

CALCULATION OF REGISTRATION FEE

| Title of each class of securities to be registered | Amount to be Registered (1) | Proposed Maximum Offering Price Per Share (2) | Proposed Maximum Aggregate Offering Price (2) | Amount of Registration Fee (3) |
|--|-----------------------------|---|---|--------------------------------|
| Common Stock, \$0.0001 par value per share | 330,617 | \$ 36.42 | \$ 12,041,071.14 | \$ 1,499.12 |

- (1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the “Securities Act”), this registration statement also covers any additional securities issuable in connection with any stock split, stock dividend, or similar transaction with respect to the securities being registered pursuant to this registration statement.
- (2) Estimated solely for purposes of calculating the registration fee pursuant to Rule 457(c) under the Securities Act, based on average of high and low price per share of the common stock as reported on the Nasdaq Global Select Market on June 4, 2018.
- (3) Calculated in accordance with Rule 457(r) under the Securities Act. This “Calculation of Registration Fee” table shall be deemed to update the “Calculation of Registration Fee” table in the registrant’s Registration Statement on Form S-3 (File No. 333-222266) in accordance with Rules 456(b) and 457(r) under the Securities Act.

**Filed Pursuant to Rule 424(b)(7)
Registration No. 333-222266**

**Prospectus Supplement No. 4 dated June 8, 2018
(To Prospectus Dated December 22, 2017)**

330,617 Shares



Common Stock

This prospectus supplement relates to the offer and sale of an aggregate of 330,617 shares of common stock of Editas Medicine, Inc. held by the person named in the “selling stockholder” table included herein. The information in this prospectus supplement supplements the statements set forth under the captions “Selling Stockholders” and “Use of Proceeds” in the prospectus. This prospectus supplement should be read in conjunction with the prospectus, which is required to be delivered with this prospectus supplement.

Investing in our common stock involves a high degree of risk. See “Risk Factors” beginning on page 3 of the prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.

SELLING STOCKHOLDER

In June 2018, Editas Medicine, Inc. (the “Company” or “we”) issued promissory notes in an aggregate original principal amount of \$12,500,000 (the “Notes”) to The Broad Institute, Inc. (“Broad”). Each of these notes was convertible at the Company’s option into shares of common stock of the Company. On June 8, 2018, the Company repaid all outstanding principal and interest on the Notes by issuing an aggregate of 330,617 shares of common stock to Broad.

The following table sets forth, to our knowledge, information concerning the beneficial ownership of shares of our common stock by the selling stockholder as of June 8, 2018. This information updates and supersedes the information contained under the heading “Selling Stockholders” in the prospectus dated December 22, 2017 as supplemented by any prospectus supplements thereto.

Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission and includes voting or investment power with respect to shares. Unless otherwise indicated below, to our knowledge, the selling stockholder named in the table has sole voting and investment power with respect to its shares of common stock. The inclusion of any shares in this table does not constitute an admission of beneficial ownership for the selling stockholder named below.

Except as set forth herein and in the prospectus, the selling stockholder has not held any position or office with, and have not otherwise had a material relationship with, us or any of our subsidiaries within the past three years.

| Name of Selling Stockholder | Shares of Common Stock Beneficially Owned Prior to Offering | | Number of Shares of Common Stock Being Offered | Shares of Common Stock to be Beneficially Owned After Offering (1) | |
|-----------------------------|---|----------------|--|--|----------------|
| | Number | Percentage (2) | | Number | Percentage (2) |
| The Broad Institute, Inc. | 412,346 | * | 330,617 | 81,729 | * |

* Less than one percent.

(1) We do not know when or in what amounts the selling stockholder may offer shares for sale. The selling stockholder might not sell any or all of the shares covered by this prospectus. Because the selling stockholder may offer all or some of the shares pursuant to this offering, and because there are currently no agreements, arrangements, or understandings with respect to the sale of any of the shares, we cannot estimate the number of the shares that will be held by the selling stockholder after completion of the offering. However, for purposes of this table, we have assumed that, after completion of the offering, none of the shares covered by this prospectus will be held by the selling stockholder.

(2) Based on 47,273,780 shares of our common stock outstanding on June 1, 2018.

