UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): March 2, 2015

ALDEYRA THERAPEUTICS, INC.

(Exact name of Registrant as specified in its charter)

Delaware (State or other Jurisdiction of Incorporation) 001-36332 (Commission File No.) 20-1968197 (IRS Employer Identification No.)

131 Hartwell Avenue, Suite 320 Lexington, MA 02421 (Address of principal executive offices and zip code)

Registrant's telephone number, including area code: (781) 761-4904

Not Applicable

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

□ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Derecommencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 7.01 REGULATION FD DISCLOSURE

Aldeyra Therapeutics, Inc. (the "Company" or "Aldeyra") will be making a presentation regarding the Company and the status of its clinical programs at the Cowen and Company 35th Annual Healthcare Conference, which will be webcasted live on Monday, March 2, 2015 at 4:50 p.m. ET. The live webcast will be available on the Investors' section of Alderya's website at www.aldeyra.com. An archived version of the webcast will be available for 14 days following the presentation. The slides that will be used for such presentation are furnished as Exhibit 99.1 to this Form 8-K.

Various statements to be made during the presentation, including statements in the slides furnished as Exhibit 99.1 to this Form 8-K, are "forward-looking statements" under the securities laws, including, but not limited to, statements regarding Aldeyra's plans for its product candidates. In some cases, you can identify forward-looking statements by terms such as "may," "might," "will," "objective," "intend," "should," "could," "can," "would," "expect," "believe," "anticipate," "project," "target," "design," "estimate," "predict," "potential," "aim," "plan" or the negative of these terms, and similar expressions intended to identify forward-looking statements. Such forward-looking statements are based upon current expectations that involve risks, changes in circumstances, assumptions and uncertainties. Aldeyra is at an early stage of development and may not ever have any products that generate significant revenue. Important factors that could cause actual results to differ materially from those reflected in Aldeyra's forward-looking statements include, among others, the FDA's acceptance of the modified protocol for Alderya's planned Phase II clinical trial of an ophthalmic formulation of NS2 to treat acute noninfectious uveitis, the timing and success of preclinical studies and clinical trials conducted by Aldeyra and its development partners; the ability to obtain and maintain regulatory approval to conduct clinical trials and to commercialize Aldeyra's product candidates, and the labeling for any approved products; the scope, progress, expansion, and costs of developing and commercializing Aldeyra's product candidates; the size and growth of the potential markets for Aldeyra's product candidates and the ability to serve those markets; Aldeyra's expectations regarding Aldeyra's expenses and revenue, the sufficiency of Aldeyra's cash resources and needs for additional financing; Aldeyra's ability to attract or retain key personnel; and other factors that are described in the "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" sections of Aldeyra's Quarterly Report on Form 10-Q for the quarter ended September 30, 2014 which is on file with the Securities and Exchange Commission (SEC) and available on the SEC's website at www.sec.gov. Additional information will also be set forth in those sections of Alderya's Annual Report on Form 10-K for the year ended December 31, 2014, which will be filed with the SEC in the first quarter of 2015. There can be no assurance that the actual results or developments anticipated by Aldeyra will be realized or, even if substantially realized, that they will have the expected consequences to, or effects on, Aldeyra. Therefore, no assurance can be given that the outcomes stated in such forward-looking statements and estimates will be achieved.

All written and verbal forward-looking statements attributable to Aldeyra or any person acting on its behalf are expressly qualified in their entirety by the cautionary statements contained or referred to herein. Aldeyra cautions investors not to rely too heavily on the forward-looking statements Aldeyra makes or that are made on its behalf. The information in the slides attached as Exhibit 99.1 to this Form 8-K will be provided only as of the date on which such slides are presented, and the Company undertakes no obligation, and specifically declines any obligation, to update or revise publicly any forward-looking statements contained in such slides from and after the date of such presentation whether as a result of new information, future events or otherwise.

The information in Item 7.01 of this Current Report on Form 8-K and the slides attached as Exhibit 99.1 hereto shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act") or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such a filing.

Item 8.01. OTHER EVENTS

On March 2, 2015, Aldeyra issued a press release providing an update regarding its planned clinical trials of the Aldeyra's lead compound, NS2, in noninfectious anterior uveitis and Sjögren-Larsson Syndrome and announcing that the company will provide an update on its clinical programs at the Cowen and Company 35th Annual Healthcare Conference. A copy of the press release is filed as Exhibit 99.2 to this Current Report on Form 8-K and incorporated by reference herein.

