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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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**FORM 8-K**

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**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 7, 2016**

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**ALDEYRA THERAPEUTICS, INC.**

(Exact name of Registrant as specified in its charter)

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**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)

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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))
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**ITEM 1.01. ENTRY INTO A MATERIAL DEFINITIVE AGREEMENT**

On March 7, 2016, Aldeyra Therapeutics, Inc. (“Aldeyra”) entered into a Sublease (the “Sublease”) with Planck, LLC (“Planck”) for approximately 3,188 square feet of office space on the 3<sup>rd</sup> floor of the building located at 131 Hartwell Avenue, Lexington, Massachusetts (the “Premises”). Pursuant to the Sublease, Aldeyra will assume the rights and obligations of Planck under a certain written lease agreement dated June 3, 2014 (the “Master Lease”), whereby Planck leased the Premises from WLC Three VI, L.L.C. (the “Property Owner”). Aldeyra intends to use the Premises to expand its current corporate headquarters. The Sublease and Master Lease each expire on September 29, 2017. Any rights or options of Planck under the Master Lease to extend the term of the Master Lease, to expand the Premises, or any rights of first offer or refusal are excluded from the Sublease. The Sublease provides for the payment of annual base rent in the amount of \$66,948.00, payable in monthly installments of \$5,579.00. In addition to the base rent, Aldeyra is required to pay Planck certain operating expenses, taxes and other fees in accordance with the terms of the Master Lease. The Master Lease contains customary representations and covenants regarding occupancy, maintenance and care of the Premises.

A copy of the Sublease and Master Lease will be filed as an exhibit to the Aldeyra’s annual report on Form 10-K for year ending December 31, 2015. The foregoing description of the Sublease and Master Lease is qualified in its entirety by reference to the full text of such documents.

**ITEM 7.01. REGULATION FD DISCLOSURE**

On March 9, 2016, Aldeyra will be making a presentation during the Cowen and Company 36th Annual Health Care Conference in Boston, Massachusetts, which will be webcasted live on Wednesday, March 9, 2016 at 8:00 a.m. ET. The presentation will include additional data from Aldeyra’s Phase Iia clinical trial of NS2 in allergic conjunctivitis. The slides that will be used for such presentation are furnished as Exhibit 99.1 to this Form 8-K.

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 9.01. FINANCIAL STATEMENTS AND EXHIBITS.**

**(d) Exhibits.**

<u>Exhibit No.</u>	<u>Description</u>
99.1	Presentation Slides

**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 9, 2016



*A Novel Pharmaceutical Platform Focused on  
Inflammation and Inborn Errors of Aldehyde Metabolism*

March 2016

# Disclaimers and 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 possible or assumed future results of operations and expenses, business strategies and plans, research and development plans or expectations, trends, market sizing, competitive position, industry environment and potential growth opportunities, among other things. Forward-looking statements include all statements that are not historical facts and, in some cases, can be identified by terms such as "may," "might," "will," "objective," "intend," "should," "could," "can," "would," "expect," "believe," "anticipate," "project," "target," "design," "estimate," "predict," "potential," "plan" or similar expressions and the negatives of those terms.
- Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause Aldeyra's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. 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 of commencement, enrollment and completion of Aldeyra's clinical trials; 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 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 its expenses and revenue, the sufficiency or use of Aldeyra's cash resources and needs for additional financing; the rate and degree of market acceptance of any of Aldeyra's product candidates; Aldeyra's expectations regarding competition; Aldeyra's anticipated growth strategies; Aldeyra's ability to attract or retain key personnel; Aldeyra's ability to establish and maintain development partnerships; Aldeyra's expectations regarding federal, state and foreign regulatory requirements; regulatory developments in the United States and foreign countries; Aldeyra's ability to obtain and maintain intellectual property protection for its product candidates; the anticipated trends and challenges in Aldeyra's business and the market in which it operates; the use or sufficiency of Aldeyra's cash or cash equivalents; 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 Annual Report on Form 10-K for the year ended December 31, 2014 and Aldeyra's Quarterly Report on Form 10-Q for the quarter ended September 30, 2015, which are on file with the Securities and Exchange Commission (SEC) and available on the SEC's website at [www.sec.gov](http://www.sec.gov). Additional factors may also be set forth in those sections of Aldeyra's quarterly annual report on form 10-Q K for the year ended December 31, 2015, which will be filed with the SEC in the first quarter of 2016
- 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 March 9, 2016, and Aldeyra undertakes no obligation to update any forward-looking statements contained in this presentation on account of new information, future events, or otherwise, except as required by law.

## Innovative Small Molecule Platform to Trap Aldehydes

- Aldehydes are toxic and pro-inflammatory, and are implicated in inflammatory disease and inborn errors of aldehyde metabolism

## Clinical Proof of Concept in Inflammation Achieved for Lead Candidate

- Lead aldehyde trap NS2 with statistically and clinically significant mitigation of ocular allergic response in allergic conjunctivitis Phase IIa trial

## Two Additional Clinical Events Expected in 2016

- Noninfectious Anterior Uveitis – rare but severe and potentially blinding ocular inflammatory disease with elevated aldehydes
- Sjögren Larsson Syndrome – inborn error of aldehyde metabolism with severe skin and neurological complications

## Strong Intellectual Property Position

- NS2 composition of matter IP to 2033 in US, assuming Hatch-Waxman extension, and to late 2020s worldwide; other novel aldehyde traps with protection into late 2030s and beyond

- **Todd Brady, M.D., Ph.D. – President, CEO, & Director**
  - 20 years of pharmaceutical business and clinical development
  - Domain Associates, Phenome Sciences, (acquired by Xanthus/Antisoma), Aderis Pharmaceuticals (acquired by Schwarz/UCB)
- **Steve Tulipano, CPA – Chief Financial Officer**
  - 28 years of financial experience
  - Biogen, Javelin Pharmaceuticals
- **David Clark, M.D. – Chief Medical Officer**
  - 18 years of clinical development experience
  - Pfizer, GSK, Wilson Therapeutics
- **Scott Young – Chief Operating Officer**
  - 30 years of pharmaceutical clinical development
  - Genzyme, Genetics Institute, Oxigene, Repligen

## Board of Directors

Boyd Clarke – Former CEO Aviron (acquired by MedImmune)

