attached Warrant with respect to the number of shares of Series __ Preferred Stock covered thereby set forth below, unto:

Name of Assignee	**Address/Facsimile Number**	**No. of Shares**

Dated: _____

Signature: _____

_____

Witness: _____

Exhibit 10.29

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [*]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

CONFIDENTIAL

August 28, 2003

AGREEMENT

This agreement (the "Agreement") set forth the principal terms of the collaboration ("Collaboration") between Xcyte Therapies, Inc. ("Xcyte") and Taiwan Cell Therapy Company ("TCTC"). This Agreement, including any attachments hereto, constitutes the sole agreement of the parties and supersedes all oral negotiations and prior writings with respect to the subject matter hereof.

1. **Collaboration**. Based on the material terms and conditions set forth below, Xcyte shall grant to TCTC (a) an exclusive, royalty-bearing license to use the Xcellerate™ Technology to make, have made, use, import, sell, and offer for sale Licensed Products in the Cellular Immunotherapy Field in the Territory and (b) a non-exclusive, royalty-bearing license to use the Xcellerate™ Technology to make, have made, use, import, sell, and offer for sale Licensed Products in the Non-Cellular Immunotherapy Field worldwide. In addition, TCTC will raise a minimum of US$25 million (or binding commitments therefore) in an equity financing round (the "Financing").

2. **License Terms.**

Field	The "Cellular Immunotherapy Field" shall be the activation, growth, modification or regulation of T cells for *in vivo* and *ex vivo* therapeutic purposes. The "Non-Cellular Immunotherapy Field" shall be *in vivo*, *in vitro* and *ex vivo* therapeutic purposes not included in the Cellular Immunotherapy Field, and shall include (by way of example and not by way of limitation) all non-T-cell technologies and stem cell technologies. The use of Xcellerate™ Technology in HIV gene therapy applications is specifically excluded from both the Cellular Immunotherapy Field and the Non-Cellular Immunotherapy Field.
License	Xcyte will grant to TCTC (a) an exclusive, royalty-bearing license, with the right to sublicense, to use the Xcellerate™ Technology to make, have made, use, import, sell, and offer for sale Licensed Products in the Cellular Immunotherapy Field in the Territory, and (b) a non-exclusive, royalty-bearing license with the right to sublicense, to use the Xcellerate™ Technology to make, have made, use, import, sell, and offer for sale Licensed Products in the Non-Cellular Immunotherapy Field worldwide. These licenses

shall not permit TCTC to make, use, sell or export Licensed Products outside of the Territory other than as described in the "Diligence" section, except within the Non-Cellular Immunotherapy Field, nor allow any agent or other third party to make, use, sell or export Licensed Products outside of the Territory, other than described in the "Diligence" section, except within the Non-Cellular Immunotherapy Field. TCTC shall use its best efforts to prevent third parties from making, using, selling or exporting the Xcellerate™ Technology outside the Territory, except within the Non-Cellular Immunotherapy Field, and shall promptly notify Xcyte in the event that TCTC has reason to believe that a third party is making, using, selling or exporting the Xcellerate™ Technology outside of the Territory, except within the Non-Cellular Immunotherapy Field. In no event shall Xcyte be obligated to grant such licenses to TCTC if TCTC has not raised the requisite funds in the Financing (as defined above).

"Xcellerate™ Technology" as used herein includes Xcellerate Patent Rights, future improvements to the Xcellerate Patent Rights (other than TCTC Improvements as defined below) including patents and technology in-licensed by Xcyte and relevant 'know-how' associated with the Xcellerate™ Technology, the Xcellerate™ Process and the generation of Xcellerated T Cells™ which has been transferred to TCTC. Such "Know-How" will include, but is not limited to; the training of the TCTC team in methodologies required for the GMP manufacture, quality control (QC) testing and quality assurance (QA) of Licensed Products. Such methodologies include:

i) The activation and expansion of T cells using the bioreactor-based Xcellerate III process;

ii) The relevant assays for receiving QC, in-process QC and final product release testing;

iii) Relevant QA systems;

iv) Storage and handling of cryopreserved Xcellerated T-Cell Products; and

v) Shipping and receiving of PBMC leukapheresis products and final Xcellerated T Cell Products.

The training of the TCTC Team will include the correct use of the instruments and devices used for the manufacture and testing of Xcellerated T Cell Products. In addition, the training would be accompanied by the transfer of all relevant master production records, standard operating procedures and other pertinent controlled documents (in English).

	"Xcellerate Patent Rights" means the patents and patent applications listed on Exhibit B attached hereto and shall include all foreign counterparts claiming the benefit therefrom as well as any extension, continuation, continuation-in-part, divisional and re-issue applications thereof or issuing therefrom, to the extent Xcyte owns, licenses, or controls such rights. Licensed Product(s) means products which: (1) in the absence of the license agreement would infringe at least one claim of Xcellerate Patent Rights in at least one of the countries in the Territory in which the product is made, used or sold (within the Cellular Immunotherapy Field), or one claim of Xcellerate Patent Rights in at least one country worldwide in which the product is made, used or sold (within the Non-Cellular Immunotherapy Field), or (2) use a process, equipment or device covered by a claim of Xcellerate Patent Rights in the country of use or (3) use the relevant "know-how" associated with the Xcellerate™ Technology or the generation of Xcellerated T Cells ™.
Territory	"Territory" specified as: Australia, New Zealand, Afghanistan, Bangladesh, Bhutan, Brunei, Burma, Cambodia, China (including Hong Kong), India, Indonesia, North Korea, South Korea, Laos, Malaysia, Mongolia, Nepal, Pakistan, Philippines, Singapore, Sri Lanka, Taiwan, Thailand, and Vietnam, as these borders exist today. The Territory shall expand to include the countries that may subsequently encompass any or all of each of the countries listed above. Notwithstanding anything to the contrary, in no event shall any Licensed Products be exported or embargoed to otherwise restricted countries or end users, in accordance with U.S. export control regulations.
Diligence	Within 12 months of TCTC's US FDA approval of a Licensed Product in the Cellular Immunotherapy Field, Xcyte or its partners must initiate local registration and approval in worldwide markets outside the Territory. Unless Xcyte has a good business reason to not do so or has otherwise not secured the requisite regulatory approval or pricing authorization despite commercially reasonable efforts to do so, within 24 months, Xcyte or its licensees must actively market and sell such Licensed Products in the Cellular Immunotherapy Field outside the Territory or TCTC will have the right to market such Licensed Products in any country for which Xcyte or its licensees fails to market approved Licensed Products.

Financial Terms	Compensation to Xcyte will be paid for the following events: (1) Within ten (10) days of the closing of the Financing – **[*]**; (2) Completion of technology transfer **– [*]**; (3) Xcyte holds pre-pivotal trial meeting with the U.S. FDA **– [*]**; (4) Enrollment of first patient in TCTC clinical trial – **[*]**; (5) Enrollment of first patient in Xcyte pivotal trial – US$**[*]**. "Completion of technology transfer" shall mean the training of TCTC personnel in Seattle, WA (where at least three consecutive pilot runs have been successfully performed by the TCTC team), and the transfer of documentation and associated controls to TCTC adequate to practice the Xcellerate™ Technology. Payments for this milestone will be based on expenses as they are incurred, pursuant to a scheduled budget provided to TCTC in advance. In no event shall any payment owed to Xcyte for the "Completion of technology transfer" be delayed because of TCTC's failure to meet its obligations to complete such technology transfer or its failure to send qualified personnel for training (i.e. persons with training and/or education customary for similar positions in the U.S. biotechnology industry). Xcyte shall provide the names and contacts of suppliers for the materials used in the manufacture, sale and marketing regarding the Xcellerate™ Technology, and will arrange for the meeting of TCTC personnel and the contacts of such suppliers at TCTC's request and generally take all reasonable steps to facilitate TCTC's use of such suppliers. "Xcyte holds pre-pivotal trial meeting with the U.S. FDA" shall mean that Xcyte holds a pre-pivotal trial meeting with the U.S. FDA and, either (i) within 30 days of such meeting, Xcyte does not receive a written notice stating that Xcyte cannot proceed with a pivotal trial, or (ii) the U.S. FDA notifies and requires Xcyte to cure certain outstanding issues prior to moving forth with a pivotal trial, and Xcyte actually cures such issues.
Structure	TCTC has been established under the laws of Taiwan as an independent corporate entity based in Taiwan. In consideration for the license grant described herein, TCTC will pay Xcyte within 5 days of the closing of the Financing a lump-sum up-front payment in an exact amount of U.S. dollars needed to purchase **[*]** of TCTC common stock as calculated after the completion of the Financing. Within one day of receiving the lump-sum up-front payment, Xcyte will use all of the lump-sum up-front payment to purchase such shares of stock from TCTC. TCTC will issue to Xcyte shares of TCTC common stock with rights and restrictions no less

[*] Certain information on this page has been omitted and filed separately with the Securities & Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

	favorable than those given to other TCTC founders. The Financing will include TCTC shares and attached warrants for purchase of additional shares within one-year and two-year periods at prices above the per share price paid in this offering. Xcyte will not be receiving any warrants in connection with this Financing. The **[*]** ownership will be calculated including all shares issued and outstanding at the closing of the Financing, but will not include the dilution resulting from the issuance of the shares underlying the warrants. In addition, at the time that the shares are issued, Xcyte must enter into a restricted stock agreement with TCTC which shall be identical to the restricted stock agreements between all other founders and TCTC. TCTC agrees that in no event shall the restrictions on Xcyte's shares be worse than the most lenient restrictions on shares held by the other founders. [*] If and for so long as Xcyte does not have a representative on the TCTC board of directors, Xcyte shall have the right to attend the board of directors meetings as an observer and to receive at the same time, such information as is provided to other directors and notice and copies of all information furnished to directors in connection with all meetings of TCTC's board of directors, (subject to reasonable confidentiality restrictions). TCTC shall assist Xcyte at Xcyte's sole expense in finding a translator for the TCTC board meetings and for the information furnished to the directors in connection with all meetings of TCTC's board of directors; however, TCTC assumes no further responsibility for the accuracy or timeliness of the translations of such meetings or materials. Xcyte shall have the right to receive quarterly written progress and financial reports in English. TCTC and Xcyte shall create a joint steering committee to coordinate manufacturing, quality systems, clinical development and marketing activities. The milestone payments are contingent on the payment of the lump-sum up-front payment from TCTC to Xcyte and Xcyte's subsequent purchase of TCTC stock as set forth in this Section.
Royalty	TCTC will pay to Xcyte a **[*]**% royalty on annual Net Sales of all Licensed Products developed primarily by TCTC, which are commercialized by TCTC or its agents within the Cellular Immunotherapy Field in the Territory (and outside the Territory to the extent applicable pursuant to the "Diligence" section.). TCTC will pay to Xcyte a **[*]**% royalty on annual Net Sales of all Licensed Products developed primarily by TCTC, which are

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commercialized by TCTC or its agents within the Non-Cellular Immunotherapy Field worldwide, provided that if any such Licensed Products create royalty payment obligations for Xcyte to its sublicensors, TCTC agrees to compensate Xcyte in full for such royalty obligations in addition to the **[*]**% royalty.

A mutual royalty-bearing obligation (the "Mutual Royalty") will be established between TCTC and Xcyte on Net Sales of Licensed Products in the Cellular Immunotherapy Field that are developed primarily by one party for specific clinical indications but sold by the other party in their territory for the same specific clinical indications as the first party's products. Xcyte will pay to TCTC a **[*]**% Mutual Royalty on annual Net Sales of Licensed Products developed primarily by TCTC, and in compliance with Xcyte Quality Standards, for the same clinical indications that are commercialized by Xcyte or its agents worldwide. TCTC will pay to Xcyte a **[*]**% Mutual Royalty on annual Net Sales of all Licensed Products developed primarily by Xcyte that are commercialized by TCTC or its agents in the Territory for the same clinical indication that Xcyte is using for the Licensed Products. To the extent that, a party must perform additional clinical trials or research and development to sell the Licensed Products in their territory, then the Mutual Royalty owed on the Net Sales of such Licensed Product in the applicable territory shall be reduced by an appropriate proportional amount based on the amount of additional resources expended, and negotiated in good faith.

In the event that one or more products in the Cellular Immunotherapy Field that is directly competitive with and in the same indication as TCTC's Licensed Product are sold in such a country in the Territory, the portion of the aforementioned royalties payable to Xcyte on Licensed Products within the Cellular Immunotherapy Field and not payable by Xcyte to its sublicensors will be reduced on a country by country basis by **[*]** the percentage that the total of such sales of such one or more competing products represent of TCTC's sales of relevant product of that country, but in no event shall this reduction result in less than payment of **[*]** of the payment otherwise due to Xcyte. Xcyte shall have the right, in the first instance, to enforce its patent rights in the Territory, but in the event it fails or declines to do so, TCTC shall have certain rights to do so

The royalties payable to Xcyte assume that Xcyte is required to pay [*]% for various in-licensed technology. In countries where

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the sublicense rate is lower than **[*]**%, the royalty payable to Xcyte by TCTC will be reduced by the same amount as of the Effective Date of the Agreement. In addition, subsequent to the Effective Date of the Agreement, if Xcyte negotiates a lower royalty rate for any Xcyte in-licensed technology, the aforementioned royalty rates payable to Xcyte by TCTC will be reduced by **[*]** of the savings, provided that if the reduction of royalty rates is due to one or more lump-sum payments that are otherwise not a royalty percentage of the amount of sales on the Licensed Product(s) made by Xcyte to its sublicensor(s), TCTC's royalty rates to Xcyte will only be reduced if TCTC (at TCTC's sole option) pays Xcyte **[*]**% of such lump-sum payments.

Royalties payable to Xcyte from sublicensed Licensed Products will be the same as if TCTC had sold the Licensed Product directly without a sublicense.

Net Sales shall be defined as total gross sales invoiced less all usual and customary returns, commissions, shipping charges, duties, taxes, and allowances. The obligation to pay royalties is imposed only once with respect to the same Licensed Product.

All royalty payments will be made on a quarterly basis in US dollars based on published currency exchange rates. Sales records will be available for audit.

Sublicense

TCTC shall have the right to sublicense the Xcellerate™ Technology in the Cellular Immunotherapy Field in the Territory and in the Non-Cellular Immunotherapy Field worldwide with the prior written consent of Xcyte, which consent shall not be unreasonably withheld. TCTC will pay Xcyte a percentage of any sublicense initiation fee, milestone payments, equity investments or any other non-royalty payments owed to TCTC from sublicensees of Xcellerate™ Technology based on the timing of such sublicense payments as set forth below. Any such sublicenses shall obligate the sublicensee to comply with the provisions of this Agreement and maintain the quality and safety of Licensed Products based on the Xcellerate™ Technology.

Date Such Payment Received Payable by TCTC	% of Payment to Xcyte
Within 0-5 years of the Effective Date	[*]
Between 5 and 6 years of the Effective Date	[*]

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	Between 6 and 7 years of the Effective Date	[*]
	Between 7 and 8 years of the Effective Date	[*]
	Between 8 and 9 years of the Effective Date	[*]
	Between 9 and 10 years of the Effective Date	[*]
	More than 10 years after the Effective Date	[*]

Notwithstanding the above, TCTC shall not be obligated to pay to Xcyte any portion of any amounts received from any sublicensee objectively attributable to research and development activities (market value) or amounts received from a sublicensee reasonably allocated to consideration for TCTC equity, or the license or sublicense of any intellectual property other than the Xcellerate Patent Rights, or products other than the Licensed Products, or reimbursement for patent or other expenses. Any non-cash compensation received by TCTC shall be valued at Fair Market Value, and Xcyte's share of the non-cash compensation may be paid to Xcyte either in cash or in the same form of non-cash compensation that TCTC received (at TCTC's sole discretion).

Patent Rights

Xcyte shall own the entire right to improvements on the Xcellerate™ Technology that are invented by Xcyte solely or jointly with TCTC. TCTC shall own the entire right to any improvements to the Xcellerate™ Technology that are invented by TCTC without the co-inventorship of Xcyte (the "TCTC Improvements"), provided, however, that TCTC shall grant to Xcyte a fully-paid, royalty-free (except as stated below), perpetual, exclusive, worldwide license (excluding the Territory) to make, have made, use, import, sell, and offer for sale Licensed Products incorporating TCTC Improvements only in the Cellular Immunotherapy Field with the right to sublicense. To the extent that such TCTC Improvements relate to clinical indications for Licensed Products that are developed primarily by TCTC, such products bear a Mutual Royalty as set forth above. The parties will negotiate in good faith additional royalty and/or other consideration for any TCTC Improvements that substantially improve the efficacy or substantially lower the manufacturing cost of a Licensed Product whether or not that Product already requires a Mutual Royalty payment to TCTC or does not require such a payment in the absence of the TCTC Improvements. If the parties cannot otherwise mutually agree, the Technical Dispute Resolution

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	set forth below will be used to determine if the TCTC Improvements substantially improve the efficacy or substantially lower the manufacturing costs of the Licensed Product and the amount of additional royalties that should be paid to TCTC. The parties agree that minor improvements or optimizations will bear no additional royalty.
Technical Dispute Resolution	If the issue is scientific, regulatory or marketing ("technical") in nature and cannot be resolved by the parties respective officers, the parties agree to submit such technical issue to an independent three-member board for resolution. The three-member board shall consist of one independent technical consultant in the scientific, regulatory or marketing field, as is appropriate to the nature of the issue, designated by each party. The two such designated technical consultants selecting a third independent consultant in the same field to comprise the three-member technical board. The decision of the three-member board shall be binding upon the parties.
Patent Maintenance	Xcyte shall control and TCTC shall bear or reimburse all future reasonable costs of preparation, prosecution, and maintenance in the Territory of the Xcellerate Patent Rights to be licensed to TCTC. For the period beginning on the Effective Date of this Agreement, Xcyte shall pay such costs and TCTC shall reimburse such costs within ten (10) days after invoice, provided that TCTC has approved such costs in advance in accordance with this Section. TCTC will not be obligated to bear or reimburse any such costs if the Financing does not close. TCTC shall be copied in a timely manner on all material written correspondence and memoranda describing material oral correspondence will be prepared and sent to TCTC related to the preparation, prosecution, and maintenance of the Xcellerate Patent Rights between Xcyte and Xcyte's attorney. TCTC retains the right to advise Xcyte regarding patent preparation, prosecution, and maintenance in a reasonable amount of time before the submission of any such documents or payments. In particular, Xcyte will notify TCTC in writing at least 30 days before the filing of an original, divisional, continuation, CIP, reissue, or reexamination filing in the U.S., a foreign original patent application (such as in Taiwan or other non-PCT country), a PCT filing, or a PCT national stage filing and will include an estimate of the cost of such a filing. TCTC will indicate in writing whether or not they will reimburse such filing costs within 15 days of receiving the written notice from Xcyte. TCTC will otherwise have the right to decline prosecution of any patent or application licensed to TCTC and such patents or applications will be excluded from the license in the relevant country.

However, if TCTC has reimbursed Xcyte for filing, prosecution or maintenance fees for a particular patent or application in Australia, China (including Hong Kong), Singapore, South Korea and Taiwan (hereafter the "Major Countries") and continues to do so, or if TCTC has reimbursed Xcyte for filing, prosecution, or maintenance fees for all of the Major Countries in which Xcyte has filed (without abandonment) or legitimately proposes to file a particular patent, and continues to do so, then neither Xcyte nor its licensees or assigns will enforce the corresponding patent or application or otherwise seek relief against TCTC or its licensees, assigns, distributors, importers, exporters or customers for any past, present or future act of making, have made, selling, importing, exporting or using any Licensed Product in a country in the Territory other than the Major Countries (hereafter "Minor Countries") subsequent to the time that TCTC declines to reimburse Xcyte for the preparation, prosecution or maintenance costs of a particular patent or application in that Minor Country. Furthermore, neither Xcyte nor its licensees or assigns will enforce such patent or application or otherwise seek relief against TCTC or its licensees, assigns, distributors, importers, exporters or customers for any past, present or future act of making, have made, selling, importing, exporting or using the Know-How in that Minor Country.

3. **Confidentiality**. Xcyte and TCTC will enter into a confidentiality agreement with respect to the transactions contemplated by this Agreement, as set forth on Exhibit A. Potential investors who receive only written materials pre-approved by Xcyte (or verbal information or other presentations that do not disclose Xcyte information not contained in such written materials) shall not be required to sign a confidentiality agreement. Except as authorized by Xcyte, TCTC agrees to keep the information it obtains strictly confidential to the extent provided in the confidentiality agreement. If negotiations are terminated by either party, the proposed terms of the Collaboration (except for those disclosed in this Agreement and made available to potential investors in TCTC, but only as authorized by Xcyte), all confidential information of Xcyte, including but not limited to clinical, manufacturing, technology and regulatory information, and all Collaboration-related discussions will be kept confidential and will not be disclosed to any person without the prior written consent of the other party, except as required by law or regulatory authority.

4. **Effect and Enforceability of Agreement**. This Agreement shall constitute a binding and legally enforceable agreement of the parties. The parties do not contemplate materially altering the terms, conditions, and wording of matters specifically addressed in this Agreement.

5. **Injunctive Relief**. It is understood and agreed that money damages would not be a sufficient remedy for any breach of the provisions of this Agreement by either party hereto and that the parties shall be entitled to equitable relief, including injunction and specific performance,

as a remedy for any such breach. Such remedies shall not be deemed to be the exclusive remedies for a breach by either party of the enforceable provisions of this Agreement but shall be in addition to all other remedies available at law or equity to the non-breaching party.

6. **Termination**. The effective date of this Agreement shall be August 28, 2003. Royalties with respect to each Licensed Product in each country shall be payable for the period of time equal to the longer of (a) 15 years from the date of first commercial sale or (b) until the expiration of all covering patent claims in the Xcellerate™ Technology in such country.

7. **Termination of Prior Agreements; Integration**. This Agreement constitutes the full and complete agreement of Xcyte and TCTC with respect to the subject matter contained in this Agreement, and supersedes all oral negotiations and prior writings with respect to the subject matter hereof, and there are no further or other agreements or understandings, written or oral, in effect between Xcyte and TCTC relating to such subject matter except as expressly referred to herein.

8. **Governing Law**. This Agreement and all acts and transactions pursuant hereto shall be governed, construed and interpreted in accordance with the laws of the State of Washington, United States of America, without giving effect to principles of conflicts of law.