Item 9.01. FINANCIAL STATEMENTS AND EXHIBITS

- (d) *Exhibits* The following exhibits are filed as part of this report:
- 99.1 Presentation slides
- 99.2 Press Release of Aldeyra Therapeutics, Inc. dated March 2, 2015

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ALDEYRA THERAPEUTICS, INC.

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

 Name:
 Todd C. Brady, M.D., Ph.D.

 Title:
 President and Chief Executive Officer

Dated: March 2, 2015



A Novel Pharmaceutical Platform Focused on Trapping Aldehydes

March 2015



Forward-Looking Statements

- This presentation contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, including statements regarding Aldeyra's plans for its product candidates. In some cases, you can identify forward-looking statements by terms such as "may," "might," "will," "objective," "intend," "should," "could," "could," "would," "expect," "believe," "anticipate," "project," "target," "design," "estimate," "protect," "potential," "aim," "plan" or the negative of these terms, and similar expressions intended to identify forward-looking statements.
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 - In addition to the risks described above and in Aldeyra's other filings with the SEC, other unknown or unpredictable factors also could affect Aldeyra's results. No forward-looking statements can be guaranteed and actual results may differ materially from such statements. The information in this presentation is provided only as of the date of this release, and Aldeyra undertakes no obligation to update any forward-looking statements contained in this release on account of new information, future events, or otherwise, except as required by law.



Management and Directors

Todd Brady, M.D., Ph.D. – President, CEO, and Director

- 18 years of pharmaceutical business and clinical development
- Domain Associates, Phenome Sciences, (acquired by Xanthus/Antisoma), Aderis Pharmaceuticals (acquired by Schwarz/UCB)
- Scott Young Chief Operating Officer
 - 28 years of pharmaceutical clinical development
 - Genzyme, Genetics Institute, Oxigene, Repligen

• Steve Tulipano, CPA - Chief Financial Officer

- 27 years of financial experience
- Biogen, Javelin Pharmaceuticals

Board of Directors

Boyd Clarke – former CEO Aviron (acquired by MedImmune)

Gary Phillips, M.D. – Chief Strategy Officer Mallinckrodt Pharmaceuticals

Ben Bronstein, M.D. – former CEO Peptimmune (acquired by Genzyme)

Neal Walker, D.O. – CEO Aclaris Therapeutics

Marty Joyce – former CFO of Serono USA

Jesse Treu, Ph.D. – Domain Associates

Todd Brady - CEO Aldeyra Therapeutics



Investment Highlights

Unique, Innovative Platform Technology to Trap Aldehydes

• Orphan and mass-market diseases in which toxic aldehydes are implicated

Multiple Clinical Events in 2015

- Lead compound in two topical indications: one dermal and one ocular
- Phase II/III results for Sjögren Larsson Syndrome (SLS) in 2015
- Phase II trial initiated for acute anterior uveitis in 2015

Large Markets with Significant Unmet Medical Need

• Markets for orphan indications alone are substantial, and positive data may suggest efficacy in a broad array of mass-market diseases

Strong Patent Portfolio of Compositions, Uses, and Formulations

 For lead compound, IP extends to late 2020s worldwide and to 2033 in US, assuming Hatch-Waxman extension

