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): July 24, 2024

Clearside Biomedical, Inc.

(Exact name of Registrant as Specified in Its Charter)

Delaware (State or Other Jurisdiction of Incorporation) 001-37783 (Commission File Number) 45-2437375 (IRS Employer Identification No.)

900 North Point Parkway Suite 200 Alpharetta, Georgia (Address of Principal Executive Offices)

30005 (Zip Code)

Registrant's Telephone Number, Including Area Code: 678 270-3631

(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))

Securities registered pursuant to Section 12(b) of the Act:

	Trading	
Title of each class	Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.001 per share	CLSD	The Nasdaq Stock Market LLC

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company \Box

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 7.01 Regulation FD Disclosure.

On July 24, 2024, Clearside Biomedical, Inc. (the "*Company*") will host a virtual Suprachoroidal Delivery KOL Webinar (the "*Webinar*"). [A webcast of the Webinar will be available through the Events and Presentations page of the Investors section of the Company's website.] The Webinar will include a slide presentation. A copy of this slide presentation is furnished herewith as Exhibit 99.1 to this Current Report on Form 8-K.

In accordance with General Instruction B.2. of Form 8-K, the information in this Item 7.01 and 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 liability of that section, nor shall it be deemed incorporated by reference in any of the Company's filings under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof, regardless of any incorporation language in such a filing, except as expressly set forth by specific reference in such a filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit	
Number	Exhibit Description
99.1	Company Presentation.
104	The cover page from Clearside Biomedical, Inc.'s Form 8-K filed on July 24, 2024, formatted in Inline XBRL.

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.

Date: July 24, 2024

CLEARSIDE BIOMEDICAL, INC.

By: /s/ Charles A. Deignan

Name:Charles A. DeignanTitle:Chief Financial Officer

Exhibit 99.1

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CLEARSIDE BIOMEDICAL

Suprachoroidal Space Drug Delivery

July 24, 2024

Forward-Looking Statements

This presentation contains forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995, as amended. The words "may," "will," "could," "would," "should," "expect," "plan," "anticipate," "intend," "believe," "estimate," "predict," "project," "potential," "continue," "target" or the negative of these terms and other similar words or expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Clearside Biomedical, Inc.'s views as of the date of this presentation about future events and are subject to risks, uncertainties, assumptions, and changes in circumstances that may cause Clearside's actual results, performance, or achievements to differ significantly from those expressed or implied in any forward-looking statement. Although Clearside believes that the expectations reflected in the forward-looking statements are reasonable, new risks and uncertainties may emerge from time to time, and Clearside cannot guarantee future events, results, performance, or achievements. Some of the key factors that could cause actual results to differ from Clearside's expectations include its plans to develop and potentially commercialize its product candidates; adverse differences between preliminary or interim data and final data; Clearside's planned clinical trials and preclinical studies for its product candidates; the timing of and Clearside's ability to obtain and maintain regulatory approvals for its product candidates; the extent of clinical trials potentially required for Clearside's product candidates; the clinical utility and market acceptance of Clearside's product candidates; Clearside's commercialization, marketing and manufacturing capabilities and strategy; Clearside's intellectual property position; Clearside's ability to expand its pipeline; developments and projections relating to Clearside's competitors and its industry; the impact of government laws and regulations; the timing and anticipated results of Clearside's preclinical studies and clinical trials and the risk that the results of Clearside's preclinical studies and clinical trials may not be predictive of future results in connection with future studies or clinical trials and may not support further development and marketing approval; findings from investigational review boards at clinical trial sites and publication review bodies; Clearside's estimates regarding future revenue, expenses, capital requirements and need for additional financing; and Clearside's ability to identify additional product candidates with significant commercial potential that are consistent with its commercial objectives. For further information regarding these risks, uncertainties and other factors you should read the "Risk Factors" section of Clearside's Annual Report on Form 10-K for the year ended December 31, 2023, filed with the U.S. Securities and Exchange Commission (SEC) on March 12, 2024, and Clearside's subsequent filings with the SEC. Clearside expressly disclaims any obligation to update or revise the information herein, including the forward-looking statements, except as required by law. This presentation also contains estimates and other statistical data made by independent parties and by Clearside relating to market size and growth and other data about its industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of Clearside's future performance and the future performance of the markets in which Clearside operates are necessarily subject to a high degree of uncertainty and risk.