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

Neal Walker, D.O. – CEO Aclaris Therapeutics

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

Marty Joyce – Former CFO of Serono USA

Jesse Treu, Ph.D. – Domain Associates

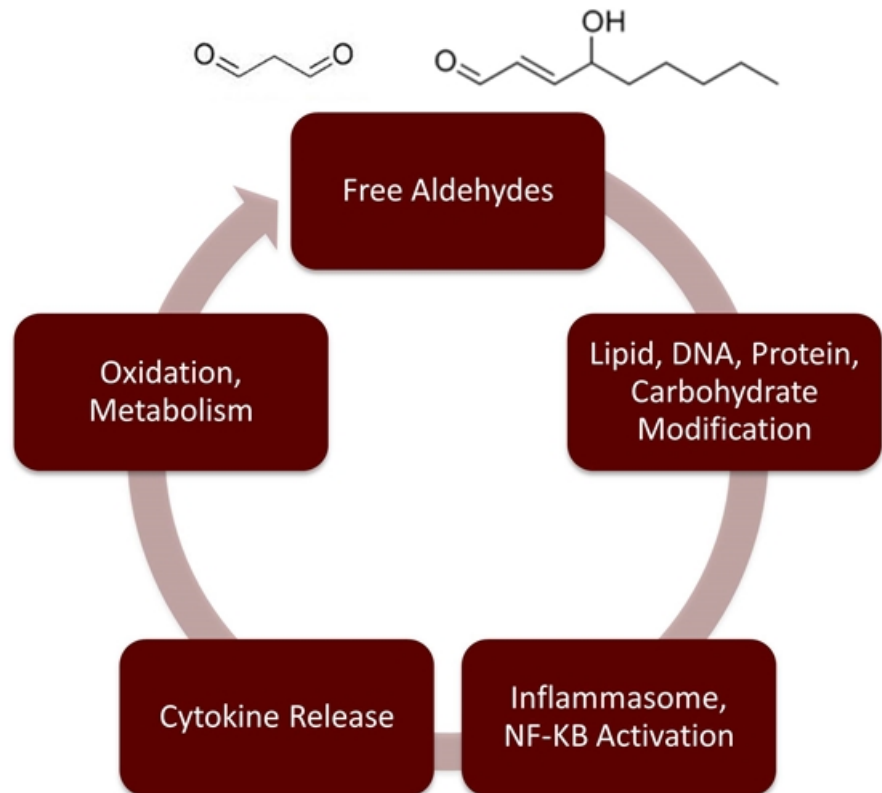
Todd Brady – CEO Aldeyra Therapeutics

## The Aldehyde Trap Platform



# Aldehydes Are Mediators of Disease

- Toxic mediators of numerous diseases
- Modify cellular constituents, lead to indigestible aggregates, and are pro-inflammatory
- High levels are implicated in inflammatory, neurological, cardiovascular and endocrinologic diseases
- Enzymes called aldehyde dehydrogenases metabolize aldehydes



# Aldehyde Traps: A Novel Therapeutic Approach

## Aldehyde Binding

- Aldeyra's compounds rapidly trap free aldehydes

## Adduct Transport

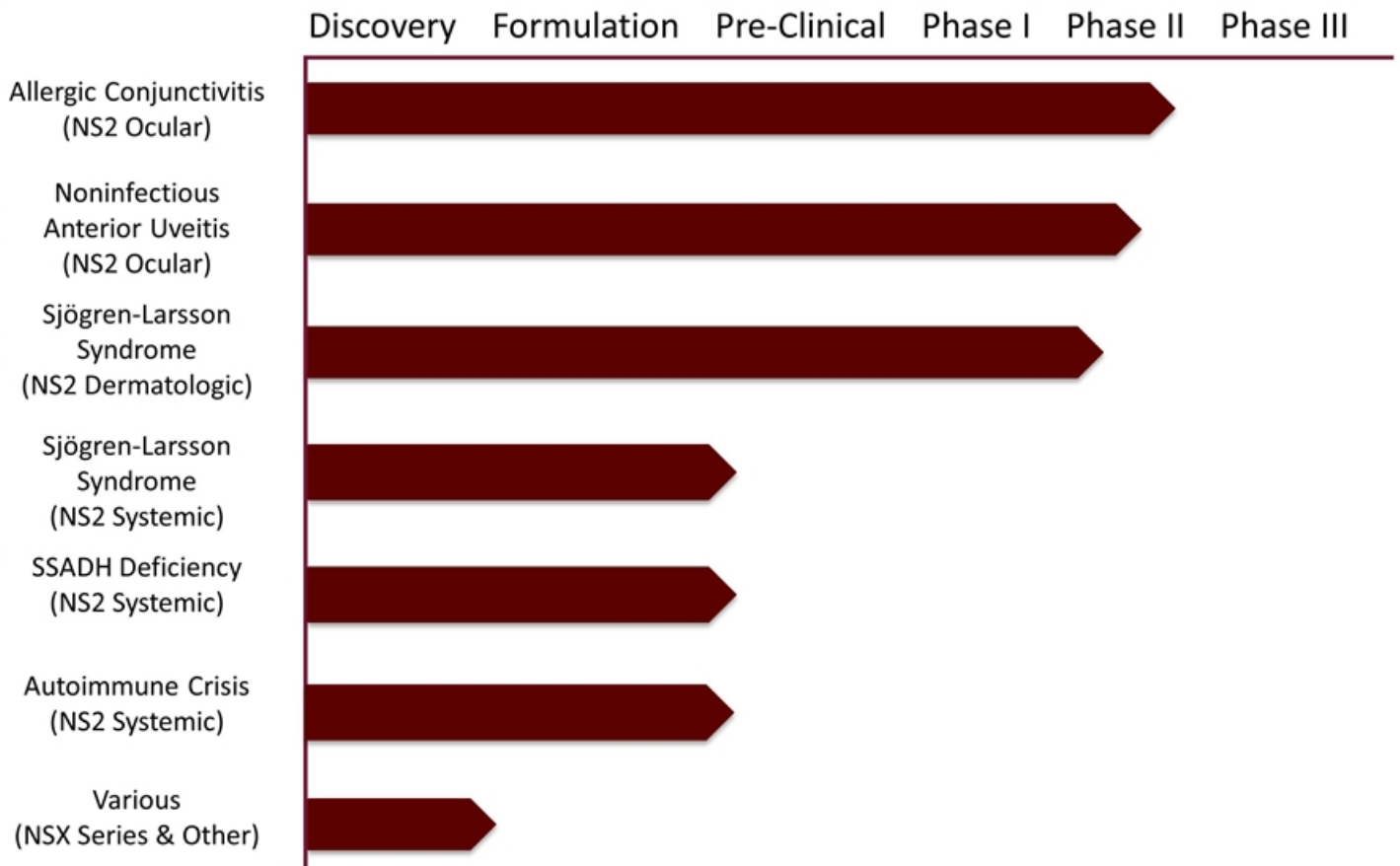
- Trapped aldehydes are transported to the lysosome

## Cellular Disposal

- Drug and aldehydes are metabolized within hours

Aldeyra's lead aldehyde trap, NS2, appears to have minimal pharmacology, with no known effects on receptors, enzymes and other proteins. Aldeyra is not aware of any similar technology.

