# UNITED STATES <br> SECURITIES AND EXCHANGE COMMISSION <br> Washington, D.C. 20549 

FORM 6-K

REPORT OF FOREIGN ISSUER
PURSUANT TO RULE 13a-16 OR 15d-16 OF THE SECURITIES EXCHANGE ACT OF 1934

For the Month of July 2023
(Commission File No. 001-41636)

## Oculis Holding AG <br> (Translation of registrant's name into English)

$\qquad$
Bahnhofstrasse 7
CH-6300
Zug, Switzerland
(Address of registrant's principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

## INFORMATION CONTAINED IN THIS REPORT ON FORM 6-K

On July 11, 2023, Oculis Holding AG (the "Registrant") held a R\&D Day: Retina, and gave a presentation regarding updates on its clinical programs, including with respect to its OCS-01 diabetic macular edema (DME) DIAMOND program: the recent stage 1 read-out of the DIAMOND trial and plans for the upcoming DIAMOND 1 and DIAMOND 2 trials, its OCS-01 LEOPARD trial: an investigator-led study to assess safety and efficacy of OCS-01 in uveitic and post-surgical macular edema, and its OCS-05 ACUITY trial: a first-in-patient trial in France to assess safety of OCS-05 for treatment of acute optic neuritis. The presentation is attached hereto as Exhibit 99.1 and is incorporated by reference herein.

The information contained in this Form 6-K, including Exhibit 99.1, is intended to be furnished and 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 or the Exchange Act, except as expressly set forth by specific reference in such filing.

## EXHIBIT INDEX

## Exhibit Description

99.1

Presentation dated July 11, 2023

## 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, thereunto duly authorized.

OCULIS HOLDING AG
Date: July 12, 2023
By: /s/ Sylvia Cheung
Sylvia Cheung
Chief Financial Officer

## Oculis

Rethinking Ophthalmology
Oculis R\&D Day: Retina
July 11, 2023

## Safe Harbor Statements

## Cautionary Note on Forward-looking Statements


#### Abstract

These slides and the accompanying oral presentation contain forward-looking statements and information. The use of words such as "may," "might," "will," "should," "expect," "plan," "anticipate," "believe," "estimate," "project," "intend," "future," "potential," or "continue," and other similar expressions are intended to identify forward-looking statements. For example, all statements we make regarding the initiation, timing, progress and results of: our expected cash runway; our preclinical studies and our clinical studies; our research and development programs; our regulatory strategy; our future development plans; our ability to advance product candidates into, and successfully complete clinical trials; and the timing or likelihood of regulatory filings and approvals and statements regarding the potential therapeutic benefits of our product candidates, are forward looking. All forward-looking statements are based on estimates and assumptions by our management that, although we believe to be reasonable, are inherently uncertain. All forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from those that we expected. Factors that may cause actual results to differ materially from current expectations include, but are not limited to: the possibility that Oculis may be adversely affected by economic, business, and/or competitive factors; Oculis' estimates of expenses and profitability; Oculis' ability to develop, manufacture and commercialize the product candidates in its pipeline; actions of regulatory authorities, which may affect the initiation, timing and progress of clinical studies or future regulatory approvals or marketing authorizations; the ability of Oculis or its partners to enroll and retain patients in clinical studies; the ability of Oculis or its partners to gain approval from regulators for planned clinical studies, study plans or sites; Oculis' ability to obtain and maintain regulatory approval or authorizations of its products, including the timing or likelihood of expansion into additional markets or geographies; the success of Oculis' current and future collaborations, joint ventures, partnerships or licensing arrangements; and other risks and uncertainties set forth in the sections entitled "Risk Factors" and "Cautionary Note Regarding Forward-Looking Statements" in documents that Oculis may from time to time file or furnish with the U.S. Securities and Exchange Commission (the "SEC"). Any forward-looking statement speaks only as of the date on which it was made. We undertake no obligation to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise, except as required by law.