9. **Indemnification**. Each party shall indemnify and hold harmless the other from any claim for broker's or finder's fees, or other expenses arising from the transactions contemplated by this Agreement by any person claiming to have been engaged by the party. Each party shall indemnify, defend and hold harmless the other party and its trustees, officers, medical and professional staff, employees, investors and agents and their respective successors, heirs and assigns ("Indemnitees"), against any liability, damage, loss, or expense (including reasonable attorney's fees and expenses of litigation) incurred by or imposed upon any one or more of the Indemnities in connection with any claims, suits, actions, demands or judgments arising out of the failure to consummate the Collaboration or enter into agreements based on the terms of this Agreement including, but not limited to actions in the form of tort, warranty or strict liability, but excluding any claims, suits, actions, demands or judgments to the extent resulting from the gross negligence or willful misconduct of the other party. This section shall survive expiration or termination of this Agreement.

10. **Full Disclosure**. TCTC will conduct negotiations and solicitations for financing with its investors in accordance with the laws of Republic of China (Taiwan). To the extent that TCTC provides any written materials to potential investors ("Investor") containing either Xcyte's confidential information or information relating to this Collaboration, TCTC shall obtain Xcyte's prior written consent before disclosure. TCTC hereby agrees that it will not present any information relating to Xcyte to the Investors, orally or otherwise, that materially differs from any written materials that Xcyte has approved.

11. **Force Majeure**. Neither party shall be liable for any failure or delay in performance under this Agreement to the extent that such failure and delay is due in whole or in part directly or indirectly to any cause of any nature beyond the reasonable control of such party; including, without in any way limiting the generality of the foregoing, fire, explosion, earthquake, storm, flood, disease, epidemic, strike, lockout, activities of a combination or

workmen or other labor difficulties, wars, insurrection, riot, terrorist acts, acts of God or the public enemy, law, act, order, proclamation, decree, regulation, ordinance, or instructions of local, federal or foreign government or other public authorities, or judgement or decree of a court of competent jurisdiction not arising out of breach by such party of this Agreement. In the event of the happening of such cause, the party so affected shall give prompt written notice to the other party, stating the period of time the same is expected to continue and take all reasonable measures to ensure that the effects of such case of force majeure are minimized to the extent possible.

12. **Mutual Corporate Representations.** Each of Xcyte and TCTC hereby represents, warrants and covenants to each other that as of the effective date of this Agreement (a) it has the full right, power and authority to enter into this Agreement and there is nothing which would prevent it from performing its obligations under the terms and conditions imposed on it by this Agreement, (b) this Agreement constitutes a valid and binding obligation on TCTC and Xcyte, respectively, enforceable in accordance with the terms hereof, and (c) TCTC or Xcyte, as the case may be, is a corporation duly organized and validly existing and in good standing (as applicable) under the laws of its jurisdiction of incorporation.

IN WITNESS WHEREOF the parties have caused this Agreement to be executed by their duly authorized officers in duplicate originals.

XCYTE THERAPIES, INC.

By: /s/ RONALD JAY BERENSON

Name: Ronald Jay Berenson

Its: President & CEO

Xcyte Therapies, Inc.
1124 Columbia Street
Suite 130
Seattle, Washington 98104

TAIWAN CELL THERAPY COMPANY

By: /s/ EUGENE FAN

Name: Eugene Fan

Its: President & CEO

Taiwan Cell Therapy Company
12th Floor, 156 Min Sheng E. Road, Sec. 3,
Taipei, Taiwan

CONFIDENTIAL

Description of Collaboration

Appendix of the Agreement Dated August 28, 2003

The following sets forth a summary of the material terms upon which Xcyte Therapies, Inc. ("Xcyte") would enter into a Second Agreement with Taiwan Cell Therapy Company ("TCTC"). This Appendix is attached to and incorporated as part of the Agreement between the parties. All capitalized terms not otherwise defined herein shall have the same meaning as set forth in the remaining sections of the Agreement.

Second Agreement; Due Diligence. As soon as practicable after execution of this Agreement, TCTC, its employees and agents shall be permitted to make a full and complete due diligence review of Xcyte's business and affairs relating to the Collaboration. TCTC agrees to complete its due diligence and notify Xcyte in writing whether it intends to consummate the transactions contemplated by the Agreement by October 15, 2003. If TCTC notifies Xcyte that it intends to consummate the transactions contemplated by the Agreement, then the parties agree to negotiate in good faith and enter into a second agreement ("Second Agreement") containing the material terms set forth in this Agreement and other appropriate terms, representations, warranties and covenants on or before November 15, 2003, and close on or before December 30, 2003. The terms of the Second Agreement will include the representation by TCTC that it had received investor commitments for the Financing (as defined in the Agreement) necessary to close the transaction. Execution of the Second Agreement is subject to the final approval of Xcyte's Board of Directors and TCTC's Board of Directors and Senior Management.

Break Up Fee.

a. After the parties execute this Agreement, if either Xcyte or TCTC chooses not to enter into the Second Agreement on or before November 15, 2003 (or extensions thereof mutually agreed upon by the parties in writing)and instead chooses to enter into another agreement relating to any countries of the Territory set forth in this Appendix with a third party from May 22, 2003 until February 22, 2004, then the party that so chooses shall pay the other party a cash payment equal to the following based on the date that the party gives such written notice to the other party:

May 22, 2003 to July 31, 2003	US$[*]
August 1, 2003 to October 15, 2003	US$[*]
October 16, 2003 to November 15, 2003	US$[*]

Neither Xcyte norTCTC will have this duty of this payment if (1) TCTCdetermines in good faith through its due diligence efforts that there are significant risks, defects or issues with the Xcellerate™ Technology or third party patents and applications affecting the Xcellerate™ Technology in the Territory and notifies Xcyte in writing as such on or before October 15, 2003, (2) TCTC is not able to obtain the applicable financing and notifies Xcyte in writing of suchon or before the Second Agreement is executed, provided that TCTC provides Xcyte with prompt notice of its inability to raise the requisite funds, (3) Xcyte is refused, without right to appeal, a

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Taiwan tax exemption regarding the upfront (set forth in “Structure” Section 0014), milestone (set forth in “Financial Terms”, Section 0016), and royalty payments (set forth in “Royalties”, Sections 0020- 0022) (specifically excluding the payments set forth in the “Sublicense” Section (0029)) and notifies TCTC in writing of such on or before November 15, 2003, or (4) Xcyte is unable to confirm the Investors’ commitment of at least US$25,000,000 through due diligence of TCTC’s list of investor commitments and Xcyte notifies TCTC in writing of such on or before November 15, 2003, or (5) the parties are unable to reach agreement on the Second Agreement by November 15, 2003 despite diligent good-faith effort on the part of the party to be charged. Upon the execution of the Second Agreement, this Section (a) shall be replaced in the Second Agreement by the Break-Up Fee described in the next Section (b).

b. In the event that, subsequent to the execution of the Second Agreement on or before November 15, 2003 (or extensions thereof mutually agreed upon by the parties in writing), until February 22, 2004, either party chooses not to close, or through its actions in bad faith causes the other party to be unable to close and in either case instead chooses to enter into another agreement in any countries of the Territory set forth in this Appendix with a third party, then the party that so chooses or acts in bad faith to prevent the other party from closing and in either case instead chooses to enter into another such agreement shall pay the other party a cash payment of **[*]** dollars. Neither Xcyte nor TCTC will be subject to this obligation of payment if TCTChas not received a total of twenty-five million U.S. ($25,000,000.00) dollars from its investors (including any binding commitments accepted by TCTC from a Taiwanese governmental agency or department or an institute or other entity that is directly or indirectly controlled by the Taiwanese government) on or before December 30, 2003 (unless such failure is solely due to a preemptive termination of the Second Agreement by Xcyte). The acceptance of one or more of the above-mentioned commitments from a Taiwanese governmental agency, department or other entity shall be at the sole discretion of TCTC. Furthermore, if Xcyte has been refused, without right to appeal, a Taiwan tax exemption regarding the upfront (set forth in “Structure” Section 0014), milestone (set forth in “Financial Terms”, Section 0016), and royalty payments (set forth in “Royalties”, Sections 0020- 0022) (specifically excluding the payments set forth in the “Sublicense” Section (0029)) from the date of the execution of the Second Agreement until on or before December 30, 2003, Xcyte may notify TCTC of this fact in writing and thus neither side will be subject to this obligation of payment. Also, if Xcyte has not received tax exempt status from the Taiwanese Government regarding the upfront (set forth in “Structure” Section 0014), milestone (set forth in “Financial Terms”, Section 0016), and royalty payments (set forth in “Royalties”, Sections 0020- 0022) (specifically excluding the payments set forth in the “Sublicense” Section (0029)) on or before December 30, 2003, then Xcyte may notify TCTC of this fact and neither party will be subject to the obligation of this payment.

c. Any dispute regarding the duty to pay a break-up fee shall be resolved by arbitration, as set forth in this Appendix. Each party acknowledges that it shall have full responsibility for applicable withholding taxes to the extent any break-up fees are paid to such party.

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Termination; Effectiveness. The effective date of this Agreement shall be August 28, 2003. In the event the parties fail to enter into a Second Agreement on or before November 15, 2003 (or such extensions of that date as mutually agreed), or in the event either party notifies the other party, in writing, that it wishes to terminate the Agreement (which may be subject to a break-up fee as applicable), the understandings contained in this Agreement shall terminate and be of no further force or effect as of such date, unless extended by mutual agreement of the parties. Except as otherwise provided in this section or the break-up fee section, neither party may terminate this Agreement except in the case of a material breach of this Agreement by the other party that is not cured (or cannot be cured) within 10 business days after written notice of such breach is given by the non-breaching party. Notwithstanding anything to the contrary in this section, Sections 3, 5, 8, 9 of the letter agreement and the break-up fee shall not terminate, but shall continue in force and effect forever.

License Terms and Conditions.

Purpose	**(0001)** License agreement between Xcyte Therapies and Taiwan Cell Therapy Company.
Field	**(0002)** The "Cellular Immunotherapy Field" shall be the activation, growth, modification or regulation of T cells for *in vivo* and *ex vivo* therapeutic purposes. The "Non-Cellular Immunotherapy Field" shall be *in vivo*, *in vitro* and *ex vivo* therapeutic purposes not included in the Cellular Immunotherapy Field, and shall include (by way of example and not by way of limitation) all non-T-cell technologies and stem cell technologies. The use of Xcellerate™ Technology in HIV gene therapy applications is specifically excluded from both the Cellular Immunotherapy Field and the Non-Cellular Immunotherapy Field.
License	**(0003)** Xcyte will grant to TCTC (a) an exclusive, royalty-bearing license, with the right to sublicense, to use the Xcellerate™ Technology to make, have made, use, import, sell, and offer for sale Licensed Products in the Cellular Immunotherapy Field in the Territory, and (b) a non-exclusive, royalty-bearing license with the right to sublicense, to use the Xcellerate™ Technology to make, have made, use, import, sell, and offer for sale Licensed Products in the Non-Cellular Immunotherapy Field worldwide. These licenses shall not permit TCTC to make, use, sell or export Licensed Products outside of the Territory other than as described in the "Diligence" section of this Appendix, except within the Non-Cellular Immunotherapy Field, nor allow any agent or other third party to make, use, sell or export Licensed Products outside of the Territory, other than described in the "Diligence" section of this Appendix, except within the Non-Cellular Immunotherapy Field. TCTC shall use its best efforts to prevent third parties from making, using, selling or exporting the

Xcellerate™ Technology outside the Territory, except within the Non-Cellular Immunotherapy Field, and shall promptly notify Xcyte in the event that TCTC has reason to believe that a third party is making, using, selling or exporting the Xcellerate™ Technology outside of the Territory, except within the Non-Cellular Immunotherapy Field. In no event shall Xcyte be obligated to grant such licenses to TCTC if TCTC has not raised the requisite funds in the Financing (as defined below).

(0004) "Xcellerate™ Technology" as used herein includes Xcellerate Patent Rights, future improvements to the Xcellerate Patent Rights (other than TCTC Improvements as defined below) including patents and technology in-licensed by Xcyte and relevant 'know-how' associated with the Xcellerate™ Technology, the Xcellerate™ Process and the generation of Xcellerated T Cells™ which has been transferred to TCTC. Such "Know-How" will include, but is not limited to; the training of the TCTC team in methodologies required for the GMP manufacture, quality control (QC) testing and quality assurance (QA) of Licensed Products. Such methodologies include:

[*]

The training of the TCTC Team will include the correct use of the instruments and devices used for the manufacture and testing of Xcellerated T Cell Products. In addition, the training would be accompanied by the transfer of all relevant master production records, standard operating procedures and other pertinent controlled documents (in English).

(0005) "Xcellerate Patent Rights" means the patents and patent applications listed on Exhibit B (to be completed in the Second Agreement) attached hereto and shall include all foreign counterparts claiming the benefit therefrom as well as any extension, continuation, continuation-in-part, divisional and re-issue applications thereof or issuing therefrom, to the extent Xcyte owns, licenses, or controls such rights.

(0006) Licensed Product(s) means products which: (1) in the absence of the license agreement would infringe at least one claim of Xcellerate Patent Rights in at least one of the countries in the Territory in which the product is made, used or sold (within the Cellular Immunotherapy Field), or one claim of Xcellerate Patent Rights in at least one country worldwide in which the product is made, used or sold (within the Non-Cellular Immunotherapy

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Field), or (2) use a process, equipment or device covered by a claim of Xcellerate Patent Rights in the country of use or (3) use the relevant "know-how" associated with the Xcellerate™ Technology or the generation of Xcellerated T Cells ™.

Territory

(0007) "Territory" specified as: Australia, New Zealand, Afghanistan, Bangladesh, Bhutan, Brunei, Burma, Cambodia, China (including Hong Kong), India, Indonesia, North Korea, South Korea, Laos, Malaysia, Mongolia, Nepal, Pakistan, Philippines, Singapore, Sri Lanka, Taiwan, Thailand, and Vietnam, as these borders exist today. The Territory shall expand to include the countries that may subsequently encompass any or all of each of the countries listed above. Notwithstanding anything to the contrary, in no event shall any Licensed Products be exported or embargoed to otherwise restricted countries or end users, in accordance with U.S. export control regulations.

Diligence

(0008) Within 12 months of TCTC's US FDA approval of a Licensed Product in the Cellular Immunotherapy Field, Xcyte or its partners must initiate local registration and approval in worldwide markets outside the Territory. Unless Xcyte has a good business reason to not do so or has otherwise not secured the requisite regulatory approval or pricing authorization despite commercially reasonable efforts to do so, within 24 months, Xcyte or its licensees must actively market and sell such Licensed Products in the Cellular Immunotherapy Field outside the Territory or TCTC will have the right to market such Licensed Products in any country for which Xcyte or its licensees fails to market approved Licensed Products.

Japan

(0009) To the extent that Xcyte licenses the Xcellerate™ Technology to a third party ("Japan Licensee") to make, have made, use, import, sell, and offer for sale Licensed Products within the Cellular Immunotherapy Field in Japan, Xcyte shall pay TCTC a portion of any compensation received by Xcyte from a Japan Licensee as a result of such license based on the timing of such payments, as follows, provided that, TCTC has used and continues to use diligence and commercially reasonable efforts to develop, gain regulatory approval and commercialize and market Licensed Products. Xcyte may reasonably require sufficient evidence of such diligence and efforts prior to payment. In addition, TCTC will use reasonable efforts to assist Xcyte to license its technology in Japan.

Date Such Payment Received Payable by Xcyte	% of Payment to TCTC
Within 9 months of the Effective Date of the Second Agreement	**[*]**
Within 10-18 months of the Effective Date of the Second Agreement	**[*]**
Within 19-27 months of the Effective Date of the Second Agreement	**[*]**
Within 28-36 months of the Effective Date of the Second Agreement	**[*]**
More than 36 months after the Effective Date of the Second Agreement	**[*]**

(0010) Notwithstanding the above, Xcyte shall not be obligated to pay to TCTC any portion of any amounts received from any Japan Licensee objectively attributable to research and development activities (market value) or amounts received from a Japan Licensee reasonably allocated to consideration for Xcyte equity, or the license or sublicense of any intellectual property other than the Xcellerate Patent Rights, or products other than the Licensed Products, or reimbursement for patent or other expenses. Any non-cash compensation received by Xcyte shall be valued at Fair Market Value, and TCTC's share of the non-cash compensation may be paid to TCTC either in cash or in the same form of non-cash compensation that Xcyte received (at Xcyte's sole discretion).

(0011) TCTC shall not be obligated to pay to Xcyte any portion of any amounts received from a Japan Licensee reasonably allocated to consideration for TCTC equity. In the event of a dissolution, liquidation or winding up of Xcyte, subject to applicable laws, court judgments or decrees and third party consents, Xcyte shall require as part of the initial agreement with that Japan Licensee that the above payments be made to TCTC directly for the remaining portion of the original term of the license. In addition, the parties agree to negotiate in good faith in the Second Agreement payments to TCTC in the event that Xcyte sets up its own operation or joint venture in Japan.

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(0012) To the extent not covered above, in the event that Xcyte shall receive revenues reasonably attributable to the Xcellerate™ Technology in or from Japan within the Cellular Immunotherapy Field, separate and apart from revenues from a Japan licensee, TCTC shall be entitled to share in such revenues in the same proportion as if those revenues had been received from a Japan licensee.

(0013) Xcyte and TCTC agree to negotiate in good faith in the Second Agreement terms that would protect TCTC's share of compensation relating to the Xcellerate™ Technology in the Cellular Immunotherapy Field in Japan pursuant to the terms stated herein in the event of Xcyte's dissolution, liquidation, cessation of business, or winding up.

Structure

(0014) TCTC has been established under the laws of Taiwan as an independent corporate entity based in Taiwan. In consideration for the license grant described herein, TCTC will pay Xcyte within 5 days of the closing of the Financing a lump-sum up-front payment in an exact amount of U.S. dollars needed to purchase **[*]**% of TCTC common stock as calculated after the completion of the Financing. Within one day of receiving the lump-sum up-front payment, Xcyte will use all of the lump-sum up-front payment to purchase such shares of stock from TCTC. TCTC will issue to Xcyte shares of TCTC common stock with rights and restrictions no less favorable than those given to other TCTC founders. The Financing will include TCTC shares and attached warrants for purchase of additional shares within one-year and two-year periods at prices above the per share price paid in this offering. Xcyte will not be receiving any warrants in connection with this Financing. The **[*]**% ownership will be calculated including all shares issued and outstanding at the closing of the Financing, but will not include the dilution resulting from the issuance of the shares underlying the warrants. In addition, at the time that the shares are issued, Xcyte must enter into a restricted stock agreement with TCTC which shall be identical to the restricted stock agreements between all other founders and TCTC. TCTC agrees that in no event shall the restrictions on Xcyte's shares be worse than the most lenient restrictions on shares held by the other founders. **[*]** If and for so long as Xcyte does not have a representative on the TCTC board of directors, Xcyte shall have the right to attend the board of directors meetings as an observer and to receive at the same time, such information as is provided to other directors and notice and copies of all information furnished to directors in connection with all meetings of TCTC's board of directors,

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(subject to reasonable confidentiality restrictions). TCTC shall assist Xcyte at Xcyte's sole expense in finding a translator for the TCTC board meetings and for the information furnished to the directors in connection with all meetings of TCTC's board of directors; however, TCTC assumes no further responsibility for the accuracy or timeliness of the translations of such meetings or materials. Xcyte shall have the right to receive quarterly written progress and financial reports in English. TCTC and Xcyte shall create a joint steering committee to coordinate manufacturing, quality systems, clinical development and marketing activities. The milestone payments in Section 0016 below are contingent on the payment of the lump-sum up-front payment from TCTC to Xcyte and Xcyte's subsequent purchase of TCTC stock as set forth in this Section 0014.

Financing

(0015) As described above in Paragraph 11b ("Break-Up Fee"), on or prior to the Effective Date (which will be the Closing Date) of the Second Agreement, TCTC will raise a minimum of US$25 million (or binding commitments therefore) in an equity financing round (the "Financing"). Prior to the Effective Date of the Second Agreement, Xcyte shall have received either (1) commitment letter(s) to receive US$ 10 Million in any combination of equity financing, outside grants or license transaction payments (not including any TCTC payments) or (2) commitment letter(s) signed by at least three of Xcyte's major investors to fund their pro rata share of such US$10 Million (taking into account outside grants or licensed transaction payments, not including TCTC payments) to Xcyte.

Financial Terms

(0016) Compensation to Xcyte will be paid for the following events:

(1) Within ten (10) days of the Effective Date of the Second Agreement – US**[*]**;

(2) Completion of technology transfer – US**[*]**;

(3) Xcyte holds pre-pivotal trial meeting with the U.S. FDA – US**[*]**;

(4) Enrollment of first patient in TCTC clinical trial – US**[*]**;

(5) Enrollment of first patient in Xcyte pivotal trial – US**[*]**;

(0017) "Completion of technology transfer" shall mean the training of TCTC personnel in Seattle, WA (where at least three consecutive pilot runs have been successfully performed by the TCTC team), and the transfer of documentation and associated controls to TCTC adequate to practice the Xcellerate™

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Technology. Payments for this milestone will begin upon the signing of the Second Agreement based on expenses as they are incurred, pursuant to a scheduled budget provided to TCTC in advance. In no event shall any payment owed to Xcyte for the "Completion of technology transfer" be delayed because of TCTC's failure to meet its obligations to complete such technology transfer or its failure to send qualified personnel for training (i.e. persons with training and/or education customary for similar positions in the U.S. biotechnology industry). Xcyte shall provide the names —and contacts of suppliers for the materials used in the manufacture, sale and marketing regarding the Xcellerate™ Technology, and will arrange for the meeting of TCTC personnel and the contacts of such suppliers at TCTC's request and generally take all reasonable steps to facilitate TCTC's use of such suppliers.

(0018) "Xcyte holds pre-pivotal trial meeting with the U.S. FDA" shall mean that Xcyte holds a pre-pivotal trial meeting with the U.S. FDA and, either (i) within 30 days of such meeting, Xcyte does not receive a written notice stating that Xcyte cannot proceed with a pivotal trial, or (ii) the U.S. FDA notifies and requires Xcyte to cure certain outstanding issues prior to moving forth with a pivotal trial, and Xcyte actually cures such issues. The parties agree that if the "pre-pivotal trial meeting" milestone is met prior to the signing of the Second Agreement, TCTC will make the milestone payment to Xcyte within ten (10) days of the Effective Date of the Second Agreement. "Enrollment of first patient in TCTC clinical trial" shall mean that either TCTC enrolls its first patient in a TCTC clinical trial, or six months passes since TCTC first receives the required regulatory permission to proceed with enrollment in a clinical trial.