Description of Transactions with the Selling Stockholder

In December 2016, we entered into a license agreement (the “Cpf1 License Agreement”) with Broad, for specified patent rights (“Cpf1 Patent Rights”) related primarily to Cpf1 compositions of matter and their use for gene editing. Pursuant to the Cpf1 License Agreement, Broad, on behalf of itself, President and Fellows of Harvard College (“Harvard”), the Massachusetts Institute of Technology (“MIT”), Wageningen University (“Wageningen”) and the University of Tokyo granted us a license to the Cpf1 Patent Rights, subject to certain limitations and retained rights, in exchange for certain royalty, success, and milestone payments.

Previously, in October 2014, we entered into a license agreement with Broad and Harvard for specified patent rights, in December 2016, we amended and restated this license agreement (the “Cas9-I License Agreement”) and in March 2017 we further amended the Cas9-I License Agreement. The licenses granted to us under the Cas9-I License Agreement include rights to certain patents solely owned by Harvard, certain patents co-owned by MIT and Broad, certain patents co-owned by MIT, The Rockefeller University, and Broad, and certain patents co-owned by MIT,

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Broad, and Harvard, which we collectively refer to as the Cas9-I Patent Rights. Under the Cas9-I License Agreement, we have licensed patent rights directed, in part, to certain CRISPR (clustered, regularly interspaced short palindromic repeats)/Cas9 (CRISPR associated protein 9) and TALE (transcription activator-like effector)-related compositions of matter and their use for genome editing and to certain CRISPR/Cas9 and TALE-related delivery technologies.

In December 2016, we entered into a license agreement (the “Cas9-II License Agreement”) with Broad for specified patent rights (the “Cas9-II Patent Rights”) related primarily to certain Cas9 compositions of matter and their use for gene editing. Pursuant to the Cas9-II License Agreement, Broad, on behalf of itself, MIT, Harvard, and the University of Iowa Research Foundation granted us a license to certain of the Cas9-II Patent Rights, subject to certain limitations and retained rights, on terms substantially similar to the licenses granted to us under Cpf1 License Agreement. Under both the Cas9-I License Agreement and Cas9-II License Agreement, we paid to Broad certain upfront cash payments, will pay to Broad certain annual license fees, and in the future may make additional milestone and success payments upon reaching goals and targets related to research and development, commercialization, and market capitalization, and will pay royalties on products based on the Cas9-I Patent Rights and Cas9-II Patent Rights.

In June 2018, we entered into a sponsored research agreement (the “Sponsored Research Agreement”) with Broad providing for Broad to conduct research useful or relevant to genome editing in the field of genomic medicines for the prevention or treatment of human disease with funding from us. Under the Sponsored Research Agreement, Broad granted us an exclusive right of first negotiation for licenses from Broad with respect to patentable inventions developed by Broad in the course of the sponsored research, subject to certain limitations and retained rights. Under the Sponsored Research Agreement, we are obligated to pay up to \$125 million to the Broad in research funding, of which we paid \$12.5 million by issuance to Broad of the Notes. The Notes were payable in cash or convertible into common stock of the Company at the election of the Company and we issued an aggregate of 330,617 shares of our common stock to Broad in satisfaction of the Notes, all of which shares may be offered by Broad under this prospectus supplement.

In addition to the terms described above, the Cas9-I License Agreement, Cas9-II License Agreement, Cpf1 License Agreement and Sponsored Research Agreement include, among other things, terms related to limitation of liability and confidentiality, and the Cas9-I License Agreement, Cas9-II License Agreement and Cpf1 License Agreement contain terms related to reimbursement of legal expenses for patent disputes. Under these terms, we have agreed to indemnify Broad and other parties to the agreements against certain liabilities arising under the agreements. The Cpf1 License Agreement, Cas9-I License Agreement, and Cas9-II License Agreement are described in greater detail in “Business—Intellectual Property Licenses” in our Annual Report on Form 10-K for the year ended December 31, 2017, and the Sponsored Research Agreement is described in greater detail in our Current Report on Form 8-K filed on June 8, 2018, which are incorporated by reference herein.

USE OF PROCEEDS

We will not receive any proceeds from the sale of shares by the selling stockholder.

The selling stockholder will pay any underwriting discounts and commissions and expenses incurred by the selling stockholder for brokerage, accounting, tax, or legal services or any other expenses incurred by the selling stockholder in disposing of the shares. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus supplement, including, without limitation, all registration and filing fees, Nasdaq Global Select Market listing fees, and fees and expenses of our counsel and our accountants.

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