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): May 8, 2014

ALDEYRA THERAPEUTICS, INC.
(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation)

001-36332	**20-1968197**
(Commission File No.)	**(IRS Employer Identification No.)**

15 New England Executive Park
Burlington, MA 01803
(Address of principal executive offices and zip code)

Registrant's telephone number, including area code: (781) 270-0630

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))

☐ Pre-commencement 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") today announced that new data supporting its lead product candidate, NS2 will be presented as an abstract poster at the Society for Investigative Dermatology 2014 Annual Meeting, being held May 7, 2014 through May 10, 2014, in Albuquerque, New Mexico (the "SID Annual Meeting"). The abstract will be presented at the Poster Session 1 on Thursday, May 8, 2014 from 10:00 a.m. to 12:00 p.m. Mountain Time in the NE Exhibit Hall of the Albuquerque Convention Center. In addition, the abstract was selected for discussion at the invitation-only Academic/Industry Session that follows the Academic-Industry Partnership Project during the Satellite Symposium being held on Thursday, May 8, 2014 from 12:00 p.m. to 2:00 p.m. Mountain Time. The poster that will be used for such presentations is furnished as Exhibit 99.1 to this Current Report on Form 8-K. Aldeyra issued a press release on May 8, 2014 announcing the Company's participation at the SID Annual Meeting, which is furnished as Exhibit 99.2 to this Current Report on Form 8-K.

Various statements to be made during the presentation, including statements in the poster furnished as Exhibit 99.1 to this Form 8-K, are "forward-looking statements" under the securities laws. Words such as, but not limited to, "believe," "expect," "anticipate," "estimate," "intend," "plan," "targets," "likely," "will," "would," and "could," or the negative of these terms and similar expressions or words, identify forward-looking statements. 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 timing and success of preclinical studies and clinical trials conducted by Aldeyra and its development partners; the ability to obtain and maintain regulatory approval of 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" section of Aldeyra's final prospectus filed under Rule 424(b)(4) with the Securities and Exchange Commission in connection with Aldeyra's initial public offering. No forward-looking statements can be guaranteed and actual results may differ materially from such statements.

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 conveyed during the presentation and on the poster attached as Exhibit 99.1 to this Form 8-K will be provided only as of the date of the SID Annual Meeting, and the Company undertakes no obligation, and specifically declines any obligation, to update or revise publicly any forward-looking statements contained in such poster or presentation from and after the date of the SID Annual Meeting 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 Exhibits attached 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 9.01. Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	Presentation poster
99.2	Press Release

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, 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: May 8, 2014

EXHIBIT INDEX

Exhibit No.	Description
99.1	Presentation poster
99.2	Press Release

NS2, a novel aldehyde trap, decreases aldehyde levels in dry skin and eye models

Scott L. Young [1], Todd C. Brady [1], Eduardo Perez [2], Maxwell Stock [2], Jose R. Fernandez [2]
[1] Aldeyra Therapeutics, Inc., Burlington, MA [2] Signum Dermalogix, Inc., Monmouth Junction, NJ

Abstract

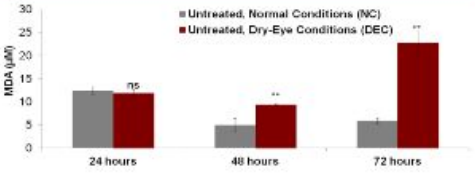
Free aldehydes are naturally occurring chemical species formed during a variety of biological processes, including polyamine and glucose metabolism and lipid peroxidation. Uncontrolled levels of aldehyde species can lead to inflammation via activation of the NF-Kß pathway and also damage key lipids that comprise the dermal moisture barrier and lubricate the surface of the eye. Elevated levels of malondialdehyde (MDA) have been shown in a variety of inflammatory skin and eye diseases, including psoriasis, atopic dermatitis, anterior uveitis, and rosacea. In addition, high levels of fatty aldehydes in Sjögren-Larsson Syndrome, an orphan disease caused by mutations in fatty acid aldehyde dehydrogenase, lead to severe ichthyosis, retinal disease and neurological disorders. Here, we report the effect of dry conditions on inducing MDA levels in human skin and eye tissue and the activity of NS2, a novel aldehyde-binding small molecule, in reducing levels of MDA generated by dry conditions. Topical application of NS2 cream to three-dimensional human skin equivalents lowered MDA levels (measured by TBARS assay) induced by dry skin conditions. Moreover, topical application of NS2 eye drops to three-dimensional human cornea-like tissue lowered MDA levels induced by dry eye conditions. These results suggest that NS2 could mitigate the toxic aldehyde load that is generated in dry skin and dry eye conditions. By trapping aldehydes, NS2 may protect skin and eye tissue from chronic inflammation caused by aldehydes that are generated in dry conditions, and in addition may protect lipids that are critical in preserving moisture in skin and eye. Thus, NS2 represents a potential novel compound that could provide a dual benefit to individuals with dry skin or dry eyes.