(0019) The parties agree that milestones 1 through 5 are anticipated to occur within the first 12 months following the signing of the Second Agreement. Nothing in this Section shall be construed to alter, nullify or otherwise affect the obligations of either party set forth in Section 0016 above.

Royalty

(0020) TCTC will pay to Xcyte a **[*]**% royalty on annual Net Sales of all Licensed Products developed primarily by TCTC, which are commercialized by TCTC or its agents within the Cellular Immunotherapy Field in the Territory (and outside the Territory to the extent applicable pursuant to the "Diligence" section.).

[*] Certain information on this page has been omitted and filed separately with the Securities & Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(0021) TCTC will pay to Xcyte a **[*]**% royalty on annual Net Sales of all Licensed Products developed primarily by TCTC, which are commercialized by TCTC or its agents within the Non-Cellular Immunotherapy Field worldwide, provided that if any such Licensed Products create royalty payment obligations for Xcyte to its sublicensors, TCTC agrees to compensate Xcyte in full for such royalty obligations in addition to the **[*]**% royalty.

(0022) A mutual royalty-bearing obligation (the "Mutual Royalty") will be established between TCTC and Xcyte on Net Sales of Licensed Products in the Cellular Immunotherapy Field that are developed primarily by one party for specific clinical indications but sold by the other party in their territory for the same specific clinical indications as the first party's products. Xcyte will pay to TCTC a **[*]**% Mutual Royalty on annual Net Sales of Licensed Products developed primarily by TCTC, and in compliance with Xcyte Quality Standards, for the same clinical indications that are commercialized by Xcyte or its agents worldwide. TCTC will pay to Xcyte a **[*]**% Mutual Royalty on annual Net Sales of all Licensed Products developed primarily by Xcyte that are commercialized by TCTC or its agents in the Territory for the same clinical indication that Xcyte is using for the Licensed Products. To the extent that, a party must perform additional clinical trials or research and development to sell the Licensed Products in their territory, then the Mutual Royalty owed on the Net Sales of such Licensed Product in the applicable territory shall be reduced by an appropriate proportional amount based on the amount of additional resources expended, and negotiated in good faith.

Each party will provide the other party access to all of its regulatory filings (and underlying data), relating to Licensed Products in the Cellular Immunotherapy Field, to the extent such filings and data (including raw data and relevant analyzed data generated) are necessary to support comparable filings by such other party with regulatory authorities in other jurisdictions, and such party is legally and contractually able to provide such access. In that connection, each party may cross-reference the regulatory filings of the other party, to the extent allowed under applicable laws. The data shall be provided in any form reasonably requested by the other party at no charge, provided that the data can be prepared in such form by such party through the use of existing data records and computer facilities with the expenditure of no more than 80 hours of effort, with the requesting party bearing the

[*] Certain information on this page has been omitted and filed separately with the Securities & Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

expense of expenditures beyond that in the selection and formatting of such data.

All regulatory filings with the U.S. FDA or other regulatory agencies outside of the Territory relating to Licensed Products in the Cellular Immunotherapy Field shall identify Xcyte as the sponsor, provided that if Xcyte does not intend to act as the sponsor, it shall so notify TCTC within 10 days of TCTC's written request. If Xcyte fails to take substantive actions towards initiating the filing within 30 days of TCTC's request, TCTC shall have the right to file for such approval directly. Notwithstanding anything to the contrary, Xcyte shall have the right in all cases to participate in all meetings with a governmental regulatory agency and promptly advise and approve all TCTC's regulatory filings to be filed with the U.S. FDA or other regulatory agencies outside of the Territory relating to Licensed Products in the Cellular Immunotherapy Field, and both parties shall jointly own such regulatory filings. Xcyte shall have the right to review at least 30 days in advance all regulatory filings with the U.S. FDA or other regulatory agencies outside of the Territory relating to Licensed Products in the Non-Cellular Immunotherapy Field

(0023) In the event that one or more products in the Cellular Immunotherapy Field that is directly competitive with and in the same indication as TCTC's Licensed Product are sold in such a country in the Territory, the portion of the aforementioned royalties payable to Xcyte on Licensed Products within the Cellular Immunotherapy Field and not payable by Xcyte to its sublicensors will be reduced on a country by country basis by **[*]** the percentage that the total of such sales of such one or more competing products represent of TCTC's sales of relevant product of that country, but in no event shall this reduction result in less than payment of **[*]** of the payment otherwise due to Xcyte. Xcyte shall have the right, in the first instance, to enforce its patent rights in the Territory, but in the event it fails or declines to do so, the Second Agreement shall address TCTC's ability to do so.

(0024) The royalties payable to Xcyte assume that Xcyte is required to pay **[*]**% for various in-licensed technology. In countries where the sublicense rate is lower than **[*]**%, the royalty payable to Xcyte by TCTC will be reduced by the same amount as of the Effective Date of the Agreement. In addition, subsequent to the Effective Date of the Agreement, if Xcyte negotiates a lower royalty rate for any Xcyte in-licensed technology, the aforementioned royalty rates payable to Xcyte by TCTC will be

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reduced by **[*]** of the savings, provided that if the reduction of royalty rates is due to one or more lump-sum payments that are otherwise not a royalty percentage of the amount of sales on the Licensed Product(s) made by Xcyte to its sublicensor(s), TCTC's royalty rates to Xcyte will only be reduced if TCTC (at TCTC's sole option) pays Xcyte **[*]**% of such lump-sum payments.

(0025) Royalties with respect to each Licensed Product in each country shall be payable for the period of time equal to the longer of (a) 15 years from the date of first commercial sale or (b) until the expiration of all covering patent claims in the Xcellerate™ Technology in such country.

(0026) Royalties payable to Xcyte from sublicensed Licensed Products will be the same as if TCTC had sold the Licensed Product directly without a sublicense.

(0027) Net Sales shall be defined as total gross sales invoiced less all usual and customary returns, commissions, shipping charges, duties, taxes, and allowances. The obligation to pay royalties is imposed only once with respect to the same Licensed Product.

(0028) All royalty payments will be made on a quarterly basis in US dollars based on published currency exchange rates. Sales records will be available for audit.

Sublicense

(0029) TCTC shall have the right to sublicense the Xcellerate™ Technology in the Cellular Immunotherapy Field in the Territory and in the Non-Cellular Immunotherapy Field worldwide with the prior written consent of Xcyte, which consent shall not be unreasonably withheld. TCTC will pay Xcyte a percentage of any sublicense initiation fee, milestone payments, equity investments or any other non-royalty payments owed to TCTC from sublicensees of Xcellerate™ Technology based on the timing of such sublicense payments as set forth below. Any such sublicenses shall obligate the sublicensee to comply with the provisions of the Second Agreement and maintain the quality and safety of Licensed Products based on the Xcellerate™ Technology.

Date Such Payment Received Payable by TCTC	% of Payment to Xcyte
Within 0-5 years of the Effective Date of the SecondAgreement	[*]

[*] Certain information on this page has been omitted and filed separately with the Securities & Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Between 5 and 6 years of the Effective Date of the Second Agreement [*]

Between 6 and 7 years of the Effective Date of the Second Agreement [*]

Between 7 and 8 years of the Effective Date of the Second Agreement [*]

Between 8 and 9 years of the Effective Date of the Second Agreement [*]

Between 9 and 10 years of the Effective Date of the Second Agreement [*]

More than 10 years after the Effective Date of the Second Agreement [*]

Notwithstanding the above, TCTC shall not be obligated to pay to Xcyte any portion of any amounts received from any sublicensee objectively attributable to research and development activities (market value) or amounts received from a sublicensee reasonably allocated to consideration for TCTC equity, or the license or sublicense of any intellectual property other than the Xcellerate Patent Rights, or products other than the Licensed Products, or reimbursement for patent or other expenses. Any non-cash compensation received by TCTC shall be valued at Fair Market Value, and Xcyte's share of the non-cash compensation may be paid to Xcyte either in cash or in the same form of non-cash compensation that TCTC received (at TCTC's sole discretion).

Due Diligence

(0030) TCTC will use diligence and commercially reasonable efforts to develop, gain regulatory approval and commercialize and market Licensed Products in the Cellular Immunotherapy Field. TCTC will provide Xcyte with quarterly updates reporting progress in English with regard to TCTC's efforts to develop and commercialize Licensed Products, including the activities by TCTC, its subsidiaries, sublicensees, business partners, independent contractors, and other agents, subject to confidentiality obligations.

Marketing

(0031) TCTC and its sublicensees, if any, will be solely responsible for marketing, sale and distribution of Licensed Products in the Territory and, when applicable, outside the

[*] Certain information on this page has been omitted and filed separately with the Securities & Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Territory. For the Licensed Products in the Cellular Immunotherapy Field, Xcyte will support and TCTC will cooperate with Xcyte to ensure marketing positioning and the marketing message is reasonably consistent with Xcyte's U.S. marketing to maintain reasonable continuity of promotion and a reasonable level of global branding. TCTC and its employees and agents must not use Xcyte's name, "Xcellerate," "Xcellerated T Cells", any other trademarks or tradenames owned by Xcyte or any adaptation of the foregoing thereof without the prior written consent of Xcyte which consent will not be unreasonably withheld.

(0032) TCTC shall use best efforts to design all clinical trials relating to any Licensed Products to protect patient safety and demonstrate efficacy. TCTC shall not proceed with any clinical trials relating to any Licensed Product in the Cellular Immunotherapy Field until Xcyte has reasonably determined that such clinical trial (and its accompanying protocols, marketing strategy, etc.) will not interfere with U.S., European Community, or Japanese regulatory approvals or otherwise adversely affect the clinical development, regulatory approval or commercialization of Licensed Products in the U.S., German, Italian, Spanish, French, Benelux, Japanese markets or the markets of the United Kingdom. Following TCTC's submission to Xcyte of the plans of such a clinical trial (and its accompanying protocols, marketing strategy, etc), Xcyte will notify TCTC in writing whether or not the clinical trial interferes with the above-described regulatory approvals or adversely affects the clinical development, regulatory approval, or commercialization of Licensed Products in the U.S., German, Italian, Spanish, French, Benelux, Japanese markets or the markets of the United Kingdom within 60 days of submission of the TCTC plans. TCTC shall provide a copy of the protocol for any clinical trial of Licensed Products in the Non-Cellular Immunotherapy Field to Xcyte for review at least 30 business days prior to the start of such clinical trial.

TCTC shall immediately notify Xcyte of any Serious Adverse Event or Unexpected Adverse Events (each as defined by the FDA at 21 CFR, part 312.32), which may occur during the course of any clinical trial involving Licensed Products in either the Cellular Immunotherapy Field or the Non-Cellular Immunotherapy Field. All such notifications will be promptly confirmed in writing.

Patent Rights

(0033) Xcyte shall own the entire right to improvements on the Xcellerate™ Technology that are invented by Xcyte solely or jointly with TCTC. TCTC shall own the entire right to any improvements to the Xcellerate™ Technology that are invented by

TCTC without the co-inventorship of Xcyte (the "TCTC Improvements"), provided, however, that TCTC shall grant to Xcyte a fully-paid, royalty-free (except as stated below), perpetual, exclusive, worldwide license (excluding the Territory) to make, have made, use, import, sell, and offer for sale Licensed Products incorporating TCTC Improvements only in the Cellular Immunotherapy Field with the right to sublicense. To the extent that such TCTC Improvements relate to clinical indications for Licensed Products that are developed primarily by TCTC, such products bear a Mutual Royalty as set forth in this Appendix. The parties will negotiate in good faith additional royalty and/or other consideration for any TCTC Improvements that substantially improve the efficacy or substantially lower the manufacturing cost of a Licensed Product whether or not that Product already requires a Mutual Royalty payment to TCTC or does not require such a payment in the absence of the TCTC Improvements. If the parties cannot otherwise mutually agree, the Technical Dispute Resolution set forth below will be used to determine if the TCTC Improvements substantially improve the efficacy or substantially lower the manufacturing costs of the Licensed Product and the amount of additional royalties that should be paid to TCTC. The parties agree that minor improvements or optimizations will bear no additional royalty.

Patent Maintenance

(0034) Xcyte shall control and TCTC shall bear or reimburse all future reasonable costs of preparation, prosecution, and maintenance in the Territory of the Xcellerate Patent Rights to be licensed to TCTC pursuant to the Second Agreement upon the closing of the Second Agreement. For the period beginning on the Effective Date of this Agreement and the closing date of the Second Agreement, Xcyte shall pay such costs and TCTC shall reimburse such costs within ten (10) days after the close of the Second Agreement, provided that TCTC has approved such costs in advance in accordance with this Section. TCTC will not be obligated to bear or reimburse any such costs if the Second Agreement does not close. TCTC shall be copied in a timely manner on all material written correspondence and memoranda describing material oral correspondence will be prepared and sent to TCTC related to the preparation, prosecution, and maintenance of the Xcellerate Patent Rights between Xcyte and Xcyte's attorney. TCTC retains the right to advise Xcyte regarding patent preparation, prosecution, and maintenance in a reasonable amount of time before the submission of any such documents or payments. In particular, Xcyte will notify TCTC in writing at least 30 days before the filing of an original, divisional, continuation, CIP, reissue, or reexamination filing in the U.S., a foreign original

patent application (such as in Taiwan or other non-PCT country), a PCT filing, or a PCT national stage filing and will include an estimate of the cost of such a filing. TCTC will indicate in writing whether or not they will reimburse such filing costs within 15 days of receiving the written notice from Xcyte. TCTC will otherwise have the right to decline prosecution of any patent or application licensed to TCTC and such patents or applications will be excluded from the license in the relevant country. However, if TCTC has reimbursed Xcyte for filing, prosecution or maintenance fees for a particular patent or application in Australia, China (including Hong Kong), Singapore, South Korea and Taiwan (hereafter the "Major Countries") and continues to do so, or if TCTC has reimbursed Xcyte for filing, prosecution, or maintenance fees for all of the Major Countries in which Xcyte has filed (without abandonment) or legitimately proposes to file a particular patent, and continues to do so, then neither Xcyte nor its licensees or assigns will enforce the corresponding patent or application or otherwise seek relief against TCTC or its licensees, assigns, distributors, importers, exporters or customers for any past, present or future act of making, have made, selling, importing, exporting or using any Licensed Product in a country in the Territory other than the Major Countries (hereafter "Minor Countries") subsequent to the time that TCTC declines to reimburse Xcyte for the preparation, prosecution or maintenance costs of a particular patent or application in that Minor Country. Furthermore, neither Xcyte nor its licensees or assigns will enforce such patent or application or otherwise seek relief against TCTC or its licensees, assigns, distributors, importers, exporters or customers for any past, present or future act of making, have made, selling, importing, exporting or using the Know-How in that Minor Country.

Legal/Regulatory Compliance

(0035) TCTC shall comply with all regulations and laws in each country in which it operates.

Second Agreement

(0036) The Second Agreement, which shall be drafted by either Xcyte or TCTC's counsel (to be mutually determined in good faith), and which shall be subject, in all respects, to the approval of both parties and their respective counsels, shall contain reasonable and customary terms which address, at a minimum: Assignment; Term and Termination; Indemnification for patent infringement or violation of trade secrets; Infringement and Litigation; Xcyte and TCTC Development Obligations; Payment terms; Reports and audits; Perfection of TCTC technology rights in the event of Xcyte bankruptcy, insolvency, liquidation, or forced sale of Xcyte to another party; Disclaimer of Warranties, Indemnification by TCTC and by Xcyte; Adherence to Quality

Standards; Insurance (product liability and personal injury); General and Technical Dispute Resolution through binding arbitration; Xcyte Development Obligations; and Due Diligence. Furthermore, subject to applicable laws, judgments, and other similar restrictions, the Second Agreement shall provide for the continuation of sublicenses from Xcyte's suppliers to TCTC for components and materials necessary to practice the Xcellerate™ Technology in the event that Xctye closes, files for bankruptcy or otherwise ceases doing business. Alternatively, subject to applicable laws, judgments, and other similar restrictions, Xcyte must provide in the Second Agreement for the transfer of such sublicenses from the suppliers to TCTC before Xcyte closes, files for bankruptcy or otherwise ceases doing business.

(0037) In addition, the Second Agreement shall include a representation by TCTC that the requisite funds for the Financing have been committed by investors, and shall also contain the Break-Up Fee defined in the Agreement.

General Dispute Resolution

(0038) If the parties themselves cannot mutually resolve a dispute with regard to this Agreement and the Second Agreement, and the issue is not technical in nature, the issue shall be decided by binding arbitration according to the rules of the American Arbitration Association ("AAA") in Taipei, Taiwan, if Xcyte is the party initiating arbitration, and in Seattle, Washington, if TCTC is the party initiating arbitration. The arbitration shall be conducted by a single arbitrator mutually chosen by the parties. If one of the parties does not agree with using a single arbitrator, the arbitration will be conducted by a panel of three arbitrators appointed in accordance with AAA rules. All arbitration proceedings and decisions will be in English.

Technical Dispute Resolution

(0039) If the issue is scientific, regulatory or marketing ("technical") in nature regarding either the Agreement or the Second Agreement and cannot be resolved by the parties respective officers, the parties agree to submit such technical issue to an independent three-member board for resolution. The three-member board shall consist of one independent technical consultant in the scientific, regulatory or marketing field, as is appropriate to the nature of the issue, designated by each party. The two such designated technical consultants selecting a third independent consultant in the same field to comprise the three-member technical board. The decision of the three-member board shall be binding upon the parties.

Indemnification for Patent Infringement

(0040) In the event of a claim of infringement of patents by third parties in the practice of Xcellerate Patent Rights by TCTC, Xcyte agrees to negotiate in good faith in the Second Agreement a process to either indemnify, defend, reduce the royalty or otherwise resolve the issue.

Xcyte Development Obligations

(0041) TCTC is entering into this Agreement in the expectation that Xcyte will diligently pursue regulatory approval of certain Licensed Products with the U.S. FDA. There are milestones which are payable upon completion of identified events which represent partial payment for the license. However, TCTC will only receive full value for its license payments if Xcyte is successful in obtaining U.S. FDA approval for several Products. Consequently, during the period (the "Inactive Period") that Xcyte or its successors, agents, or assigns has failed to use reasonable efforts for at least six (6) months out of the immediately preceding two (2) years to pursue its first U.S. FDA approval of Licensed Products before achieving the first U.S. FDA Product approval, (A) TCTC's obligations to pay royalties will be permanently reduced to paying a royalty equal to Xcyte's payment obligations on Xcellerate Patent Rights for all remaining periods covered by this license agreement and (B) TCTC shall have the right to access clinical data and FDA regulatory filings related to Xcyte products in the Cellular Immunotherapy Field owned by Xcyte. During the Inactive Period, Xcyte shall not prevent TCTC or its agent from pursuing FDA approval on such products, provided that TCTC or its agent provides Xcyte prior written notice of its intentions and meets standards customary for established U.S. pharmaceutical companies when pursuing such approval. TCTC's rights pursuant to this Section shall be subject to Xcyte's and TCTC's obligations under applicable agreements, laws and regulations.

Tax Exemption

(0042) Xcyte is entering into this Agreement with the expectation that TCTC will make certain milestone, royalty and sublicense payments to Xcyte in exchange for its grant of valuable intellectual property rights to TCTC. TCTC acknowledges that Xcyte will only receive full value for its license grant to TCTC herein if the payments to be made to Xcyte stated herein are not subject to the 20% Taiwan withholding tax. Therefore, as a condition to Xcyte entering into the Second Agreement, TCTC shall use best efforts to assist Xcyte in securing any necessary exemptions from the applicable tax authorities, at Xcyte's cost, to ensure that the payments to be made to Xcyte pursuant to this Collaboration shall be exempt from Taiwan withholding taxes. Xcyte will use its best efforts in obtaining such tax exempt status.

EXHIBIT A

Form of Confidentiality Agreement

MUTUAL NONDISCLOSURE AGREEMENT

This Mutual Nondisclosure Agreement (the "Agreement") is made as of June ____, 2003 by and between Xcyte Therapies, Inc., a Delaware corporation (the "Company"), and Taiwan Cell Therapy Company ("Second Party").

1. Purpose. The Company and Second Party wish to explore a possible business opportunity of mutual interest (the "Relationship") in connection with which each party has disclosed and/or may further disclose its Confidential Information (as defined below) to the other. This Agreement is intended to allow the parties to continue to discuss and evaluate the Relationship while protecting each party's Confidential Information (including Confidential Information previously disclosed to the other party) against unauthorized use or disclosure.

2. Definition of Confidential Information. "Confidential Information" means any oral, written, graphic or machine-readable information including, but not limited to, that which relates to patents, patent applications, research, product plans, products, developments, inventions, processes, designs, drawings, engineering, formulae, markets, regulatory information, medical reports, clinical data and analysis, reagents, cell lines, biological materials, chemical formulas, business plans, agreements with third parties, services, customers, marketing or finances of the disclosing party.

3. Nondisclosure of Confidential Information

(a) The Company and Second Party each agree not to use any Confidential Information disclosed to it by the other party for its own use or for any purpose other than to carry out discussions concerning, and the undertaking of, the Relationship. Neither party shall disclose or permit disclosure of any Confidential Information of the other party to third parties or to employees of the party receiving Confidential Information, other than directors, officers, employees, consultants and agents who are required to have the information in order to carry out the discussions regarding the Relationship. Each party agrees that it shall take all reasonable measures to protect the secrecy of and avoid disclosure or use of Confidential Information of the other party in order to prevent it from falling into the public domain or the possession of persons other than those persons authorized under this Agreement to have any such information. Such measures shall include, but not be limited to, the same degree of care that the receiving party utilizes to protect its own Confidential Information of a similar nature, which shall be no less than reasonable care. Each party agrees to notify the other in writing of any actual or suspected misuse, misappropriation or unauthorized disclosure of Confidential Information of the disclosing party that may come to the receiving party's attention.