Agenda



GEORGE LASEZKAY, PharmD, JD

4

Clearside President & Chief Executive Officer

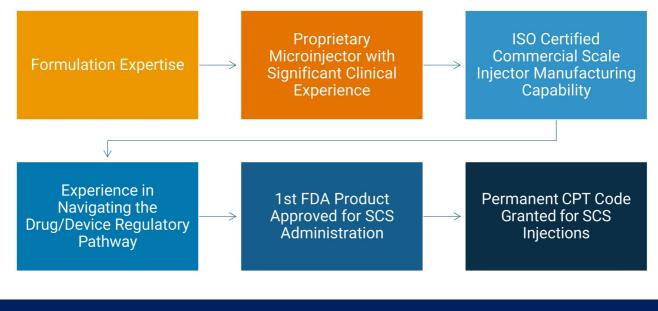
Versatility of Suprachoroidal Delivery

Delivering on the Potential of the Suprachoroidal Space

Proven Leader in Suprachoroidal Delivery with Thousands of Injections Performed

- Validated Technology with Approved Product, Multiple Collaborations, and Comprehensive IP Portfolio
- Differentiated Clinical Program Targeting Multi-Billion Dollar Wet AMD Market with Phase 2b Trial Data Expected in Late Q3 2024





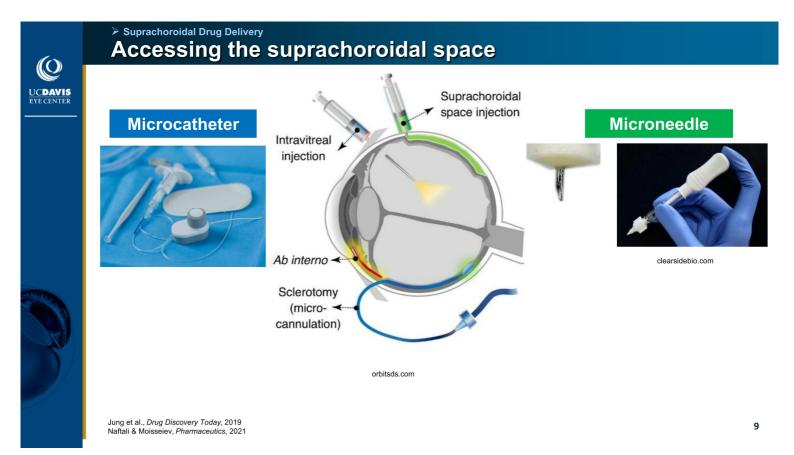
Diverse Programs Using Clearside's Suprachoroidal Injection Platform

THERAPEUTIC	ТҮРЕ	INDICATION	IND-ENABLING	PHASE 1	PHASE 2	PHASE 3	APPROVAL	PARTNER
CLS-AX axitinib):	Tyrosine Kinase Inhibitor	Wet AMD	Phase 2b COYSSEY					
(IPERE®	Corticosteroid (Triamcinolone Acetonide)	Uveitic Macular Edema ¹ (U.S. & Canada)						B+L BAUSCH+LOMB
(IPERE® / \RCATUS™	Corticosteroid (Triamcinolone Acetonide)	Uveitic Macular Edema ²				UME		O arcti VISIO
<pre>(IPERE[®] / ARCATUS™</pre>	Corticosteroid (Triamcinolone Acetonide)	Diabetic Macular Edema ² (Asia Pacific ex-Japan)		DME				
ARCATUS	(manicinoione Acetonide)							
		Development Programs						
		Development Programs	IND-ENABLING	PHASE 1	PHASE 2	PHASE 3	APPROVAL	PARTNER
SCS Microinje	ector [®] Partner Clinical L		IND-ENABLING	PHASE 1		PHASE 3 Mpass	APPROVAL	
SCS Microinje Therapeutic	ector [®] Partner Clinical I		IND-ENABLING				APPROVAL	
S <mark>CS Microinje</mark> T HERAPEUTIC Bel-Sar	ector [®] Partner Clinical I TYPE Viral-like Drug Conjugate	INDICATION Choroidal Melanoma	IND-ENABLING	ALT	Co		APPROVAL	

