

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

OMB APPROVAL	
OMB Number:	3235-0287
Estimated average burden hours per response:	0.5

1. Name and Address of Reporting Person* <u>York Charles N II</u> (Last) (First) (Middle) <u>C/O AEGLEA BIOTHERAPEUTICS, INC.</u> <u>901 S. MOPAC EXPRESSWAY, SUITE 250</u> (Street) <u>AUSTIN TX 78746</u> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>Aeglea BioTherapeutics, Inc. [AGLE]</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>Chief Financial Officer and VP</u>
	3. Date of Earliest Transaction (Month/Day/Year) <u>12/01/2017</u>	
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	08/15/2016		P	V	2,000 ⁽¹⁾	A	\$3.987	10,828	D	
Common Stock	02/15/2017		P	V	2,000 ⁽¹⁾	A	\$4.284	12,828	D	
Common Stock	08/15/2017		P	V	1,959 ⁽¹⁾	A	\$2.516	14,787	D	
Common Stock	12/01/2017		P		6,500	A	\$4.5931 ⁽²⁾	21,287	D	
Common Stock	12/04/2017		P		3,259	A	\$4.9699 ⁽³⁾	24,546	D	
Common Stock	12/05/2017		P		10,241	A	\$4.7554 ⁽⁴⁾	34,787	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					

Explanation of Responses:

- These shares were acquired under the Issuer's Employee Stock Purchase Plan in a transaction that was exempt under both Rule 16b-3(d) and Rule 16b-3(c).
- Represents a weighted average purchase price per share. These shares were purchased in multiple transactions at prices ranging from \$4.48 to \$4.65 per share. The Reporting Person has provided to the Issuer, and undertakes to provide to the staff of the Securities and Exchange Commission or any security holder of the Issuer, upon request, full information regarding the number of shares purchased at each separate price within the range.
- Represents a weighted average purchase price per share. These shares were purchased in multiple transactions at prices ranging from \$4.84 to \$5.05 per share. The Reporting Person has provided to the Issuer, and undertakes to provide to the staff of the Securities and Exchange Commission or any security holder of the Issuer, upon request, full information regarding the number of shares purchased at each separate price within the range.
- Represents a weighted average purchase price per share. These shares were purchased in multiple transactions at prices ranging from \$4.69 to \$5.05 per share. The Reporting Person has provided to the Issuer, and undertakes to provide to the staff of the Securities and Exchange Commission or any security holder of the Issuer, upon request, full information regarding the number of shares purchased at each separate price within the range.

/s/ Charles N. York II 12/05/2017

** 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.