(b) Exceptions. Notwithstanding the above, neither party shall have liability to the other with regard to any Confidential Information of the other which the receiving party can prove: (i) was in the public domain at the time it was disclosed or has entered the public domain through no fault of the receiving party; (ii) was known to the receiving party, without restriction, at the time of disclosure, as demonstrated by files in existence at the time of disclosure; (iii) is disclosed with the prior written approval of the disclosing party; (iv) becomes known to the receiving party, without restriction, from a source other than the disclosing party without breach of this Agreement by the receiving party and otherwise not in violation of the disclosing party's rights; or (v) is disclosed pursuant to the order or requirement of a court, administrative agency, or other governmental body; provided, however, that the receiving party shall provide prompt notice of such court order or requirement to the disclosing party to enable the disclosing party to seek a protective order or otherwise prevent or restrict such disclosure.

4. Return of Materials. Any materials or documents that have been furnished by one party to the other in connection with the Relationship shall be promptly returned by the receiving party,

accompanied by all copies of such documentation, within ten (10) days after the written request of the disclosing party.

5. No Rights Granted. Nothing in this Agreement shall be construed as granting any rights under any patent, copyright or other intellectual property right of either party, nor shall this Agreement grant either party any rights in or to the other party's Confidential Information other than the limited right to review such Confidential Information solely for the purpose of determining whether to enter into the Relationship.

6. Term. The foregoing commitments of each party shall survive any termination of the Relationship between the parties, and shall continue for a period terminating on the later to occur of the date (a) five (5) years following the date of this Agreement or (b) three (3) years from the date on which Confidential Information is last disclosed under this Agreement.

7. Successors and Assigns. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties, provided that Confidential Information of the disclosing party may not be assigned without the prior written consent of the disclosing party unless the assignee shall be the successor entity to the assignor upon the dissolution of the assignor in its present form.

8. Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, the parties agree to renegotiate such provision in good faith.

9. Governing Law; Remedies. This Agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the State of Washington, without giving effect to principles of conflicts of law. The Company and Second Party each agree and acknowledge that any such violation or threatened violation of this Agreement shall cause irreparable injury to the disclosing party and that, in addition to any other remedies that may be available, in law, in equity or otherwise, the disclosing party shall be entitled to obtain injunctive relief against the threatened breach of this Agreement or the continuation of any such breach by the receiving party, without the necessity of proving actual damages.

10. Amendment and Waiver; Counterparts. Any term of this Agreement may be amended with the written consent of the Company and Second Party, and shall be binding upon the parties and their respective successors and assigns. Failure to enforce any provision of this Agreement by a party shall not constitute a waiver of any term hereof by such party. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument.

11. Entire Agreement. This Agreement is the product of both of the parties hereto, and constitutes the entire agreement between such parties pertaining to the subject matter hereof.

The parties have executed this Mutual Nondisclosure Agreement as of the date first above written.

XCYTE THERAPIES, INC.

By: _____

Name: Ronald J. Berenson, M.D.
(print)

Title: President and Chief Executive Officer

Address: 1124 Columbia Street, Suite 130

Seattle, Washington 98104

SECOND PARTY

By: _____

Name: _____
(print)

Title: _____

Address: 12th Floor, 156 Min Sheng E. Road,

Sec. 3, Taipei, Taiwan

EXHIBIT B
Patent and Patent Applications

[*]

[*] Certain information on this page has been omitted and filed separately with the Securities & Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit 10.30

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [*]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

AMENDMENT NO. 1 TO LETTER OF INTENT

This Amendment No. 1 to the Letter of Intent (the "Amendment") is effective as of October 6, 2003 by and between Xcyte Therapies, Inc., a Delaware (U.S.A.) corporation ("Xcyte"), and Taiwan Cell Therapy Company, a corporation formed under the laws of Taiwan, R.O.C. ("TCTC").

RECITALS

WHEREAS, Xcyte and TCTC wish to amend the Letter of Intent dated August 28, 2003 by and between Xcyte and TCTC (the "LOI"), in order to change the dates affecting the break-up fees.

WHEREAS, All terms not otherwise defined herein shall have the same meaning as set forth in the LOI

NOW THEREFORE, the parties hereby agree as follows:

AGREEMENT

1. The "Second Agreement; Due Diligence" section of the Appendix to the LOI is hereby amended and restated in its entirety as follows:

"**Second Agreement; Due Diligence.** As soon as practicable after execution of this Agreement, TCTC, its employees and agents shall be permitted to make a full and complete due diligence review of Xcyte's business and affairs relating to the Collaboration. TCTC agrees to complete its due diligence and notify Xcyte in writing whether it intends to consummate the transactions contemplated by the Agreement by November 15, 2003. If TCTC notifies Xcyte that it intends to consummate the transactions contemplated by the Agreement, then the parties agree to negotiate in good faith and enter into a second agreement ("Second Agreement") containing the material terms set forth in this Agreement and other appropriate terms, representations, warranties and covenants on or before November 15, 2003, and close on or before December 30, 2003. The terms of the Second Agreement will include the representation by TCTC that it had received investor commitments for the Financing (as defined in the Agreement) necessary to close the transaction. Execution of the Second Agreement is subject to the final approval of Xcyte's Board of Directors and TCTC's Board of Directors and Senior Management."

2. Section (a) of the "Break-up Fee" section of the Appendix to the LOI is hereby amended and restated in its entirety as follows:

"<u>Break Up Fee</u>.

a. After the parties execute this Agreement, if either Xcyte or TCTC chooses not to enter into the Second Agreement on or before November 15, 2003 (or extensions thereof mutually agreed upon by the parties in writing) and instead chooses to enter into another agreement relating to any countries of the Territory set forth in this Appendix with a third party from May 22, 2003 until February 22, 2004, then the party that so chooses shall pay the other party a cash payment equal to the following based on the date that the party gives such written notice to the other party:

May 22, 2003 to November 15, 2003 **[*]**

Neither Xcyte nor TCTC will have this duty of this payment if (1) TCTC determines in good faith through its due diligence efforts that there are significant risks, defects or issues with the Xcellerate™ Technology or third party patents and applications affecting the Xcellerate™ Technology in the Territory and notifies Xcyte in writing as such on or before November 15, 2003, (2) TCTC is not able to obtain the applicable financing and notifies Xcyte in writing of such on or before the Second Agreement is executed, provided that TCTC provides Xcyte with prompt notice of its inability to raise the requisite funds, (3) Xcyte is refused, without right to appeal, a Taiwan tax exemption regarding the up front (set forth in "Structure" Section 0014), milestone (set forth in "Financial Terms", Section 0016), and royalty payments (set forth in "Royalties", Sections 0020- 0022) (specifically excluding the payments set forth in the "Sublicense" Section (0029)) and notifies TCTC in writing of such on or before November 15, 2003, or (4) Xcyte is unable to confirm the Investors' commitment of at least US$25,000,000 through due diligence of TCTC's list of investor commitments and Xcyte notifies TCTC in writing of such on or before November 15, 2003, or (5) the parties are unable to reach agreement on the Second Agreement by November 15, 2003 despite diligent good-faith effort on the part of the party to be charged. Upon the execution of the Second Agreement, this Section (a) shall be replaced in the Second Agreement by the Break-Up Fee described in the next Section (b).

2. All other terms and conditions of the LOI, that do not otherwise conflict with the intention of this Amendment, shall remain unchanged and in full force and effect.

[*] Certain information on this page has been omitted and filed separately with the Securities & Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

The parties have executed this Amendment No. 1 to the LOI as of the date first above written.

XCYTE THERAPIES, INC.

By: /S/ RONALD JAY BERENSON

Name: Ronald Jay Berenson

(print)

Title: President & CEO

Address: 1124 Columbia Street, Suite 130
Seattle, WA 98033

TAIWAN CELL THERAPY COMPANY

By: /S/ EUGENE FAN

Name: Eugene Fan

Its: President & CEO

Taiwan Cell Therapy Company
12th Floor, 156 Min Sheng E. Road, Sec. 3,
Taipei, Taiwan

Exhibit 10.31

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [*]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

AMENDMENT NO. 2 TO LETTER OF INTENT

This Amendment No. 2 to the Letter of Intent (the "Amendment") is effective as of November 14, 2003 by and between Xcyte Therapies, Inc., a Delaware (U.S.A.) corporation ("Xcyte"), and Taiwan Cell Therapy Company**,** a corporation formed under the laws of Taiwan, R.O.C. ("TCTC").

RECITALS

WHEREAS, Xcyte and TCTC wish to amend the Letter of Intent dated August 28, 2003 by and between Xcyte and TCTC (the "LOI"), in order to extend the dates affecting the break-up fees.

WHEREAS, all terms not otherwise defined herein shall have the same meaning as set forth in the LOI

NOW THEREFORE, the parties hereby agree as follows:

AGREEMENT

1. The "Second Agreement; Due Diligence" section of the Appendix to the LOI is hereby amended and restated in its entirety as follows:

"Second Agreement; Due Diligence. As soon as practicable after execution of this Agreement, TCTC, its employees and agents shall be permitted to make a full and complete due diligence review of Xcyte's business and affairs relating to the Collaboration. TCTC agrees to complete its due diligence and notify Xcyte in writing whether it intends to consummate the transactions contemplated by the Agreement by November 30, 2003. If TCTC notifies Xcyte that it intends to consummate the transactions contemplated by the Agreement, then the parties agree to negotiate in good faith and enter into a second agreement ("Second Agreement") containing the material terms set forth in this Agreement and other appropriate terms, representations, warranties and covenants on or before November 30, 2003, and close on or before January 31, 2004. The terms of the Second Agreement will include the representation by TCTC that it had received investor commitments for the Financing (as defined in the Agreement) necessary to close the transaction. Execution of the Second Agreement is subject to the final approval of Xcyte's Board of Directors and TCTC's Board of Directors and Senior Management."

2. Section (a) of the "Break-up Fee" section of the Appendix to the LOI is hereby amended and restated in its entirety as follows:

“Break Up Fee.

a. After the parties execute this Agreement, if either Xcyte or TCTC chooses not to enter into the Second Agreement on or before November 30, 2003 (or extensions thereof mutually agreed upon by the parties in writing) and instead chooses to enter into another agreement relating to any countries of the Territory set forth in this Appendix with a third party from May 22, 2003 until February 22, 2004, then the party that so chooses shall pay the other party a cash payment equal to the following based on the date that the party gives such written notice to the other party:

May 22, 2003 to November 30, 2003 **[*]**

Neither Xcyte nor TCTC will have this duty of this payment if (1) TCTC determines in good faith through its due diligence efforts that there are significant risks, defects or issues with the Xcellerate™ Technology or third party patents and applications affecting the Xcellerate™ Technology in the Territory and notifies Xcyte in writing as such on or before November 30, 2003, (2) TCTC is not able to obtain the applicable financing and notifies Xcyte in writing of such on or before the Second Agreement is executed, provided that TCTC provides Xcyte with prompt notice of its inability to raise the requisite funds, (3) Xcyte is refused, without right to appeal, a Taiwan tax exemption regarding the upfront (set forth in “Structure” Section 0014), milestone (set forth in “Financial Terms”, Section 0016), and royalty payments (set forth in “Royalties”, Sections 0020- 0022) (specifically excluding the payments set forth in the “Sublicense” Section (0029)) and notifies TCTC in writing of such on or before November 30, 2003, or (4) Xcyte is unable to confirm the Investors’ commitment of at least US$25,000,000 through due diligence of TCTC’s list of investor commitments and Xcyte notifies TCTC in writing of such on or before November 30, 2003, or (5) the parties are unable to reach agreement on the Second Agreement by November 30, 2003 despite diligent good-faith effort on the part of the party to be charged. Upon the execution of the Second Agreement, this Section (a) shall be replaced in the Second Agreement by the Break-Up Fee described in the next Section (b).

2. All other terms and conditions of the LOI, that do not otherwise conflict with the intention of this Amendment, shall remain unchanged and in full force and effect.

[*] Certain information on this page has been omitted and filed separately with the Securities & Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

The parties have executed this Amendment No. 2 to the LOI as of the date first above written.

XCYTE THERAPIES, INC.

By: /S/ RONALD JAY BERENSON

Name: Ronald Jay Berenson

(print)

Title: President & CEO

Address: 1124 Columbia Street, Suite 130
Seattle, WA 98033

TAIWAN CELL THERAPY COMPANY

By: /S/ EUGENE FAN

Name: Eugene Fan

Its: President & CEO

Taiwan Cell Therapy Company
2nd Fl., No. 11, Nin-Po West Street
Taipei, Taiwan

Exhibit 10.32

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as **[*]**. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

LICENSE AND SUPPLY AGREEMENT

This License and Supply Agreement ("Agreement") is entered into as of October 15th, 1999 (the "Effective Date") by and between Xcyte Therapies, Inc., a Delaware corporation having a principal place of business at 2203 Airport Way South, Suite 300, Seattle, Washington 98134, United States ("Xcyte"), and Diaclone S.A., a French corporation having a principal place of business at 1 Boulevard Fleming, B.P. 1985 F-25020 Besancon Cedex, France ("Diaclone").

RECITALS

A. Diaclone has developed and owns the Licensed Materials (as defined below).

B. Xcyte desires to obtain, and Diaclone is willing to grant to Xcyte, an exclusive worldwide license to the Licensed Materials for the development and commercialization of Licensed Products (as defined below) within the Field (as defined below), upon the terms and subject to the conditions of this Agreement.

C. Xcyte desires to obtain form Diaclone, and Diaclone is willing to manufacture and sell to Xcyte, the Licensed Antibody for use upon the terms and subject to the conditions of this Agreement.

Xcyte and Diaclone hereby agree as follows:

AGREEMENT

1. **Definitions**

In addition to the terms defined elsewhere in this Agreement, the following terms, whenever capitalized in this Agreement, shall have the following meanings:

1.1 "Affiliate" shall mean, with respect to a party, any entity that controls, is controlled by, or is under common control of a party. For this purpose, control of an entity shall mean direct or indirect ownership of fifty percent (50%) or more of the voting interest in, or a fifty percent (50%) or greater interest in the equity of, such corporation or other business entity, or the maximum percentage allowed by law in the country of the controlled entity.

1.2 "Diaclone" shall mean Diaclone S.A., a French corporation, and its Affiliates.

1.3 "FDA" shall mean the U.S. Food and Drug Administration or any successor agency thereof.

1.4 "Field" shall mean all ex vivo uses for (a) therapeutic purposes and (b) research applications and purposes using or relating to the Licensed Antibody or the Licensed Product.

1.5 "Licensed Antibody" shall mean the **[*]** produced by the Licensed Cell Line, and any modifications thereof made by Xcyte or its sublicenses; provided, however, that in no event shall any antibody that is not derived from the Licensed Materials and has been made with the use of information or materials available in the public domain constitute a Licensed Antibody.

1.6 "Licensed Cell Line" shall mean the **[*]** cell line and all progeny, clones, derivatives and modifications thereof.

1.7 "Licensed Know-How" shall mean any and all technical information, processes, compositions, formulae, data, engineering, materials, reports, analyses, know-how, trade secrets and other subject matter owned and/or controlled by Diaclone that is necessary or useful for the development, manufacture and/or commercialization of Licensed Products in the Field.

1.8 "Licensed Materials" shall mean, collectively, the Licensed Antibody and the Licensed Cell Line.

1.9 "Licensed Product" shall mean beads coated with the Licensed Antibody and made with use of the Licensed Materials.

1.10 "Net Sales" shall mean the gross amounts actually received by Xcyte or its sublicensees from the sale of Licensed Products to Third Parties, less (i) normal and customary rebates, and cash, quantity, trade and other discounts, actually taken, (ii) sales, use, value added and/or other similar taxes or duties actually paid, (iii) packaging, handling fees and pre-paid shipping, freight and insurance, (iv) import and/or export duties actually paid, and (v) amounts allowed or credited due to returns and the like.

1.11 "Third Party" shall mean a party other than Xcyte, Diaclone or their respective Affiliates.

1.12 "Xcyte" shall mean Xcyte Therapies, Inc., a Delaware corporation, and its Affiliates.

2. **License**

2.1 Grant of License. Diaclone hereby grants to Xcyte a worldwide, exclusive license under the Licensed Materials and Licensed Know-How, with the right to grant and authorize sublicenses, to make, have made, import, have imported, use, offer for sale, sell and otherwise distribute Licensed Products, practice any method, process or procedure, or otherwise exploit, in each case, Licensed Materials and Licensed Know-How for use in the Field (the "License").

2.2 Transfer of Licensed Materials. Within ninety (90) days after the Effective Date, Diaclone shall transfer to Xcyte all proprietary technical data, methods and processes, and

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other information (in electronic and hard copy formats) and data in the possession or control of Diaclone relating to the Licensed Materials. In addition, upon request by Xcyte, Diaclone shall transfer to Xcyte a viable culture of the cell bank for the Licensed Cell Line, and Xcyte agrees to only use such cell bank as contemplated by and in accordance with this Agreement.

2.3 Sublicensing. Xcyte may grant and authorize sublicenses within the scope of the License. Upon request by Diaclone, Xcyte shall provide Diaclone with a copy, subject to the confidentiality provisions of Section 13, of the relevant terms of any sublicense agreement necessary to determine the rights granted under any Licensed Materials and the Licensed Know-How and the amounts due to Diaclone hereunder.

2.4 Option to Expand Field. Subject to all of the terms and conditions of this Agreement, Xcyte shall have an option (the "Option"), exercisable at any time upon written notice to Diaclone, to expand the Field hereunder to include **[*]** using or relating to the Licensed Antibody or the Licensed Product (the "Expanded Field"). The exercise of the Option shall be subject to the payment by Xcyte of a license fee in the amount of **[*]** and any future royalty payments pursuant to Section 6.3 with respect to the Expanded Field. Upon exercise of the Option in accordance with this Section 2.4, without further action of the parties, the Field shall automatically be amended to include the Expanded Field.

2.5 Right of First Refusal. In the event that, prior to the exercise of the Option by Xcyte, Diaclone shall agree with a Third Party upon the terms and conditions of a proposed license to such Third Party that would license to any extent the Licensed Materials in the Expanded Field, Diaclone shall provide written notice to Xcyte setting forth such proposed terms and conditions (the "Notice"), and Xcyte shall have a right of first refusal (the "Right of First Refusal") to enter into an agreement with Diaclone on such terms and conditions. Thereafter, Xcyte shall have a period of thirty (30) days in which to exercise the Right of First Refusal by written notice to Diaclone, during which period Diaclone shall not enter into such license with such Third Party. Upon exercise of the Right of First Refusal by Xcyte, the parties shall negotiate in good faith to enter into agreement on such terms and conditions as soon as reasonably practicable. In the event that Xcyte does not exercise the Right of First Refusal within such thirty (30)-day period, Diaclone shall have a period of sixty (60) days in which to grant such license to such Third Party of the Licensed Materials within the Expanded Field on terms no more favorable to such Third Party than those set forth in the Notice. In the event that Diaclone does not enter into such an agreement during such sixty (60)-day period, Diaclone may not enter into such an agreement without sending a new or revised Notice and complying with the terms and conditions of this Section 2.5. Upon receipt of the Notice by Xcyte, the Option shall not be exercisable by Xcyte unless and until (a) Xcyte fails to exercise the Right of First Refusal, and (b) Diaclone does not enter into such an agreement with such Third Party within such sixty (60)-day period.

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3. **Manufacture and Purchase of Licensed Antibody**

3.1 Manufacture

(a) Production. Diaclone agrees to produce and test the bulk Licensed Antibody at its facilities located at 1 boulevard Fleming, B.P. 1985 F-25020 Besangon Cedex, France ("Facilities") and to sell the Licensed Antibody to Xcyte upon the terms and subject to the conditions of this Agreement. Diaclone shall manufacture and sell the Licensed Antibody for and to Xcyte on an exclusive basis for all uses within the Field, and Diaclone shall not manufacture or sell the Licensed Antibody for or to any Third Party for any use or purpose within the Field. Except as set forth in Section 4, Xcyte shall purchase the Licensed Antibody from Diacline on an exclusive basis. All Licensed Antibody provided to Xcyte by Diaclone will be produced in accordance with the manufacturing procedures identified in Exhibit A attached hereto ("Production Protocol"), will meet the specifications identified in Exhibit B attached hereto ("Specifications") and will be manufactured in accordance with "Good Manufacturing Practices." Diaclone will qualify the Licensed Cell Line as described in Exhibit C attached hereto ("Licensed Cell Line Qualification") and comply with the process validation requirements described in Exhibit D attached hereto. Diaclone shall not use the Specifications or the Production Protocol in connection with the performance of services for any Third Party.

(b) Changes. Diaclone may not make any changes to the Production Protocol, Specifications, or Licensed Cell Line Qualification without the prior written approval of Xcyte, which approval will not be unreasonably withheld. Diaclone will, however, agree to any such changes as are reasonably requested by Xcyte. Diaclone will have in place a documentation, control and change system that complies with Good Manufacturing Practices and other applicable rules, regulations and standards of the FDA, as well as any other applicable regulatory standards for the intended use of the Licensed Antibody, as such requirements may change from time to time ("Regulatory Standards"), and all changes made under this Section will conform to such Regulatory Standards. Any such changes will be made in writing and signed by authorized representatives of each party.

(c) Initial Quantity. Diaclone shall manufacture for Xcyte an initial quantity of **[*]** of purified bulk Licensed Antibody (the "Initial Quantity").

3 .2 Purchase and Supply

(a) Amount. No later than , 1999, Diaclone will provide to Xcyte the Initial Quantity. Thereafter, Xcyte may, in its sole and absolute discretion, order additional purified bulk Licensed Antibody in amounts in excess of the Initial Quantity ("Additional Licensed Antibody") as set forth in Section 3.2(b). If Xcyte orders Additional Licensed Antibody, Diaclone will produce, sell and deliver such Additional Licensed Antibody to Xcyte in accordance with the terms of this Agreement upon delivery dates that are reasonable and mutually agreed to by the parties. Xcyte will be obligated to purchase such Additional Licensed Antibody.

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(b) Order Procedure. Xcyte will order Licensed Antibody under this Agreement by executing and issuing to Diaclone a purchase order ("Purchase Order") which will specify the reasonable amount of Licensed Antibody ordered, reasonable delivery dates, place of delivery, pricing pursuant to Section 6.1 and any other additional terms agreed to by the parties. Each such Purchase Order will be automatically binding upon and enforceable against Diaclone upon delivery by Xcyte if in material conformity with the Specifications and the terms and conditions of this Agreement. In all other cases, a Purchase Order will be binding upon Diaclone upon (x) written acceptance by Diaclone or (y) the failure by Diaclone to object to such Purchase Order (including objection to the specified delivery dates, which shall be reasonable and mutually agreed by the parties, as set forth in Section 3.2(a)) in writing within fifteen (15) days of receipt thereof. A Purchase Order may not be amended except by a written amendment executed according to Section 13.3. Diaclone will notify Xcyte immediately if it determines that it will not be able to meet any of the terms of a Purchase Order, including, but not limited to, delivery dates. In addition, Diaclone will notify Xcyte promptly of any supply constraints (e.g., materials, third party contracts, facilities or capacity) of which it becomes aware that may affect its ability to supply the Licensed Antibody in accordance with the terms of any Purchase Order. No such notification by Diaclone or acknowledgment of such notification by Xcyte will relieve Diaclone of any liability for a breach of this Agreement or a Purchase Order.