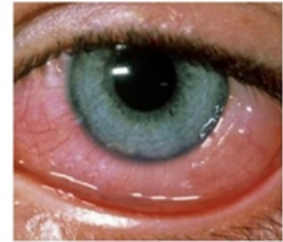
## Overview of Clinical Programs



# Allergic Conjunctivitis: A Common Unmet Medical Need

Allergic conjunctivitis affects 20% or more of worldwide population

Symptoms include stinging, burning, tearing, pain, itching, redness



Aldehydes may mediate IL-5 release and other pro-allergy cytokines

Some patients are steroid-dependent, and adrenergic agonists not suitable for chronic use

Aldeyra's lead aldehyde trap mitigated the ocular allergic response at levels that are statistically and clinically significant in a Phase IIa clinical trial Q1 2016.

# Noninfectious Anterior Uveitis: Inflammation Proof of Concept



## Uveitis

Acute anterior ocular inflammation

Pain, photophobia, loss of vision

Estimated 25,000 US patients/year

Currently treated with steroids

Aldehydes are inflammatory mediators of ocular diseases, and may also mediate pain.

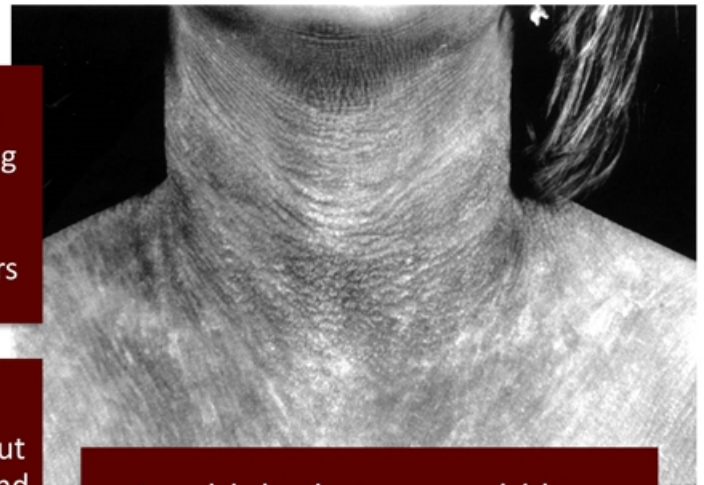
# Sjögren-Larsson Syndrome (SLS): A Rare Disease with No Therapy

Rare 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)



An aldehyde trap could be analogous to 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.

# Unmet Medical Need for Our Current Clinical Indications

We believe that there is significant market demand for a novel therapy that is safe and effective in the indications that we intend to develop.

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For allergic conjunctivitis, long-term activity of anti-histamines and adrenergic agonists is variable.

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Therapies for noninfectious anterior uveitis are associated with significant side effects.

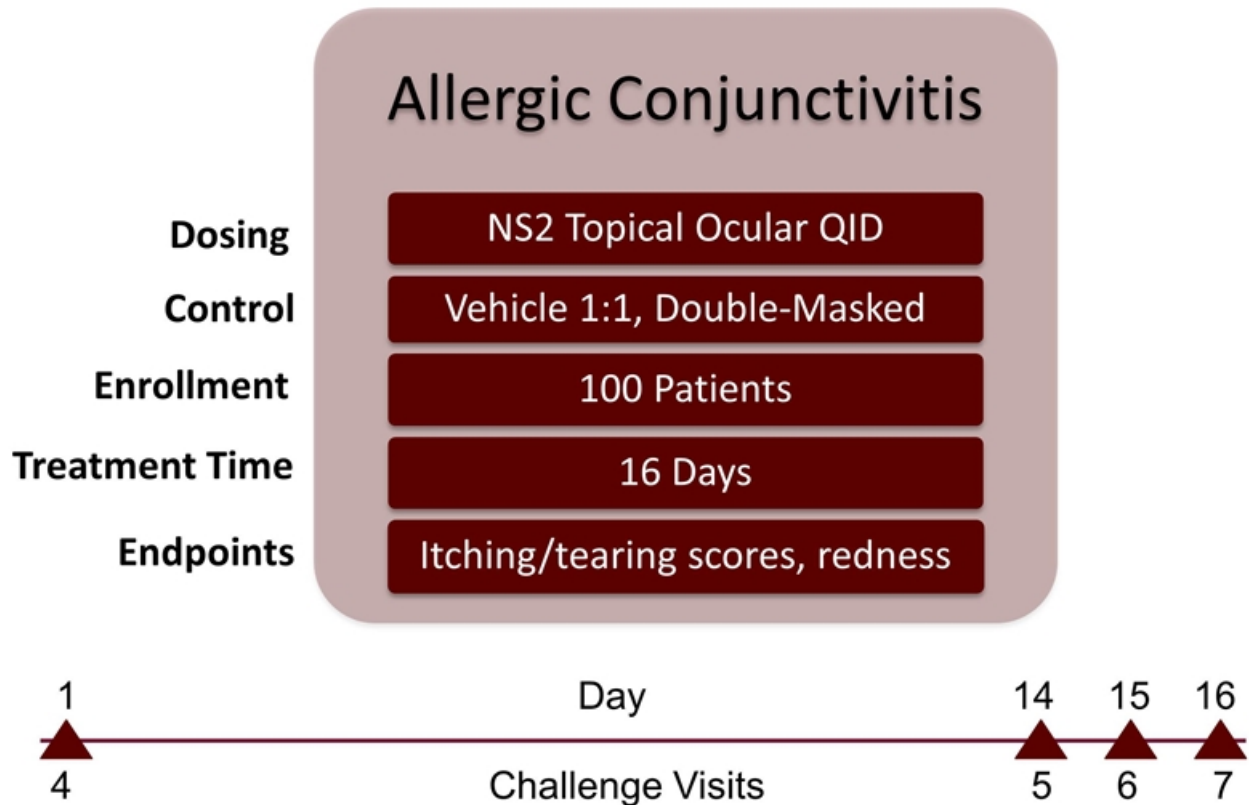
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There is no FDA-approved therapy for Sjögren-Larsson Syndrome.



