

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).

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>Flagship Ventures Fund 2007, L.P.</u> (Last) (First) (Middle) ONE MEMORIAL DRIVE 7TH FLOOR (Street) CAMBRIDGE MA 02142 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>AGIOS PHARMACEUTICALS INC [AGIO]</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) <u>07/29/2013</u>	

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	07/29/2013		C		3,860,738 ⁽¹⁾	A	\$0.00	3,860,738	D ⁽²⁾	

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
Series A Convertible Preferred Stock	(3)	07/29/2013		C			10,000,000	(3)	(3)	Common Stock	3,636,363	(3)	0	D ⁽²⁾	
Series C-2 Convertible Preferred Stock	(3)	07/29/2013		C			617,031	(3)	(3)	Common Stock	224,375	(3)	0	D ⁽²⁾	

1. Name and Address of Reporting Person* <u>Flagship Ventures Fund 2007, L.P.</u> (Last) (First) (Middle) ONE MEMORIAL DRIVE 7TH FLOOR (Street) CAMBRIDGE MA 02142 (City) (State) (Zip)		
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1. Name and Address of Reporting Person*		
AFEYAN NOUBAR		
(Last)	(First)	(Middle)
ONE MEMORIAL DRIVE 7TH FLOOR		
(Street)		
CAMBRIDGE	MA	02142
(City)	(State)	(Zip)
1. Name and Address of Reporting Person*		
KANIA EDWIN M JR		
(Last)	(First)	(Middle)
ONE MEMORIAL DRIVE 7TH FLOOR		
(Street)		
CAMBRIDGE	MA	02142
(City)	(State)	(Zip)
1. Name and Address of Reporting Person*		
Flagship Ventures 2007 General Partner LLC		
(Last)	(First)	(Middle)
ONE MEMORIAL DRIVE 7TH FLOOR		
(Street)		
CAMBRIDGE	MA	02142
(City)	(State)	(Zip)

Explanation of Responses:

1. Represents the total number of shares received upon conversion of shares of the Issuer's Series A Convertible Preferred Stock (the "Series A Shares") and Series C-2 Convertible Preferred Stock (the "Series C-2 Shares", and together with the Series A Shares, collectively, the "Preferred Shares").
2. These shares are held by Flagship Ventures Fund 2007, L.P. ("Flagship 2007"). Flagship Ventures 2007 General Partner, LLC ("Flagship 2007 LLC") is the general partner of Flagship 2007. Noubar B. Afeyan Ph.D. and Edwin M. Kania, Jr. are the managers of Flagship 2007 LLC. Flagship 2007 LLC and each of these individuals may be deemed to share voting and investment power with respect to all shares held by Flagship 2007. Each of the filing persons disclaims beneficial ownership of the shares except to the extent of any pecuniary interest therein.
3. Effective upon the closing of the Issuer's initial public offering of its Common Stock, each Preferred Share automatically converted at a ratio of 1-for-2.75 into the number of shares of Common Stock shown in column 7. The Preferred Shares had no expiration date.

Remarks:

[By: /s/ Noubar B. Afeyan Ph. D., for Flagship Ventures Fund 2007, L.P. as Manager of Flagship Ventures 2007 General Partner LLC, its General Partner](#) [07/31/2013](#)

[By: /s/ Noubar B. Afeyan Ph. D.](#) [07/31/2013](#)

[/s/ Edwin M. Kania, Jr.](#) [07/31/2013](#)

[/s/ Noubar B. Afeyan Ph. D., as Manager of Flagship Ventures 2007 General Partner LLC](#) [07/31/2013](#)

** 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.