GLENN C. YIU, MD, PhD

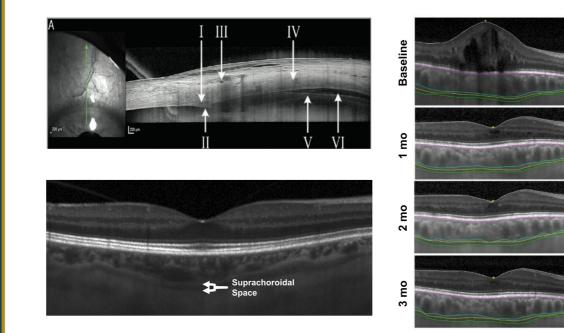
Professor of Ophthalmology, University of California, Davis

Real World Use of Suprachoroidal Delivery



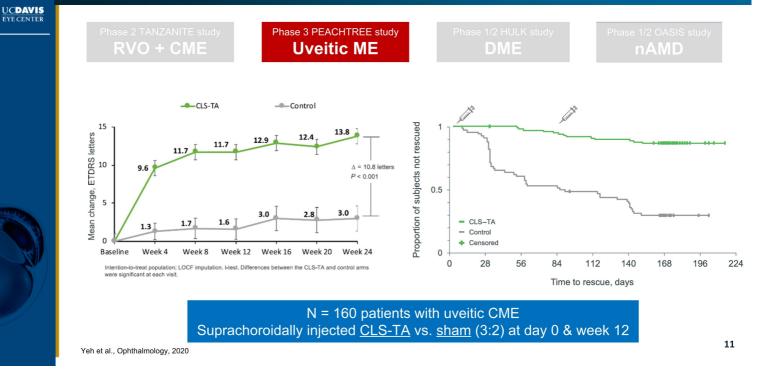


Suprachoroidal Drug Delivery OCT shows SCS expansion after SC injection in humans



Lampen et al. OSLI Retina, 2018 Yiu et al., Am J Ophthalmol, 2018





IRIS study of real-world durability of suprachoroidally injected triamcinolone acetonide for uveitic ME

Inclusion criteria

• Age ≥18 years

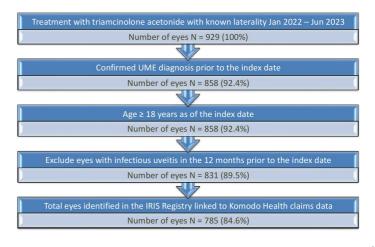
UCDAVIS

- Diagnosis of non-infectious UME
- Suprachoroidal injection of triamcinolone acetonide

Study Design

- Dates: Jan 2022 to Jun 2023
- <u>Index date</u>: first suprachoroidal triamcinolone acetonide injection
- <u>Rescue</u>: any injectable, implanted, or topical cortical steroids
- Follow-up: 24 weeks

IRIS[®] Registry (Intelligent Research in Sight) linked to Komodo open-source claims data using the Datavant token to identify corticosteroid use