3.3 **[*]**. As set forth in Section 6.1(d), Xcyte shall reimburse Diaclone for **[*]** of the Licensed Antibody for Xcyte hereunder (the **[*]**); provided, however, that Diaclone shall not use any **[*]** for any purpose other than the **[*]** of the Licensed Antibody for Xcyte pursuant to this Agreement, and Diaclone agrees, upon Xcyte's request and **[*]** following any termination or expiration of this Agreement. The **[*]** and their respective estimated costs are set forth on Exhibit E attached hereto.

3.4 Biosafety Testing. Diaclone agrees to conduct, at Xcyte's expense, biosafety testing (the "Biosafety Testing") on all Licensed Antibody to be provided to Xcyte hereunder and under any Purchase Order. The specifications of the tests included in the Biosafety Testing, and the estimated costs therefor, are set forth in Exhibit F attached hereto. Diaclone shall provide to Xcyte all data, results and materials relating to the Biosafety Testing.

3.5 Status Conferences. Diaclone will, at the request of Xcyte, meet by telephone or otherwise to discuss with Xcyte the status of any Licensed Antibody ordered by Xcyte and not yet delivered by Diaclone.

3.6 Back-up Cell Bank; Segregation of Licensed Antibody. Diaclone will at all times have a back-up master cell bank for the Licensed Cell Line (minimum of five (5) vials) stored at some location other than the Facilities to minimize any risk of loss that could threaten the master cell bank located at the Facilities. If requested by Xcyte, Diaclone will, subject to space and storage limitations, segregate Licensed Antibody, including, but not limited to, the Initial Quantity, upon completion of manufacture thereof until shipment.

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3.7 **[*]** Equipment and Materials. Any tooling, test equipment or other equipment or material **[*]** for purposes of performing its obligations hereunder **[*]** will remain at all times **[*]** such equipment or material (a) may not **[*]** without Xcyte's prior written consent, (b) may be used only for the purpose of producing the Licensed Antibody or other products produced by Diaclone for Xcyte as agreed by the parties and (c) **[*]** all subject to Xcyte's instructions. Diaclone will reimburse Xcyte **[*]**. All such equipment and material will be included, to the extent applicable, in Diaclone' calibration and document control programs, subject to Xcyte's prior written authorization.

3.8 Ownership of Licensed Antibody. The parties acknowledge and agree that Xcyte is the sole owner of all Licensed Antibody provided to Xcyte by Diaclone pursuant to this Agreement. Diaclone agrees to take any action deemed by Xcyte to be necessary or appropriate to vest such ownership position in Xcyte and to transfer and assign all right, title and interest held by Diaclone in such Licensed Antibody to Xcyte.

4. **Third Party Supply.**

4.1 Failure to Supply. If (a) Diaclone materially fails to comply with the Regulatory Standards for a period of six (6) months or some lesser time as reasonably determined by Xcyte based on the severity of the violation, (b) Diaclone cannot (or does not wish to) produce Licensed Antibody of the quality, in the quantity or within the time frame reasonably required by Xcyte (with the applicable time frame being within thirty (30) days of the delivery date specified in the applicable Purchase Order, or within ninety (90) days in the case of a force majeure event as described in Section 11, provided that Diaclone is in compliance with the provisions of Section 11), (c) Diaclone either does not have or loses the right to use any of the technology required to produce and test the Licensed Antibody in accordance with the Specifications, the Production Protocol and any other specifications agreed upon by the parties, including, without limitation, use of viral inactivation technology acceptable to Xcyte and in compliance with the Regulatory Standards, or (d) one or more parties (other than parties that currently have an ownership interest in Diaclone) obtains the ability, through on ownership interest in the capital stock or assets of Diaclone or by other means, to influence existing or future terms of this Agreement or Diaclone's performance hereunder, then Xcyte may, in addition to all other remedies it may have under this Agreement or otherwise, at its sole option, elect to have one or more Third Parties manufacture and supply the Licensed Antibody and/or produce the Licensed Antibody itself.

4.2 Phase III Clinical Trials. At such time as Xcyte is preparing for the commencement of Phase III Clinical Trials relating to the Licensed Materials or Licensed Product, Xcyte may, at its sole option, elect to have one or more Third Parties manufacture and supply the Licensed Antibody and/or produce the Licensed Antibody itself.

4.3 Assistance. In the event that Xcyte shall elect to have one or more Third Parties manufacture and supply the Licensed Antibody and/or produce the Licensed Antibody itself pursuant to Section 4.1 or Section 4.2, Diaclone shall, upon Xcyte's request, promptly

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transfer a minimum of **[*]** of the master cell bank for the Licensed Cell Line to Xcyte or any such Third Party. In addition, Diaclone shall provide to Xcyte and/or any such Third Party all necessary information and cooperation to enable Xcyte or such Third Party to manufacture the Licensed Antibody in accordance with the Specifications and the Production Protocol. If requested by Xcyte, Diaclone will assist Xcyte in locating an appropriate Third Party manufacturer to produce the Licensed Antibody.

5. **Quality Control, Legal, Regulatory Standards**

5.1 **[*]** Testing. Diaclone will perform **[*]** supplied to Xcyte hereunder in accordance with Diaclone's standard operating procedures as approved by Xcyte. **[*]**

5.2 Compliance with Law and Regulation. Diaclone will comply with all international, national, state and local laws, ordinances, rules and regulations applicable to the conduct of its business, including, but not limited to, the Regulatory Standards, in performing its obligations hereunder and will maintain, during the term of this Agreement, a manufacturing facility, personnel and quality control and quality assurance programs that comply with the Regulatory Standards. In the event that regulatory certification is required for the manufacture, sale or distribution of Licensed Materials, Diaclone will ensure that such certification is met at its own expense.

5.3 Contacts with Regulatory Bodies. Diaclone will advise Xcyte of all contacts with any regulatory agency concerning the Licensed Antibody and, upon request, will provide Xcyte with copies of all materials regarding the Licensed Antibody that it submits to any regulatory agency or that are provided by any regulatory agency to Diaclone.

[*]

5.5 Records Retention. All records relating to the manufacture of the Licensed Antibody and the fulfillment of each Purchase Order, including all Lot History Records, will be retained for a period of at least five (5) years from the date of manufacture. Prior to the destruction of any such records, written notice will be provided to Xcyte, and Xcyte will have the right to request and retain them.

5.6 Changes to Facilities. Diaclone will notify Xcyte in writing not less than ninety (90) days prior to making any change in the Facilities **[*]** No such change will be made by Diaclone without Xcyte's prior written approval, which approval may be granted or withheld in Xcyte's sole discretion.

5.7 Product Recall. Xcyte and Diaclone each will notify the other promptly if the Licensed Antibody or a Licensed Product alleged or proven to be the subject of a recall, market withdrawal or correction and the parties will cooperate in the handling and disposition of any such recall, market withdrawal or correction; provided, however, that in the event of a disagreement as to any matter related to such recall, market withdrawal or correction, Xcyte will have final authority.

[*] Certain information on this page has been omitted and filed separately with the Securities & Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

5.8 Cooperation Regarding Regulatory Approval. Diaclone will provide to Xcyte **[*]**. Additionally, Diaclone agrees to provide Xcyte with any assistance reasonably requested by Xcyte in obtaining such governmental approvals, including, without limitation, the furnishing of all technical information, processes, formulae, data, engineering, materials, know-how and trade secrets owned or controlled by Diaclone that are relevant to the development and manufacture of the Licensed Materials available to Diaclone and its Affiliates.

6. **Supply Pricing; Licensee Fee; Royalties**

6.1 Supply Pricing.

(a) Price Per Gram. Subject to the provisions of this Section 6.1, the price to be paid for purchase of Licensed Antibody during the term of this Agreement shall be **[*]** per gram of Licensed Antibody.

(b) Initial Quantity. Xcyte shall pay to Diaclone **[*]** within thirty (30) days of acceptance by Xcyte of the Initial Quantity. Such payments shall be non-refundable, except as set forth in Section 8.1(c).

(c) **[*]** Xcyte shall **[*]** that are approved in writing in advance by Xcyte (provided that Xcyte shall also approve the price of such **[*]** in the event that the price therefor materially differs from the price set forth on Exhibit E attached hereto) within forty-five (45) days of receipt of an undisputed invoice with respect thereto from Diaclone.

(d) Biosafety Testing. Diaclone shall conduct and pay for the Biosafety Testing in accordance with Exhibit F attached hereto (provided that Xcyte shall pre-approve any costs that materially differ from the estimated costs set forth in Exhibit F attached hereto) and invoice Xcyte for reimbursement. Xcyte shall pay all undisputed amounts on such invoice within forty-five (45) days of receipt thereof.

(e) Cell Banks. Within forty-five (45) days of receipt of an invoice from Diaclone with respect thereto, Xcyte **[*]** The parties acknowledge and agree that Xcyte **[*]** the parties anticipate that the remainder of such costs will be an additional amount of approximately **[*]**

(f) Invoicing for Licensed Antibody. Diaclone will invoice Xcyte, in duplicate, accompanied (if applicable) by a bill of lading or airway bill, for all Licensed Antibody purchased hereunder promptly upon delivery of such Licensed Antibody pursuant to Section 8. The price per gram set forth in Section 6.1(a) is inclusive of all costs payable by Xcyte for purchase of the Licensed Antibody. Xcyte will, under no circumstances, be responsible for any costs in addition to such amounts, including, without limitation, costs for activities performed by Biotest AG or any other Affiliate of Diaclone. Diaclone will indemnify Xcyte for any such additional costs.

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6.2 License Fee. In consideration of the License, Xcyte shall pay the following fees to Diaclone at the following times: **[*]** within six (6) months of the receipt by Diaclone of the payment set forth in the preceding clause (b).

6.3 Royalties

(a) Royalties on Net Sales. Subject to the other provisions of this Section 6.3, Xcyte shall pay to Diaclone, on a product-by-product basis, a royalty **[*]** of Net Sales. Following the first approval by the FDA or its foreign equivalent of a Licensed Product for therapeutic uses, the amount payable to Diaclone by Xcyte under this Section 6.3 for all Licensed Products used for therapeutic uses shall be, at a minimum, **[*]** By way of clarification, such minimum annual amounts shall not be reduced in any manner by the provisions of Sections 6.3(b) or 6.3(c) below.

(b) Combination Products. In the event that a Licensed Product is used or sold by Xcyte in combination as a single product with one or more other product(s) or service(s) which are not Licensed Products, Net Sales from such sales and/or use for purposes of calculating the amounts due under Section 6.3(a) above shall be calculated by multiplying the Net Sales of that combination by the fraction A/(A + B), where A is the gross selling price of then Licensed Product sold separately and B is the gross selling price of the other product or service sold separately. In the event that no such separate sales or use are made by Xcyte, Net Sales for royalty determination shall be as reasonably allocated by Xcyte between such Licensed Product and such other product or service, based upon their relative importance and proprietary protection. It is understood and agreed that Xcyte intends to use Licensed Products in connection with products and services which do not entail the use of the Licensed Materials, and that such Licensed Products shall be subject to this Section 6.3(b).

(c) Third Party Offsets. In the event that Xcyte enters into any license or other agreement with a third party with respect to intellectual property or inputs protected by intellectual property which is necessary or useful for the manufacture, use or sale of a Licensed Product, Xcyte may offset any amounts paid to such third party thereunder against royalties otherwise due Diaclone pursuant to this Section 6.3; provided, however, that the royalties that would otherwise be due to Diaclone may not be reduced by more than **[*]**

(d) One Royalty. For purposes of clarity, the parties acknowledge and agree that no more than one royalty payment shall be due with respect to a sale of a particular Licensed Product. In addition, no royalty shall be payable under this Section 6.3 with respect to Licensed Products distributed for use in research and/or development, in clinical trials or as promotional samples.

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7. **Payment; Reports and Records**

7.1 Timing of Royalty Payments; Payment Method. Xcyte agrees to pay all royalties due to Diaclone within sixty (60) days of the last day of the calendar quarter in which such royalties accrue.

7.2 Royalty Reports. Xcyte shall deliver to Diaclone within ninety (90) days after the end of each calendar quarter in which Licensed Products are sold a report setting forth in reasonable detail the calculation of the royalties payable to Diaclone for such calendar quarter, including the Licensed Products sold in each country, the Net Sales thereof, and all amounts received from sublicensees for sales of Licensed Products. Such reports shall be Confidential Information of Xcyte subject to Section 13.

7.3 Currency; Foreign Payments. All payments due hereunder shall be paid in United States dollars. If any currency conversion shall be required in connection with the payment of any royalties hereunder, such conversion shall be made by using the exchange rate for the purchase of U.S. Dollars reported by the Bank of America on the last business day of the calendar quarter to which such royalty payments relate. If at any time legal restrictions prevent the prompt remittance of any royalties owed with respect to Net Sales in any jurisdiction, Xcyte may notify Diaclone and make such payments by depositing the amount thereof in local currency in a bank account or other depository in such country in the name of Diaclone, and Xcyte shall have no further obligations under this Agreement with respect thereto.

7.4 Inspection of Books and Records. Xcyte shall maintain accurate books and records which enable the calculation of royalties payable hereunder to be verified. Xcyte shall retain the books and records for each quarterly period for three (3) years after the submission of the corresponding report under Section 7.2. Upon thirty (30) days prior notice to Xcyte, independent accountants selected by Diaclone and reasonably acceptable to Xcyte, after entering into a confidentiality agreement with Xcyte, may have access to Xcyte's books and records to conduct a review or audit once per calendar year, for the sole purpose of verifying the accuracy of Xcyte's payments and compliance with this Agreement. The accounting firm shall report to Diaclone only whether there has been a royalty underpayment and, if so, the amount thereof. Such access shall be permitted during Xcyte's normal business hours during the term of this Agreement and for two (2) years after the expiration or termination of this Agreement. Any such inspection or audit shall be at Diaclone' expense; provided, however, that in the event that an inspection reveals an underpayment of **[*]** or more in any audit period, Xcyte shall pay the costs of such inspection and promptly pay to Diaclone any underpayment.

7.5 Taxes. All royalty amounts required to be paid to Diaclone pursuant to this Agreement may be paid with deduction for withholding for or on account of any taxes (other than taxes imposed on or measured by net income) or similar government charge imposed by a jurisdiction other than the United States ("Withholding Taxes"). At Diaclone's request, Xcyte shall provide Diaclone a certificate evidencing payment of any Withholding Taxes hereunder and shall reasonably assist Diaclone to obtain the benefit of any applicable tax treaty.

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7.6 Payment. The prices stated in the Pricing Schedule and referenced in each Purchase Order are stated in United States Dollars, and do not include sales, use, excise or any other similar taxes imposed by international, federal, state or local governments, or shipping charges. Such prices are inclusive of handling and all other charges unless otherwise specifically provided in the Pricing Schedule or Purchase Order. Taxes and shipping charges will be itemized separately in each invoice. Unless otherwise provided in the Purchase Order, terms of payment will be net forty-five (45) days from Xcyte's receipt of the Licensed Antibody or invoice, whichever occurs later, subject to Xcyte's acceptance of the Licensed Antibody and the resolution of any good faith disputes relating to the invoiced amount. No payment of an invoice will be deemed to constitute acceptance of the Licensed Antibody by Xcyte. If Xcyte disputes any invoice, Xcyte will, within forty-five (45) days of receipt of such invoice, notify Diaclone that it disputes the accuracy or appropriateness of such invoice and provide the basis for such dispute.

8. **Delivery; Acceptance**

8.1 Documentation, Inspection

(a) Documentation. With each shipment of Licensed Antibody to Xcyte under this Agreement or any Purchase Order, Diaclone will send a copy of the lot history record, **[*]** In addition, Diaclone will provide a material safety data sheet for the Licensed Antibody and any other documentation required by the Specifications or requested by Xcyte. Any substitution, reprocessing or reworking of the Licensed Antibody must be reported to and approved by Xcyte before any Licensed Antibody subject to such variances may be shipped. Any substituted, reprocessed or reworked Licensed Antibody must be accompanied by variance and nonconformance data in addition to the documentation described above.

(b) Acceptance and Rejection All Licensed Antibody delivered under this Agreement will be inspected and tested by Xcyte or its designee using Xcyte's standard testing procedures. Xcyte will give notice by facsimile of its rejection or acceptance of any Licensed Antibody within sixty (60) days of receipt thereof.

(c) Non-Conformance. Notwithstanding the completion of such inspection or the passing of the date for notice of rejection under Section 8.1 (b), if any Licensed Antibody is found at any time by Xcyte, or its customers or users of the Licensed Antibody or a Xcyte product in which the Licensed Antibody was incorporated, to be defective or not in conformity with the Specifications, or if Xcyte is not satisfied with the results of the Biosafety Testing, Xcyte may, at its option: (i) reject such Licensed Antibody, require Diaclone to replace such Licensed Antibody at Diaclone's expense (other than costs of Biosafety Testing and **[*]** which shall be borne by Xcyte in accordance with Sections 3.3 and 3.4) and provide notice to Xcyte that any Licensed Antibody delivered is replacement Licensed Antibody, provided that if Diaclone is unable to replace such Licensed Antibody within the time period specified in Section 4.1, or such other time period as may be agreed by the parties, then Xcyte may exercise its option for the manufacturing rights set forth in Section 4, or (ii) notwithstanding anything to the

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contrary in this Agreement, request a refund of all amounts paid to Diaclone hereunder in connection withsuch Licensed Antibody (other than payments made with respect to Biosafety Testing and **[*]** in accordance with Sections 3.3 and 3.4), in which case Diaclone will promptly refund such amounts; provided, however, that Diaclone shall be entitled to retain **[*]** with respect to each **[*]** of such Licensed Antibody if such Licensed Antibody is not defective.

8.2 Shipping and Delivery

(a) Shipping. Unless otherwise specified in the Purchase Order, all freight expenses for delivery of the Licensed Antibody will be prepaid by Diaclone and added to Diaclone's invoice to Xcyte for payment by Xcyte. Xcyte will obtain permits for importation of the Licensed Antibody into the United States and other countries as appropriate. No Licensed Antibody may be shipped to Xcyte's designated destination until the appropriate import permits have been obtained, and Diaclone shall assist Xcyte, upon request of Xcyte, in obtaining approvals of regulatory agencies in the applicable jurisdictions for importation of the Licensed Antibody. Diaclone shall be responsible for exporting the Licensed Antibody from France or such other location in which Diaclone may manufacture the Licensed Antibody in accordance with this Agreement and shall obtain any necessary export licenses or approvals required for such export.

(b) Delivery. Unless otherwise specified in the Purchase Order, the FOB point will be the location designated by Xcyte in the Purchase Order for delivery of the Licensed Antibody. Diaclone will bear all risk of loss or damages to the Licensed Antibody, and title to the Licensed Antibody will not transfer to Xcyte until delivery of the Licensed Antibody (including any Licensed Antibody segregated in accordance with Section 3.6 prior to shipment) to Xcyte's designated location.

9. **Representations and Warranties**. In addition to all other express or implied warranties, Diaclone represents and warrants that it has the right (a) to use all technology it employs in the production, use and sale of the Licensed Antibody hereunder, (b) to grant all licenses granted or to be granted hereunder and (c) to perform all of its other obligations under this Agreement. Diaclone further represents and warrants that its Facilities will be maintained as required herein and that the Licensed Antibody (i) will meet the Specifications, (ii) will be manufactured in accordance with the Production Protocol and "Good Manufacturing Practices," (iii) will be free from all liens and security interests such that full ownership rights vest in Xcyte, and (iv) has been developed, labeled, packaged, manufactured, tested, stored, supplied and sold in accordance with the terms of this Agreement **[*]** Diaclone represents and warrants that (A) the execution, delivery and performance of this Agreement does not conflict with, violate or breach any agreement to which Diaclone is a party (B) Diaclone has not received written notice that the Licensed Materials infringe upon the intellectual property rights of any third party, (C) there are no threatened or pending actions, suits, investigations, claims or proceedings in any way relating to the Licensed Materials to which Diaclone is a party or of which Diaclone is aware, and (D) it is the exclusive owner of all right, title and interest in the Licensed Materials.

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10. **Term and Termination**

10.1 Term. The initial term of this Agreement will begin on the Effective Date and will continue, subject to early termination as provided in Section 7.2, a period of seven (7) years.

10.2 Termination. This Agreement may be terminated as follows:

(a) Xcyte may terminate this Agreement at any time upon thirty (30) days written notice to Diaclone;

(b) Either party may terminate this Agreement in the event of a material breach by the other party provided that the defaulting party fails to cure such breach within thirty (30) days after receipt of notice of such breach, or in the case of a breach that is not capable of cure within thirty (30) days, if the defaulting party fails to begin cure within thirty (30) days after receipt of notice of such breach or to continue to pursue such cure diligently thereafter;

(c) Either party may terminate in the event of (i) the making by either party of any general assignment for the benefit of creditors, (ii) the filing by or against either party of a petition for reorganization or arrangement under any law relating to bankruptcy (unless, in the case of a petition filed against such party, the same is dismissed within sixty (60) days), (iii) the appointment if a trustee or receiver to take possession of substantially all of either party's assets, where possession is not restored to such party within sixty (60) days, or (iv) the attachment, execution or other judicial seizure of substantially all of either party's assets, where such seizure is not discharged within sixty (60) days; or

(d) This Agreement may be terminated as set forth in Section 8.3.

10.3 Effect of Termination. Neither party will be relieved of any obligations incurred under this Agreement prior to the date of such termination or expiration by the termination or expiration thereof, and the provisions of Sections 1, 2.1, 3.6, 3.8, 4, 5.8, 7.4, 9, 10, 12, 13, 14, 15 and 16 will survive any such termination or expiration.

