

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP**

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

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>Brugger Stephen B</u> _____ (Last) (First) (Middle) <u>C/O MOMENTA PHARMACEUTICALS, INC.</u> <u>675 WEST KENDALL STREET</u> _____ (Street) <u>CAMBRIDGE MA 02142</u> _____ (City) (State) (Zip)			2. Issuer Name and Ticker or Trading Symbol <u>MOMENTA PHARMACEUTICALS INC</u> [ <u>MNTA</u> ]			5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>Senior V.P.</u>		
3. Date of Earliest Transaction (Month/Day/Year) <u>09/06/2005</u>			6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person					
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 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	09/06/2005		M		59,840	A	\$0.23	62,083 <sup>(4)</sup>	D	
Common Stock	09/06/2005		M		22,670	A	\$0.231	84,753 <sup>(4)</sup>	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)	
				Code	V	(A)	(D)	Date Exercisable	Expiration Date						Title
Employee Stock Option (right to buy)	\$0.23	09/06/2005		M		59,840		09/18/2003 <sup>(1)</sup>	09/17/2012	Common Stock	87,040 <sup>(2)</sup>	\$0.23 <sup>(2)</sup>	27,200	D	
Employee Stock Option (right to buy)	\$0.231	09/06/2005		M		22,670		05/29/2004 <sup>(3)</sup>	05/28/2013	Common Stock	51,200 <sup>(2)</sup>	\$0.231 <sup>(2)</sup>	28,530	D	

**Explanation of Responses:**

- The stock option vested as to 25% of the shares on September 18, 2003 and as to an additional 6.25% of the shares at the end of each successive three-month period thereafter.
- Reflects a 1.28-for-1 forward stock split, which became effective on May 10, 2004, pursuant to which (i) the number of shares of common stock was multiplied by 1.28 and (ii) the exercise price of the option was divided by 1.28.
- The stock option vested as to 25% of the shares on May 29, 2004 and as to an additional 6.25% of the shares at the end of each successive three-month period thereafter.
- Includes 2,243 shares of common stock acquired on January 31, 2005 under the Momenta Pharmaceuticals, Inc. 2004 Employee Stock Purchase Plan.

/s/ Steven B. Brugger 09/08/2005

\*\* 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.