| OCS-01 Phase 3 DIAMOND | Arshad Khanani, M.D., M.A. |  | 15 mn |
| :---: | :---: | :---: | :---: |
| Program in Diabetic Macular | Sierra Eye Associates, University of Nevada; Co-PI for DIAMOND; Oculis SAB member |  |  |
| Edema: Stage 1 Recap and Next | David Boyer, M.D. |  | 15 mn |
| Steps | Keck School of Medicine, USC; Co-Principal investigator for DIAMOND; Oculis SAB member |  |  |
| OCS-01 PoC LEOPARDTrial | Quan Dong Nguyen, MD, MSc, FARVO, FASRS |  | 15 mn |
| Cystoid Macular Edema | Stanford University School of Medicine; Principal Investigator for LEOPARD Trial ; Oculis SAB member |  |  |
| OCS-05 PoC ACUITY Trial in | Sophie Bonnin, M.D. |  | 15 mn |
| Acute Optic Neuritis | Rothschild Foundation Hospital, Paris |  |  |
| Q\&A Session Moderated by: <br> Riad Sherif, M.D., CEO | David Boyer, M.D. | Pravin Dugel, M.D., Oculis Director | 50 mn |
|  | Arshad Khanani, M.D., M.A., | Sabri Markabi, M.D., Independent R\&D Adviser |  |
|  | Quan Dong Nguyen, MD, MSc, | Ramin Tadayoni, M.D., Paris University |  |
|  | FARVO, FASRS | Pablo Villoslada, M.D., Stanford University |  |
|  | Sophie Bonnin, M.D. | Bastian Dehmel, M.D., Oculis Head of Development |  |



## Our Purpose

To drive innovation to save sight and improve eye care

Oculis is Uniquely Positioned to Build Significant Value
With a multi-assets, Late-stage Pipeline and near-term Catalysts


## Clinical Retina Programs Addressing Highly Meaningful Unmet Needs

OCS-01<br>OPTIREACH ${ }^{\oplus}$ enables eye drops treating retinal disease:



Two Phase 3 programs: DME, Ocular Surgery and PoC in CME

Topical Diabetic Macular Edema and Cystoid Macular Edema treatment candidate based on Optireach technology with consistent positive \& significant clinical readouts

OCS-05
Promising neuroprotective agent for neuro-retina diseases

To address
neurological damage


PoC in Acute Optic Neuritis, with multiple additional applications
SGK-2 activator with neuroprotective potential for Glaucoma, Geographic Atrophy, Diabetic Retinopathy \& Neurotrophic Keratitis

## OCS-01 | First Eye Drop for DME

OCS-01 delivered consistent positive results in previous DME trials

Unique product candidate with clinically validated MoA

OCS-01: High-concentration OPTIREACH ${ }^{\ominus}$ formulation of dexamethasone ( $15 \mathrm{mg} / \mathrm{ml}$ )

OPTIREACH ${ }^{\circ}$ Formulation Technology


Ozurdex ${ }^{\oplus}$, an IVT implant of dexamethasone, is FDA-approved for DME and annualizing at $\$ 460 \mathrm{M}$ and $7 \%$ growth $^{1}$

Positive results in exploratory and Phase 2 studies in DME

DME Exploratory $1^{2}$
19 pts Tanito Study
successfully completed

DME Exploratory $2^{3}$
22 pts Ohira Study
successfully completed
DME Phase $2^{4} 144$ pts Randomized \& doublemasked successfully completed

Phase 3 program initiated after positive Phase 2 results \& EoP2 meeting

Change in BCVA \& CST in Phase 2 Trial (Same Patient Population as Ph 3 DIAMOND Trial)


## Abvive 012013 emings report






Addressable US patient population: 1.2 million ${ }^{(4)(6)}$
(1) Optical coberence tomography (OCD imaging.
(2) Baseline Demographics and ClinicalCharacteristics of Treatment-Näve Patients with Diabetic Macular Edema Listed in the IRIS Registry
(TableS1) www.aso.org
(Table Sy) www.aso.org
(3) Bake, (arlw, et al. Effe

(4) Gonzalez 2016 Eanly and Long-temm Responses to VEGF Therapy in DME: Analysis of protocoll data
(5) Kiss 2014; Berenger and Kiss, Feb. 2016, Real world Utilization of VEGF agents (DME section) Rel
 hitps:///www.reviewofophthalmology.com/articlefealworld-vtifiration- -f.antivegragents (Akceso and Cleariew)

# Diamond <br> DIAbetic Macular edema patients ON a Drop 

## Stage 1 Recap and Next Steps

Arshad M. Khanani, M.D., M.A.