11. **Force Majeure**

11.1 No Liability. Neither party will be liable for any failure to fulfill any term or condition of this Agreement, other than the payment of amounts owed hereunder, nor will such failure constitute a breach of or default under this Agreement, if fulfillment has been delayed, hindered or prevented by an event of force majeure, including any war, riot, strike, acts of the elements, acts or compliance with any order of any government or agency thereof (including the enactment of any new laws, rules or regulations), sabotage or industrial accident, where the failure to perform is beyond the reasonable control and not caused by the negligence or intentional misconduct of the non-performing party, and the non-performing party has exerted all reasonable efforts to avoid or remedy the force majeure.

11.2 Notice of Force Majeure. Promptly following the date any event of force majeure occurs, the party so affected will advise the other party in writing of the date and nature

of the event and the period of time such event is expected to continue. During the existence of such event, the duties and obligations of the parties under this Agreement will be suspended and the parties will take all reasonable action to ensure resumption of normal performance under this Agreement as soon as possible.

11.3 Termination Right. If, as a result of any such force majeure event, a party is unable to fully perform its obligations hereunder for a period of ninety (90) days, the other party will have the right to terminate this Agreement upon written notice, effective the date of such notice.

12. **Indemnification; Limitation of Liability**

12.1 By Diaclone. Diaclone will defend, indemnify and hold harmless Xcyte and its officers, directors, employees and agents (collectively, "Indemnitee") from and against any and all losses, damages, liability, settlement costs, defense costs, other expenses and attorneys' fees (a "Liability") resulting from a Third Party claim or suit related to or arising out of the development, labeling, packaging, manufacturing, storage, testing, or supply of Licensed Antibody or any breach of this Agreement by Diaclone, including, without limitation, breach of any representation or warranty contained herein.

12.2 By Xcyte. Xcyte shall defend, indemnify and hold harmless Diaclone and its officers, directors, employees and agents (collectively, "Indemnitee") from and against any and all Liabilities resulting from a Third Party claim or suit relating to or arising out of the development, labeling, packaging, manufacturing, storage, testing or sale of any Licensed Product by Xcyte or any breach of this Agreement by Xcyte, including, without limitation, breach of any representation or warranty contained herein.

12.3 Procedure. In the event that any Indemnitee intends to claim indemnification under this Section 12 it shall promptly notify the indemnifying party in writing of such alleged Liability. The indemnifying party shall have the right to control the defense and settlement thereof. The Indemnities shall cooperate with the indemnifying party and its legal representatives in the investigation of any action, claim or liability covered by this Section 12. The Indemnitee shall not, except at its own cost, voluntarily make any payment or incur any expense with respect to any claim or suit without the prior written consent of the indemnifying party, which the indemnifying party shall not be required to give.

12.4 LIMITATION OF LIABILITY. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL OR INDIRECT DAMAGES ARISING OUT OF THIS AGREEMENT, HOWEVER CAUSED, UNDER ANY THEORY OF LIABILITY.

13. **Confidentiality**

13.1 Confidential Information. "Confidential Information" will include, but not be limited to, any information marked as confidential and all know-how, formulas, specifications, processes, product ideas, inventions and technical, business and financial plans, forecasts and strategies, and any information derived therefrom disclosed by either party to the other. Each party will hold in confidence and not use or disclose to others, except as specifically authorized by this Agreement, the Confidential Information of the other. Each party will protect the other party's Confidential Information by using the same degree of care, but not less than a reasonable degree of care, used to protect its own Confidential Information. Diaclone acknowledges that the Specifications, the Production Protocol, the quantity of the Licensed Antibody ordered or used by Xcyte and the quantity of Xcyte's product sold by Xcyte are Confidential Information of Xcyte.

This restriction does not apply to the extent it can be established by the receiving party that the information:

(a) was known to the receiving party at the time of disclosure;

(b) was part of the public domain at the time of disclosure or later entered the public domain through no fault of the receiving party;

(c) was made known to the receiving party from another source under no obligation to the disclosing party; or

(d) was independently developed by the receiving party without the use of the disclosing party's Confidential Information.

Notwithstanding the above, each party may disclose the other party's Confidential Information: (i) to employees or agents to the extent necessary to accomplish the purposes of this Agreement, provided that each such individual is first bound by an obligation of confidentiality equivalent to that described herein, (ii) to the extent necessary to comply with applicable laws, judicial orders or governmental regulations provided that each party agrees to give reasonable advance notice to the other of any such intended disclosure, and to minimize such disclosure to the extent possible, and (iii) to governmental agencies to obtain approval for commercial sale of the Licensed Antibody or any of Xcyte's products. Each party's Confidential Information will remain the property of that party, and the disclosure of Confidential Information hereunder does not constitute a grant of any right or license to such Information. The restrictions described in this Section 13 will remain in effect for five (5) years after termination of this Agreement.

13.2 Test Results. Diaclone specifically agrees that the results of any tests performed on the Licensed Cell Line or Licensed Antibody that are paid for by Xcyte belong solely to Xcyte, are part of Xcyte's Confidential Information and are subject to the protections described in this section. Diaclone further agrees that such information will not be used by Diaclone for any purpose other than to produce Licensed Antibody for Xcyte as described in this Agreement, or be used by or for the benefit of any third party without Xcyte prior consent.

13.3 Equitable Relief. The parties agree that due to the unique nature of the Confidential Information, there can be no adequate remedy at law for any breach of the receiving party's obligations under this Agreement, thereby resulting in irreparable harm to the disclosing party. Therefore, notwithstanding Section 16.6 hereof, upon any such breach of this Section 13 or any threat thereof, the disclosing party shall be entitled to seek appropriate mandatory or negative injunctive relief.

14. **Intellectual Property**.

14.1 Reservation of Rights. For purposes of this Section 14, "Intellectual Property" will mean all intellectual property, tangible or intangible including, without limitation, any and all data, techniques, inventions, discoveries, ideas, processes, know-how, patents, patent applications, trade secrets, and other proprietary information. Except as expressly stated herein, neither party grants any right or license to any of its Intellectual Property to the other party, and the disclosure of Confidential Information by either party to the other will not obligate the disclosing party to grant rights in or to the subject matter of such Confidential Information to the receiving party.

14.2 Ownership. All Intellectual Property pertaining to the development, manufacture or use of the Licensed Materials will be owned by the inventor as determined under United States patent law. Any such Intellectual Property which is invented jointly by the parties ("Joint Intellectual Property") will be jointly owned by the parties. All patent applications on the Joint Intellectual Property will be agreed to by each of the parties and filed, prosecuted and maintained jointly by the parties at their joint expense. Any such Joint Intellectual Property may be used (or sublicensed) by either Diaclone or Xcyte worldwide for any purpose without accounting to the other. If for any reason Diaclone or Xcyte declines to participate in the filing, prosecution, or maintenance of any patent application or patent on the Joint Intellectual Property, (other than Joint Intellectual Property governed by Section 14.3), the other party will be entitled to assume responsibility for such activities at its sole expense, and such patent application or patent will become the sole property of such party.

14.3 Assignment. Notwithstanding the above, any Intellectual Property developed by Diaclone at Xcyte's expense will belong solely to Xcyte regardless of whether it would otherwise have been solely or jointly owned by Diaclone, and Diaclone will take any action necessary to confirm Xcyte's ownership of and assign all such Intellectual Property to Xcyte upon Xcyte's request. Xcyte will have the exclusive right to apply for or register patents and other proprietary protections in such assigned Intellectual Property and Diaclone agrees to execute such documents, render such assistance and take such other action as Xcyte may reasonably request, at Xcyte's expense, to apply for, register, perfect, confirm and protect Xcyte's rights therein.

15. **Communications and Notices.** All, notices hereunder will be in wiriting and will be deemed given if delivered personally or by facsimile transmission (receipt verified), telexed, or sent by express courier service to the parties at the following addresses (or to such other address as specified by either party):

If to Xcyte, addressed to:	Xcyte Therapies, Inc. 2203 Airport Way South, Suite 300 Seattle, Washington 98134 United States Attn: Business Development Fax: (206) 328-7316
With a copy to:	Venture Law Group 4750 Carillon Point Kirkland, Washington 98033 United States Attn: William W. Ericson Fax: (425) 739-8750
If to Diaclone:	Diaclone, S.A. 1 boulevard Fleming, B.P. 1985 F-25020 Besancon Cedex France Attn: Dr. John Wijdenes Fax:_____

16. **Miscellaneous**.

16.1 Assignment. This Agreement is binding on successors and assigns of the parties provided that this Agreement may not be assigned to a third party without the prior written consent of the other party, which consent will not be unreasonably withheld; provided, however, that Xcyte may assign this Agreement to an acquiror of all or substantially all of its assets or the resulting entity in a merger or consolidation, or in connection with any other transaction resulting in the transfer of at least fifty percent (50%) of its voting power, without the consent of Diaclone.

16.2 Entire Agreement. This Agreement, including the Exhibits, Purchase Orders and, where applicable, Xcyte's Purchasing Standard Terms and Conditions ("Ts & Cs"), constitutes the entire Agreement between the parties regarding this subject matter and supersedes all such prior understandings between the parties. Any amendment to this Agreement must be in writing and signed by an authorized representative of each party. If there is any conflict between the terms of this Agreement and the Ts & Cs or a Purchase Order, the terms of this Agreement will prevail. If there is any conflict between the Ts & Cs and a Purchase Order, the Purchase Order will prevail.

16.3 Independent Contractor. Diaclone will be an independent contractor and not an agent, partner or co-venturer of Xcyte. Neither party will have the authority to bind the other by contract or otherwise. This Agreement will not be deemed or construed as creating a partnership between Diaclone and Xcyte for any purpose.

16.4 Attorney's Fees. The prevailing party in any lawsuit or arbitration based on or arising out of this Agreement will be entitled to recover from the other party its costs and expenses (including attorney's fees) reasonably incurred in connection with such lawsuit or arbitration.

16.5 Arbitration. Any and all disputes relating to or arising from this Agreement will be resolved by binding arbitration to be held in Seattle, Washington under the American Arbitration Association Rules.

16.6 No Conflict. Each party represents and warrants that it is authorized to enter into this Agreement and that the terms of this Agreement do not create a conflict with any right, obligation or agreement that it has with any third party.

16.7 Waiver. Xcyte's failure to enforce any provision of this Agreement or a Purchase Order will not be a construed as a waiver of such provision and will not affect Xcyte's right to enforce each and every provision of this Agreement.

16.8 Severability. If any term or provision of this Agreement is held invalid or unenforceable, the remaining terms will be valid and enforced to the fullest extent permitted by applicable law.

16.9 Governing Law. This Agreement will be governed by and construed in accordance with the laws of the State of Washington, USA, without regard to its conflict of law rules, and not by the provisions of the 1980 U.N. Convention of Contracts for the International Sale of Goods. Except as set forth in Section 16.6, the parties hereby irrevocable submit to the jurisdiction of the state and federal courts located in King County, Washington.

16.10 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall constitute an original, and all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, each of the parties has caused this Agreement to be executed by its duly authorized representative as of the date first set forth above.

DIACLONE:

DIACLONE, S.A.

By: /s/: John Wijdenes

Name: John Wijdenes

Title: President and CEO

XCYTE:

XCYTE THERAPIES, INC.

By: /s/: Ronald Jay Berenson

Name: Ronald Jay Berenson

Title: President and CEO

EXHIBIT A

PRODUCTION PROTOCOL

[*]

[*] Certain information on this page has been omitted and filed separately with the Securities & Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

EXHIBIT B

SPECIFICATIONS

[*]

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EXHIBIT C

CELL LINE QUALIFICATION

[*]

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EXHIBIT D

REGULATORY SUBMISSIONS

[*]

[*] Certain information on this page has been omitted and filed separately with the Securities & Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

EXHIBIT E

[*]

The following materials are to be dedicated to the manufacture of **[*]** antibody for Xcyte:

[*]	
TOTAL	**[*]**

[*] Certain information on this page has been omitted and filed separately with the Securities & Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

EXHIBIT F

BIOSAFETY TESTING

Cell Line **[*]**

[*]

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Exhibit 10.33

Confidential treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as [*]. A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.

EXECUTION COPY

DEVELOPMENT AND SUPPLY AGREEMENT

This Development and Supply Agreement (the "Agreement") is made and entered into as of the 1st day of August, 1999 (the "**Effective Date**") by and between XCYTE THERAPIES, INC., a Delaware corporation with offices at 1124 Columbia Street. Suite 130 Seattle, Washington 98104 (hereinafter referred to as "**Xcyte**"), and DYNAL A.S., a Norwegian corporation, with offices at P.O. Box 158, Skøyen, N-0212 Oslo, Norway (hereinafter referred to as "**Dynal**").

WITNESSETH:

WHEREAS Dynal has substantial knowledge and a proprietary position and expertise relating to research, development, manufacture and distribution of products and technology for biomagnetic separation and handling of cells, microorganisms, bacteria, proteins and nucleic acids;

WHEREAS Xcyte has substantial knowledge and a proprietary position and expertise relating to the ex vivo expansion and activation of T-cells;

WHEREAS prior to entering into this Agreement the parties executed a Letter Agreement dated October 27, 1999 (the "**Letter Agreement**") whereby Xcyte paid Dynal the sum of **[*]** in consideration for certain development activities conducted by Dynal prior to the Signing Date; and

WHEREAS Dynal and Xcyte wish to establish a development and supply agreement whereby Dynal will develop, manufacture and supply certain products that will incorporate certain paramagnetic particles (with and without antibodies) to be commercialized by Xcyte in one or more therapies in the Field (as such term is defined below), as set forth in this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and promises contained herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

SECTION 1: DEFINITIONS OF TERMS

1.1 "Affiliate" shall mean a person or entity that, directly or indirectly through one or more intermediaries controls, is controlled by, or is under common control with, a party to this Agreement. As used in this definition, "**control**" means owning more than fifty percent (50%) of such an entity or party to this Agreement.

1.2 "Antibodies" shall mean the antibodies described in the antibody specifications set forth in Attachment A hereto. The antibody specifications set forth in Attachment A may be modified from time to time by the mutual agreement of the parties (including modifications as may be appropriate to include the release criteria for Phase III) and neither party shall unreasonably withhold its consent to modifications proposed by the other party.

1.3 "Assays" shall mean the assays determined mutually by the parties (except that Xcyte shall determine the functional Assays performed and paid for by Xcyte pursuant to Section 2.8, with Dynal's acceptance (such acceptance not to be unreasonably withheld)) and set forth in a Work Plan to be required for the completion of the work called for in such Work Plan, including all existing or to-be-developed standards, specifications, validation protocols and reports related thereto.

1.4 "Nascent Beads" shall mean any beads or paramagnetic particles that are not conjugated with antibodies or any other materials or substances or coated with any materials or substances.

1.5 "CD3x28 Beads" shall mean any paramagnetic particles or beads that are doubly conjugated with antibodies to CD3 and antibodies to CD28 and that are not conjugated with any other antibodies.

1.6 "cGMP" shall mean current Good Manufacturing Practices, as defined in 21 CFR Part 210, Part 211, Part 610 and Part 680.

1.7 "Development Phase" shall mean and refer to, as the context indicates the period during the term of this Agreement starting on the Effective Date and ending when Xcyte receives final marketing approval from the U.S. Food and Drug Administration or any successor thereto (the **"FDA"**) to use the Products in the Field for the first indication under this Agreement.

1.8 "DMF" shall mean a drug master file or device master file, as the context indicates (or the non-U.S. equivalent as appropriate in each country of the Territory) or any related regulatory filing.

1.9 "Dynabeads® M-450 CD3/CD28 T" shall mean the Dynabeads® M-450 CD3/CD28 beads consisting of Dynabeads® M-450 epoxy beads conjugated with the Antibodies, to be developed and manufactured pursuant to this Agreement in accordance with the Dynabeads® M-450 CD3/CD28 T Specifications.

1.10 "Dynabeads® M-450 Epoxy T" shall mean Dynabeads® M-450 epoxy beads, to be developed and manufactured pursuant to this Agreement in accordance with the Dynabeads® M-450 Epoxy T Specifications.

1.11 "Field" shall mean ex vivo expansion and/or activation of T-cells using CD3x28 Beads (whether or not in conjunction with one or more other beads, paramagnetic particles, steps or procedures) for Therapeutic Use; provided, however, that the Field shall exclude the following:

[*]

1.12 "Patents" shall mean all patents and patent applications, and all additions, divisions, continuations, continuations in-part, pipeline protection, substitutions, reissues, extensions, registrations, patent term extensions, supplementary protection certificates and renewals of any of the above.

1.13 "Products" shall mean, collectively, the Dynabeads® M-450 Epoxy T and the Dynabeads® M-450 CD3/CD28 T.

1.14 "Signing Date" shall mean December 7, 1999, the date this Agreement was signed by the parties.

1.15 "Specifications" shall mean:

(i) the release criteria and specifications for the Dynabeads® M-450 Epoxy T as set forth in Attachment C hereto, and as the same may be refined and amended from time to time by Dynal (the **"Dynabeads® M-450 Epoxy T Specifications"**); and

(ii) the release criteria and specifications for the Dynabeads® M-450 CD3/CD28 T as set forth in draft form in Attachment D hereto, and as the same may be refined, amended and finalized in the course of the development activities under this Agreement by the mutual agreement of Dynal and Xcyte (the **"Dynabeads® M-450 CD3/CD28 T Specifications"**).

Neither party shall unreasonably withhold its consent to an alteration or supplementation to the Dynabeads® M-450 CD3/CD28 T Specifications.

1.16 "Territory" shall mean the world.

1.17 "Therapeutic Use" shall mean the attempt to cure, improve, mitigate, treat and/or prevent disease and/or other conditions in humans.

1.18 "Third Party" shall mean any person or entity other than a party to this Agreement or an Affiliate of a party to this Agreement.

1.19 "Work Plans" shall mean the work plans which detail the parties' respective tasks and responsibilities with respect to the development work to be conducted during the Development Phase in connection with the Dynabeads® M-450 CD3/CD28 T under this Agreement in connection with filing and obtaining final marketing approval from the FDA in the United States as set forth in **Attachment B**, and as may be amended or modified from time to time, by mutual agreement of the parties. Subject to Section 2.5, neither party shall unreasonably withhold its consent to amendments or modifications of the Work Plans proposed by the other party.

[*] Certain information on this page has been omitted and filed separately with the Securities & Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

1.20 "Year" shall mean a calendar year.

SECTION 2: DEVELOPMENT PHASE AND REGULATORY FILINGS

2.1 During the Development Phase, Dynal shall use its good faith and commercially reasonable efforts to complete its responsibilities under the Work Plans in accordance with the standards and time frames stated therein and the terms and conditions of this Agreement. If Xcyte does not complete its responsibilities under the Work Plans in accordance with the standards and time frames stated therein and/or the terms and conditions of this Agreement, Dynal shall not be entitled to terminate this Agreement therefor, but Dynal shall be afforded additional time to accomplish such activity to the extent necessary to account for any such delay caused by or as a result of actions or inactions of Xcyte or its Affiliates or agents. **[*]**

2.2 The parties shall, promptly after the Signing Date, each designate a representative to act as a contact person for the other party and to coordinate and communicate between the parties with respect to each party's respective development activities under this Agreement during the Development Phase. A party may change its designee at any time by written notice to the other party. During the Development Phase, each party shall prepare and provide to the other party written reports on a quarterly basis detailing its development activities and progress under the Work Plans under this Agreement, and each party shall also keep the other party generally updated on a monthly basis of its development activities and progress under this Agreement.

2.3 As part of Dynal's activities under the Work Plans, Dynal, at its cost, shall duly file with the FDA and the regulatory agencies in the countries included in the European Union (the **"EU"**), and shall own, all DMFs that are to be filed in connection with the Products. With respect to countries in the Territory outside of the United States and the EU, Dynal shall, at Xcyte's cost, if and as requested by Xcyte, duly file with the regulatory agencies in such countries, and shall own, all DMFs for the Products. During the term of this Agreement and after the term of this Agreement upon non-renewal of this Agreement or termination of this Agreement pursuant to Section 8.3 by Xcyte, Xcyte shall have the right to cross-reference all DMFs filed during the term of this Agreement by Dynal in the Territory as necessary to enable Xcyte to obtain or maintain marketing approval for use of the Products in the Field. Xcyte or its Antibody suppliers shall duly file with the FDA and the applicable regulatory agencies in the Territory outside the United States and shall own all regulatory filings for the Antibodies. **[*]**

2.4 In order to fund Dynal's work directed toward the accomplishment of the development activities under the Work Plans as well as for activities undertaken by Dynal prior to the Signing Date, Xcyte shall make the following non-creditable and non-refundable milestone payments to Dynal as follows:

(i) Xcyte shall pay to Dynal **[*]** of which was paid by Xcyte to Dynal prior to the Signing Date pursuant to the Letter Agreement, and the remaining **[*]** of which shall be paid to Dynal on January 3, 2000 (**"Milestone Payment 1"**);

[*] Certain information on this page has been omitted and filed separately with the Securities & Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(ii) When **[*]** Xcyte shall pay to Dynal **[*]** (**"Milestone Payment 2"**) (Dynal shall have no obligation to **[*]** prior to receiving Milestone Payment 2 from Xcyte);

(iii) On and as of April 1, 2000, Xcyte shall be obligated to pay Dynal **[*]** of which (**"Milestone Payment 3"**) shall be paid to Dynal on April 1, 2000 and the **[*]** balance of which (**"Milestone Payment 4"**) shall be paid to Dynal on October 1, 2000;

(iv) When the **[*]** Xcyte shall pay to Dynal **[*]** (**"Milestone Payment 5"**) (Dynal shall have no obligation to **[*]** prior to receiving Milestone Payment 5 from Xcyte); and

(v) When (a) the **[*]** (Xcyte shall notify Dynal when to commence the production of **[*]**); and (b) Dynal has **[*]** Xcyte shall pay to Dynal **[*]** (**"Milestone Payment 6"**) (Dynal shall have no obligation to **[*]** prior to receiving Milestone Payment 6 from Xcyte).

The milestone payments set forth in this Section 2.4 shall be paid by Xcyte by wire transfer to an account designated by Dynal.

2.5 Notwithstanding anything contained in this Agreement, in no event shall Dynal be obligated to perform any activities under this Agreement that would require efforts or expenditures in excess of the scope reasonably contemplated by the parties as of the Signing Date, as reflected from time to time in Work Plans, to complete the development of the Dynabeads® M-450 CD3/CD28 T Product during the Development Phase in connection with obtaining marketing approval from the FDA to use the Products in the Field for the first indication under this Agreement, and as contemplated to make the regulatory filings pursuant to Section 2.3.

