FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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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 Addre	ess of Reporting Pers <mark>CC</mark>	on*	2. Issuer Name and Ticker or Trading Symbol <u>SYNTA PHARMACEUTICALS CORP</u> [<u>SNTA</u>]		tionship of Reporting Person(s) to Issuer all applicable) Director X 10% Owner			
(Last) (First) (Middle) C/O CAXTON ASSOCIATES LP		(Middle)	3. Date of Earliest Transaction (Month/Day/Year) 08/08/2011		Officer (give title below)		Other (specify below)	
500 PARK AVENUE (Street) NEW YORK NY 10022 (City) (State) (Zip)			4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Indix Line) X	idual or Joint/Group Form filed by One F Form filed by More Person	Repor	ting Person	

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

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Disposed Of		ed (A) or str. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership	
			Code	v	Amount	(A) or (D)	Price	Reported Transaction(s) (Instr. 3 and 4)	(Instr. 4)	(Instr. 4)	
Common Stock	08/08/2011		Р		41,700	A	\$3.7733(1)(5)	4,806,824	D		
Common Stock	08/09/2011		Р		52,464	A	\$3.7099(2)(5)	4,859,288	D		
Common Stock	08/10/2011		Р		33,978	A	\$3.6963(3)(5)	4,893,266	D		
Common Stock								7,761,716	I	By CxSynta LLC ⁽⁴⁾	

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. Transact Code (In 8)		of Deriv Secu Acqu (A) of Dispo of (D)	rities ired r osed) :. 3, 4	Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	Form: Direct (D)	Beneficial Ownership
				Code	v	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				

Explanation of Responses:

1. The shares were purchased in multiple transactions at prices ranging from \$3.74 to \$3.81 per share. The price reported above is the weighted average purchase price. See footnote (5)

2. The shares were purchased in multiple transactions at prices ranging from \$3.68 to \$3.78 per share. The price reported above is the weighted average purchase price. See footnote (5)

3. The shares were purchased in multiple transactions at prices ranging from \$3.68 to \$3.72 per share. The price reported above is the weighted average purchase price. See footnote (5)

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 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.

5. 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.

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

<u>08/10/2011</u>

** 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.

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