I

FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

OMB APPROVAL
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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 [*] Biller Scott | | | 2. Issuer Name and Ticker or Trading Symbol AGIOS PHARMACEUTICALS INC [AGIO] | | ationship of Reporting P (all applicable) Director | 10% Owner |
|--|-----------------------|-----------------------|---|-----------------------|--|---------------------------------------|
| (Last) C/O AGIOS PH | (First) ARMACEUTIC | (Middle) ALS, INC. | 3. Date of Earliest Transaction (Month/Day/Year) 06/21/2017 | | Officer (give title below) Chief Scientifi | Other (specify below) c Officer |
| 88 SIDNEY STREET (Street) CAMBRIDGE MA 02139 (City) (State) (Zip) | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | 6. Indi Line) X | vidual or Joint/Group Fil Form filed by One Re Form filed by More th Person | porting 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) | Transaction Code (Instr. | | 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5) | | | 5. Amount of Securities Beneficially Owned | 6. Ownership Form: Direct (D) or Indirect (I) | 7. Nature of Indirect Beneficial Ownership |
|---------------------------------|--|---|-----------------------------|---|---|---------------|----------|---|--|---|
| | | | Code | v | Amount | (A) or (D) | Price | Following Reported Transaction(s) (Instr. 3 and 4) | (Instr. 4) | (Instr. 4) |
| Common stock | 06/21/2017 | | M ⁽¹⁾ | | 4,292 | Α | \$9.05 | 4,556(2) | D | |
| Common stock | 06/21/2017 | | S ⁽³⁾ | | 4,292 | D | \$55 | 264 ⁽²⁾ | D | |
| Common stock | 06/21/2017 | | М | | 3,000 | A | \$0.4675 | 3,264 ⁽²⁾ | D | |
| Common stock | | | | | | | | 46,470 | I | See footnote ⁽⁴⁾ |

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

| | | | (e.g., p | ouis, ca | iis, | , wa | rranu | s, opuons | , convert | ble sec | unues) | | | | |
|---|---|--|---|---|------|------|-------|--|--------------------|---|--|--|--|---|-------------------------|
| 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) | | | | 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) | Beneficial Ownership |
| | | | | Code | v | (A) | (D) | Date Exercisable | Expiration Date | Title | Amount or Number of Shares | | | | |
| Stock option (right to buy) | \$9.05 | 06/21/2017 | | M ⁽¹⁾ | | | 4,292 | (5) | 04/29/2023 | Common stock | 4,292 | \$0.00 | 41,719 | D | |
| Stock option (right to buy) | \$0.4675 | 06/21/2017 | | М | | | 3,000 | (6) | 12/06/2020 | Common stock | 3,000 | \$0.00 | 17,875 | D | |

Explanation of Responses:

1. This exercise was effected pursuant to a Rule 10b5-1 trading plan adopted by the reporting person.

2. This amount excludes 15,470 shares of common stock which were transferred on June 14, 2017 to a spousal lifetime access trust, of which the reporting person's wife is trustee.

3. This sale was effected pursuant to a Rule 10b5-1 trading plan adopted by the reporting person.

4. Shares held by a spousal lifetime access trust, of which the reporting person's wife is trustee. This amount includes 15,470 shares of common stock which were transferred on June 14, 2017 from the reporting person's direct holdings.

5. This option was originally granted on April 30, 2013 for the purchase of 68,181 shares of common stock. The option vests as to 50% of the underlying shares upon the achievement of a performance milestone, and as to the remaining 50% of upon the achievement of a second performance milestone. The Company's board of directors determined that the first performance milestone was achieved on December 3, 2015, resulting in the vesting of this option as to 34,091 shares. On January 26, 2017, the Company's board of directors determined that the second performance milestone was achieved, resulting in the vesting of this option as to the remaining 34,090 shares.

6. This option was granted on December 7, 2010. The shares underlying this option vest as to 25% of the shares on September 20, 2011, with the remaining 75% vesting in 36 equal monthly installments thereafter.

/s/ Andrew Hirsch, as Attomey-in-fact for Scott Biller

06/23/2017

** 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.