2.6 [*] Except as otherwise expressly set forth in this Agreement, including Sections 2.3 and 6, Xcyte shall own all clinical protocols, all results of such clinical tests, all other clinical data required for regulatory submissions and approvals, all such regulatory filings, and any and all regulatory approvals.

2.7 Dynal shall inform Xcyte of any amendments to the Dynabeads® M-450 Epoxy T Specifications.

2.8 Xcyte shall own any and all proprietary rights relating to the functional Assays, provided that Xcyte shall develop the functional Assays (including the inter-lab validation of the functional Assays) and shall pay for all costs and expenses associated therewith.

SECTION 3: SUPPLY AND DISTRIBUTION

3.1 During the term of this Agreement, and subject to the terms and conditions set forth herein, (a) Xcyte shall, as ordered by Dynal, supply Dynal with the Antibodies, at Xcyte's

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cost, for use by Dynal solely for use in the production of the Dynabeads® M-450 CD3/CD28 T in accordance with the specifications for the Antibodies set forth in Attachment A and the Specifications; and (b) Dynal, subject to Xcyte's obligation to supply Antibodies to Dynal, shall supply to Xcyte, and Xcyte shall purchase from Dynal, all of Xcyte's and its Affiliates' requirements (i) for Dynabeads® M-450 CD3/CD28 T for use in clinical trials and other product research, development, certification or regulatory activities conducted in connection with either or both of the Products in the Field in the Territory; and (ii) for Dynabeads® M-450 CD3/CD28 T for use, marketing, distribution, sale and import by Xcyte and its Affiliates in the Field in the Territory; and (iii) to be held in reasonable inventories associated with any of the foregoing.

3.2 During the term of this Agreement, Dynal shall supply to Xcyte, and Xcyte shall purchase from Dynal, all of Xcyte's and its Affiliates' requirements (a) for Dynabeads® M-450 Epoxy T for use in clinical trials and other product research, development, certification or regulatory activities conducted in connection with either or both of the Products in connection with the Dynabeads® M-450 CD3/CD28 T in the Field in the Territory; (b) for Dynabeads® M450 Epoxy T for use, marketing, distribution, sale, and import by Xcyte and its Affiliates in connection with the Dynabeads® M-450 CD3/CD28 T in the Field in the Territory; and (c) to be held in reasonable inventories associated with any of the foregoing. For the avoidance of doubt, to the extent that Dynal has to conduct any development activities with respect to the Dynabeads® M-450 Epoxy T, Dynal shall ensure that it conducts such activities in a timely manner so that it will be able to supply Xcyte the Dynabeads® M-450 Epoxy T Product when it supplies Xcyte the Dynabeads® M-450 CD3/CD28 T Product, as provided under this Agreement.

3.3 Xcyte shall ensure that any Products to be sold or otherwise distributed by Xcyte or its Affiliates or any of their distributors, licensees or agents, for use in the Field shall be appropriately labeled to state that the use thereof is limited to use solely within the Field. If either party becomes aware that Products are being used outside the Field or outside the Territory, it shall promptly notify the other party hereto. Xcyte shall and shall ensure that its Affiliates and each of their distributors, licensees and agents shall, use its reasonable commercial efforts to preserve the quality of the Products and shall act in accordance with any applicable quality control guidelines for the Products provided to Xcyte by Dynal.

3.4 Xcyte shall not, and shall ensure that its Affiliates and that their respective distributors, licensees and agents shall not, sell or use any Products or perform any treatments utilizing the Products not in compliance with applicable laws, regulations and orders. If either party becomes aware that Products are being used, or that treatments are being performed using the Products, not in compliance with applicable laws, regulations and orders, it shall promptly notify the other party hereto.

3.5 Xcyte shall, and shall ensure that its Affiliates and/or its and its Affiliates' distributors, licensees and agents shall, only sell and distribute the Products for use in the Field in the Territory pursuant to the terms and conditions of this Agreement, and in doing so neither Xcyte nor its Affiliates shall use or sell or otherwise distribute, and shall ensure that their respective distributors, licensees and agents shall not use or sell or otherwise distribute, the

Dynabeads® M-450 Epoxy T for any use except in connection with the Dynabeads® M-450 CD3/CD28 T and only in the Field. Xcyte shall remain primarily liable and responsible for the performance and observance of all of its and its Affiliates' and each of their consultants, distributors' and licensees' and agents' duties and obligations in accordance with the terms and conditions of this Agreement. Any agreement between Xcyte and any of its Affiliates or any of their consultants, distributors, licensees or agents shall be consistent with the terms and conditions of this Agreement and shall include appropriate obligations of confidentiality and a limitation to use of the Products solely within the Field.

3.6 During the term of this Agreement, Xcyte shall purchase all of its requirements for CD3x28 Beads and Nascent Beads for use in the Field; however, if Xcyte must substitute another CD3x28 Bead for the Dynabeads® M-450 CD3/CD28 T and/or another Nascent Bead for the Dynabeads® M-450 Epoxy T for medical (e.g., adverse medical reaction arising from use of the Dynabeads® M-450 CD3/CD28 T Product and/or the Dynabeads® M-450 Epoxy T Product) or regulatory (e.g., rejection of the Dynabeads® M-450 CD3/CD28 T Product and/or the Dynabeads® M-450 Epoxy T Product by a regulatory agency) reasons for use in the Field in any country or countries of the Territory, Xcyte shall promptly notify Dynal and provide Dynal with sufficient information and documentation to evidence the medical and/or regulatory reason or reasons that require Xcyte to substitute the Dynabeads® M-450 CD3/CD28 I Product and/or the Dynabeads® M-450 Epoxy T Product. After such notice and provision of information and documentation have been provided to Dynal by Xcyte, the parties shall discuss in good faith what would be an acceptable substitute CD3x28 Bead and/or substitute Nascent Bead, and after the parties mutually identify, or a party identifies, in writing, an acceptable substitute, unless Dynal notifies Xcyte in writing that it does not wish (as determined by Dynal in its sole discretion) to supply Xcyte with the substitute CD3x28 Bead and/or substitute Nascent Bead, the parties shall negotiate in good faith the terms and conditions of a development and/or supply agreement for the substitute CD3x28 Bead and/or substitute Nascent Bead for such country or countries upon commercially reasonable terms and conditions (subject to the limitations on Dynal's obligations set forth in Section 2.5). If the parties do not execute a full agreement which covers such development and/or supply arrangement within one hundred and twenty (120) days of commencing such good faith negotiations, Xcyte may obtain the substitute CD3x28 Bead and/or the substitute Nascent Bead from a Third Party; provided that Xcyte may not offer terms or conditions to any such Third Party which are more favorable in the aggregate to those offered to Dynal hereunder, unless such new terms and conditions have first been offered to Dynal and Dynal has not accepted such terms and conditions (or terms and conditions substantially similar thereto) in writing within sixty (60) days of such offer by Xcyte. If Dynal notifies Xcyte in writing at any time during the discussions or negotiations set forth in this Section above that it does not wish to supply Xcyte with the substitute CD3x28 Bead and/or substitute Nascent Bead as provided in this Section above, Xcyte may obtain the substitute CD3x28 Bead and/or the substitute Nascent Bead from a Third Party.

3.7 In the event that Xcyte plans to acquire, use, develop, sell or distribute any beads or paramagnetic particles (other than the Products, CD3x28 Beads and Nascent Beads) for use in the Field in addition to either or both of the Products, Xcyte shall promptly notify Dynal detailing the beads or paramagnetic particles that Xcyte requires and thereafter the parties shall in good

faith attempt to negotiate the terms and conditions of a development and/or supply agreement for such beads and/or paramagnetic particles for the Territory. If the parties do not execute an agreement which covers such development and/or supply arrangement within ninety (90) days of commencing such good faith negotiations, Xcyte may obtain such beads or paramagnetic particles from a Third Party.

3.8 Notwithstanding anything contained in this Agreement, if Xcyte undergoes a change of control during the Development Phase, such that Xcyte is directly or indirectly controlled by any person or entity that derives at least fifty percent (50%) of its revenue from the development and/or manufacture of beads and/or paramagnetic particles, Xcyte hereby agrees that it shall not, and hereby agrees to ensure that any such person or entity shall not, until the non-renewal of this Agreement or three (3) years after such change of control (whichever occurs first), disclose to such person or entity any information relating to the Products, or supply any Products to such person or entity. Notwithstanding anything contained in this Agreement, both during and after the term of this Agreement, such person or entity shall be treated as a Third Party for all purposes of this Agreement, regardless of whether such person or entity may be an "Affiliate" of Xcyte after such change of control. As used in this clause, **"change of control"** means any event (whether in one or more transactions) which results in a transfer of direct or indirect ownership of more than fifty percent (50%) of the voting stock of Xcyte to a previously unaffiliated third party.

3.9 For the avoidance of doubt and without limiting either party's development and supply obligations under this Agreement, in no event shall this Agreement restrict: **[*]**

SECTION 4: PRICE, PAYMENT AND DELIVERY

4.1 Dynal shall supply to Xcyte reasonable quantities of samples of the Dynabeads® M-450 Epoxy T and of the Dynabeads® M-450 CD3/CD28 T, in quantities and supply schedules as are more fully described in the Work Plans for use by Xcyte and Xcyte's consultants during the Development Phase. During the Development Phase and prior to the point at which the Products being supplied will be used in Phase I clinical trials, the Products shall be provided by Dynal without charge to Xcyte.

4.2 Starting at the point during the Development Phase at which the Products being supplied to Xcyte by Dynal will be used in Phase I clinical trials, the initial price of Products sold to Xcyte shall be the applicable price set forth on Attachment E hereto (regardless of the concentration of beads in each vial, which concentration shall be determined by Xcyte, provided that no such concentration shall be in excess of 4×10^8 beads/ml in a 10 ml vial). All such prices are quoted FCA, Oslo, Norway (Incoterms 1990). Such prices shall not be increased until **[*]** and thereafter, Dynal may raise such prices no more often than **[*]** Anything in this Section 4.2 to the contrary notwithstanding, no annual increase shall have the effect of raising the previous year's price by **[*]**

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4.3 Dynal shall deliver the Products ordered by Xcyte pursuant to this Agreement to Xcyte, FCA Oslo, Norway (Incoterms 1990). Risk of loss shall pass to Xcyte on delivery of the Products to the carrier selected by Xcyte. Dynal shall include the information as described in Attachment F with each shipment of the Products. Upon delivery of the Products to Xcyte's carrier, Dynal shall invoice Xcyte, and Xcyte shall make payment to Dynal within thirty (30) days from the date of the invoice. Upon request by Xcyte, Dynal shall transmit invoices by facsimile or by any other means mutually agreed to by the parties. Notwithstanding the foregoing, or anything contained in this Agreement, with respect to Dynabeads® M-450 CD3/CD28 T Product ordered by Xcyte and delivered to Xcyte hereunder that is part of a batch of the Dynabeads® M-450 CD3/CD28 T produced by Dynal for Phase I clinical trials and/or other development work to be performed during such period of the Development Phase, Xcyte may make payment to Dynal for such Dynabeads® M-450 CD3/CD28 T Product so ordered by Xcyte within twelve (12) months (instead of thirty (30) days) from the date of the invoices for such Product.

4.4 Xcyte shall pay interest to Dynal on any overdue payments under this Agreement at a rate of **[*]** per month overdue from the date due until payment.

4.5 Dynal reserves the right to alter the payment procedures set forth in this Agreement in the event that Xcyte has previously (within the then-most recent three-month period) failed to conform to the payment provisions hereof and if and for so long as Dynal is reasonably concerned about Xcyte's financial condition. Such alterations in payment terms shall be either a requirement of an irrevocable, confirmed letter of credit or a requirement of cash prior to delivery.

4.6 Xcyte shall not require a delivery date of earlier than ninety (90) days after the date of receipt of an order for Products by Dynal. Orders by Xcyte for Products shall be sent to Dynal at P.O. Box 158, Skøyen N-0212, Oslo, Norway, or as otherwise may be directed by Dynal from time to time. Dynal shall use its reasonable efforts to fill orders from Xcyte which are in accordance with this Section 4 by the delivery date requested by Xcyte. Dynal shall acknowledge each Xcyte purchase order in writing and notify Xcyte of the estimated delivery date. Dynal shall promptly notify Xcyte if at any time Dynal has reason to be concerned that Dynal will not be able to fill any Xcyte order on time or as estimated or agreed.

4.7 Xcyte shall, starting at the thirtieth (30th) day following the end of the Development Phase and thereafter on a quarterly basis (by March 31st, June 30th, September 30th, and December 31st) of each Year, provide to Dynal a forecast of Xcyte's requirements for the Products for the ensuing twelve (12) month period for the Territory. The amount of Products specified for the first quarter of such twelve (12) month period shall be binding on Xcyte, and Dynal shall supply, and Xcyte shall be required to take delivery and pay for such amount of the Products. All amounts specified for succeeding quarters of a twelve (12) month period are considered a non-binding but good faith forecast.

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4.8 In addition to the forecasts provided pursuant to Section 4.7, Xcyte shall provide to Dynal good faith non-binding three (3) Year forecasts for the Products for capacity and long-term manufacturing planning purposes. This three (3) Year forecast shall be provided by Xcyte to Dynal on or before the thirtieth (30th) day following the end of the Development Phase, and thereafter by August 31st of each Year, covering the succeeding three-Year period. In the event that the manufacture of the volumes of Dynabeads® M-450 CD3/CD28 T indicated by such three-Year forecast would require Dynal to make any capital expansions (including entering into any leases), the parties may meet to discuss in good faith how to proceed and whether Xcyte would be willing to commit to such forecasts if Dynal decides to make any capital expansion and/or enter into any leases (as Dynal shall decide in its sole discretion). Subject to the provisions of Section 4.10, in no event shall Dynal be required to meet any such forecast for the Dynabeads® M-450 CD3/CD28 T (beyond the levels stated therein that would not require Dynal to make such capital expansions) nor to obtain such capital expansions unless the parties agree in writing how to proceed and without Xcyte agreeing to purchase sufficient volumes of the Products and to amend this Agreement to increase the minimums set forth in Section 8.5.

4.9 All sales of Products to Xcyte shall be controlled by the terms and conditions of this Agreement and the standard terms and conditions of the business forms of the parties shall not form part of the agreement of the parties.

4.10 During the term of this Agreement, Dynal shall notwithstanding Section 4.8, fill any order (or series of orders) for any calendar quarter which are in accordance with this Article 4 and that is (or are) not in excess of one hundred twenty five percent (125%) of the volumes specified for such calendar quarter in Xcyte's most recent good faith quarterly estimate for such calendar quarter (i.e., that was not a binding order for such calendar quarter under Section 4.7), and Dynal shall not be required to fill any order or series of orders that are for any calendar quarter in excess of one hundred twenty five percent (125%) of the volumes specified for such calendar in Xcyte's most recent good faith quarterly estimate for such calendar quarter. However, Dynal shall nevertheless exert commercially reasonable efforts to fill all Xcyte orders and to supply all requested volumes to the extent the same may be done without extra cost to Dynal, and in doing so Dynal would not be in violation of any other agreement.

4.11 Notwithstanding anything contained herein, in no event shall Dynal be liable for any delay or failure to deliver Products for reasons beyond the control of Dynal, provided, however, that Dynal shall notify Xcyte promptly of anticipated delays and shall use all commercially reasonable efforts to fill such orders as soon as possible.

4.12 If Dynal is not able to manufacture the Products in the quantities ordered by Xcyte in accordance with the terms and conditions of this Agreement either itself or through its Affiliates, Dynal shall undertake to engage and qualify a Third Party contract manufacturer to manufacture those quantities of the Products that Dynal and/or its Affiliates are unable to supply to Xcyte, for supply to Xcyte subject to and in accordance with the terms and conditions of this Agreement (including the terms and conditions of this Agreement relating to Specifications, quality control and assurance, price, ordering, delivery, indemnities and warranties) and Xcyte shall continue to pay Dynal for the Products in accordance with Section 4. The parties recognize

that use of such a Third Party contract manufacturer would constitute a "Major Change" as such term defined in Attachment F, and that it will be handled in accordance with and shall be governed by the requirements in that Attachment.

4.13 All payments due to Dynal under this Agreement shall be paid in full, regardless of whether Xcyte or its Affiliates or their distributors or licensees are required to withhold taxes, levies or other duties on payments made under this Agreement. If Xcyte is required to withhold taxes, levies or other duties on payments made under this Agreement, then Xcyte shall gross up such payments so that Dynal receives the payment in full regardless of any withholdings, and if Dynal obtains any credit for the amount of the withholding, such amount shall be repaid by Dynal to Xcyte when it is received by Dynal.

SECTION 5: WARRANTY AND DISCLAIMER

5.1 Dynal warrants that the Products shall conform to the Specifications upon delivery to Xcyte's carrier, provided that in no event shall Dynal be responsible or liable for any failure of the Products to meet the Specifications as a result of defects in the Antibodies (other than any defect in the Antibodies caused solely because of a failure of Dynal or its Affiliates to act in conformity with any applicable quality control guidelines provided to Dynal by Xcyte). Xcyte shall promptly inspect the Products upon receipt and in accordance with any applicable quality control guidelines provided to Xcyte by Dynal, and shall promptly notify Dynal of any discovered failure of the Products to conform to the Specifications, but in no event later than thirty (30) days after Xcyte's receipt of the Products. Upon request by Dynal, Xcyte shall promptly return the non-conforming Products to Dynal. Upon verification that the Products failed to comply with the Specifications upon delivery to Xcyte's carrier other than because of defects in the Antibodies (other than any defect in the Antibodies caused solely because of a failure of Dynal or its Affiliates to act in conformity with any applicable quality control guidelines provided to Dynal by Xcyte), Xcyte shall receive, at Dynal's sole option, a credit, refund or replacement for such non-conforming Products. In the event that Dynal decides to replace such non-conforming Products with conforming Products, Dynal shall use reasonable commercial efforts to do so within sixty (60) days of such confirmation by Dynal, and Dynal shall in such event bear the cost of delivery and risk of loss or damage to the replacement Products during delivery. Notwithstanding anything to the contrary contained in this Agreement, Dynal shall not be responsible for any Products if such Products are removed from their original vials prior to inspection by Xcyte or are modified in any manner not in conformity with any applicable quality control guidelines provided to Xcyte by Dynal, nor for any use or misuse or actions or inactions by any person or entity after delivery of the Products to Xcyte's carrier.

THE FOREGOiNG WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND DYNAL EXPRESSLY DISCLAIMS ANY IMPLIED WARRANTIES INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. EXCEPT AS SET FORTH IN SECTION 10, XCYTE'S EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCTS OR BREACH OF WARRANTY SHALL AT DYNAL'S OPTION BE CREDIT, REFUND OR REPLACEMENT AS SET FORTH IN THIS SECTION 5.

EXCEPT AS SET FORTH IN SECTION 10, IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT TORT OR ANY OTHER LEGAL THEORY.

SECTION 6: INTELLECTUAL PROPERTY

6.1 Except as provided in Section 6.2, ownership of any and all inventions or other proprietary rights ("Inventions") developed in connection with activities under or performed in connection with this Agreement, including in connection with development and acceptance testing of the Dynabeads® M-450 Epoxy T and the Dynabeads® M-450 CD3/CD28 T or during or in connection with work performed under the Work Plans, shall be determined by reference to United States laws pertaining to inventorship. For example, (a) if Inventions is developed in connection with the development activities hereunder by one (1) or more employees or consultants of each party, it shall be jointly owned ("Joint Inventions"), and if one (1) or more claims included in an issued Patent or pending Patent application which is filed in a patent office in the Territory claim such Joint Inventions such claims shall be jointly owned ("Joint Patent Rights"); and (b) if Inventions is developed in connection with development activities hereunder solely by an employee or consultant of a party, it shall be solely owned by such party, and any Patent filed claiming such solely owned Inventions shall also be solely owned by such party. Each party shall ensure that its employee and consultant inventors of Inventions developed in connection with this Agreement shall assign his/her interest in such Inventions to his/her respective party employer (e.g., Dynal or Xcyte, as the case may be), and such rights shall therefore vest in the respective party employer to whom the inventor assigns his/her rights. The parties shall discuss and consult with each other in good faith as to the filing and prosecution of any joint patent applications covering Joint Inventions, the maintenance of any ensuing Joint Patent Rights covering such Joint Inventions, and the enforcement, defense and protection of any such Joint Patent Rights.

6.2 Notwithstanding anything contained in this Agreement, including Section 6.1: (a) any Inventions, including any know-how and data relating to any Dynabeads®, including the Dynabeads® M-450 and/or coupling to Dynabeads® and/or the coating of Dynabeads®, shall be owned solely by Dynal regardless of inventorship and Xcyte shall assign any and all such rights that Xcyte and/or its Affiliates or any of their agents may have in or to any such Inventions to Dynal, and such rights shall therefore vest in Dynal; and (b) any Inventions, including any know-how and data relating to the Antibodies shall be owned solely by Xcyte regardless of inventorship and Dynal shall assign any and all such rights that Dynal and/or its Affiliates or any of their agents may have in or to any such Inventions to Xcyte, and such rights shall therefore vest in Xcyte.

6.3 This Agreement contains no grants to either party under any intellectual property of the other party, except as expressly set forth in this Agreement.

6.4 Xcyte retains all right, title and interest in and to the Antibodies delivered or to be delivered to Dynal hereunder. Unless otherwise agreed by the parties, Dynal shall not at any time

during the term of this Agreement, divert or use any of the Antibodies for any other purpose or in support of any other product or service than the Dynabeads® M-450 CD3/CD28 T to be developed and manufactured hereunder solely for supply to Xcyte, and Dynal shall not authorize anyone else to do so.

