

**FORM 5****UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**OMB APPROVAL**

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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).

**ANNUAL STATEMENT OF CHANGES IN BENEFICIAL  
OWNERSHIP**

☐ Form 3 Holdings Reported.

☐ Form 4 Transactions Reported.

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*			2. Issuer Name and Ticker or Trading Symbol			5. Relationship of Reporting Person(s) to Issuer (Check all applicable)		
<u>Singh Amar</u>			<u>SYNTA PHARMACEUTICALS CORP [ SNTA ]</u>			<input checked="" type="checkbox"/> Director 10% Owner <input type="checkbox"/> Officer (give title below) Other (specify below) <u>Sr. VP, Chief Business Officer</u>		
(Last)	(First)	(Middle)	3. Statement for Issuer's Fiscal Year Ended (Month/Day/Year)			6. Individual or Joint/Group Filing (Check Applicable Line)		
<u>C/O SYNTA PHARMACEUTICALS CORP.</u>			<u>12/31/2013</u>			<input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person		
<u>45 HARTWELL AVENUE</u>			4. If Amendment, Date of Original Filed (Month/Day/Year)					
(Street)								
<u>LEXINGTON</u>	<u>MA</u>	<u>02421</u>						
(City)	(State)	(Zip)						

**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 Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned at end of Issuer's Fiscal Year (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
				Amount	(A) or (D)	Price			
<u>Common Stock</u>	<u>12/02/2013</u>		<u>S5</u>	<u>5,870</u>	<u>D</u>	<u>\$4.9964</u>	<u>15,161</u>	<u>D</u>	

**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 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)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
						Date Exercisable	Expiration Date	Title	Amount or Number of Shares			
(A)	(D)											

Explanation of Responses:

/s/ Garrett M. Winslow,  
Attorney-in-Fact

02/13/2014

\*\* 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.