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)

Title of Securities

to be Registered

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 2016 Employee Stock Purchase 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

	whether the registrant is a large accelerated fil ny. See the definitions of "large accelerated fi of the Exchange Act.			
arge accelerated filer			Accelerated filer	X
Non-accelerated filer			Smaller reporting company	\boxtimes
			Emerging growth company	
0 00	ompany, indicate by check mark if the registra accounting standards provided pursuant to Se CALCULATIO	Securities Act. [any
		Proposed	Proposed	

to be

Registered(1)

Maximum

Offering Price

Per Share

Maximum

Aggregate

Offering Price

Amount of

Registration Fee

Stock Options and Common Stock, \$0.001 par value per share, in each case, reserved for issuance pursuant to the 2013 Equity Incentive Plan	1,744,998 shares	\$3.00(2)	\$5,234,994.00(2)	\$679.50
Common Stock, \$0.001 par value per share, reserved for issuance pursuant to the 2016 Employee Stock Purchase Plan	290,833 shares	\$2.55(3)	\$741,624.15(3)	\$96.26
TOTAL	2,035,831 shares		\$5,976,618.15	\$775.76

- (1) This Registration Statement shall also cover any additional shares of Common Stock which become issuable under the plans set forth herein 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 "Securities Act"). The offering price per share and aggregate offering price for the unissued stock options and shares of Common Stock issuable under the Company's 2013 Equity Incentive Plan (the "Equity Incentive Plan") 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 10, 2020.
- (3) 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. The offering price per share and aggregate offering price for the shares of Common Stock issuable under the Company's 2016 Employee Stock Purchase Plan (the "Purchase Plan") 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 10, 2020, multiplied by 85%.

PART I

EXPLANATORY NOTE

INFORMATION REQUIRED IN THE SECTION 10(A) PROSPECTUS

This Registration Statement on Form S-8 registers additional shares of Common Stock to be issued pursuant to the Equity Incentive Plan and the Purchase Plan. The information contained in the Registrant's registration statements on Form S-8 (SEC File Nos. 333-230161, 333-224019, 333-217043, 333-213045, 333-210492, 333-203076 and 333-196674), together with all exhibits filed therewith or incorporated therein by reference, are hereby incorporated by reference pursuant to General Instruction E to Form S-8.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 8.	Exhibits.
Exhibit <u>Number</u>	<u>Exhibit</u>
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-3 of this Registration Statement.

SIGNATURES

Pursuant to the requirements of the Securities Act, 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 City of Lexington, Commonwealth of Massachusetts, on this 12th day of March, 2020.

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 Joshua Reed, 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, 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, this Registration Statement has been signed by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

Signature	Title	Date	
/s/ Todd C. Brady, M.D., Ph.D. Todd C. Brady, M.D., Ph.D.	President, Chief Executive Officer and Director (Principal Executive Officer)	March 12, 2020	
/s/ Joshua Reed Joshua Reed	Chief Financial Officer (Principal Financial (and Accounting Officer)	March 12, 2020	
/s/ Richard H. Douglas, Ph.D. Richard H. Douglas, Ph.D.	Chairman of the Board of Directors	March 12, 2020	
/s/ Ben Bronstein, M.D. Ben Bronstein, M.D.	Director	March 12, 2020	
/s/ Martin J. Joyce Martin J. Joyce	Director	March 12, 2020	
/s/ Nancy Miller Rich Nancy Miller Rich	Director	March 12, 2020	
/s/ Gary Phillips, M.D. Gary Phillips, M.D.	Director	March 12, 2020	
/s/ Jesse Treu, Ph.D. Jesse Treu, Ph.D.	Director	March 12, 2020	
/s/ Neal Walker, D.O. Neal Walker, D.O.	Director	March 12, 2020	

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

Re: Aldeyra Therapeutics, Inc. (the "Company") Registration Statement on Form S-8 for 2,035,831 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 (i) 1,744,998 shares of Common Stock (the "Equity Incentive Plan Shares") of Aldeyra Therapeutics, Inc. (the "Company") issuable in the aggregate under the Company's 2013 Equity Incentive Plan, as amended (the "Equity Incentive Plan") and (ii) 290,833 shares of Common Stock (the "ESPP Shares" and, together with the Equity Incentive Plan Shares, the "Shares") of the Company issuable in the aggregate under the Company's 2016 Employee Stock Purchase Plan (the "ESPP" and, together with the Equity Incentive Plan, the "Plans").

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 Plans, 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 Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP

Consent of Independent Registered Public Accounting Firm

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 reports dated March 12, 2020, relating to the consolidated financial statements and the effectiveness of Aldeyra Therapeutics, Inc.'s internal control over financial reporting, appearing in the Company's Annual Report on Form 10-K for the year ended December 31, 2019.

/s/ BDO USA, LLP Boston, Massachusetts

March 12, 2020