

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

## STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

<b>1. Name and Address of Reporting Person *</b> Shaaltiel Yoseph	<b>2. Issuer Name and Ticker or Trading Symbol</b> Protalix BioTherapeutics, Inc. [PLX]	<b>5. Relationship of Reporting Person(s) to Issuer</b> (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) Executive VP, R&D
(Last) (First) (Middle) C/O PROTALIX BIOTHERAPEUTICS, 2 SNUNIT STREET SCIENCE PARK, POB 455	<b>3. Date of Earliest Transaction</b> (Month/Day/Year) 02/25/2010	
(Street) CARMIEL L3 20100	<b>4. If Amendment, Date of Original Filed</b> (Month/Day/Year)	<b>6. Individual or Joint/Group Filing</b> (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person
(City) (State) (Zip)		

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code V	Amount (A) or (D) Price			

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned  
(e.g., puts, calls, warrants, options, convertible securities)**

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Underlying Securities (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of Derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Stock Options (Right to Buy)	\$ 6.9	02/25/2010		A		145,000		(1)	02/25/2020	Common Stock	145,000	\$ 0	145,000 <sup>(2)</sup>	D	

**Explanation of Responses:**

- The options vest quarterly, in 12 equal tranches over a three-year period, commencing upon the U.S. Food and Drug Administration's marketing approval of taliglucerase alfa, if at all, and are subject to accelerated vesting upon a change in control as described in the Protalix BioTherapeutics, Inc., 2006 Stock Incentive Plan.
- Does not include options to purchase 50,000 shares of common stock at an exercise price equal to \$2.65 per share that expire on February 25, 2019 and options to purchase 263,728 shares of common stock at an exercise price equal to \$5.00 per share that expire on February 7, 2018.

/s/ Yossi Maimon, POA      02/26/2010

\*\* Signature of Reporting      Date  
Person

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 4(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.**