

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

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
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1. Name and Address of Reporting Person* Kovner Bruce <hr/> (Last) (First) (Middle) C/O CAXTON ASSOCIATES, 500 PARK AVENUE <hr/> (Street) NEW YORK NY 10022 <hr/> (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) 02/05/2007	3. Issuer Name and Ticker or Trading Symbol SYNTA PHARMACEUTICALS CORP [SNTA]	
		4. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) Other (specify below)	
		5. If Amendment, Date of Original Filed (Month/Day/Year)	
		6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person	

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
Common Stock	87,954 ⁽¹⁾	D	
Common Stock	6,071,070 ⁽¹⁾	I	By CxSynta LLC ⁽²⁾

Table II - Derivative Securities Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares ^M			
Series A Convertible Preferred Stock	(3)	(4)	Common Stock	30,131 ⁽³⁾	\$ ⁽³⁾	D	
Series A Convertible Preferred Stock	(3)	(4)	Common Stock	2,154,105 ⁽³⁾	\$ ⁽³⁾	I	By CxSynta LLC ⁽²⁾
Director Stock Option (Right to Buy)	(5)	07/15/2012	Common Stock	54,687 ⁽⁶⁾	\$ 10.843	D ⁽⁶⁾	

Explanation of Responses:

- Reflects a 1-for-4 reverse stock split effected on February 2, 2007 in connection with the Issuer's initial public offering, pursuant to which the number of shares of Common Stock was divided by 4.
- These shares are owned directly by CxSynta LLC and indirectly by the Reporting Person as Chairman of Caxton Corporation, the managing member of CxSynta LLC. The Reporting Person disclaims beneficial ownership of these securities except to the extent of his pecuniary interest therein, 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.
- Upon the closing of the Issuer's initial public offering of Common Stock, each share of Series A Convertible Preferred Stock, plus accrued dividends, will convert into a certain number of shares of Common Stock in accordance with the terms of the Issuer's Restated Certificate of Incorporation, as amended.
- N/A.
- The option vested as to 25% of the shares on July 15, 2003 and as to an additional 6.25% of the shares on the last day of each successive three-month period thereafter and is currently fully vested.
- Reflects a 1-for-4 reverse stock split effected on February 2, 2007 in connection with the Issuer's initial public offering, pursuant to which (i) the number of shares of Common Stock underlying the option was divided by 4 and (ii) the exercise price of the option was multiplied by 4.

/s/ Scott B. Bernstein,
Attorney-in-Fact

02/05/2007

** 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 5(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.