

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>Quinn Anthony G.</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) <input checked="" type="checkbox"/> Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>President & CEO</u>
	3. Date of Earliest Transaction (Month/Day/Year) <u>07/18/2018</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			

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
Employee Stock Option (right to buy)	\$9.36	07/18/2018		A		300,000		(1)	07/17/2028	Common Stock	300,000	\$0	300,000	D	
Employee Stock Option (right to buy)	\$9.36	07/18/2018		A		75,000		(2)	07/17/2028	Common Stock	75,000	\$0	75,000	D	
Employee Stock Option (right to buy)	\$9.36	07/18/2018		A		75,000		(3)	07/17/2028	Common Stock	75,000	\$0	75,000	D	
Employee Stock Option (right to buy)	\$9.36	07/18/2018		A		50,000		(4)	07/17/2028	Common Stock	50,000	\$0	50,000	D	

Explanation of Responses:

- The stock option vests and becomes exercisable in 48 equal monthly installments beginning on August 18, 2018, until such time as the option is 100% vested, subject to the continuing employment of the Reporting Person on each vesting date.
- The stock option vests and becomes exercisable contingent upon achievement of certain stock price milestones.
- The stock option vests and becomes exercisable contingent upon achievement of certain product development milestones.
- The stock option vests and becomes exercisable contingent upon achievement of certain regulatory milestones.

/s/ Charles N. York II, by
power of attorney

07/20/2018

** Signature of Reporting Person Date

* 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.