

FORM 4**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

OMB APPROVAL

OMB Number: 3235-0287

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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 Address of Reporting Person* <u>Chen Lin Huey</u> <hr/> (Last) (First) (Middle) 184 EAST EMERSON ROAD <hr/> (Street) LEXINGTON MA 02420 <hr/> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>SYNTA PHARMACEUTICALS CORP [SYNTA]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) Other (specify below)
	3. Date of Earliest Transaction (Month/Day/Year) 08/06/2009	
	4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting 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 Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	08/06/2009		P		20,000	A	\$2.88	620,035	I	By Spouse
Common Stock								12,710	I	By Alexander Chen Wu 2002 Irrevocable Trust
Common Stock								8,560	I	By Allison Chen Wu 2004 Irrevocable Trust
Common Stock								1,684,016	I	By Wisteria Trust
Common Stock								243,481	I	By Ann Chen Trust
Common Stock								243,481	I	By Jane Chen Trust
Common Stock								12,946	I	By Chen Grandchildren's Trust
Common Stock								142,223	I	By LAJ Holdings LLC ⁽¹⁾
Common Stock								160,000	I	By Lan Bo Chen 2008 GRAT
Common Stock								320,000	I	By Lin-Huey Chen 2008 GRAT

**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)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				

Explanation of Responses:

1. The Reporting Person disclaims beneficial ownership of these securities except to the extent of her 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.

/s/ Ann Margaret Eames,
Attorney-in-Fact

08/07/2009

** 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.