

Aeglea BioTherapeutics, Inc.
 Form 3
 April 19, 2016

FORM 3 UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

OMB APPROVAL

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INITIAL STATEMENT OF 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 *			2. Date of Event Requiring Statement	3. Issuer Name and Ticker or Trading Symbol	
Â ORBIMED ADVISORS LLC			(Month/Day/Year)	Aeglea BioTherapeutics, Inc. [AGLE]	
(Last)	(First)	(Middle)	04/12/2016	4. Relationship of Reporting Person(s) to Issuer	5. If Amendment, Date Original Filed(Month/Day/Year)
601 LEXINGTON AVENUE,Â 54TH FLOOR				(Check all applicable)	
(Street)				<input type="checkbox"/> Director	<input checked="" type="checkbox"/> 10% Owner
NEW YORK,Â NYÂ 10022				<input type="checkbox"/> Officer	<input type="checkbox"/> Other
(City)	(State)	(Zip)		(give title below)	(specify below)
				6. Individual or Joint/Group Filing(Check Applicable Line)	
				<input type="checkbox"/> Form filed by One Reporting Person	
				<input checked="" type="checkbox"/> Form filed by More than One Reporting Person	

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
Common Stock	1,360,224	I	See footnote <u>(1)</u> <u>(2)</u>

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

SEC 1473 (7-02)

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 control number.

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

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)	3. Title and Amount of Securities Underlying Derivative Security (Instr. 4) Title	4. Conversion or Exercise Price of Derivative Security	5. Ownership Form of Derivative Security: Direct (D)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
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Date Exercisable	Expiration Date	Amount or Number of Shares	or Indirect (I) (Instr. 5)
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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, for himself and as Managing Member of OrbiMed Advisors LLC, the
Managing Member of OrbiMed Capital GP V LLC

04/18/2016

__Signature of Reporting Person

Date

Explanation of Responses:

* If the form is filed by more than one reporting person, *see* Instruction 5(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).

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") is the managing member of GP V. Samuel D. Isaly ("Isaly"), a

(1) natural person, is the managing member of and owner of a controlling interest in Advisors. By virtue of such relationships, GP V, Advisors and Mr. Isaly may be deemed to have voting and investment power over the securities held by OPI V and as a result may be deemed to have beneficial ownership over such securities.

This report on Form 3 is jointly filed by GP V, Advisors, and Mr. Isaly. Each of the Reporting Persons disclaims beneficial ownership of the securities reported herein for purposes of Rule 16a-1(a) under the Securities Exchange Act of 1934, as amended (the "Exchange

(2) Act"), except to the extent of its or his pecuniary interest therein, if any. This report on Form 3 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.

Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.