

Aeglea BioTherapeutics, Inc.
 Form 4
 February 21, 2017

FORM 4

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

OMB APPROVAL

OMB Number: 3235-0287
 Expires: January 31, 2015
 Estimated average burden hours per response... 0.5

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 OF SECURITIES

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

(Print or Type Responses)

1. Name and Address of Reporting Person *
ORBIMED ADVISORS LLC

2. Issuer Name and Ticker or Trading Symbol
Aeglea BioTherapeutics, Inc.
[AGLE]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)
601 LEXINGTON AVENUE, 54TH FLOOR

3. Date of Earliest Transaction (Month/Day/Year)
02/16/2017

____ Director 10% Owner
 ____ Officer (give title below) ____ Other (specify below)

(Street)
NEW YORK, NY 10022

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)
 ____ Form filed by One Reporting Person
 Form filed by More than One Reporting Person

(City) (State) (Zip)

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)
				(A) or (D)	Price		
				Code V	Amount		
Common Stock	02/16/2017		P	30,500	A 5.04 (1)	\$ 1,390,724	I See Footnotes (4) (5)
Common Stock	02/17/2017		P	71,800	A 5.19 (2)	\$ 1,462,524	I See Footnotes (4) (5)
Common Stock	02/21/2017		P	7,000	A 5.36 (3)	\$ 1,469,524	I See Footnotes (4) (5)

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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SEC 1474
(9-02)

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 Underlying Securities (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of Derivative Securities Beneficially Owned (Instr. 5)
				Code	V (A) (D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
ORBIMED ADVISORS LLC 601 LEXINGTON AVENUE 54TH FLOOR NEW YORK, NY 10022		X		
OrbiMed Capital GP V LLC 601 LEXINGTON AVENUE 54TH FLOOR NEW YORK, NY 10022		X		
ISALY SAMUEL D 601 LEXINGTON AVENUE 54TH FLOOR NEW YORK, NY 10022		X		

Signatures

/s/ Samuel D.
Isaly

02/21/2017

**Signature of
Reporting Person

Date

Explanation of Responses:

* 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).

(1) The price reported in Column 4 is a weighted average price. These shares of the Issuer's common stock ("Shares") were purchased in multiple transactions at prices ranging from \$4.97 to \$5.10 inclusive. Upon request, the Reporting Persons undertakes to provide the Issuer, any security holder of the Issuer, or the Securities and Exchange Commission (the "SEC") full information regarding the Shares purchased at each separate price within the range set forth in this footnote.

(2) The price reported in Column 4 is a weighted average price. These Shares were purchased in multiple transactions at prices ranging from \$5.10 to \$5.25 inclusive. Upon request, the Reporting Persons undertake to provide the Issuer, any security holder of the Issuer, or the SEC full information regarding the Shares purchased at each separate price within the range set forth in this footnote.

(3) The price reported in Column 4 is a weighted average price. These Shares were purchased in multiple transactions at prices ranging from \$5.25 to \$5.50 inclusive. Upon request, the Reporting Persons undertake to provide the Issuer, any security holder of the Issuer, or the SEC full information regarding the Shares purchased at each separate price within the range set forth in this footnote.

(4) These securities are held of record by OrbiMed Private Investments V, LP ("OPI V"). OrbiMed Capital GP V LLC ("GP V") is the sole general partner of OPI V, and OrbiMed Advisors LLC ("Advisors"), a registered adviser under the Investment Advisors Act of 1940, as amended, is the sole managing member of GP V. Samuel D. Isaly ("Isaly"), a natural person, is the managing member of, and holder of a controlling interest in, Advisors. By virtue of such relationships, GP V, Advisors and Isaly may be deemed to have voting and investment power with respect to the securities held by OPI V noted above and as a result may be deemed to beneficially own such securities for purposes of Rule 13d-3 under the Securities Exchange Act of 1934, as amended (the "Exchange Act").

(5) This report on Form 4 is jointly filed by GP V, Advisors, and Isaly. Each of the Reporting Persons disclaims beneficial ownership of the securities reported herein for purposes of Rule 16a-1(a) under the Exchange Act, except to the extent of its or his pecuniary interest therein, if any. This report shall not be deemed an admission that any of the Reporting Persons is a beneficial owner of such securities for the purpose of Section 16 of the Exchange Act, or for any other purpose.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

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