Fig 1. Dry skin and Dry eye conditions

Dry environmental conditions (high temperature, low humidity) can promote lipid oxidation and induce elevated levels of aldehyde species that may damage lipid-rich moisture barriers in skin and eye, generating further dryness. Deficiencies in aldehyde dehydrogenase activity in Sjögren-Larsson Syndrome, for example, may lead to high aldehyde levels and damage to the dermal moisture barrier that causes the severe ichthyosis characteristic of the disease. Since patients with dry eye syndrome manifest elevated aldehyde levels in tears, aldehydes may also compromise the moisture barrier in the eye and thereby exacerbate dryness. Thus, lowering aldehyde levels may represent a novel therapeutic approach for treating dry skin and eye conditions.

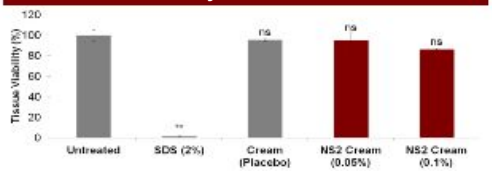
Fig 2. NS2: A novel aldehyde trap

Fig 3. Dry conditions increase aldehyde levels in human tissue



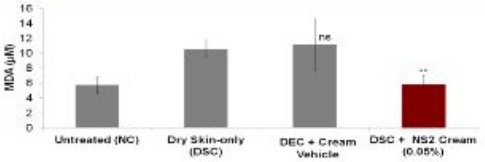
EpiOcular™ (MatTek®) tissues were acclimated before treatments for 24 hours and then incubated under normal (37˚C; >40%RH) or dry-conditions (40˚C; <40%RH) for 24, 48 and 72 hours. Malondialdehyde (MDA) levels of tissue lysates were measured using the TBARS assay. (ns =non significant; **= p<0.01)

Fig 4. NS2 cream formulations do not affect viability of 3D skin models



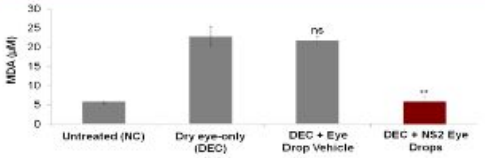
NS2 cream formulations were tested for skin irritation in reconstructed human epidermis. EpiDerm™ (MatTek®) tissues were acclimated for 24 hours and then treated topically twice (12 hours apart) with NS2 cream formulations (0.05% and 0.1% w/v) or SDS (2% w/v), used as positive control. Tissue viability levels were measured by the MTT reduction assay 48 hours after treatments. The levels of tissue viability after each treatment were compared to the untreated group to estimate the potential for skin irritation. (**= p<0.01)

Fig 5. NS2 prevents the increase in aldehyde levels caused by dry conditions in skin tissue



In a topical dermatologic formulation, NS2 (0.05% w/v) was administered to reconstructed human epidermis under normal and dry skin conditions (DSC). EpiDerm™ (MatTek®) tissues were acclimated before treatments for 24 hours and then treated topically with or without NS2. Tissues were incubated under normal (37˚C; >40%RH) or DSC (40˚C; <40%RH) for 72 hours. Malondialdehyde (MDA) levels of tissue lysates were measured using the TBARS assay and compared to untreated tissue. (** = p<0.01).

Fig 6. NS2 prevents the increase in aldehyde levels caused by dry conditions in ocular tissue



In an eye drop formulation, NS2 (0.5% w/v) was administered to reconstructed human cornea-like tissue under normal and dry eye conditions (DEC). EpiOcular™ (MatTek®) tissues were acclimated before treatments for 24 hours and later treated topically with or without NS2. Tissues were incubated under normal (37˚C; >40%RH) or DEC (40˚C; <40%RH) for 72 hours. Malondialdehyde (MDA) levels of tissue lysates were measured using the TBARS assay and compared to untreated tissue. (** = p<0.01).