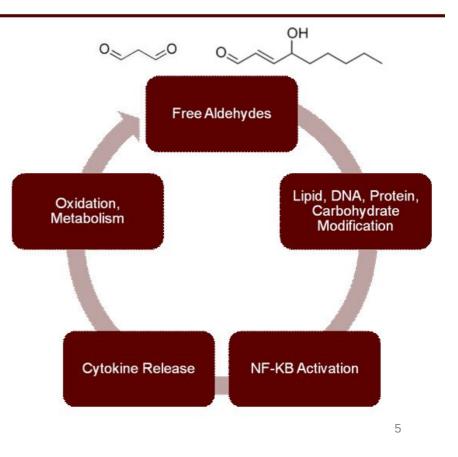
Marquee Investors Validate Opportunity

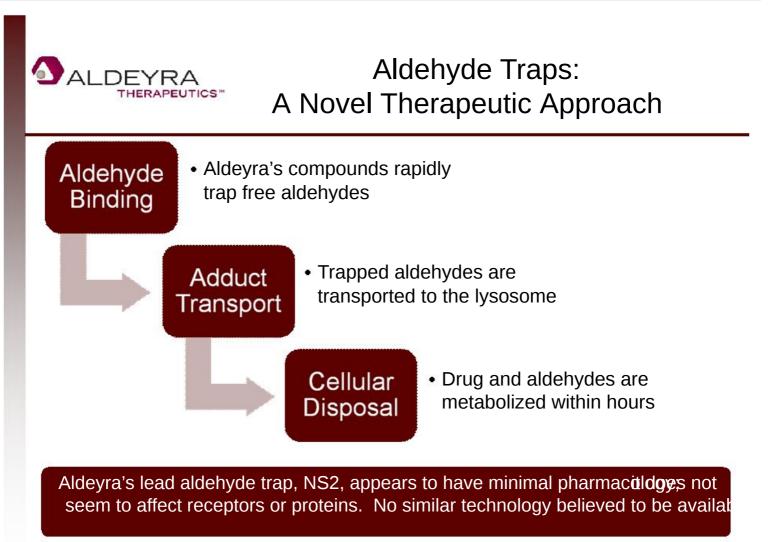
• Fidelity, Perceptive, DAFNA, Sphera, Knoll, Johnson & Johnson Development Corporation, Domain Associates, and other top-tier funds



Aldehydes Are Mediators of Disease

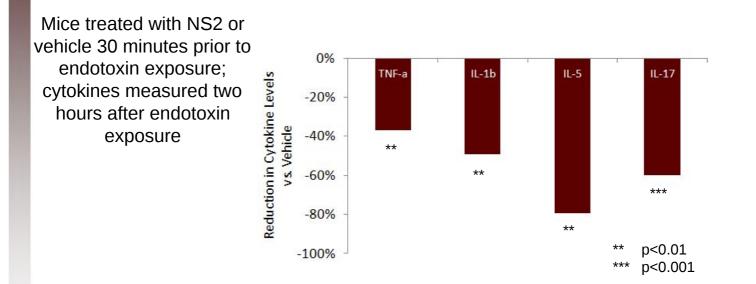
- Toxic mediators of numerous diseases
- Modify cellular constituents, lead to indigestible aggregates, and are proinflammatory
- Dehydrogenases attempt to eliminate free aldehydes
- High levels are implicated in autoimmune, inflammatory, neurological, cardiovascular and endocrinologic diseases







Trapping Aldehydes Generates a Broad Anti-Inflammatory Response

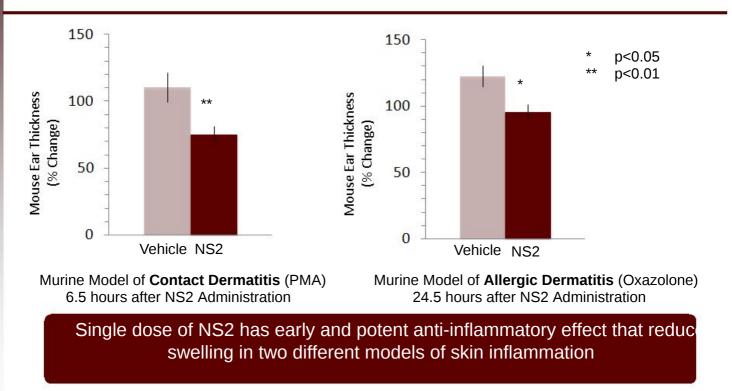


In an endotoxin model of cytokine generation in mice, NS2 administration signification reduced levels of a broad array of pro-inflammatory cytokines.

Data presented at the American Academy of Asthma Allergy and Immunology 2015 Annual Meeting 7



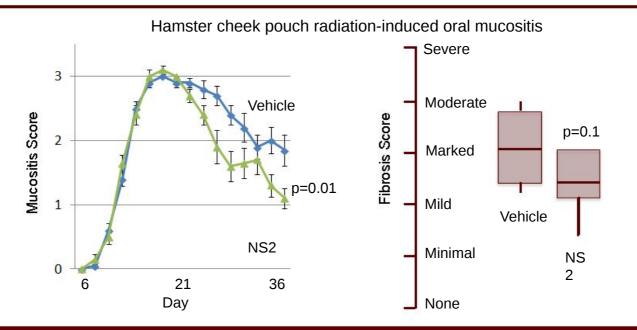
NS2 Decreases Dermal Inflammation in Animal Models



Data presented at the American Academy of Asthma Allergy and Immunology 2015 Annual Meeting 8