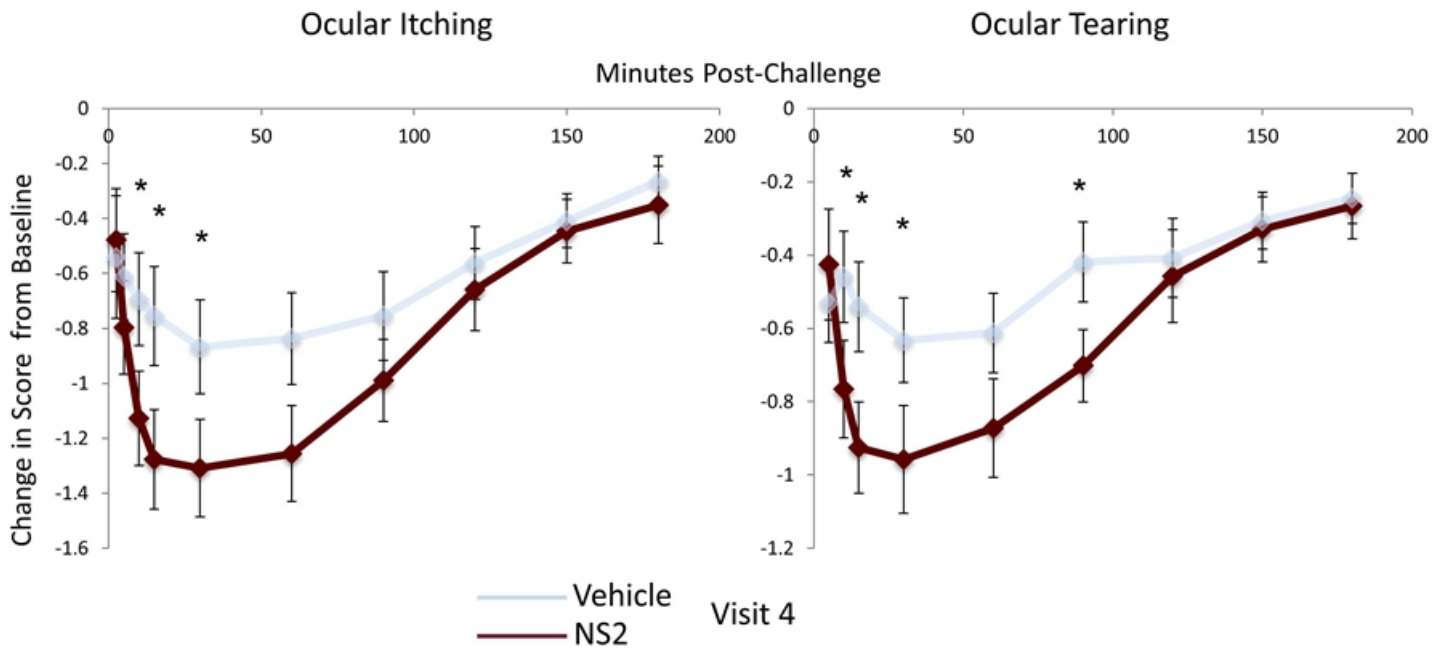
**Inflammatory Disease**  
Allergic Conjunctivitis  
Noninfectious Anterior Uveitis

# Phase IIa Clinical Trial Design for Allergic Conjunctivitis



Further information can be found on [www.clinicaltrials.gov](http://www.clinicaltrials.gov): Trial #NCT02578914.

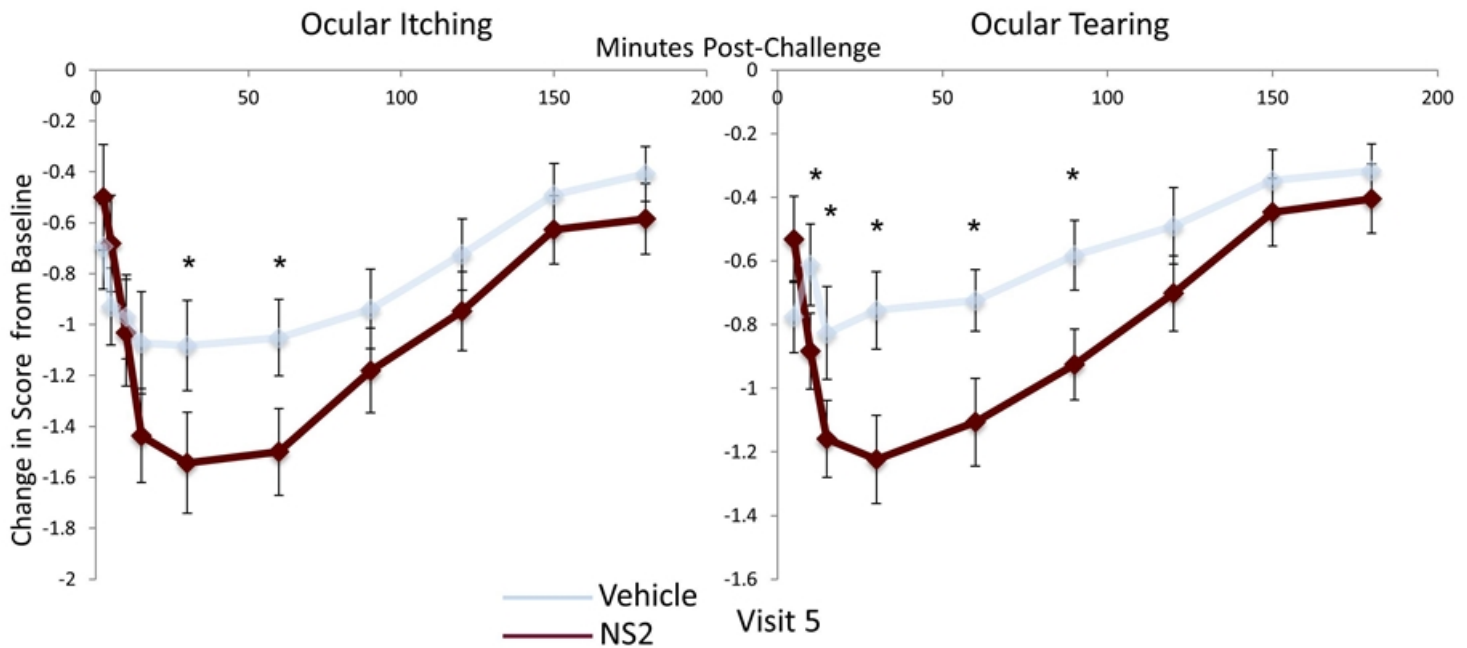
# Clinically Meaningful Effects Observed in Allergic Conjunctivitis Phase IIa



