

OMB APPROVAL	
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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>MacLean Michael E</u> (Last) (First) (Middle) <u>C/O AKCEA THERAPEUTICS, INC.</u> <u>55 CAMBRIDGE PARKWAY</u> (Street) <u>CAMBRIDGE MA 02142</u> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>AKCEA THERAPEUTICS, INC. [AKCA]</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</u>
	3. Date of Earliest Transaction (Month/Day/Year) <u>01/02/2018</u>	
	4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting 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)	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)	
						Date Exercisable	Expiration Date						Title
Stock Option (right to buy)	\$17.38	01/02/2018		A	30,000	(I)	01/01/2028	Common Stock	30,000	\$0.00	30,000	D	

Explanation of Responses:

1. The shares vest as follows: 1/4th of the shares vest one year after January 2, 2018; 1/48th of the shares vest monthly thereafter over the next three years.

Remarks:

/s/ Michael MacLean 01/04/2018
 ** 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.

POWER OF ATTORNEY

Know all by these presents, that the undersigned hereby constitutes and appoints each of Paula Soteropoulos and Jeff Goldberg, signing individually, the undersigned's true and lawful attorney-in-fact and agent to:

(1) execute for and on behalf of the undersigned, an officer, director or holder of 10% or more of a registered class of securities of Akcea Therapeutics ("Akcea"), Forms 3, 4 and 5 in accordance with Section 16(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and the rules thereunder;

(2) do and perform any and all acts for and on behalf of the undersigned that may be necessary or desirable to complete and execute such Form 3, 4 or 5, complete and execute any amendment or amendments thereto, and timely file such forms or amendments with the United States Securities and Exchange Commission and any stock exchange or similar authority; and

(3) take any other action of any nature whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

The undersigned hereby grants to such attorney-in-fact full power and authority to do and perform any and every act and thing whatsoever requisite, necessary, or proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as the undersigned might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorney-in-fact, or such attorney-in-fact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this power of attorney and the rights and powers herein granted. The undersigned acknowledges that the foregoing attorney-in-fact, in serving in such capacity at the request of the undersigned, is not assuming, nor is Akcea assuming, any of the undersigned's responsibilities to comply with Section 16 of the Exchange Act.

This Power of Attorney shall remain in full force and effect until the earliest to occur of (a) the undersigned is no longer required to file Forms 3, 4 and 5 with respect to the undersigned's holdings of and transactions in securities issued by Akcea, (b) revocation by the undersigned in a signed writing delivered to the foregoing attorney-in-fact or (c) until such attorney-in-fact shall no longer be employed by Akcea.

IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of this 4th day of January, 2018.

/s/ Michael F. MacLean
MICHAEL F. MACLEAN