

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

<b>1. Name and Address of Reporting Person *</b> Kovner Bruce	<b>2. Issuer Name and Ticker or Trading Symbol</b> SYNTA PHARMACEUTICALS CORP [SNTA]	<b>5. Relationship of Reporting Person(s) to Issuer</b> (Check all applicable) <input checked="" type="checkbox"/> Director <input checked="" type="checkbox"/> 10% Owner <input type="checkbox"/> Other Officer (give title below) (specify below)
(Last)                      (First)                      (Middle) C/O CAXTON CORPORATION, 731 ALEXANDER ROAD, BLDG 2	<b>3. Date of Earliest Transaction</b> (Month/Day/Year) 06/29/2012	
(Street) PRINCETON NJ                      08540	<b>4. If Amendment, Date of Original Filed</b> (Month/Day/Year)	<b>6. Individual or Joint/Group Filing</b> (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person
(City)                      (State)                      (Zip)		

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

[illegible]

Common Stock								125,000	I	2011-B Investment Trust <sup>(2)</sup>
Common Stock								125,000	I	By Kovner 2011-C Investment Trust <sup>(2)</sup>
Common Stock								125,000	I	By Kovner 2011-D Investment Trust <sup>(2)</sup>
Common Stock								7,761,716	I	By CxSynta LLC <sup>(3)</sup>
Common Stock	07/01/2012		A		7,312 <sup>(4)</sup>	A	\$ 0 <sup>(4)</sup>	4,923,360	D	
Common Stock	07/01/2012		A		914 <sup>(5)</sup>	A	\$ 0 <sup>(5)</sup>	4,924,274	D	
Common Stock	07/01/2012		A		914 <sup>(6)</sup>	A	\$ 0 <sup>(6)</sup>	4,925,188	D	
Common Stock								125,000	I	By Kovner 2011-A Investment Trust
Common Stock								125,000	I	By Kovner 2011-B Investment Trust
Common Stock								125,000	I	By Kovner 2011-C Investment Trust
Common Stock								125,000	I	By Kovner 2011-D Investment Trust
Common Stock								475,000	I	By Kovner 2012-A Synta Investment Trust
Common Stock								475,000	I	By Kovner 2012-B Synta Investment Trust
Common Stock								475,000	I	By Kovner 2012-C Synta Investment Trust
Common Stock								475,000	I	By Kovner 2012-D Synta Investment Trust
Common Stock								7,761,716	I	By CxSynta LLC <sup>(3)</sup>



**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 Underlying Securities (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 of Derivative Security: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Director Stock Option (Right to Buy)	\$ 5.47	07/01/2012		A		10,000		(7)	07/01/2022	Common Stock	10,000	\$ 0	10,000	D	

**Explanation of Responses:**

- The shares were purchased in multiple transactions at prices ranging from \$4.96 to \$5.64 per share. The price reported above is the weighted average purchase price. The Reporting Person hereby undertakes to provide upon request to the staff of the SEC, the Issuer or a security holder of the Issuer, full information regarding the number of shares purchased at each separate price within the range set forth above.
- The name of the trust reported above corrects a typographical error contained in the name of the trust reported in the Reporting Person's Form 4 filed on January 10, 2012.
- These shares are owned directly by CxSynta LLC and indirectly by the Reporting Person as sole shareholder of Caxton Corporation, the managing member of CxSynta LLC. The Reporting Person disclaims beneficial ownership of these shares 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.
- 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, 2012, December 31, 2012, March 31, 2013 and June 30, 2013, provided the Reporting Person continues to serve as a director of the Issuer on such date.
- 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, 2012, December 31, 2012, March 31, 2013 and June 30, 2013, provided the Reporting Person continues to serve as a member of the Compensation Committee of the Board of Directors of the Issuer on such date.
- 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, 2012, December 31, 2012, March 31, 2013 and June 30, 2013, provided the Reporting Person continues to serve as a member of the Nominating and Governance Committee of the Board of Directors of the Issuer on such date.
- The option vests as to 25% of the shares on each of September 30, 2012, December 31, 2012, March 31, 2013 and June 30, 2013, provided the Reporting Person continues to serve as a director of the Issuer on such date.

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

07/02/2012

\*\* 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.**