NS2 achieved reductions in ocular itching and tearing that were clinically relevant and statistically greater than vehicle.

\* $p < 0.05$ ; p values are subject to change based on quality control analysis

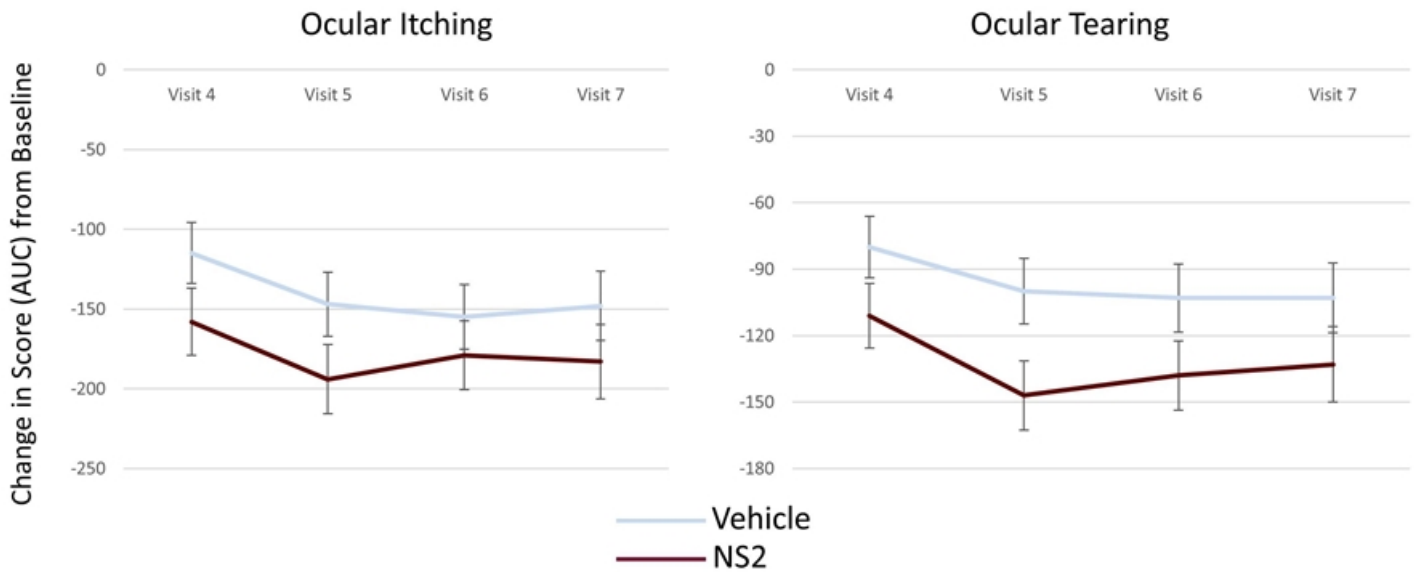
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\*p<0.05; p values are subject to change based on quality control analysis

# Sustained Clinical Effects Observed in Allergic Conjunctivitis Phase IIa



Of the 76 assessments of mean reduction from baseline for ocular itching and tearing, the drug activity exceeded vehicle activity 69 times (91%, chi-square  $p < 0.0001$ ).

**NS2 achieved reductions in ocular itching and tearing that were sustained across visits and consistently greater than vehicle.**

# Phase IIa Allergic Conjunctivitis Clinical Summary

- Topical ocular NS2 generally well-tolerated with no safety issues
  - Two drop-outs (4%) in the NS2 treatment arm
  - Transient and primarily mild stinging
- Sustained clinically relevant reductions in baseline ocular itching and tearing scores, with peak changes exceeding one point on four-point scale
- Consistent statistical superiority over vehicle response
- Reduction in allergic response from baseline similar in magnitude to drugs marketed for allergic conjunctivitis
- *Results suggest that aldehyde trapping is a novel anti-inflammatory mechanism that could potentially apply to other forms of ocular and non-ocular inflammation*

The current Phase II in noninfectious anterior uveitis is testing the same concentration of topical ocular NS2 at the same dosing frequency.

