FORM 4

## **UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

| OMB APPROVAL             |           |  |  |  |  |  |  |  |
|--------------------------|-----------|--|--|--|--|--|--|--|
| OMB Number:              | 3235-0287 |  |  |  |  |  |  |  |
| Estimated average burden |           |  |  |  |  |  |  |  |
| hours per response:      | 0.5       |  |  |  |  |  |  |  |

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 or Section 30(h) of the Investment Company Act of 1940

| 1. Name and Address of Reporting Person*  Gollust Keith R          |  |  |              |  | <u>SY</u>                     | 2. Issuer Name and Ticker or Trading Symbol SYNTA PHARMACEUTICALS CORP [ SNTA ] |       |  |                   |   |   |                        |   |   | (Check all applicable  |  |  | oorting Person(s) to Issu                           |  |  |
|--|--|--|--------------|--|-------------------------------|---|-------|--|-------------------|---|---|------------------------|---|---|--|--|--|---|--|--|
| (Last) (First) (Middle) C/O SYNTA PHARMACEUTICALS CORP.            |  |  |              |  |                               | 3. Date of Earliest Transaction (Month/Day/Year) 07/01/2011                     |       |  |                   |   |   |                        |   |   | Officer (give title Other (specify below)  |  |  |   |  |  |
| 45 HARTWELL AVENUE   |  |  |              |  | 4. If                         | 4. If Amendment, Date of Original Filed (Month/Day/Year)                        |       |  |                   |   |   |                        |   | 6. Individual or Joint/Group Filing (Check Applicable Line) |  |  |  |   |  |  |
|  | LEXINGTON MA 02421   |  |              |  |                               |   |       |  |                   |   |   |                        |   |   | X Form filed by One Reporting Person Form filed by More than One Reporting Person                        |  |  |   |  |  |
| (City)   | Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned |  |              |  |                               |   |       |  |                   |   |   |                        |   |   |  |  |  |   |  |  |
| 1. Title of Security (Instr. 3)  2. Transaction Date (Month/Day/Ye |  |  |              | on 2<br>Year) i                            | 2A. Deemed<br>Execution Date, |   |       | 3.<br>Transact<br>Code (In:                        | 4. Securi         | Securities Acquired (A) of sposed Of (D) (Instr. 3, 4 |   |                        | or 5. Amount of Securities Beneficially Owned |   |  | nership<br>Direct                      | 7. Nature of<br>Indirect<br>Beneficial<br>Ownership                    |   |  |  |
|  |  |  |              |  |                               |   |       |  | Code              | v   | Amount  | nt (A) or Pric         |   | Following Reported Transaction(s) (Instr. 3 and 4)          |  | (Instr. 4)                             |  | (Instr. 4)  |  |  |
| Common Stock 07/01/201   |  |  |              |  |                               | 1   |       |  | A                 |   | 3,929(  | 3,929 <sup>(1)</sup> A |   | )   | 183,452  |  | D  |   |  |  |
| Common Stock 07/01/201   |  |  |              | )11  | 1                             |   | A     |  | 3,929             | 929 <sup>(2)</sup> A                                  |   | 2)                     | 187,381                                       |   | D  |  |  |   |  |  |
| Common Stock   |  |  |              |  |                               |   |       |  |                   |   |   |                        | 1   | 1,677,967   |  | I                                      |  | By<br>Wyandanch<br>Partners,<br>L.P. <sup>(3)</sup> |  |  |
|  |  | Та   | able         | II - Deriva<br>(e.g., p                    |                               |   |       |  |                   |   | osed of<br>converti   |                        |   |   | ned  |  |  |   |  |  |
| Derivative Conversion Date   |  | 3. Transaction<br>Date<br>(Month/Day/Year) | Executif any | Deemed<br>ution Date,<br>/<br>th/Day/Year) | 4.<br>Transa<br>Code (I<br>8) |   |       | 6. Date Exercit<br>Expiration Dat<br>(Month/Day/Yo |                   | te  | 7. Title and<br>Amount of<br>Securities<br>Underlying<br>Derivative<br>Security (Instr. 3<br>and 4) |                        | 8. Pri<br>of<br>Deriv<br>Secu<br>(Instr       | ative   | 9. Numb<br>derivativ<br>Securitie<br>Benefici<br>Owned<br>Followir<br>Reporter<br>Transact<br>(Instr. 4) | ve<br>es<br>ally<br>ng<br>d<br>tion(s) | 10.<br>Ownersh<br>Form:<br>Direct (D<br>or Indire<br>(I) (Instr.<br>4) | Beneficial<br>Ownership                             |  |  |
|  |  |  |              |  | Code                          | v   | (A)   | (D)  | Date<br>Exercisab |   | Expiration<br>Date  | Title                  | Amoun<br>or<br>Numbe<br>of<br>Shares          |   |  |  |  |   |  |  |
| Director<br>Stock<br>Option<br>(Right to<br>Buy)                   | \$5.09   | 07/01/2011                                 |              |  | A                             |   | 5,500 |  | (4)               |   | 07/01/2021  | Common<br>Stock        | 5,500   | \$  | 0  | 5,500                                  |  | D   |  |  |
| Director<br>Stock<br>Option<br>(Right to<br>Buy)                   | \$5.09   | 07/01/2011                                 |              |  | A                             |   | 2,500 |  | (5)               |   | 07/01/2021  | Common<br>Stock        | 2,500   | \$  | 0  | 2,50                                   | 00   | D   |  |  |

## **Explanation of Responses:**

- 1. Represents a restricted stock grant subject to the Issuer's lapsing forfeiture right, which lapses as to 25% of the shares on each of September 30, 2011, December 31, 2011, March 31, 2012 and June 30, 2012, provided the Reporting Person continues to serve as a director of the Issuer on such date.
- 2. Represents a restricted stock grant subject to the Issuer's lapsing forfeiture right, which lapses as to 25% of the shares on each of September 30, 2011, December 31, 2011, March 31, 2012 and June 30, 2012, provided the Reporting Person continues to serve as Chairman of the Board of Directors of the Issuer on such date.
- 3. The Reporting Person disclaims beneficial ownership of these securities except to the extent of his pecuniary interest therein, if any, and the inclusion of these shares in this report shall not be deemed an admission of the beneficial ownership of all of the reported shares for purposes of Section 16 or for any other purpose.
- 4. The option vests as to 25% of the shares on each of September 30, 2011, December 31, 2011, March 31, 2012 and June 30, 2012, provided the Reporting Person continues to serve as a director of the Issuer on such date.
- 5. The option vests as to 25% of the shares on each of September 30, 2011, December 31, 2011, March 31, 2012 and June 30, 2012, provided the Reporting Person continues to serve as Chairman of the Board of Directors of the Issuer on such date.

/s/ Ann Margaret Eames, Attorney-in-Fact

\*\* Signature of Reporting Person Date

07/06/2011

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

- $^{\star}$  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.