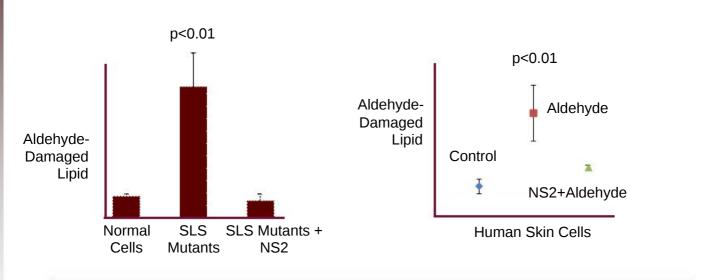
NS2 Speeds Healing and Reduces Scarring of Lesions in Animal Models



NS2 speeds lesion healing and reduces scarring in a model of skin and eye di



NS2 Protects a Key Lipid Relevant to Skin and Eye Disease in Cell Systems

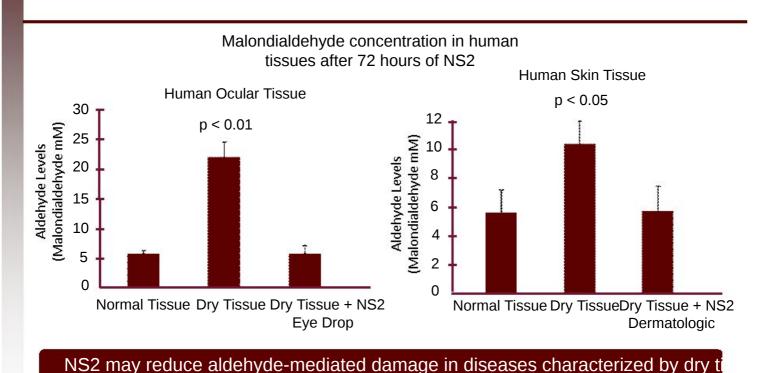


NS2 prevents aldehyde-mediated damage of lipid that is critical to dermal mois barrier and ocular tear integrity

Data to be presented at the Society for Inherited Metabolic Disorders 2015 Annual Meeting, March 28



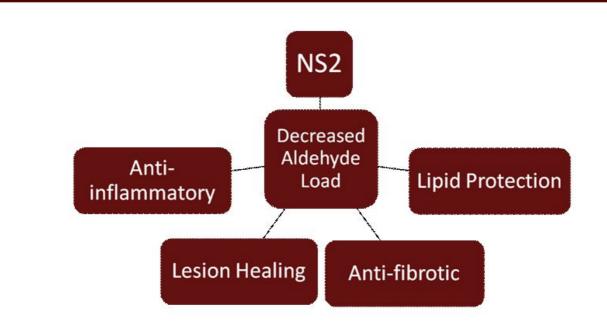
NS2 Traps Aldehydes Generated by Dry Conditions in Human Tissue



Data presented at the Society for Investigative Dermatology 2014 Annual Meeting



NS2 Summary of Efficacy: Multiple Mechanisms of Action



The same biological mechanisms may apply to many orphan and prevalent dise

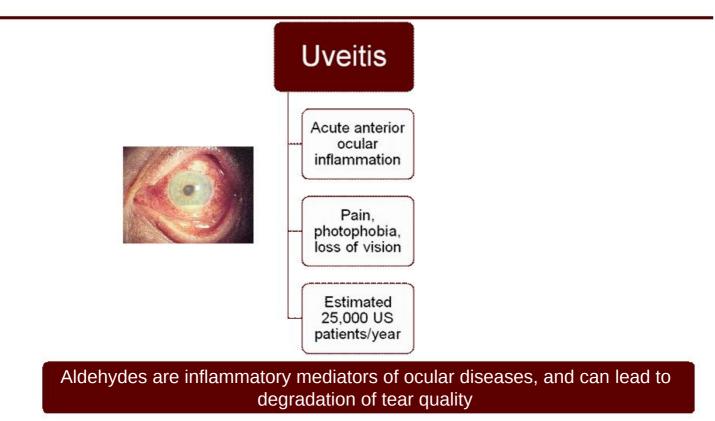


- o 48 healthy volunteers
- o Double-blinded and placebo controlled
- o Two treatment stages for two drug concentrations:
 - Single day 0.25% & 0.5% bidyid
 - Seven day 0.25% & 0.5% qid
- o Eye drops were well tolerated in all treatment groups
- o No plasma exposure detected by LC-MS/MS (<5 ng/ml)

NS2 is safe and tolerable in healthy volunteers at doses up to fo times per day over seven days .



