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March 17, 2014

VIA EDGAR AND OVERNIGHT COURIER

Securities and Exchange Commission
Division of Corporation Finance
100 F. Street, N.E.
Washington, D.C. 20549
Attention: Jeffrey Riedler
Christina De Rosa

**Re: Aldeyra Therapeutics, Inc. (formerly known as Aldexa Therapeutics, Inc.)
Registration Statement on Form S-1
Filed January 6, 2014
File No. 333-193204**

Dear Mr. Riedler and Ms. De Rosa:

On behalf of Aldeyra Therapeutics, Inc. (formerly known as Aldexa Therapeutics, Inc.) (the "Company"), we submit this letter in response to comments from the staff (the "Staff") of the Securities and Exchange Commission (the "Commission") received by letter dated January 22, 2014 relating to the Company's Registration Statement on Form S-1 filed on January 6, 2014 (the "Registration Statement"). Please note that on March 17, 2014 the Company changed its name to Aldeyra Therapeutics, Inc.

On behalf of the Company, we are also filing via EDGAR Amendment No. 2 to the Registration Statement ("Amendment No. 2"), and for the convenience of the Staff, we are providing to the Staff by overnight delivery copies of this letter and marked copies of Amendment No. 2 (against the Registration Statement).

In this letter, we have recited the written comments from the Staff in italicized, bold type and have followed each comment with the Company's response.

General

- Please remove the graph that appears on the page after the prospectus cover page. The graph contains a large amount of information without additional information to place it in a meaningful context. If you would like to retain the graph, you may relocate it to the Business section.***

RESPONSE TO COMMENT 1:

The Company acknowledges the Staff's comment and has relocated the graph to the Business section in Amendment No. 2. As previously discussed via telephone with Ms. De Rosa, the Company has inserted a simplified pipeline chart on the inside cover in its place.

Risk Factors

"If we are not able to test NS2 in SLS or in other diseases.," page 11

2. *We note your response to our prior comment 12. Please disclose, in this risk factor, the indication for which you have an active IND.*

RESPONSE TO COMMENT 2:

The Company acknowledges the Staff's comment and has revised the applicable risk factor in Amendment No. 2 accordingly.

Business, page 60

Intellectual Property and Proprietary Rights, page 68

Other Intellectual Property Rights, page 68

3. *At the top of page 69, please explain the function of an excipient in the formulation of your product.*

RESPONSE TO COMMENT 3:

The Company acknowledges the Staff's comment and has revised the disclosure in Amendment No. 2 accordingly.

Competition, page 71

4. *We note your response to our prior comment 24. Please provide a brief reference to competing targeted products in development on page 19 of the Risk Factor section under the risk factor that begins, "If our competitors develop treatments for the target indications."*

RESPONSE TO COMMENT 4:

The Company acknowledges the Staff's comment and has revised the applicable risk factor in Amendment No. 2 accordingly.

[Remainder of page intentionally left blank.]

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In addition, we acknowledge that:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filing;
- Staff comments or changes to disclosure in response to Staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the Company may not assert Staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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Please do not hesitate to contact me at (781) 795-3507 if you have any questions or would like additional information regarding this matter.

Very truly yours,

/s/ Keith J. Scherer

Keith J. Scherer
Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP

cc: Todd Brady, M.D., Ph.D., Aldeyra Therapeutics, Inc.
Jay K. Hachigian, Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP