## FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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

| OMB APPROVAL             |                      |  |  |  |  |  |  |  |
|--------------------------|----------------------|--|--|--|--|--|--|--|
| OMB<br>Number:           | 3235-0287            |  |  |  |  |  |  |  |
| Expires:                 | December 31,<br>2014 |  |  |  |  |  |  |  |
| Estimated average burden |                      |  |  |  |  |  |  |  |
| hours per response       | 0.5                  |  |  |  |  |  |  |  |

| 1. Name and Address of Reporting Person* Bahcall Safi R |  |  | 2. Issuer Name <b>and</b> Ticker or Trading Symbol SYNTA PHARMACEUTICALS CORP [SNTA] | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable)  |  |                                       |  |  |
|---|--|--|--|--|--|---------------------------------------|--|--|
| (Last)<br>C/O SYNTA F<br>CORP., 45 H/                   |  |  | 3. Date of Earliest Transaction (Month/Day/Year) 03/05/2013                          | X  | Director  Officer (give title below)  President an | 10% Owner Other (specify below) d CEO |  |  |
| (Street) LEXINGTON MA 02421  (City) (State) (Zip)       |  |  | 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<br>of<br>Security<br>(Instr. 3) | 2. Transaction<br>Date<br>(Month/Day/Year)                                       | Execution Date, | 3.<br>Transac<br>Code<br>(Instr. 8) |   | Acquired (A) or<br>Disposed of (D) |  |       | Securities<br>Beneficially<br>Owned                         | 6.<br>Ownership<br>Form:<br>Direct (D) | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership |  |  |
|   |  |                 | Code                                | V | Amount (A) or (D) Price            |  | Price | Following<br>Reported<br>Transaction(s)<br>(Instr. 3 and 4) | or Indirect<br>(I)<br>(Instr. 4)       | (Instr. 4)  |  |  |

| Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) |   |  |   |                                    |            |         |   |                     |                         |                 |   |  |  |  |  |
|--|---|--|---|------------------------------------|------------|---------|---|---------------------|-------------------------|-----------------|---|--|--|--|--|
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)  | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security | 3. Transaction<br>Date<br>(Month/Day/Year) | 3A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | 4.<br>Transac<br>Code<br>(Instr. 8 | Derivative |         | 6. Date Exercisable<br>and Expiration<br>Date<br>(Month/Day/Year) |                     | Amount of<br>Underlying |                 | 8. Price of<br>Derivative<br>Security<br>(Instr. 5) | 9. Number of<br>Derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported<br>Transaction(s)<br>(Instr. 4) | 10.<br>Ownership<br>Form of<br>Derivative<br>Security:<br>Direct (D)<br>or Indirect<br>(I)<br>(Instr. 4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |  |
|  |   |  |   | Code                               | v          | (A)     | (D)   | Date<br>Exercisable | Expiration<br>Date      | Title           | Amount<br>or<br>Number<br>of<br>Shares              |  |  |  |  |
| Employee<br>Stock Option<br>(Right to Buy)   | \$ 9.65   | 03/05/2013                                 |   | А                                  |            | 230,000 |   | (1)                 | 03/05/2023              | Common<br>Stock | 230,000   | \$ 0   | 230,000  | D  |  |

## **Explanation of Responses:**

1. The option vests as to 25% of the shares on March 5, 2014 and as to an additional 6.25% of the shares on the last day of each successive three-month period thereafter.

/s/ Brian Keane, Attorney-

03/07/2013

\*\* 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.