UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT

Under The Securities Act of 1933

ALDEYRA THERAPEUTICS, INC.

(Exact name of Registrant as specified in its charter)

Delaware (State or Other Jurisdiction of Incorporation or Organization) 20-1968197 (I.R.S. Employer Identification No.)

131 Hartwell Avenue, Suite 320 Lexington, MA 02421 (781) 761-4904

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

2013 Equity Incentive Plan (Full title of plan)

Todd C. Brady, M.D., Ph.D., President and Chief Executive Officer 131 Hartwell Avenue, Suite 320 Lexington, MA 02421 (781) 761-4904 (Name, address, including zip code, and telephone number, including area code, of agent for service)

Please send copies of all communications to:

Jay K. Hachigian Keith J. Scherer Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP One Marina Park Drive, Suite 900 Boston, MA 02210 Telephone: (617) 648-9100 Telecopy: (617) 648-9199

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Non-accelerated filer \Box (Do not check if a smaller reporting company)

Accelerated filer□Smaller reporting company⊠

CALCULATION OF REGISTRATION FEE

		Proposed	Proposed	
	Amount	Maximum	Maximum	
Title of Securities	to be	Offering Price	Aggregate	Amount of
to be Registered	Registered (1)	Per Share (2)	Offering Price (2)	Registration Fee
Stock Options and Common Stock, \$0.001 par value per share	222,617 shares	\$10.74	\$2,390,906.58	\$277.83

(1) This Registration Statement shall also cover any additional shares of Common Stock which become issuable under the 2013 Equity Incentive Plan by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the receipt of consideration which results in an increase in the number of the outstanding shares of Common Stock of Aldeyra Therapeutics, Inc.

(2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(c) and (h)(1) under the Securities Act of 1933, as amended. The offering price per share and aggregate offering price for the unissued stock options and shares of Common Stock are based upon the average of the high and low prices of the Registrant's common stock as reported on The NASDAQ Capital Market on March 23, 2015.

EXPLANATORY NOTE

Information Required in the Section 10(a) Prospectus

Pursuant to General Instruction E to Form S-8 under the Securities Act of 1933, as amended, this Registration Statement is filed by Aldeyra Therapeutics, Inc. (the "Company") for the purpose of registering additional shares of Common Stock under the Company's 2013 Equity Incentive Plan (the "Plan"). The number of shares of Common Stock available for issuance under the Plan is subject to an automatic annual increase on the first day of the Company's calendar year beginning in 2015 equal to the lowest of (a) 4.0% of the total number of shares of Common Stock then outstanding, (b) 333,333 shares of Common Stock or (c) the number determined by the Company's Board of Directors (the "Evergreen Provision"). Accordingly, the number of shares of Common Stock available for issuance under the Plan was increased by 222,617 shares effective January 1, 2015. This Registration Statement registers the 222,617 additional shares of Common Stock available for issuance under the Plan as a result of the Evergreen Provision.

Of the 847,617 shares currently authorized by the Plan, 625,000 have already been registered pursuant to the currently effective Registration Statement on Form S-8 (Registration No. 333-196674) filed on June 11, 2014 (the "Original Registration Statement"). The contents of the Original Registration Statement, including any amendments thereto or filings incorporated therein, are incorporated herein by this reference. Any items in the Original Registration Statement not expressly changed hereby shall be as set forth in the Original Registration Statement.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 8. Exhibits.

Exhibit Number	Exhibit
5.1	Opinion and consent of Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP.
23.1	Consent of BDO USA, LLP, independent registered public accounting firm
23.2	Consent of Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP is contained in Exhibit 5.1.
24.1	Power of Attorney. Reference is made to page II-2 of this Registration Statement.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the Commonwealth of Massachusetts, on this 27th day of March, 2015.

ALDEYRA THERAPEUTICS INC.

/s/ Todd C. Brady, M.D., Ph.D.

Todd C. Brady, M.D., Ph.D. President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that the undersigned officers and directors of Aldeyra Therapeutics Inc., a Delaware corporation, do hereby constitute and appoint Todd C. Brady, M.D., Ph.D. and Stephen J. Tulipano, and each of them, the lawful attorneys-in-fact and agents with full power and authority to do any and all acts and things and to execute any and all instruments which said attorneys and agents, and any one of them, determine may be necessary or advisable or required to enable said corporation to comply with the Securities Act of 1933, as amended, and any rules or regulations or requirements of the Securities and Exchange Commission in connection with this Registration Statement. Without limiting the generality of the foregoing power and authority, the powers granted include the power and authority to sign the names of the undersigned officers and directors in the capacities indicated below to this Registration Statement, to any and all amendments, both pre-effective and post-effective, and supplements to this Registration Statement, and to any and all instruments or documents filed as part of or in conjunction with this Registration Statement or amendments or supplements thereof, and each of the undersigned hereby ratifies and confirms that all said attorneys and agents, or any one of them, shall do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

Signature	<u>Title</u>	Date
/s/ Todd Brady, M.D., Ph.D. Todd Brady, M.D., Ph.D.	Director, President and Chief Executive Officer (Principal Executive Officer)	March 27, 2015
/s/ Stephen Tulipano Stephen Tulipano	Chief Financial Officer (Principal Financial and Accounting Officer)	March 27, 2015
/s/ C. Boyd Clarke C. Boyd Clarke	Chairman of the Board of Directors	March 27, 2015
/s/ Ben Bronstein, M.D. Ben Bronstein, M.D.	Director	March 27, 2015
/s/ Martin J. Joyce Martin J. Joyce	Director	March 27, 2015
/s/ Gary Phillips, M.D. Gary Phillips, M.D.	Director	March 27, 2015
/s/ Jesse Treu, Ph.D. Jesse Treu, Ph.D.	Director	March 27, 2015
/s/ Neal Walker, D.O. Neal Walker, D.O.	Director	March 27, 2015

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EXHIBIT INDEX

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Aldeyra Therapeutics, Inc. 131 Hartwell Avenue, Suite 320 Lexington, MA 02421

Re: Aldeyra Therapeutics, Inc. (the "Company") Registration Statement on Form S-8 for 222,617 Shares of Common Stock

Ladies and Gentlemen:

We refer to your registration statement on Form S-8 (the "Registration Statement") under the Securities Act of 1933, as amended (the "Act") in connection with the registration of 222,617 shares of Common Stock (the "Shares") of Aldeyra Therapeutics, Inc. (the "Company") issuable in the aggregate under the Company's 2014 Equity Incentive Plan (the "Plan").

As your counsel, we have examined such matters of fact and questions of law as we have deemed necessary in order to render the opinion set forth herein. In connection with our opinion expressed below, we have relied as to certain factual matters on information obtained from public officials, officers of the Company and other sources believed by us to be responsible. We express no opinion as to matters governed by any laws other than the laws of the Delaware General Corporation Law and the federal laws of the United States.

Based upon and subject to the foregoing, we advise you that, in our opinion, when the Shares have been issued and sold pursuant to the applicable provisions of the Plan, and in accordance with the Registration Statement, such Shares will be validly issued, fully paid and nonassessable shares of the Company's Common Stock.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act.

Very truly yours,

/s/ Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP

Aldeyra Therapeutics, Inc. Lexington, Massachusetts

We hereby consent to the incorporation by reference in the Prospectus constituting a part of this Registration Statement on Form S-8 of our report dated March 23, 2015, relating to the financial statements of Aldeyra Therapeutics, Inc., appearing in the Company's Annual Report on Form 10-K for the year ended December 31, 2014.

/s/ BDO USA, LLP Boston, Massachusetts

March 26, 2015