SECTION 7: TRADEMARK, LABELING AND PACKAGING

7.1 Xcyte shall use the registered trademark "Dynabeads®" in the package inserts, labels and packaging and, to the extent appropriate, promotion and marketing materials, used in connection with the sale of the Products or the performance of the treatments using the Products, and each such package insert, label and packing and promotion and marketing materials that uses such trademark shall state: "Dynabeads® is a registered trademark of Dynal A.S., Oslo Norway, licensed to Xcyte" or equivalent language approved by Dynal. Xcyte and Dynal shall cooperate reasonably in the use by Xcyte of Dynal's trademark, so that such use will be consistent with applicable regulations, including any concerning or affecting the designation of Xcyte as the manufacturer. Subject to the terms and conditions of this Agreement, during the term of this Agreement, Dynal hereby grants to Xcyte a non-exclusive license to use the Dynabeads® trademark to such limited extent. The registered trademark "Dynabeads®" is and shall remain the sole and exclusive property of Dynal and all goodwill arising from the use of the Dynabeads® trademark shall enure to the benefit of Dynal. If necessary in any market to maintain Dynal's rights in Dynal's trademarks, Xcyte shall enter into a reasonable separate royalty-free license or registered user agreement regulating its use of the Dynal trademarks. Approval of such material by Dynal shall not be unreasonably withheld. Approval shall be deemed given in the event that Dynal does not otherwise so notify Xcyte within twenty-one (21) days after receipt of such material from Xcyte. During any periods in which Xcyte is so using any Dynal trademark(s), Xcyte shall periodically and upon reasonable request, provide Dynal with samples of any products and packages that bear, or that have been associated with, copies of all product literature, promotional material, advertising, product inserts, labeling and packaging and other printed materials that use, the "Dynabeads®" trademark, in order that Dynal may monitor the quality of products associated with such trademark(s).

7.2 The Products shall be labeled and packaged for delivery to Xcyte as provided in Attachment F.

SECTION 8: TERM AND TERMINATION

8.1 This Agreement shall come into effect on the Effective Date and unless terminated earlier as provided herein shall continue for a period often (10) years. Either party shall have the option to extend the term of this Agreement for an additional five (5) years after the initial ten (10) year term, by written notice to the other at any time at least one hundred and eighty (180) days prior to the end of the initial ten (10) year term. Following the end of the initial ten (10) year term (if it is not so renewed for an additional five (5) years), or the end of such five (5) year renewal term (if the ten (10) year initial term is so renewed), this Agreement shall be automatically renewed for successive one (1) year terms unless either party gives the other party

written notice of termination of the term at least ninety (90) days prior to the conclusion of the then-current term, to be effective at the end of such current term.

8.2 This Agreement may be terminated by either party upon the happening of any of the following events:

(i) if the other party shall generally cease to pay debts as they come due; or

(ii) if the other party shall cease to do business, enter into liquidation, or become subject to any bankruptcy law or enter into any agreement with its creditors or commit any similar act.

8.3 If either party shall fail to perform its material obligations under this Agreement, the other party shall have the right to terminate this Agreement upon ninety (90) days written notice to the defaulting party, provided, however, that if:

(i) such default is cured within the notice period, this Agreement shall not be terminated therefor; or

(ii) such failure is a failure by Dynal to accomplish an activity under the Work Plans or an obligation under this Agreement that is the responsibility of Dynal, within the time frame established in the applicable Work Plan or otherwise under this Agreement for such accomplishment or obligation, Dynal shall be afforded additional time to accomplish such activity to the extent necessary to account for any factors beyond its reasonable control (such as, without limitation, as a result of any action or inaction of the FDA) or as a result of any delay caused by or as a result of actions or inactions of Xcyte or its Affiliates or agents.

8.4 Either party may terminate this Agreement upon written notice to the other party at any time prior to the first filing by Xcyte with the FDA for a marketing approval of the treatments and/or products utilizing the Products in the Field, if the parties mutually agree in writing that the Products cannot, for scientific, regulatory or technical reasons not due to a breach hereof by the party seeking such a termination, be developed and certified for commercial use in the Field. Neither party shall unreasonably withhold its consent to any such mutual agreement.

8.5 Dynal may terminate this Agreement upon at least one hundred and eighty (180) days advance written notice to Xcyte:

(i) if Xcyte does not order from Dynal at least **[*]** of Dynabeads® M-450 CD3/CD28 T (measured by the **[*]** pursuant to Section 4.2) prior to end of the first twelve-month period following the **[*]** and Dynal gives Xcyte its notice of such termination no later than sixty (60) days following the end of such twelve (12) month period; or

(ii) if Xcyte does not order from Dynal at least **[*]** pursuant to Section 4.2) in any twelve (12) month period that begins after the end of the first twelve-month period described

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above in clause (i) of this section and Dynal gives its notice of such termination no later than sixty (60) days following the end of such twelve (12) month period.

8.6 No termination or non-renewal of this Agreement shall extinguish any right or obligation that has accrued prior thereto, or that is a post-termination or post-non-renewal right or obligation under the terms and conditions of this Agreement, including those set forth in Section 11. Upon termination or non-renewal of this Agreement:

(i) Xcyte shall cease all use of Dynal's trademarks and other intellectual property rights and shall cooperate with Dynal in terminating any separate license or registered user agreement or recordal thereof; except that upon non-renewal of this Agreement or termination of this Agreement pursuant to Section 8.3 by Xcyte, Xcyte may continue to use the Dynabeads® trademark, subject to the terms and conditions of this Agreement, until the occurrence of the earlier of: (a) receipt by Xcyte of all applicable regulatory approvals to alter labeling, packaging, and promotional materials (which regulatory approvals Xcyte shall use reasonably commercial efforts to obtain as soon as possible after any such non-renewal or termination of this Agreement), and (b) one (1) year after such non-renewal or termination, and thereafter Xcyte shall cease all use of Dynal's trademarks and other intellectual property rights and shall cooperate with Dynal in terminating any separate license or registered user agreement or recordal thereof

(ii) all sums accrued hereunder prior to such termination or non-renewal shall become immediately due and payable; and

(iii) Xcyte shall continue after such termination or non-renewal to have the right to cross-reference the DMFs as provided in Section 2.3.

SECTION 9: QUALITY ASSURANCE

9.1 Certain obligations and responsibilities of Dynal and Xcyte with respect to the manufacture and quality control analysis of the Products under the Agreement shall be set forth in the applicable quality assurance guidelines set forth in Attachment F.

9.2 Certain obligations and responsibilities of Dynal and Xcyte with respect to the manufacture and quality control analysis of the Antibodies under the Agreement shall be set forth in the applicable quality assurance guidelines set forth in Attachment G.

SECTION 10: WARRANTIES; INDEMNIFICATION'S; INSURANCE

10.1 Each of Xcyte and Dynal represents and warrants to the other that:

(i) it has the full right, power and authority to enter into and perform this Agreement;

(ii) the execution and performance of this Agreement by it does not and will not violate any law or regulation, or any agreement to which it is a party or by which it is bound;

(iii) when executed and delivered, this Agreement will constitute the legal, valid and binding obligation of such party, enforceable against it in accordance with its terms; and

(iv) it has obtained, and shall at all times during the term of this Agreement hold and comply with, all licenses, permits and authorizations necessary to perform this Agreement as now or hereafter required under any applicable statutes, laws, ordinances, rules and regulations of the United States and any applicable foreign, state, and local governments and governmental entities.

10.2 Dynal hereby indemnifies and agrees to defend and to hold Xcyte, its successors and its Affiliates and each of their employees, directors, officers and agents harmless from and against all Third Party claims, liabilities, losses and expenses (other than lost profits) (including reasonable attorneys' fees) arising out of:

(i) the failure of the Products to meet the warranty set forth in Section 5; provided that in no event shall Dynal be responsible or liable for any failure of the Products to meet the Specifications as a result of: (a) defects in the Antibodies (other than any defect in the Antibodies caused solely because of a failure of Dynal or its Affiliates to act in conformity with any applicable quality control guidelines provided to Dynal by Xcyte) or (b) actions or inactions by any person or entity after delivery of the Products to Xcyte;

(ii) any Third Party claims for infringement or misappropriation of any intellectual property rights based on the method of manufacture or composition of the Dynabeads® included in the Product (but not for any other claims for infringement or misappropriation based on the use or sale of Dynabeads® or the Products, for which Xcyte shall indemnify and defend Dynal, its successors and its Affiliates and each of their employees, directors, officers and agents pursuant to Section 10.3) or

(iii) any breach or inaccuracy of any of Dynal's representations or warranties made herein.

10.3 Xcyte hereby indemnifies and agrees to defend and to hold Dynal, its successors and its Affiliates and each of their employees, directors, officers and agents harmless from and against all Third Party claims, liabilities, losses and expenses (other than lost profits) (including reasonable attorneys' fees) arising out of:

(i) the development, use, promotion, marketing, manufacture, distribution, sale or import of any of the Products and performance of treatments using any of the Products, including any actual or alleged infringement or misappropriation of any Intellectual Property of any Third Party, except for any Third Party claims expressly covered by Dynal's indemnification of Xcyte pursuant to Section 10.2 or

(ii) any breach or inaccuracy of any of Xcyte's representations or warranties made herein.

10.4 Each party shall communicate to the other notice of all claims falling within the indemnity provided by the other pursuant to Sections 10.2 and 10.3, as soon as possible after their receipt. The indemnified party shall cooperate fully with the indemnifying party in defending or otherwise resolving such claims. The indemnifying party shall have full control of the defense and settlement of all litigation brought against the indemnified party arising out of such claims, provided that any settlement or voluntary consent judgment shall require the consent of the indemnified party, such consent not to be unreasonably withheld. The indemnified party, at its expense, shall be entitled to participate in such defense through its own counsel, subject to the retention of control of such defense by the indemnifying party.

10.5 Each party shall obtain and keep in force during the term of this Agreement, and for a period of three (3) years after the non-renewal or termination of this Agreement, comprehensive general liability insurance covering bodily injury and property damage in amounts of not less than **[*]** per year combined single limit; covering completed operations liability and contractual liability in amounts of not less than **[*]** and, **[*]** Each party shall provide written proof of the existence of such insurance to the other party upon request.

SECTION 11: CONFIDENTIALITY AND PRESS RELEASES

11.1 It is understood by both Dynal and Xcyte that misuse or disclosure of Confidential Information of the other party could irreparably harm the business of the disclosing party or that party's Affiliates. As used herein, "Confidential Information" shall mean, subject to the exceptions set forth in Section 11.2, all confidential and proprietary information (including all other technology, know-how, data and records, whether written or oral or obtained through inspection of facilities or samples), which is obtained by a receiving party (Xcyte or Dynal, as the case may be) from a disclosing party (Xcyte or Dynal, as the case may be), where either it is identified by the disclosing party as being confidential at the time of disclosure or the circumstances of disclosure otherwise reasonably put the recipient on notice that the information or materials are treated as confidential or which receiving party should reasonably know should be treated as confidential. The parties agree:

(i) not to use such Confidential Information for any purpose other than for the purpose of this Agreement or as may otherwise be agreed by the parties in writing;

(ii) to use the same degree of care to maintain such Confidential Information in confidence as it applies to confidential information of its own of the same type, but in no event less than a reasonable standard of care, and not to disclose any portion of such Confidential Information to any person or entity other than as needed for the purposes of this Agreement;

(iii) to cause its Affiliates and each of its and its Affiliates' employees, Affiliates, licensees and consultants (and the employees of any thereof) who are to be given access to such Confidential Information to agree to be bound by the provisions of this Section 11 or by other provisions at least as protective as those set forth in this Section 11.

[*] Certain information on this page has been omitted and filed separately with the Securities & Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

11.2 The provisions of this Section 11 shall not apply to:

(i) Information that can be demonstrated by the receiving party by credible evidence to be in the public domain at the time of disclosure.

(ii) Information that, after disclosure, can be demonstrated by the receiving party by credible evidence to have subsequently become part of the public domain other than as a consequence of a breach of this Agreement by the receiving party or its employees or agents.

(iii) Information that can be demonstrated by the receiving party by credible evidence to have been known or otherwise available to the receiving party prior to the disclosure by the disclosing party.

(iv) Information that, after disclosure, can be demonstrated by the receiving party by credible evidence to have been subsequently provided to the receiving party by a Third Party having the right to disclose such information and without obligations of confidentiality if the receiving party reasonably believes such disclosure does not violate any obligations of the Third Party to the disclosing party.

(v) Information that has been independently developed without the benefit of any reference to any disclosure hereunder from the other party.

(vi) Information that is required to be disclosed by law or regulation, provided that the party required to make such disclosure shall, to the extent practicable under such law or regulation and the circumstances, give the other party prior notice of such requirement and afford it an opportunity to seek restrictions or limitations on such disclosure.

11.3 Upon non-renewal or termination of this Agreement. the receiving party shall, upon the disclosing party's written request, promptly return to the disclosing party, all copies of Confidential Information received from the disclosing party, and shall return or destroy, and document the destruction of, all summaries, abstracts, extracts or other documents that contain any Confidential Information of the disclosing Party; except that the receiving party may retain copies of Confidential Information (including summaries, abstracts, extracts or other documents that contain any Confidential Information) received from the disclosing party if the retention of the same is necessary for regulatory purposes or is otherwise required by law or regulation, and in any event the receiving party may retain one (1) copy of Confidential Information received from the disclosing party for archival purposes.

11.4 The provisions of this Section 11 shall not terminate upon non-renewal or termination of this Agreement, but shall continue for a period of seven (7) years following the termination or non-renewal of this Agreement.

11.5 Unless otherwise agreed by the parties, the parties agree to issue, within thirty (30) days from the Signing Date, a mutually agreed upon press release. Neither party to this Agreement shall otherwise issue any press release or other publicity materials, or make any public presentation with respect to the terms or conditions of this Agreement without the prior

written consent of the other party (such consent not to be unreasonably withheld or delayed). This restriction shall not apply to disclosures required by law or regulation, including as may be required in connection with any filings made with the Securities and Exchange Commission or similar non-U.S. regulatory authority, or by the disclosure policies of a major stock exchange; provided, however, that if reasonably possible, the party making such disclosures shall inform the other party prior to any such disclosures.

SECTION 12: DISPUTE RESOLUTION

12.1 The parties intend that they shall resolve disputes and differences regarding the performance of their respective obligations under this Agreement in a spirit of cooperation and common purpose. In cases in which that does not occur (other than as to a question relating to patent validity), any differences between the parties arising from or in connection with this Agreement shall be resolved in accordance with the procedures set forth in this Section 12.

12.2 Any dispute arising from or in connection with this Agreement during the Development Phase shall be first presented to a senior executive of each party (with each party designating its own senior executive that shall handle such dispute) for resolution. If the designated senior executives are unable to resolve the dispute within thirty (30) days, then either party may initiate arbitration pursuant to Section 12.3.

12.3 Subject to Section 12.2, any and all disputes or legal proceedings to enforce this Agreement (other than as to a question relating to patent validity and except for any action to compel arbitration hereunder or an action to enforce any award or judgment rendered thereby) or in any way related to this Agreement shall be governed by this Section 12.3. Both the agreement of the parties to arbitrate any and all claims and disputes under this Agreement as provided in this Section 12.3, and the results, determination, finding, judgment and/or award rendered through such arbitration, shall be final and binding on the parties thereto and may be specifically enforced by legal proceedings in a court having jurisdiction over the party in question. Arbitration proceedings under this Agreement shall be conducted under the auspices of the International Arbitration Rules of the American Arbitration Association (the "AAA") in New York. Dynal shall appoint one (1) arbitrator, and Xcyte one (1) arbitrator, within a term of thirty (30) days from the date arbitration is required or invoked by the parties, and the two (2) arbitrators so appointed shall appoint the third arbitrator within a term of thirty (30) days from the date on which the later of the two (2) arbitrators have been selected, all in accordance with the rules of the AAA. If either party fails to select its arbitrator within the term mentioned above, or in the event that the two (2) selected arbitrators are unable or unwilling to select a third arbitrator within thirty (30) days, one shall be appointed in accordance with the rules of the AAA, and the three (3) arbitrators so selected shall constitute the arbitration panel for purposes of the dispute. Unless agreed otherwise by the parties, the parties shall have thirty (30) days thereafter to submit their position to the arbitrators, and the arbitrators shall be instructed and required to render their decision within thirty (30) days following completion of the arbitration. In any arbitration, the prevailing party shall be entitled to reimbursement of its reasonable attorneys' fees and the parties shall use all reasonable efforts to keep arbitration costs to a minimum.

12.4 Notwithstanding anything in this Section 12 to the contrary, if either party shall reasonably determine the need to seek injunctive or other expedited relief in connection with this Agreement, such party may do so in a court of competent jurisdiction.

SECTION 13: OTHER PROVISIONS

13.1 This Agreement contains the entire agreement between the parties relating to the subject matter hereof and all prior understandings, representations and warranties between the parties (including the Letter Agreement) are superseded by this Agreement.

13.2 None of the terms of this Agreement shall be deemed to be waived or amended by either party unless such a waiver or amendment specifically references this Agreement and is in writing signed by the party to be bound.

13.3 Notwithstanding anything contained herein, in no event shall either party be liable for any delay or failure hereunder for reasons beyond the control of such party, provided, however, that such party shall notify the other promptly of anticipated delays and shall use all reasonable efforts to perform as soon as possible.

13.4 All notices and demands required or permitted to be given or made pursuant to this Agreement shall be deemed effective upon receipt, in English and in writing (which term shall include telecopy) addressed to the people named below and shall be personally delivered or mailed by prepaid air mail, or sent by international courier requiring signed receipt for delivery, or sent by telecopy, provided such telecopy is promptly confirmed by electronic return receipt, addressed as follows:

If to Xcyte:

Xcyte Therapies, Inc.
1124 Columbia St., Suite 130
Seattle, WA 98104
Telecopy: 206-262-0900
Attn: President, CEO

If to Dynal:

Dynal A.S.
P.O. Box 158 Skøyen
N-0212 Oslo, Norway
Telecopy: 011-47-22-50-7015
Attn: President, CEO

or to such other address or person which either party may notify the other in writing.

13.5 This Agreement shall be binding upon and inure to the benefit of the parties and their permitted successors and assigns. This Agreement shall be assignable by either party (i) with the written consent of the other party, such consent not to be unreasonably withheld; or (ii) to an Affiliate; or (iii) to any successor by merger or upon sale of all or substantially all of its assets. Any attempted assignment which does not comply with the terms of this Section 13.4 shall be void.

13.6 This Agreement shall be governed by the laws of the State of New York, and all rights and remedies shall be governed by such laws without regard to principles of conflicts of

law. The Convention on Contracts for the International Sale of Goods shall not apply to this Agreement.

13.7 The parties do not intend to violate any public policy or statutory or common law. However, if any sentence, paragraph, clause or combination of this Agreement is in violation of any law or is found to be otherwise unenforceable by a court from which there is no appeal, or no appeal is taken, such sentence, paragraph, clause, or combination of the same shall be deleted and the remainder of this Agreement shall remain binding, provided that such deletion does not alter the basic structure of this Agreement. The parties shall negotiate in good faith to substitute for any such invalid or unenforceable provision, a valid and enforceable provision that achieves to the greatest extent possible the economic, legal and commercial objectives of the invalid or unenforceable provision. In the event the basic structure of this Agreement is altered as a result of such deletion, the parties shall renegotiate this Agreement in good faith, but should such negotiations not result in a new Agreement within ninety (90) days of the initiation of such negotiations, then this Agreement may be terminated by either party by thirty (30) days notice to the other.

13.8 The titles to sections of this Agreement are intended for the purpose of assisting the parties when working with this Agreement, and are not intended to have any effect on the interpretation of this Agreement. Where appropriate herein, singular terms shall be interpreted in the plural and plural terms interpreted as singular.

13.9 Dynal acknowledges that it is not an agent of Xcyte and has no authority to speak for, represent, or obligate Xcyte in any way, without first receiving written authorization from Xcyte. Xcyte acknowledges that it is not an agent of Dynal and has no authority to speak for, represent, or obligate Dynal in any way, without first receiving written authorization from Dynal. This Agreement does not and shall not be deemed to create any relationship of a joint venture or a partnership.

13.10 This Agreement may be executed in one or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument.

* * *

IN WITNESS WHEREOF, the parties have executed this Agreement by their duly authorized representatives.

XCYTE THERAPIES, INC.

By: /s/ Ronald Jay Berenson

Name: Ronald Jay Berenson

Title: President & CEO

7 December 1999

DYNAL A.S.

By: /s/ Jeff Bork

Name: Jeff Bork

Title: CEO/President

7 December 1999

Attachment List

Attachment A	The Antibodies
Attachment B	Work Plans
Attachment C	Dynabeads® M-450 Epoxy T Specifications
Attachment D	Dynabeads® M-450 CD3/CD28 T Specifications
Attachment E	Per Vial Prices
Attachment F	Quality Assurance — Products
Attachment G	Quality Assurance — Antibodies

EXECUTION COPY

[*]

[*] Certain information on this page has been omitted and filed separately with the Securities & Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Attachment A
to
Development and Supply Agreement dated as of August 1, 1999 between
Xcyte Therapies, Inc. and Dynal A.S. (the "Agreement")

(Terms used herein and not otherwise defined below
have the meanings defined in the Agreement)

The Antibodies

[*]

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Attachment B

to

Development and Supply Agreement dated as of August 1, 1999 between
Xcyte Therapies, Inc. and Dynal A.S. (the “Agreement”)

(Terms used herein and not otherwise defined below
have the meanings defined in the Agreement)

Work Plans

Work Plans attached hereto.

[Attachment B-1 to B-4]

[illustrations/graphs]

[*]

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EXECUTION COPY

Attachment C

[*]

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EXECUTION COPY

Attachment D

[*]

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Attachment E
to
Development and Supply Agreement dated as of August 1, 1999 between
Xcyte Therapies, Inc. and Dynal A.S. (the "Agreement")
(Terms used herein and not otherwise defined below
have the meanings defined in the Agreement)

[*]

[*] Certain information on this page has been omitted and filed separately with the Securities & Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Attachment F

to

Development and Supply Agreement

dated as of August 1, 1999 between

Xcyte Therapies, Inc. and Dynal A.S. (the "Agreement")

(Terms used herein and not otherwise defined below

have the meanings defined in the Agreement)

Quality Assurance — Products

[*]

[*] Certain information on this page has been omitted and filed separately with the Securities & Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Attachment G
to
Development and Supply Agreement dated as of August 1, 1999 between
Xcyte Therapies, inc. and Dynal A.S. (the "Agreement")

(Terms used herein and not otherwise defined below
have the meanings defined in the Agreement)

[*]

[*] Certain information on this page has been omitted and filed separately with the Securities & Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit 23.1

Consent of Ernst & Young LLP, Independent Auditors

We consent to the reference to our firm under the caption “Experts” and to the use of our report dated April 25, 2003, except for the second paragraph of Note 1 and Note 13, as to which the date is October 9, 2003, in Amendment No. 1 to the Registration Statement (Form S-1 No. 333-109653) and related Prospectus of Xcyte Therapies, Inc. for the registration of its common stock.

/s/ Ernst & Young LLP

Seattle, Washington
November 20, 2003