

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

OMB APPROVAL	
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Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person* <u>MARXE AUSTIN W & GREENHOUSE DAVID M</u> (Last) (First) (Middle) <u>C/O SPECIAL SITUATIONS FUNDS</u> <u>527 MADISON AVENUE, SUITE 2600</u> (Street) <u>NEW YORK NY 10022</u> (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) <u>12/31/2005</u>	3. Issuer Name and Ticker or Trading Symbol <u>XCYTE THERAPIES INC [XYCT]</u>	
		4. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) Other (specify below)	5. If Amendment, Date of Original Filed (Month/Day/Year) 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
<u>Common Stock</u>	<u>4,265,588⁽¹⁾</u>	<u>I⁽¹⁾</u>	<u>By Limited Partnerships⁽¹⁾</u>

Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)	4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date				

Explanation of Responses:

1. This is a joint filing by Austin W. Marxe (Marxe) and David M. Greenhouse (Greenhouse). They share voting and investment control over all securities owned by Special Situations Fund III QP, L.P. (QP), Special Situations Cayman Fund, L.P. (Cayman) and Special Situations Life Sciences Fund, L.P. (LS), respectively. 2,952,924 shares of Common Stock are held by QP, 857,036 shares of Common Stock are held by Cayman and 455,629 shares of Common Stock are held by LS. The interest of Marxe and Greenhouse in the shares of Common Stock owned by QP, Cayman and LS is limited to the extent of his pecuniary interest.

Austin W. Marxe 01/10/2006
David M. Greenhouse 01/10/2006

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 5 (b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.