

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

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**FORM S-8  
REGISTRATION STATEMENT**  
*UNDER*  
**THE SECURITIES ACT OF 1933**

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**Xcyte Therapies, Inc.**

(Exact name of Registrant as specified in its charter)

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

**91-1077622**  
(I.R.S. Employer  
Identification No.)

**Xcyte Therapies, Inc**  
**1124 Columbia Street, Suite 130**  
**Seattle, WA 98104**  
(Address of Principal Executive Offices)

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**2003 Stock Plan**  
**1996 Stock Option Plan**  
**2003 Employee Stock Purchase Plan**  
**2003 Directors' Stock Option Plan**  
(Full title of the plans)

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**Ronald J. Berenson, M.D.**  
**President and Chief Executive Officer**  
(Name and address of agent for service)

**(206) 262-6200**  
(Telephone number, including area code, of agent for service)

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*Copy to:*

**Sonya F. Erickson**  
**Heller Ehrman White & McAuliffe LLP**  
**701 Fifth Avenue, Suite 6100**  
**Seattle, WA 98104**  
**(206) 447-0900**

(Calculation of Registration Fee on following page)

**CALCULATION OF REGISTRATION FEE**

Title of each class of securities to be registered	Amount to be registered(1)	Proposed maximum offering price per share	Proposed maximum aggregate offering price	Amount of registration fee(3)
<b>2003 Stock Plan</b>				
Common Stock, \$0.001 par value	1,181,813 Shares	\$ 6.93(4)	\$ 8,189,964.09	\$ 1,037.67
<b>1996 Stock Option Plan</b>				
Common Stock, \$0.001 par value	717,615 Shares	\$ 4.64(3)	\$ 3,606,013.12	\$ 456.88
Common Stock, \$0.001 par value	278,691 Shares	\$ 6.93(4)	\$ 1,415,812.86	\$ 179.38
<b>2003 Employee Stock Purchase Plan</b>				
Common Stock, \$0.001 par value	381,815 Shares	\$ 5.89(2)	\$ 2,248,890.35	\$ 284.93
<b>2003 Directors' Stock Option Plan</b>				
Common Stock, \$0.001 par value	90,090 Shares	\$ 6.93(4)	\$ 624,323.70	\$ 79.10
<b>TOTAL</b>	2,650,024 Shares		\$ 16,085,004.12	\$ 2,037.97(5)

- (1) This registration statement shall also cover any additional shares of common stock which become issuable under any of the plans being registered pursuant to this registration statement by reason of any stock dividend, stock split, recapitalization or any other similar transaction effected without the receipt of consideration which results in an increase in the number of the registrant's outstanding shares of common stock.
- (2) Estimated in accordance with Rule 457(h) under the Securities Act of 1933 (the "Securities Act") solely for the purpose of calculating the registration fee. The computation is based upon the average of the high and low sale prices of the common stock as reported on the Nasdaq National Market on March 18, 2004, multiplied by 85%, which is the percentage of the trading purchase price applicable to purchases under the referenced Plan.
- (3) Computed in accordance with Rule 457(h) under the Securities Act solely for the purpose of calculating the registration fee. The computation is based on the weighted average per share exercise price (rounded to nearest cent) of outstanding options under the referenced plan, the shares issuable under which are registered hereby.
- (4) Estimated in accordance with Rule 457(h) under the Securities Act solely for the purpose of calculating the registration fee. The computation with respect to unissued options is based upon the average high and low sale prices of the common stock as reported on the Nasdaq National Market on March 18, 2004.
- (5) To be offset, pursuant to Rule 457(p), against \$22,770 previously paid with respect to the Registration Statement on Form S-1, SEC File No. 333-52528, which was filed by Xcyte Therapies, Inc. on December 22, 2000.

**PART II**  
**INFORMATION REQUIRED IN THE REGISTRATION STATEMENT**

Item 3. **Incorporation of Documents by Reference.**

The following documents filed with the Securities and Exchange Commission (the "Commission") are hereby incorporated by reference:

(a) The registrant's prospectus filed on March 17, 2004 pursuant to Rule 424(b) of the Securities Act, which contains audited financial statements for the registrant's latest fiscal year for which such statements have been filed.

(b) Not applicable.

(c) The description of the registrant's common stock contained in the registrant's Registration Statement on Form 8-A filed with the Commission under Section 12 of the Securities Exchange Act of 1934 (the "Exchange Act") on March 5, 2004, including any amendment or report filed for the purpose of updating such description.

All documents subsequently filed by the registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be part hereof from the date of filing such documents.

Item 4. **Description of Securities.** Not applicable.

Item 5. **Interests of Named Experts and Counsel.**

The validity of the shares of common stock offered by this prospectus will be passed upon for us by Heller Ehrman White & McAuliffe LLP, Seattle, Washington. As of the date of this registration statement, certain attorneys of Heller Ehrman White & McAuliffe LLP and an investment entity affiliated with Heller Ehrman White & McAuliffe LLP beneficially own an aggregate of 201 shares of our common stock, 2,942 shares of our Series D preferred stock and warrants to purchase 292 shares of our common stock.

Item 6. **Indemnification of Directors and Officers.**

The registrant's Certificate of Incorporation reduces the liability of a director to the corporation or its shareholders for monetary damages for breaches of his or her fiduciary duty of care to the fullest extent permissible under Delaware law. The bylaws of the registrant further provide for indemnification of corporate agents to the maximum extent permitted by the Delaware General Corporation Law. In addition, the registrant has entered into indemnification agreements with its officers and directors.