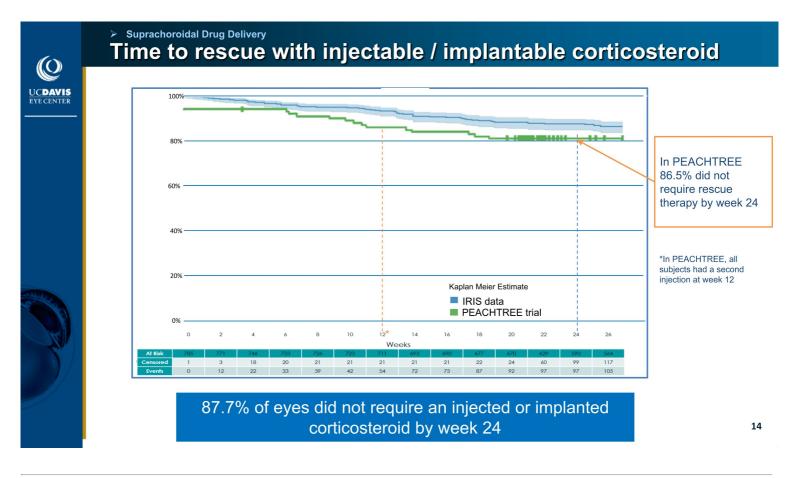


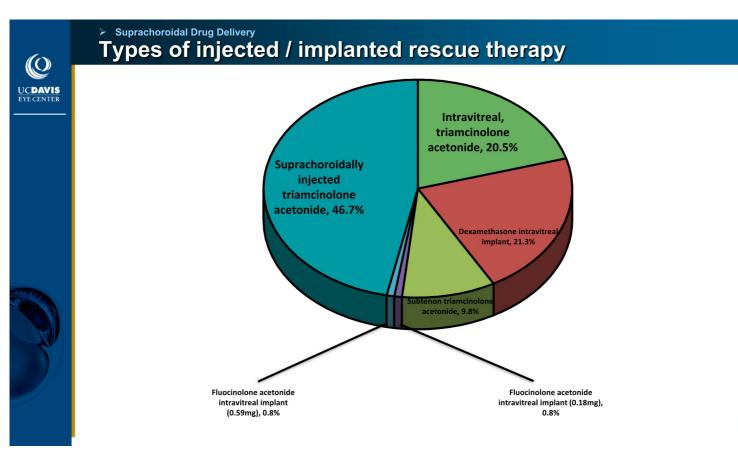
Singer, et al. Macula Society 2024. Durability with suprachoroidal injection of triamcinolone acetonide injectable suspension for uveitic macular edema and use of rescue therapy in clinical practice.

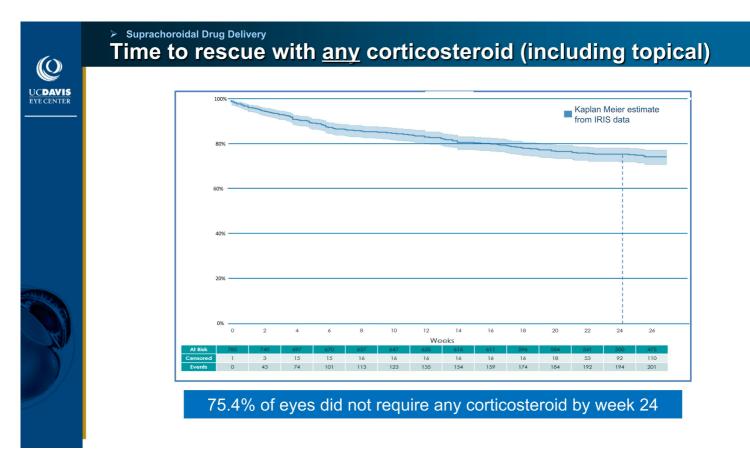
lotal eyes	831 (100.0%)
Age	
Mean (SD)	68.2 (13.6)
Sex	
Female	55.7%
Male	44.3%
Race	
Asian	1.7%
Black or African American	9.4%
White	65.8%
Other races	8.3%
Unknown	14.8%
Ethnicity	
Hispanic	4.8%
Non-Hispanic	64.7%
Unknown	30.4%
nsurance / payer type	
Medicare	53.4%
Medicare Advantage	9.7%
Medicaid	4.6%
Commercial	26.0%
Other/Unknown	6.3%

Glaucoma/Ocular Hypertension	41.8%
Cataract	24.7%
hAMD	2.3%
DR with DME	3.5%
DR without DME	4.3%
ME from CRVO	1.6%
ME from BRVO	2.6%
Retinal Detachment	14.4%
Posterior uveitis	81.1%
Panuveitis	14.6%
breviations: DR, diabetic retinopathy: DME, diabetic macular edema; ME, macular edema; CRVO VO, branch retinal vein occlusion	central retinal vein occl
Treating provider subspecialty	
Retina/Vitreous Specialist	86.3%
Cataract/Anterior Segment Specialist	5.9%
Other/Unknown	7.9%
Prior corticosteroid use*	
Injectable/implantable with or without topical	35.2%
in joor abio, in plantable tim of thirder topical	

41.8% of patients had glaucoma or ocular hypertension prior to suprachoroidal injection of triamcinolone acetonide









Suprachoroidal Drug Delivery Patient considerations for suprachoroidal injections