Summary/Conclusions

- **Dry conditions induce aldehyde generation in human dermal and ocular tissue.**
- **Cream placebo used for NS2 active formulations and NS2 creams between 0.05-0.1% are unlikely skin irritants when topically applied twice a day (12 hours between application).**
- **In topical dermatologic and eye drop formulations, NS2 has significant aldehyde trapping activity in human dermal and ocular tissue subjected to dry conditions.**
- **Topically applied NS2 could be a safe and effective treatment for diseases characterized by dry tissue.**

Aldeyra Therapeutics' Data on Lead Candidate NS2 to be Presented at Society for Investigative Dermatology 2014 Annual Meeting

Results Suggest Novel Approach to Treating Dry Skin and Dry Eye Diseases

Burlington, MA, May 8, 2014 – Aldeyra Therapeutics, Inc. (NASDAQ: ALDX) (Aldeyra), a biotechnology company focused on the development of products to treat diseases related to free aldehydes, today announced that new data supporting its lead product candidate, NS2, which is designed to trap aldehydes, will be presented as an abstract poster at the Society for Investigative Dermatology (SID) 2014 Annual Meeting, being held May 7, 2014 through May 10, 2014, in Albuquerque, New Mexico.

The study, titled "NS2, a novel aldehyde trap, decreases aldehyde levels in dry skin and eye models" (Abstract LB793), will be presented during Poster Session I on Thursday, May 8, 2014 from 10am – 12pm (MT) in the NE Exhibit Hall of the Albuquerque Convention Center. In addition, the abstract was selected for discussion at the invitation-only Academic/Industry Session that follows the Academic-Industry Partnership Project during the Satellite Symposium being held on Thursday, May 8 at 12pm – 2 pm (MT).

Researchers studied the effect of dry conditions on inducing malondialdehyde (MDA) levels – which have been shown to be elevated in a variety of inflammatory skin and eye diseases – in human skin and eye tissue and the activity of NS2 in reducing levels of MDA generated by dry conditions. The study found that topical application of NS2 cream to three-dimensional human skin equivalents lowered MDA levels (measured by thiobarbituric acid reactive substances, or TBARS, assay) induced by dry skin conditions, and topical application of NS2 eye drops to three-dimensional human cornea-like tissue lowered MDA levels induced by dry eye conditions.

Researchers concluded that in topical dermatologic and eye drop formulations, NS2 has significant aldehyde trapping activity in human dermal and ocular tissue subjected to dry conditions and that topically applied NS2 could be a safe and effective treatment for diseases characterized by dry tissue. Researchers also concluded that dry conditions induce aldehyde generation in human dermal and ocular tissue and that the cream vehicle used for NS2 formulations and NS2 creams between 0.05-0.1% are unlikely skin irritants when topically applied twice a day to human skin equivalents with 12 hours between applications.

NS2 is an aldehyde-binding small molecule based on an innovative platform technology created to bind and trap free aldehydes, which are toxic and pro-inflammatory mediators of numerous diseases, and are thought to impair the formation of moisture barriers in tissue. By decreasing aldehyde load, NS2, in pre-clinical studies, has demonstrated multiple mechanisms of action, including generating an anti-inflammatory response, legion healing, reduction of fibrosis, and protection of a lipid critical to dermal tissue moisture barriers and ocular tear integrity. As a product candidate, NS2 is currently being evaluated to address two underserved skin and eye diseases, Sjögren-Larsson Syndrome and acute anterior uveitis.

Todd C. Brady, M.D., Ph.D., President and CEO of Aldeyra, commented, "We are excited to present the findings of our recent studies at this year's SID Annual Meeting. These data demonstrate that our lead product candidate NS2 has the ability to trap free aldehydes and may thereby protect specific lipids

critical to preserving moisture in the skin and eye. Given the results that we have seen, we believe that NS2 can be a viable and effective therapeutic option for patients who suffer from dry skin or dry eye conditions."

About NS2

NS2, a product candidate that is designed to trap and allow for disposal of free aldehydes, is under development for the treatment of Sjögren-Larsson Syndrome (SLS), a rare disease caused by mutations in an enzyme that metabolizes fatty aldehydes, and acute anterior uveitis, a rare disease characterized by severe inflammation and pain in the anterior eye.

About Aldeyra Therapeutics, Inc.

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 begin clinical testing of NS2 in 2014 for the treatment of Sjögren-Larsson Syndrome and acute anterior uveitis. NS2 has not been approved for sale in the U.S. or elsewhere. www.aldeyra.com

NOTE REGARDING FORWARD-LOOKING STATEMENTS

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 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," "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 timing and success of preclinical studies and clinical trials conducted by Aldeyra and its development partners; the ability to obtain and maintain regulatory approval of 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" section of Aldeyra's final prospectus filed under Rule 424(b)(4) with the Securities and Exchange Commission in connection with Aldeyra's initial public offering. No forward-looking statements can be guaranteed and actual results may differ materially from such statements. The information in this release 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.

Investor Contact:

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