

**FORM 5**

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Form 3 Holdings Reported.

Form 4 Transactions Reported.

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

**ANNUAL 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

OMB APPROVAL	
OMB Number:	3235-0362
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1. Name and Address of Reporting Person * <b>Gollust Keith R</b>  (Last) (First) (Middle) <b>C/O SYNTA PHARMACEUTICALS CORP., 45 HARTWELL AVENUE</b>  (Street) <b>LEXINGTON MA 02421</b>  (City) (State) (Zip)	2. Issuer Name <b>and</b> Ticker or Trading Symbol <b>SYNTA PHARMACEUTICALS CORP [SNTA]</b>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner  Officer (give title below) Other (specify below)
	3. Statement for Issuer's Fiscal Year Ended (Month/Day/Year) <b>12/31/2007</b>	
4. If Amendment, Date of Original Filed (Month/Day/Year)		

**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	08/21/2007		G	50,000	D	\$ 0	0	I	By Gollust Trust II
Common Stock	08/21/2007		G	50,000	A	\$ 0	1,380,970	I	By Wyandanch Partners, L.P. (1)
Common Stock							39,176	D	

**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)
					(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Director Stock Option (Right to Buy)	\$ 10.843	12/13/2007		D4 (2)		28,125	(3)	05/27/2014	Common Stock	28,125	\$ 0	46,875	D	
Director Stock Option (Right to Buy)	\$ 16	12/13/2007		A4 (2)	28,125		(3)	05/27/2014	Common Stock	28,125	\$ 0	28,125	D	

**Explanation of Responses:**

- The Reporting Person disclaims beneficial ownership of these securities except to the extent of his pecuniary interest therein, if any, 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.
- The Reporting Person has voluntarily amended a common stock option agreement reflecting a May 27, 2004 grant for 75,000 shares at an exercise price of \$10.843. The amendment provides that effective as of December 13, 2007, the exercise price for the portion of the option that vests on or after January 1, 2005 - 28,125 shares - has been increased from \$10.843 to \$16.00. For Section 16(a) purposes, the Reporting Person is reporting this amendment as a cancellation of the affected portion of the original option and the grant of a replacement option. The Reporting Person received no consideration in connection with this amendment.
- The option vested as to 50% of the shares on May 27, 2004 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.

/s/ Ann Margaret Eames,      02/14/2008  
Attorney-in-Fact

\*\* Signature of Reporting      Date  
Person

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.**