Noninfectious Anterior Uveitis: A THERAPEUTICS[®] Rare Inflammatory Ocular Disease





Anticipated Clinical Trial Design for Uveitis

Noninfectious Anterior Uveitis

Formulation

Control

Total Patients

Treatment Time

Endpoints

Eye Drop

Active 1:1:1

(NS2, Steroid, NS2 + Sub-Therapeutic Steroid)

45 Patients

6 weeks

Inflammation Markers, Symptoms



Sjögren-Larsson Syndrome (SLS): Orphan Disease with No Therapy

Orphan disease caused by mutation in Fatty Aldehyde Dehydrogenase, leading to high levels of toxic aldehydes

Symptoms include severe skin thickening (ichthyosis), retinal disease, and neurological disorders

Diagnosed at birth, but no approved therapy that addresses disease; patients survive into 50s Estimated 0.4 births/100,000 = about 1000 patients in US and a greater number in Europe (1)



Therapeutic aldehyde trap would be analogous to an enzyme replacement therapy

(1) Extrapolating from a Swedish estimate, it is generally assumed that there are approximately 1,000 SLS patients in the United States and a greater number of SLS patients in Europe.



Anticipated Clinical Trial Design For Sjögren-Larsson Syndrome

Sjögren-Larsson Syndrome

Formulation

Control

Total Patients

Treatment Time

Endpoints

Dermal Topical

Placebo 1:1

12 Patients

8 weeks

Visual Rating

Clinical Trial Updates



- Noninfectious Anterior Uveitis
 - Prior to study initiation, FDA requires protocol amendment, which has been submitted
 - Pending FDA review of amended protocol, study start and data in 2015, per earlier guidance
- Sjögren-Larsson Syndrome
 - Study initiation pending final investigational review board approval
 - Study start and data in 2015, per earlier guidance



Unmet Medical Need for Our Clinical Indications

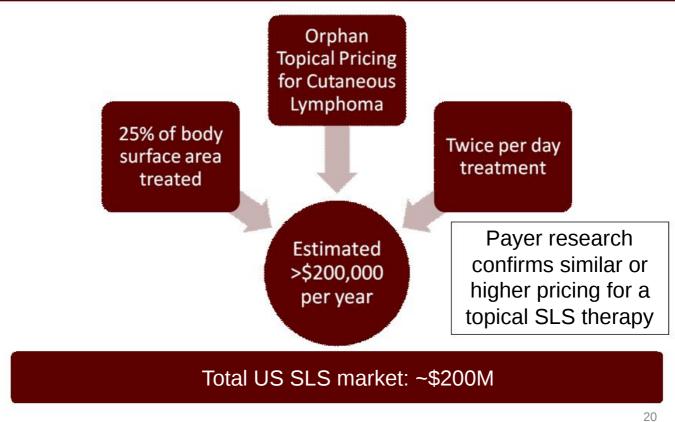
Market demand is substantial for a novel therapy that is safe and effective in the indications that we intend to develop

There is no FDA-approved therapy for Sjögren-Larsson Syndrome

Therapies for acute anterior uveitis are associated with significant side effects

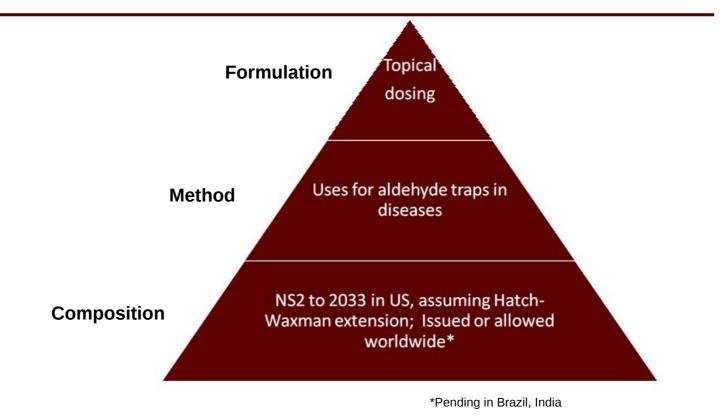


Orphan Topical: Attractive Pricing, Large Market





Intellectual Property Portfolio: Composition of Matter into the 2030s





Valuation Comparables

| Company | Stage | Diseases in Phase II or III Clinical Trials | Valuation |
|----------------------------|----------------|---|-----------|
| Aldeyra Therapeutics (ALD) | () Phase II | 2 (1) | \$64M |
| Anacor (ANAC) | Phase II/III | 4 | \$1.9B |
| GW Pharmaceuticals (GWPI | -IPhase II/III | 5 | \$1.6B |
| Ultragenyx (RARE) | Phase II | 2 | \$1.7B |
| Insmed (INSM) | Phase II/III | 3 | \$921M |
| Intercept (ICPT) | Phase III | 4 | \$4.7B |

Orphan disease biotechnology and late-stage specialty pharmaceutical companies are highly valued.