Patient Selection

- · High myopia or axial length
- · Known scleral thinning
- History of glaucoma or hypotony
- History of ocular surgery

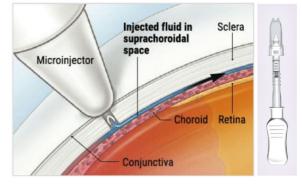
(esp. trabeculectomy or glaucoma shunt)

Patient Expectations

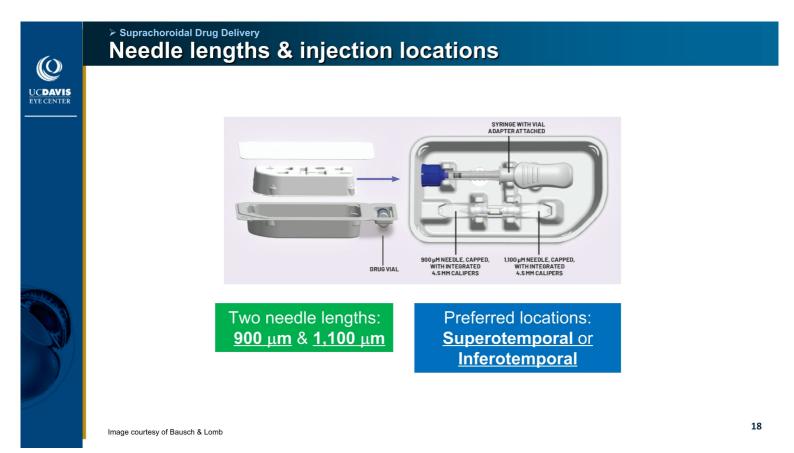
- · Sensation of "pressure wave"
- Longer duration of procedure
- · Possible change in needle or injection site

Patient Preparation

- Patient in supine position with head support
- Topical or subconjunctival anesthetic
- Povidone-iodine antiseptic
- Lid speculum recommended



Wykoff CC, Avery RL, Barakat MR, Boyer DS, Brown DM, Brucker AJ, Cunningham ET, Heier JS, Holekamp NM, Kaiser PK, Khanani AM, Kim JE, Demirci H, Regillo CD, Yiu G, Ciulla TA. Suprachoroidal Space Injection Technique: Expert Panel Guidance. Retina | Image courtesy of Bausch & Lomb





Suprachoroidal Drug Delivery Suprachoroidal injection technique

RETINAL AND VITREOUS DISEA

SUPRACHOROIDAL SPACE INJECTION TECHNIQUE Expert Panel Guidance

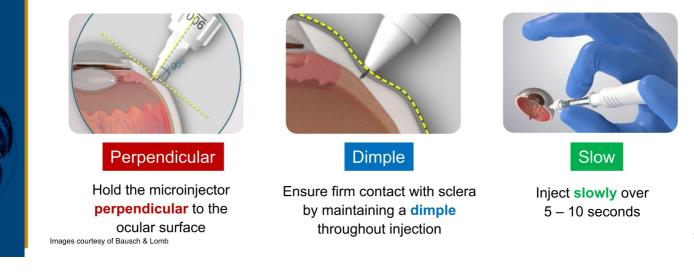
Wykoff, Charles C. MD, PhD^{*}; Avery, Robert L. MD^{*}; Barakat, Mark R. MD⁴⁵; Boyer, David S. MD⁵; Brown, David M. MD^{*}; Brucker, Alexander J. MD^{*}; Cunningham, Emmett T. Jr MD, PhD, MPH^{17,15,45,5}; Heier, Jeffrey S. MD^{***}; Holekamp, Nancy M. MD^{****}; Naise Peter K. MD⁴⁵; Honnani, Arshad M. MM^{45,5***}; Kim, Judy E. MD^{***}; Demirci, Hakan MD¹¹¹¹; Regillo, Carl D. MD⁵⁵⁵; Yiu, Glenn C. MD, PhD⁵⁵⁵; Ciulia, Thomas A. MD, MBA^{*****}; Kim, Judy E. MD^{***}; Demirci, Hakan MD¹¹¹¹; Regillo, Carl

RETINA SPECIALIST

A beginner's guide to suprachoroidal injections

They require a different skill set than intravitreal injections. Here's a description of the technique.