# Phase II Clinical Trial Design for Uveitis

## Noninfectious Anterior Uveitis

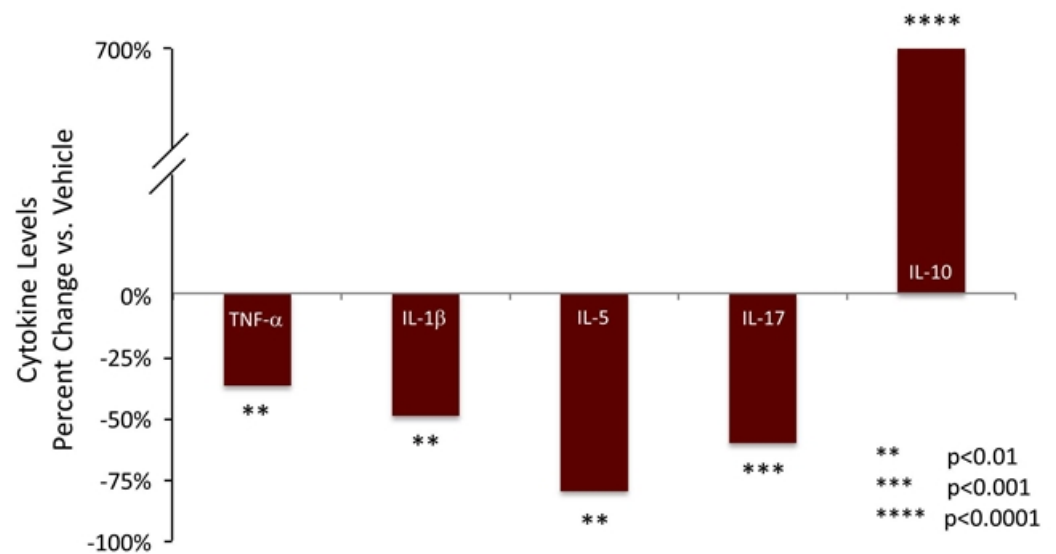
<b>Dosing</b>	NS2 Topical Ocular QID
<b>Control</b>	Active 1:1:1, Double-Masked (NS2, Steroid, NS2 + Sub-Therapeutic Steroid)
<b>Enrollment</b>	45 Patients
<b>Treatment Time</b>	6 weeks
<b>Endpoints</b>	Ocular inflammation, pain, acuity

Clinical data expected to be released in Q2 2016.

Further information can be found on [www.clinicaltrials.gov](http://www.clinicaltrials.gov): Trial #NCT02406209.

# Trapping Aldehydes Generates a Broad Anti-Inflammatory Response

Mice treated with NS2 or vehicle prior to endotoxin exposure; cytokines measured two hours after endotoxin exposure

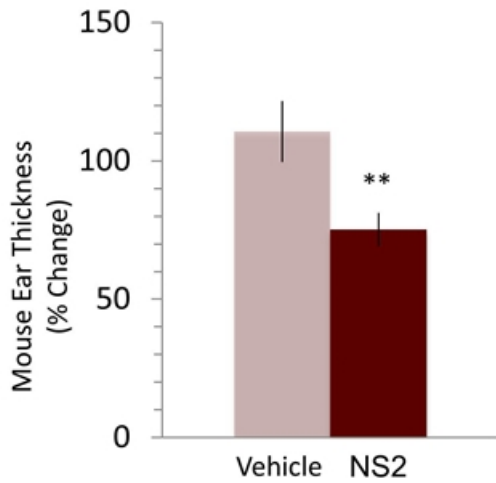


In a murine model of cytokine storm, NS2 administration significantly reduced levels of pro-inflammatory cytokines while up-regulating an anti-inflammatory cytokine.

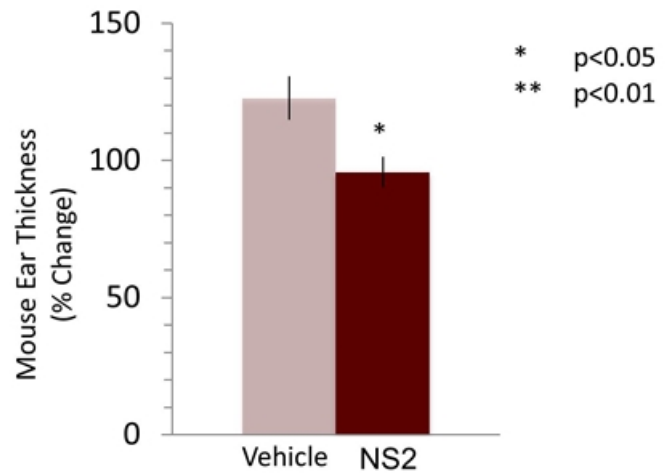
Data presented at the American Academy of Asthma Allergy and Immunology 2015 Annual Meeting



# NS2 Decreases Dermal Inflammation in Animal Models



Murine Model of **Contact Dermatitis** (PMA)  
6.5 hours after NS2 Administration



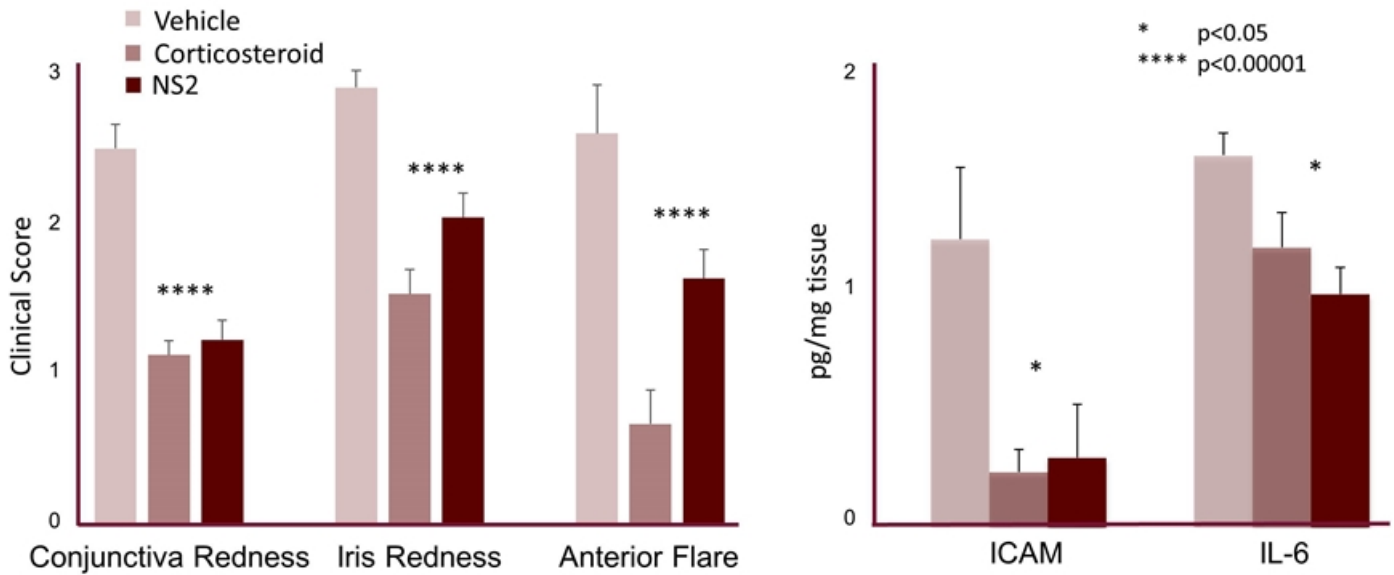
Murine Model of **Allergic Dermatitis** (Oxazolone)  
24.5 hours after NS2 Administration

A single dose of NS2 has early and potent anti-inflammatory effect that reduces swelling in two different models of skin inflammation.

