FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Washington, D.C. 20049

| STATEMENT | OF CHANGES | IN BENEFICIAL | . OWNERSHIP |
|------------------|------------|---------------|-------------|

| OMB APPROVAL | | | | | | | | |
|---------------------|-----------|--|--|--|--|--|--|--|
| OMB Number: | 3235-0287 | | | | | | | |
| Estimated average I | burden | | | | | | | |

0.5

hours per response:

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

| Name and Address of Reporting Person* | | | | 2. Issuer Name and Ticker or Trading Symbol | | | | | | | | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) | | | | | | | |
|--|--|--------|--|--|---|--------|-------|---|--|--|---|--------------------------------------|---|---|--|---|---|--|---|--|
| Shaaltiel Yoseph | | | Pro | Protalix BioTherapeutics, Inc. [PLX] | | | | | | | 100 | Sheck X | all app | . , | | 10% C | wner | | | |
| | | | | | | | | | | | | | _ | X | Office | er (give title | | Other (specify | | |
| (Last) (First) (Middle) | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 06/21/2010 | | | | | | | | | | belov | w) below) Executive VP, R&D | | , | | |
| C/O PROTALIX BIOTHERAPEUTICS | | | | 00/21/2010 | | | | | | | | | | | Laccutive | c , 1, 1 | D | | | |
| 2 SNUNIT STREET, SCIENCE PARK, POB 455 | | | - | | | | | | | | | - | | | | | | | | |
| (Chr. al) | | | | 4. If | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | | 6. Individual or Joint/Group Filing (Check Applicable Line) | | | | | | |
| (Street) CARMIEL L3 20100 | | | | | | | | | | | | X Form filed by One Reporting Person | | | | | on | | | |
| | | | | | | | | | | | | | | | Form filed by More than One Reporting | | | | orting | |
| (City) | (St | ate) (| Zip) | | | Person | | | | | | | | | | | | | | |
| | Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned | | | | | | | | | | | | | | | | | | | |
| 1. Title of Security (Instr. 3) 2. Transac Date (Month/Date) | | | | | Execution Dat | | Date, | 3. Transaction Code (Instr. 8) | | 4. Securities Acquired (A) Disposed Of (D) (Instr. 3, 4 5) | | | | 4 and Secu Bend Own | | curities F neficially (ned Following (| | nership Direct Indirect tr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | |
| | | | | | | | | Code | v | Amount | | (A) or (D) | Price | , | Reported Transaction(s) (Instr. 3 and 4) | | | | (111511.4) | |
| Common Stock 06/21/. | | | | | L/2010 | | | | S | | 52,973 | D D | | \$ | 816,781 | | | D | | |
| Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) | | | | | | | | | | | | | | | | | | | | |
| Derivative Conversion Date Executi Security or Exercise (Month/Day/Year) if any | | | 3A. Deem Execution if any (Month/Da | Date, | Code (Instr. | | n of | | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | 7. Title and Amount of Securities Underlying Derivative Security (Instr. and 4) | | str. 3 | | ivative country str. 5) E | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4) | Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | | |
| | | | | | Code | v | (A) | | Date Exercisa | | Expiration Date | Title | or Nun of | | | | | | | |

Explanation of Responses:

1. The sales reported on this Form 4 were effected pursuant to a Rule 10b5-1 trading plan.

/s/ Yossi Maimon, POA 06/23/2010

** 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.