Item 7. **Exemption from Registration Claimed.** Not applicable.

Item 8. **Exhibits.**

**Exhibit  
Number**

4.1*	2003 Stock Plan.
4.2*	1996 Stock Option Plan.
4.3*	2003 Employee Stock Purchase Plan.
4.4*	2003 Directors' Stock Option Plan.
5.1	Opinion of Heller Ehrman White & McAuliffe LLP.
23.1	Consent of Heller Ehrman White & McAuliffe LLP (included in Exhibit 5.1).
23.2	Consent of Ernst & Young LLP, Independent Auditors.
24.1	Powers of Attorney (see signature page).

\* Incorporated by reference to the exhibits filed with Xcyte Therapies, Inc.'s Registration Statement on Form S-1 (Registration Statement No. 333-109653) as declared effective by the Securities and Exchange Commission on March 16, 2004.

Item 9. **Undertakings.**

The undersigned registrant hereby undertakes:

(1) to file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(2) that, for purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment 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.

(3) to remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement 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.

Insofar as the 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 Securities 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 of whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

[Signature Pages Follow]

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Seattle, State of Washington, on March 19, 2004.

Xcyte Therapies, Inc.

By: /s/ Ronald J. Berenson

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

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Ronald J. Berenson, Joanna S. Black and Kathi L. Cordova, jointly and severally, his or her attorneys-in-fact and agents, each with the power of substitution and resubstitution, for him or her and in his or her name, place or stead, in any and all capacities, to sign any amendments to this Registration Statement on Form S-8, and to file such amendments, together with exhibits and other documents in connection therewith, with the Securities and Exchange Commission, granting to each attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully as he or she might or could do in person, and ratifying and confirming all that the attorneys-in-fact and agents, or his or her substitute or substitutes, may do or cause to be done by virtue hereof.

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.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
/s/ Ronald J. Berenson _____ Ronald J. Berenson, M.D.	President, Chief Executive Officer and Director	March 19, 2004
/s/ Kathi L. Cordova _____ Kathi L. Cordova	Senior Vice President of Finance and Treasurer	March 19, 2004
/s/ Joanna S. Black _____ Joanna S. Black	General Counsel, Vice President and Secretary	March 19, 2004
/s/ Robert Curry _____ Robert Curry, Ph.D.	Director	March 19, 2004
/s/ Jean Deleage _____ Jean Deleage, Ph.D.	Director	March 19, 2004
/s/ Dennis Henner _____ Dennis Henner, Ph.D.	Director	March 19, 2004
/s/ Peter Langecker _____ Peter Langecker, M.D., Ph.D.	Director	March 19, 2004
/s/ Robert T. Nelsen _____ Robert T. Nelsen	Director	March 19, 2004
/s/ Stephen N. Wertheimer _____ Stephen N. Wertheimer, M.M.	Director	March 19, 2004
/s/ Robert M. Williams _____ Robert M. Williams, Ph.D.	Director	March 19, 2004

INDEX TO EXHIBITS

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23.1	Consent of Heller Ehrman White & McAuliffe LLP (included in Exhibit 5.1).
23.2	Consent of Ernst & Young LLP, Independent Auditors.
24.1	Powers of Attorney (see signature page)

\* Incorporated by reference to the exhibits filed with Xcyte Therapies, Inc.'s Registration Statement on Form S-1 (Registration Statement No. 333-109653) as declared effective by the Securities and Exchange Commission on March 16, 2004.

March 19, 2004

Xcyte Therapies, Inc.  
1124 Columbia Street, Suite 130  
Seattle, WA 98104

**Registration Statement on Form S-8**

Ladies and Gentlemen:

We have examined the Registration Statement on Form S-8 (the "Registration Statement") filed by you with the Securities and Exchange Commission (the "Commission") on March 19, 2004 in connection with the registration under the Securities Act of 1933, as amended, of a total of 2,650,024 shares of your Common Stock (the "Shares") reserved for issuance under the 2003 Stock Plan, 1996 Stock Option Plan, 2003 Employee Stock Purchase Plan and 2003 Directors' Stock Option Plan. As your counsel in connection with this transaction, we have examined the proceedings taken and are familiar with the proceedings proposed to be taken by you in connection with the sale and issuance of the Shares.

It is our opinion that the Shares, when issued and sold in the manner described in the Registration Statement, will be legally and validly issued, fully paid and non-assessable.

We consent to the use of this opinion as an exhibit to the Registration Statement and further consent to the use of our name wherever appearing in the Registration Statement and in any amendment thereto.

Very truly yours,

Heller Ehrman White & McAuliffe LLP

/s/ Heller Ehrman White & McAuliffe LLP

**CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS**

We consent to the incorporation by reference in the Registration Statement (Form S-8) of Xcyte Therapies, Inc. for the registration of 2,650,024 shares of common stock pertaining to the Xcyte Therapies, Inc.'s 2003 Stock Plan, 1996 Stock Option Plan, 2003 Employee Stock Purchase Plan, and 2003 Directors' Stock Option Plan, of our report dated January 23, 2004 (except for the first paragraph of Note 13, as to which the date is March 4, 2004), with respect to the financial statements of Xcyte Therapies, Inc. included in Amendment No. 5 to the Registration Statement (Form S-1 No. 333-109653) filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Seattle, Washington  
March 18, 2004