

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>Bahcall Safi R</u>			<u>SYNTA PHARMACEUTICALS CORP [SNTA]</u>			<input checked="" type="checkbox"/> Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) President and CEO		
(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 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			
Common Stock	05/08/2013		G	100,000	D	\$0	1,953,135	D	
Common Stock	05/08/2013		G	100,000	A	\$0	100,000	I	By Princeton-A Trust ⁽¹⁾
Common Stock	05/08/2013		G	100,000	D	\$0	1,853,135	D	
Common Stock	05/08/2013		G	100,000	A	\$0	100,000	I	By Princeton-B Trust ⁽¹⁾
Common Stock							15,000	I	By Safi R. Bahcall Irrevocable Trust ⁽¹⁾
Common Stock							65,000	I	By Neta Bahcall 2012 Irrevocable Trust ⁽¹⁾
Common Stock							400,000	I	By Princeton GRAT ⁽¹⁾

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				
					(A) (D)							

Explanation of Responses:

1. The Reporting Person disclaims beneficial ownership of these shares except to the extent of any 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.

/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.