By Carol Villafuerte-Trisolini, MD, and Glenn Yiu, MD, PhD DECEMBER 23, 2023





- To date, intravitreal biologics have failed in geographic atrophy (GA)
- · Biofactory gene therapy uses retinal cells to produce biologics
- Intravitreal delivery: gene therapy mostly transfects transfects inner retina and non retinal cells, so would be similar to intravitreal biologics
- Subretinal delivery: even for wet AMD, it has been difficult for patient acceptance; therefore, may be even more difficult for GA without foveal involvement and good vision
- Suprachoroidal delivery: could be the preferred way to go



(0)

- SCS Microinjector® enables targeted in-office delivery to the suprachoroidal space
- Clearside is the leader with FDA-approved product, XIPERE[®] (triamcinolone acetonide injectable suspension), for suprachoroidal use to treat uveitic macular edema
- Durability of suprachoroidally injected triamcinolone acetonide in the real-world is comparable to Phase 3 trial results, with only ~12% needing subsequent corticosteroid within 24 weeks
- Suprachoroidal delivery represents a new and innovative technique that has many potential applications beyond delivering steroids, including angiogenesis inhibitors and gene therapies

Singer, et al. Macula Society 2024. Durability with suprachoroidal injection of triamcinolone acetonide injectable suspension for uveitic macular edema and use of rescue therapy in clinical practice.

VICTOR CHONG, MD, MBA

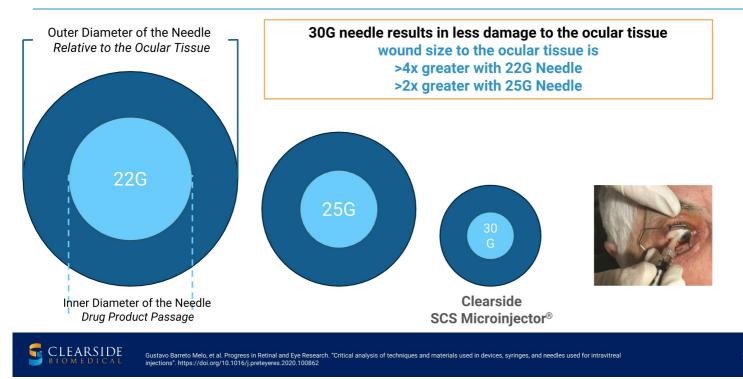
Clearside Chief Medical Officer

Pipeline Opportunities

Benefits for Patients and Physicians Using SCS Microinjector® Delivery

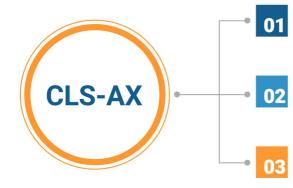


Competitive Advantage in Needle Gage Diameter



CLS-AX: Wet AMD Clinical Development Program

TM



Axitinib High potency TKI with pan-VEGF inhibition

Proprietary CLS-AX Suspension Formulation Clearside formulation expertise

Delivery via SCS Microinjector®

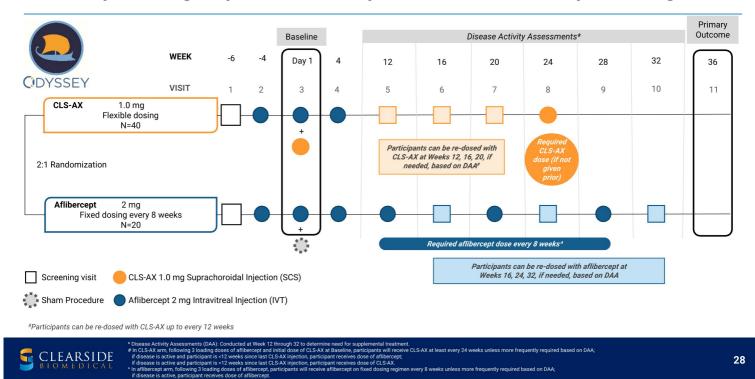
Compartmentalization may eliminate treatment related floaters, haze, and anterior segment side effects

Utilizes the same device as FDA-approved product XIPERE®

CLS-AX target profile: maintain visual acuity without need for retreatment for potentially up to 6 months