(1) Pending FDA review of submitted filings, among other contingencies.

Data as of 2/27/15



Significant data to be presented at upcoming medical conferences will highlight the safety and efficacy of NS2 in both ocular and dermal indications

| Conference | Date | Location | Data |
|--|----------------|---------------|---|
| American Academy of Allergy Asthma & Immunology | February 20-24 | Houston, TX | Cytokine Reduction, Contact Dermatitis, and Allergic Dermatitis |
| Since the second | March 28-31 | Salt Lake, UT | SLS Lipid Protection |
| CARVO The Association for Research in Vision and Ophthalmology | May 3-7 | Denver, CO | Ocular Inflammation and Ocular Fibrosis |



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Marquee Investors Validate Opportunity

• Fidelity, Perceptive, DAFNA, Sphera, Knoll, Johnson & Johnson Development Corporation, Domain Associates, and other top-tier funds



Aldeyra Therapeutics Provides Update on NS2 Clinical Program

Lexington, MA, March 2, 2015 Aldeyra Therapeutics, Inc. (NASDAQ: ALDX) (Aldeyra), a biotechnology company focused on the development of products to treat diseases related to free aldehydes, today provided an update on its planned clinical trial programs in noninfectious anterior uveitis and Sjögren-Larsson Syndrome, as part of its webcast presentation at the Cowen and Company 35th Annual Healthcare Conference on Monday, March 2, 2015 at 4:50 p.m. ET.

Todd C. Brady, M.D., Ph.D., President and CEO of Aldeyra, commented, "As we work to finalize the clinical trial protocol in both noninfectious anterior uveitis and Sjögren-Larsson Syndrome, we have remained in close contact with the FDA. Based on their requirements, we have amended and submitted an updated trial protocol for noninfectious anterior uveitis with regard to the severity of patients and the frequency of dosing. We believe that the updated protocol will satisfy these requirements and, pending FDA and IRB review, we remain on track to generate data from both of our clinical programs in 2015."

The U.S. Food and Drug Administration (FDA) has notified Aldeyra that, before initiation of Aldeyra's planned Phase II clinical study of NS2 in patients with noninfectious anterior uveitis, the protocol submitted as part of the company's Investigational New Drug Application requires amending. Aldeyra has submitted an amended protocol that the Company believes will be acceptable to the FDA. Specifically, in the amended protocol, a minority subset of the most severe uveitis patients are excluded from enrollment, and the frequency of dosing was reduced to treat less severe disease and match the dosing frequency employed in the Phase I study. Consistent with earlier guidance, and subject to FDA review of the modified protocol, the trial is expected to begin enrollment in the first half of 2015, with preliminary data available by the end of the year.

The company's Phase II clinical trial of a dermatologic formulation of NS2 to treat ichthyosis and other skin manifestations of Sjögren-Larsson Syndrome is expected to begin enrollment pending final Institutional Review Board (IRB) approval. Consistent with earlier guidance, final data from the trial are expected in the second half of 2015.

NS2 is an aldehyde-binding small molecule based on an innovative platform technology focused on trapping free aldehydes, which are toxic and pro-inflammatory mediators of numerous diseases. By decreasing aldehyde load, NS2 may mitigate pathologic inflammation and address other diseases where aldehydes are thought to mediate pathology.

To access the webcast of Aldeyra's presentation, please visit the Investors section of the Company's website at www.aldeyra.com. An archived version of the webcast will be available for 14 days following the presentation.

About Aldeyra Therapeutics

Aldeyra Therapeutics, Inc., is a biotechnology company focused primarily on the development of products to treat diseases thought to be related to endogenous free aldehydes, a naturally occurring class of toxic molecules. The company has developed NS2, a product candidate designed to trap free aldehydes. Aldeyra plans to initiate Phase II clinical studies of NS2 in Sjögren-Larsson Syndrome and noninfectious anterior uveitis in 2015. NS2 has not been approved for sale in the U.S. or elsewhere. <u>www.aldeyra.com</u>

Safe Harbor Statement

This release contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, including statements regarding Aldeyra's plans for its product candidates. In some cases, you can

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Corporate Contact:

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