
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, DC 20549

SCHEDULE 13D

**Under the Securities Exchange Act of 1934
(Amendment No. 6)***

Akcea Therapeutics, Inc.
(Name of Issuer)

Common Stock
(Title of Class of Securities)

00972L 107
(CUSIP Number)

Elizabeth L. Hougen
Ionis Pharmaceuticals, Inc.
2855 Gazelle Court
Carlsbad, CA 92010
(760) 931-9200

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

August 30, 2020
(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7 for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1.	Name of Reporting Persons Ionis Pharmaceuticals, Inc. ("Ionis")	
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3.	SEC Use Only	
4.	Source of Funds (See Instructions) WC	
5.	Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e) <input type="checkbox"/>	
6.	Citizenship or Place of Organization Delaware	
Number of Shares Beneficially Owned by Each Reporting Person With	7.	Sole Voting Power 77,094,682
	8.	Shared Voting Power
	9.	Sole Dispositive Power 77,094,682
	10.	Shared Dispositive Power
11.	Aggregate Amount Beneficially Owned by Each Reporting Person 77,094,682	
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
13.	Percent of Class Represented by Amount in Row 11 75.9%	
14.	Type of Reporting Person (See Instructions) CO	

Item 1. Security and Issuer.

This Amendment No. 6 to Schedule 13D is being filed as an amendment to the initial statement on Schedule 13D relating to the Common Stock, \$0.001 par value per share (“Common Stock”), of Akcea Therapeutics, Inc., a Delaware corporation (the “Issuer”), as filed with the Securities and Exchange Commission (the “SEC”) on July 27, 2017 (the “Original Schedule 13D”), as amended by Amendment No. 1 filed April 26, 2018, Amendment No. 2 filed August 7, 2018, Amendment No. 3 filed October 22, 2018, Amendment No. 4 filed April 2, 2019, and Amendment No. 5 filed December 20, 2019 (as previously amended, the “Schedule 13D”). The principal executive offices of the Issuer are located at 22 Boston Wharf Road, 9th Floor, Boston, Massachusetts 02210.

All capitalized terms used in this Amendment No. 6 but not defined herein shall have the meanings ascribed thereto in the Schedule 13D.

Item 4. Purpose of Transaction.

Item 4 of the Schedule 13D is hereby amended and supplemented by adding the following paragraph at the end of Item 4:

On August 30, 2020, the Issuer, the Reporting Person and Avalanche Merger Sub, Inc. (“Purchaser”), a Delaware Corporation and wholly owned subsidiary of the Reporting Person, entered into an Agreement and Plan of Merger (the “Merger Agreement”). Pursuant to the Merger Agreement, and upon the terms and subject to the conditions thereof, on the tenth business day after the date of the Merger Agreement, Purchaser will commence a tender offer (the “Offer”) to purchase all of the issued and outstanding shares (“Shares”) of Common Stock at a price of \$18.15 per share, net to the seller in cash, without interest (the “Offer Price”).

Purchaser’s obligation to accept for payment the Shares tendered in the Offer is conditioned upon, among other things, there being validly tendered and not validly withdrawn Shares that, excluding the Shares beneficially owned by the Reporting Person, its affiliates (other than the Issuer and its subsidiaries), their respective directors and executive officers and certain other affiliated person(s) set forth in an exhibit to the Merger Agreement, represent one more Share than 50% of the Shares not beneficially owned by such entities and persons outstanding at the time of the expiration of the Offer. Given the current level of ownership by Ionis in Akcea, the transaction is not anticipated to be subject to any antitrust or competition regulatory approvals.

Following the consummation of the Offer and subject to the terms and conditions of the Merger Agreement, Purchaser will merge with and into the Issuer pursuant to Section 251(h) of the General Corporation Law of the State of Delaware (the “DGCL”) and without a vote or meeting of the stockholders of the Issuer, with the Issuer being the surviving corporation and becoming a wholly owned subsidiary of the Reporting Person (the “Merger”).

At the effective time of the Merger, (i) each Share (other than Shares held by the Issuer, the Reporting Person, Purchaser, any wholly owned subsidiary of the Reporting Person or Purchaser, or by stockholders of the Issuer who have perfected their statutory rights of appraisal under the DGCL) will be converted into the right to receive an amount in cash equal to the Offer Price, without any interest thereon and subject to any withholding of taxes; (ii) the directors of Purchaser immediately prior to the effective time will be the directors of the Issuer as the surviving corporation; and (iii) the certificate of incorporation of the Issuer will be amended and restated in its entirety as set forth in an exhibit to the Merger Agreement.

Upon completion of the Merger, the Shares currently listed on the Nasdaq Stock Market (the “Nasdaq”) will cease to be listed on the Nasdaq and will subsequently be deregistered under the Securities Exchange Act of 1934.

