

| OMB APPROVAL | |
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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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

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

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

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 Securities Underlying Derivative Security (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: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | |
|--|--|--------------------------------------|--|--------------------------------|---|--|-----|--|-----------------|---|--|--|---|--|-------|
| | | | | Code | V | (A) | (D) | Date Exercisable | Expiration Date | | | | | | Title |
| Stock Options (Right to Buy) | \$6.9 | 02/25/2010 | | A | | 130,000 | | (1) | 02/25/2020 | Common Stock | 130,000 | \$0 | 130,000 ⁽²⁾ | 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 223,733 shares of common stock at an exercise price equal to \$0.972 per share that expire on September 19, 2016, options to purchase 175,000 shares of common stock at an exercise price equal to \$5.00 per share that expire on February 7, 2018 and 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.

/s/ Yossi Maimon 02/26/2010

** 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 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.