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

# Topical NS2 Decreases Ocular Inflammation in an Animal Model

Rat LPS-Induced Ocular Inflammation at 24 Hours Post-Stimulus, NS2 dosed topically QID

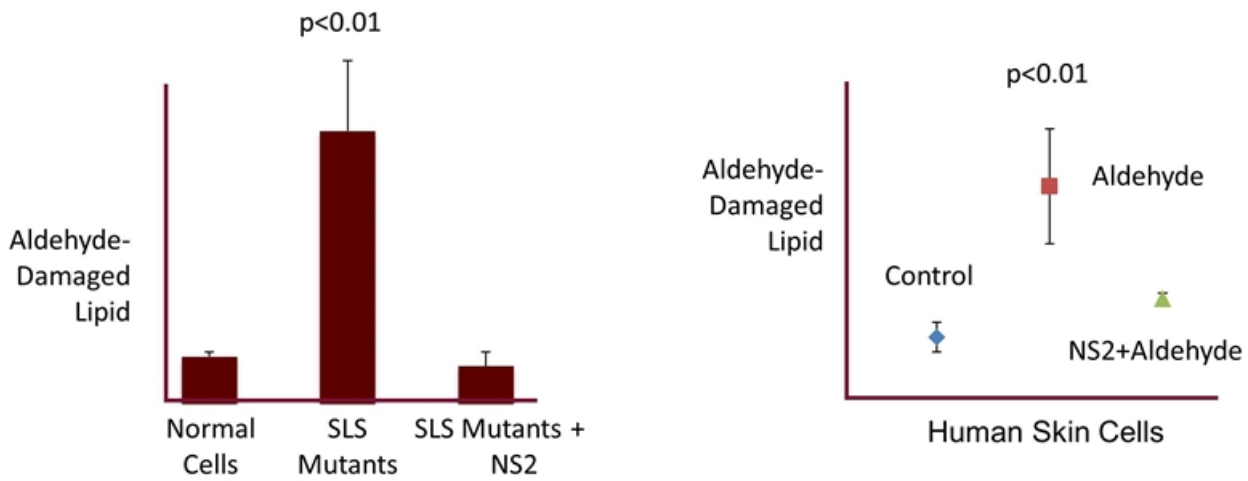


**Topically administered NS2 has clinically significant effects in a widely used animal model of ocular inflammation and compares favorably to corticosteroids.**

Data presented at the Association for Research in Vision and Ophthalmology  
2015 Annual Meeting

**Inborn Errors of Aldehyde Metabolism**  
Sjögren-Larsson Syndrome  
Succinic Semi-aldehyde Dehydrogenase Deficiency

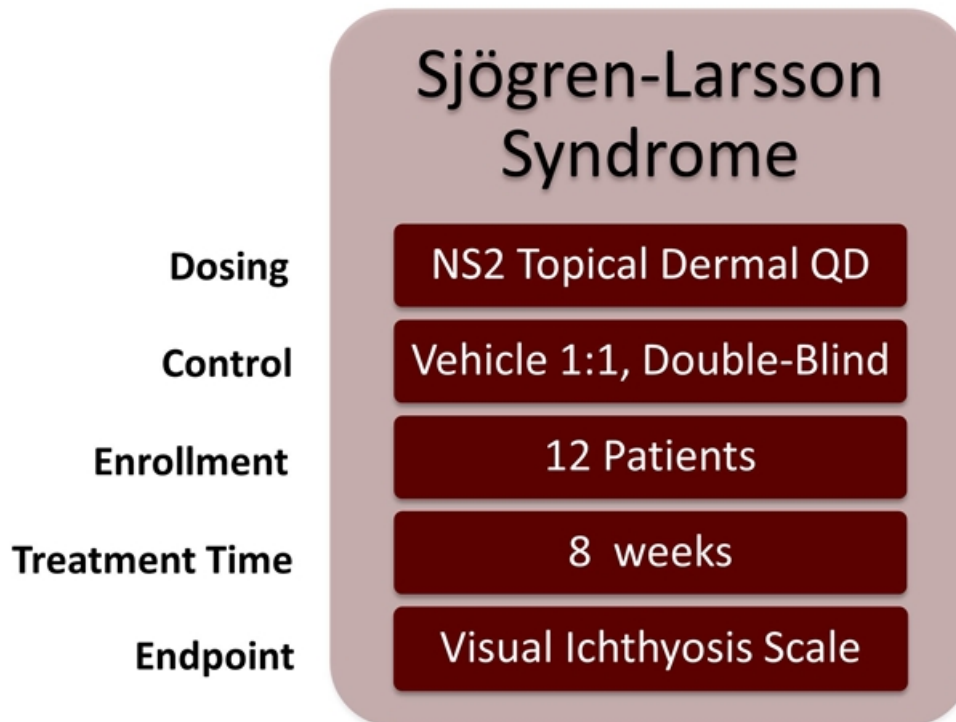
# NS2 Protects a Key Lipid Target in Sjögren-Larsson Syndrome



NS2 prevents aldehyde-mediated damage of a lipid that is critical to dermal moisture barrier pathology in Sjögren-Larsson Syndrome.

Data presented at the Society for Inherited Metabolic Disorders 2015 Annual Meeting

# Phase II Clinical Trial Design For Sjögren-Larsson Syndrome



Enrollment expected to be completed in March 2016.

Further information can be found on [www.clinicaltrials.gov](http://www.clinicaltrials.gov): Trial #NCT02402309.