The foregoing description of the Merger Agreement is qualified in its entirety by reference to the full text of the Merger Agreement, which is attached as Exhibit 1 and is incorporated herein by reference.

The purpose of the Offer and the Merger is for the Reporting Person to acquire the entire equity interest in the Issuer. The Offer, as the first step in the acquisition of the Issuer, is intended to facilitate the acquisition of all of the Shares. The purpose of the Merger is to acquire all Shares not purchased pursuant to the Offer or otherwise held by the Reporting Person or Purchaser and to cause the Issuer to become a wholly owned subsidiary of the Reporting Person.

Except as set forth in this Schedule 13D and in connection with the Offer and the Merger described above, the Reporting Person and Purchaser have no plan or proposal that relates to or would result in any of the transactions described in subparagraphs (a) through (j) of Item 4 of Schedule 13D.

The tender offer referred to in this Schedule 13D has not yet commenced. The description contained in this Schedule 13D is neither an offer to purchase nor a solicitation of an offer to sell any securities, nor is it a substitute for the tender offer materials that the Reporting Person will file with the Securities and Exchange Commission (the "SEC"). The solicitation and offer to buy Shares will only be made pursuant to an offer to purchase and related tender offer materials. At the time the tender offer is commenced, the Reporting Person will file a tender offer statement on Schedule TO and thereafter the Issuer will file a solicitation/recommendation statement on Schedule 14D-9 with the SEC with respect to the Offer. THE TENDER OFFER MATERIALS (INCLUDING AN OFFER TO PURCHASE, A RELATED LETTER OF TRANSMITTAL AND CERTAIN OTHER OFFER DOCUMENTS) AND THE SOLICITATION/RECOMMENDATION STATEMENT ON SCHEDULE 14D-9 WILL CONTAIN IMPORTANT INFORMATION. SHAREHOLDERS OF THE ISSUER ARE URGED TO READ THESE DOCUMENTS CAREFULLY WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION THAT HOLDERS SHOULD CONSIDER BEFORE MAKING ANY DECISION REGARDING TENDERING THEIR SHARES. The offer to purchase, the related letter of transmittal and the solicitation/recommendation statement will be made available free of charge at the SEC's website at www.sec.gov. Additional copies may be obtained for free by contacting the Reporting Person or the Issuer, as applicable. Copies of the documents filed with the SEC by the Reporting Person will be available free of charge on the Reporting Person's internet website at <https://ir.ionispharma.com/financial-information/sec-filings> or by contacting the Reporting Person's investor relations contact at (760) 603-2681. Copies of the documents filed with the SEC by the Issuer will be available free of charge on the Issuer's internet website at <https://ir.akceatx.com/> or by contacting the Issuer's investor relations contact at (617) 841-9535.

In addition to the offer to purchase, the related letter of transmittal and certain other tender offer documents to be filed by the Reporting Person, as well as the solicitation/recommendation statement to be filed by the Issuer, the Reporting Person and the Issuer will also file quarterly and current reports with the SEC. The Reporting Person's and the Issuer's filings with the SEC are available to the public from commercial document-retrieval services and at the website maintained by the SEC at <http://www.sec.gov>.

Item 5. Interest in Securities of the Issuer.

Item 5 of the Schedule 13D is hereby amended and restated in its entirety as follows:

The following information with respect to the ownership of the Common Stock of the Issuer by the Reporting Person filing this Schedule 13D is provided as of August 27, 2020:

- (a) The Reporting Person beneficially owns 77,094,682 shares of the Common Stock of the Issuer, or approximately 75.9% of the Issuer's outstanding Common Stock.
- (b) The Reporting Person has sole power to vote and dispose of the securities of the Issuer held by it.
- (c) The Reporting Person has not effected any transactions in the Issuer's Common Stock within the past sixty days.
- (d) Not applicable.
- (e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.

Item 6 of the Schedule 13D is hereby amended and restated in its entirety as follows:

The description of the Merger Agreement set forth in Item 4 is hereby incorporated by reference.

Item 7. Material to Be Filed as Exhibits.

Item 7 of the Schedule 13D is hereby amended and restated in its entirety as follows:

Exhibit Number	Description
1	Agreement and Plan of Merger, dated as of August 30, 2020, among Akcea Therapeutics, Inc., Ionis Pharmaceuticals, Inc. and Avalanche Merger Sub, Inc. (incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K filed by the Reporting Person with the Securities and Exchange Commission on August 31, 2020).

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: August 31, 2020

IONIS PHARMACEUTICALS, INC.

By: /s/ Elizabeth L. Hougen
Elizabeth L. Hougen
Sr. Vice President, Finance and
Chief Financial Officer