Key CLS-AX Program Features		Potential CLS-AX Competitive Advantages
Opportunity for treatments that may have longer duration of action in multi-billion-dollar market	•	2 - 3x/year maintenance dosing compared to approved drugs*: LUCENTIS®: 12x/year VABYSMO®: 3 - 6x/year EYLEA®: 6x/year EYLEA HD®: 3 - 4x/year
Utilizes the same SCS Microinjector device as FDA-approved product XIPERE	•	Competitors' delivery devices differ from their approved products
Objective is to maintain efficacy and reduce the number of injections and required visits	•	Reduced treatment burden benefits patients, caregivers and payors with improved outcomes
Re-dosing incorporated in Phase 2b design to provide insight for Phase 3 program	•	Allowing re-dosing comparable to VABYSMO [®] and EYLEA HD [®] in real-world setting
Dosing regimens are per respective product labels EYLEA and E Genentech/Roche	YLEA HD® are registered trademarks	of Regeneron Pharmaceuticals LUCENTIS $^{\circ}$ and VABYSMO $^{\circ}$ are registered trademarks of

Multiple Dosing Requirement To Help Inform Phase 3 Development Program





Re-dosing with CLS-AX

Every patient in the CLS-AX group will be re-dosed at least once

36 Week Treatment Duration

Anticipated primary endpoint duration of Phase 3 wet AMD study based on FDA draft guidance Other longer duration therapies (other TKIs, gene therapy) need rescue with anti-VEGF

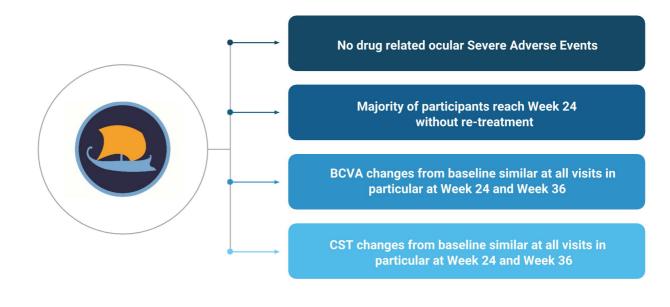
Harder to implement in clinical practice as patients do not want to come in for a scan every 4 weeks as in clinical trials





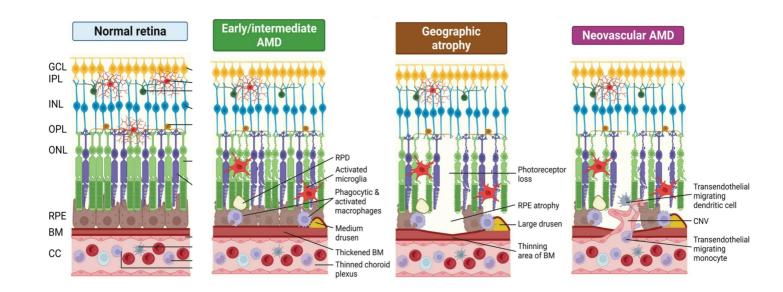
- All participants in the study have completed 6 months of treatment
- Participants in the CLS-AX arm have received two doses of CLS-AX per protocol
- In July 2024 meeting, the ODYSSEY Safety Review Committee (SRC) reviewed masked safety data and recommended that the trial continue as planned without modifying the protocol or unmasking of the participants
- SRC noted that there have been no drug-related Serious Adverse Events (SAEs) in masked study treatments observed to date, including no endophthalmitis or retinal vasculitis
- On-track to release top-line data in late Q3 2024





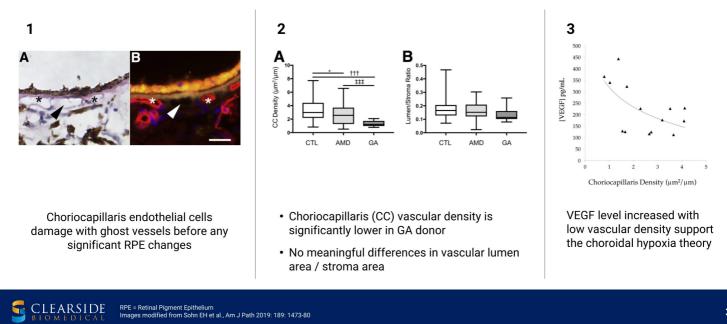
Pipeline Expansion Opportunity in Geographic Atrophy