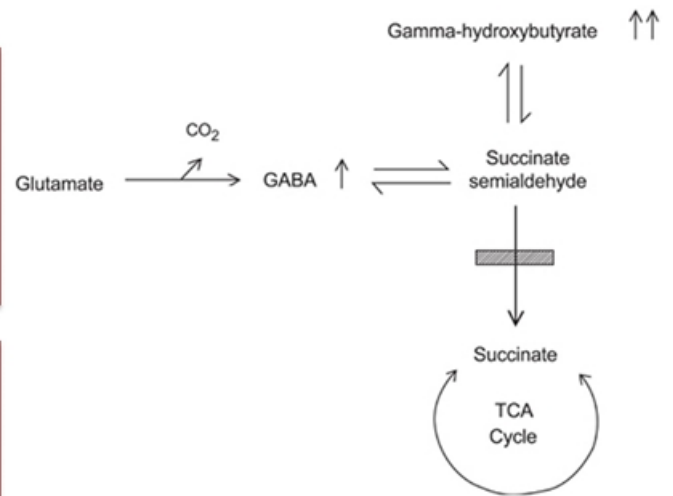
# Succinic Semi-Aldehyde Dehydrogenase Deficiency

Rare disease caused by mutation in succinic semi-aldehyde dehydrogenase, leading to high levels of toxic aldehyde

Symptoms include seizures, cognitive delay, hypotonia, ataxia

Third party clinical trial ongoing, but no targeted therapy that addresses aldehyde levels

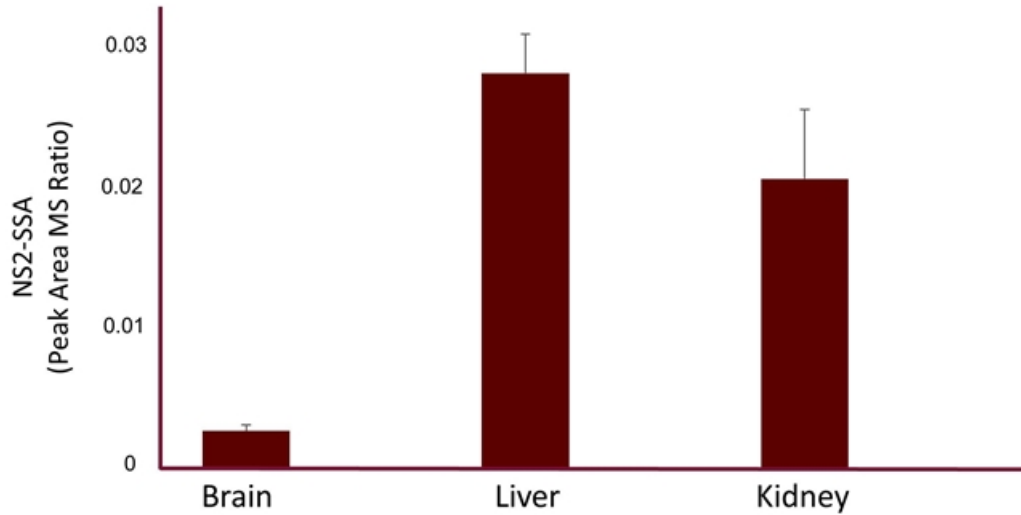
Roughly 400 patients identified worldwide, though many patients believed to be undiagnosed



An aldehyde trap could be analogous to enzyme replacement therapy

# NS2 Traps the Toxic Aldehyde in SSADH Deficiency

NS2 administered as a single dose to SSADH knock-out mice.



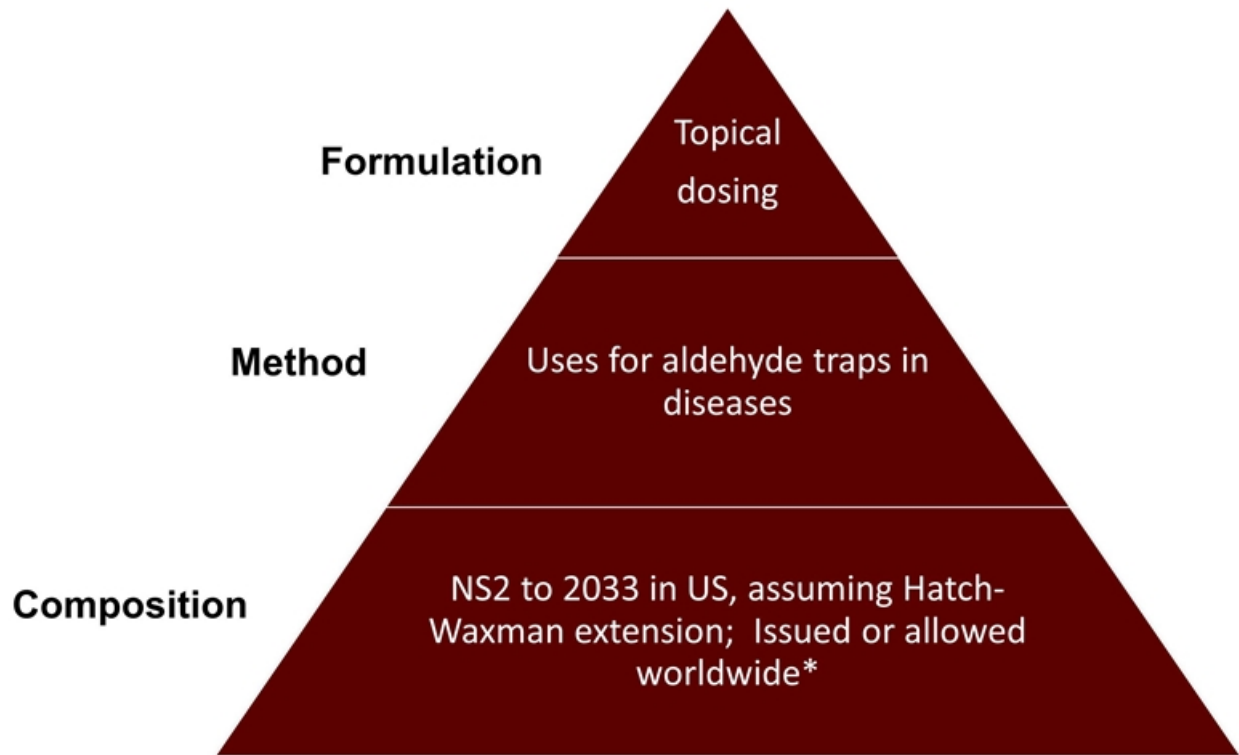
By trapping SSA, NS2 may prevent the formation of pathologic metabolites that are thought to be responsible for the severe neurological complications of SSADH Deficiency.

Data presented at the 2015 American Society of Human Genetics Annual Meeting

IP and Investment Thesis



# Intellectual Property Portfolio: Composition of Matter into the 2030s



\*Pending in Brazil

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