Pathology of Age-Related Macular Degeneration (AMD)



CLEARSIDE BIOMEDICAL Wong JHC et al., Front Neurosci 16: 1009599

Choroidal Hypoxia Theory and Choriocapillaris are Damaged First



Small Molecule Can Access the Diseased Area of the RPE and Choroid



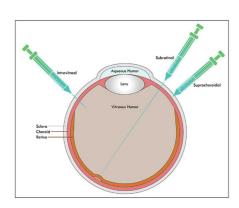
Larger molecules cannot get through Bruch's membrane So, if given intravitreally, it can only treat the RPE side

Aging intensifies disease actions and even peptides might not be able to get through

CLEARSIDE

Images modified from Hammadi et al JCM 2023, 12 (8), 2870

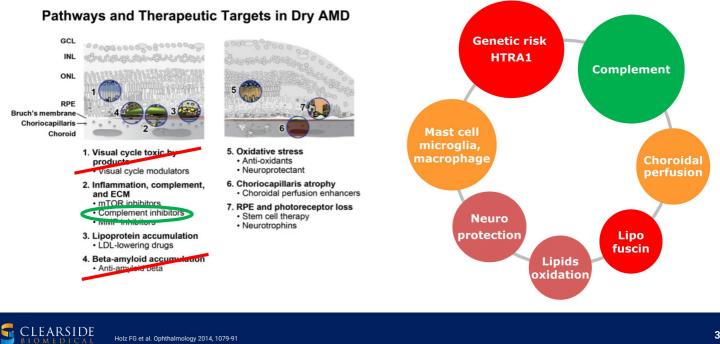
Suprachoroidal Administration Could Be Preferred Delivery Method



	Setting	Distribution	Deliver large molecules	Deliver small molecules	Gene therapy
Suprachoroidal	Office	Posterior segment	Not used	Suspension	RPE and Choroid
Intravitreal	Office	Widespread in eye	Standard	Implant	Mostly ganglion cells
Subretinal	Operating room	Localized to treatment bleb	Not used	Not used	Photore ceptor and RPE
Systemic	Home	Whole body	Need injection	Oral	Liver

SIGNEDICAL Images modified from Kasetty VM et al. Retinal Physician Aug 1, 2022, 19-23





DAVID M. BROWN, MD

Director of Research, Retina Consultants Houston

Large Practice View of Suprachoroidal Delivery

IVT vs SCS Procedure Time Comparison in Optimized High-Volume Practice

				Post Injecti	on (0.5min)	,
				Sterile Pre	p (2min)	
				Anesthe	sia	
Intravitreal (IVT) Timeline	Injection as	Percentage of Total	Time: 0.57%	Set-Up		
Patient Travel: 45min round trip		Exam: 15min	Imaging: 15min	5min	5min	
Suprachoroidal (SCS) Timeline	Injection as	Percentage of Total	Time: 1.1%	Injection (0.5 min)	
Patient Travel: 45min round trip		Exam: 15min	Imaging: 15min	5min	5min	
		30 sec increase in doctor's time performing procedure			(1.0 min)	
*IVT Injection as % of Total Time: 0.5 min / (45 + 15 + 15 + 5 + 5 + 2 + 0.5 + 0.5) min = 0.57% #SCS Injection as % of Total Time: 1.0 min / (45 + 15 + 15 + 5 + 5 + 2 + 1.0 + 0.5) min = 1.1%						

Learning from Phase 3 Designs of Aflibercept 8mg and Faricimab

- Understanding wet AMD patients have variable dosing frequency requirements
- Aflibercept 8mg and Faricimab extension criteria are not typically used in clinical practice
 - However, physicians are using them as a replacement of other anti-VEGF in Treat and Extend
- Ideal Phase 3 design for longer duration wet AMD therapy
 - · Re-treatment extension criteria closer to clinical practice
 - · Treatment naïve patients: to allow more direct comparison to established therapy

Discussion with Dr. Brown