- Consultant: AbbVie, Adverum, Aerie, Applied Genetics Technologies Corporation, Aldebaran, Allergan, Apellis, Arrowhead, Aviceda Therapeutics, Bausch + Lomb, Broadwing Bio, Clearside, 4D Molecular Therapeutics, Exgenesis, EyePoint, Frontera, Genentech, Inc., Gyroscope, iLumen, Iveric Bio, Janssen, Kato, Kartos, Kodiak Sciences, Kriya, Ocular Therapeutix, Oculis, OcuTerra, Olives Bio, Opthea, Oxurion, Nanoscope, Notal, Novartis, Perfuse, PolyPhotonix, Protagonist, Ray Therapeutics, RecensMedical, Regeneron, Regenxbio, Roche, RevOpsis, Stealth, Thea, Unity, Vanotech, Vial; Research Support: Adverum, Annexon, Apellis, 4D Molecular Therapeutics, Genentech, Inc., Gyroscope, Iveric Bio, Kodiak, Neurotech, NGM Bio, Novartis, Ocular Therapeutix, Oculis, OcuTerra, Opthea, Oxurion, Regenxbio, Roche, Unity


## OCS-01 | Phase 3 Program in DME Patients

Loading dose regimen \& enriched population increase probability of success


Stage 1: Assess if loading dose optimizes efficacy
$1^{0}$ endpoint: Change in BCVA ETDRS letter score at wk 6
$\mathbf{2}^{0}$ endpoint: $\%$ with $a \geq 3$-line ( 15 letters) gain in BCVA at wk 6
$\mathbf{2}^{0}$ endpoint: Change in CST as measured by SD-OCT ${ }^{(1)}$ at wk 6
$\mathbf{2}^{0}$ endpoint: Change in BCVA at wk 12

Stage 2: Two Phase 3's to support NDA filing for DME

| $\mathbf{1}^{0}$ endpoint: | BCVA at wk 52 |
| :--- | :--- |
| Key $\mathbf{2}^{0}$ endpoint: | $\geq 3$-line ( 15 letters) at wk 52 |
| $\mathbf{2}^{\mathbf{0}}$ endpoint: | CST at wk $5 \mathbf{2}$ |

## OCS-01 | Phase 3 in DME Patients - Stage 1

Loading dose regimen \& enriched population increase probability of success


Stage 1 : Assess if loading dose optimizes efficacy
$1^{0}$ endpoint: Change in BCVA ETDRS letter score at wk 6 $2^{0}$ endpoint: $\%$ with $a \geq 3$-line ( 15 letters) gain in BCVA at wk 6/12 $2^{0}$ endpoint: Change in CST as measured by SD-OCT ${ }^{(1)}$ at wk 6/12 $2^{0}$ endpoint: Change in BCVA at wk 12

## Patient Disposition

## ITT population



AE , adverse event; ITT, intention-to-treat.
Data, analysis, and conclusions are preliminary, and subject to change as full analysis is ongoing

| Parameter | OCS-01 $(\mathbf{n = 1 0 0 )}$ | Vehicle (n = 48) |
| :--- | :---: | :---: |
| Age, mean (SD), years | $61.9(9.0)$ | $63.9(7.3)$ |
| Male, $n(\%)$ | $53(53.0)$ | $26(54.2)$ |
| Duration of DME, mean (SD), years | $2.0(2.6)$ | $1.9(2.7)$ |
| BCVA, mean (SD), ETDRS letter score | $57.5(9.3)$ | $58.3(7.5)$ |
| CST, mean (SD), $\mu m$ | $453.0(131.8)$ | $445.3(112.5)$ |
| IOP ${ }^{(1)}$, mean (SD), mmHg | $15.3(3.1)$ | $14.7(3.0)$ |

## Primary Endpoint Achieved with Robust Statistical Significance

Rapid improvement in vision with OCS-01 treatment, as assessed by BCVA


BCVA, best corrected visual acuity; CI, confidence interval; ETDRS, Early Treatment Diabetic Retinopathy Study; ITT, intention-to-treat; LS, least squares; SE, standard error. Multiple imputations for missing data. Imputation rules are applied based on a pattern-mixed model approach. Data, analysis and conclusions are preliminary, and subject to change as full analysis is ongoing.

## Improvement in Vision with OCS-01 Sustained to Week 12

Rapid improvement in BCVA with loading dose regimen sustained with maintenance regimen


## $25 \%$ of OCS-01 Patients Achieve $\geq 3$ Line Improvement in BCVA at Week 6 <br> Oculis

3-line ( 15 letter) improvement in BCVA deemed highly clinically relevant


ETDRS, Early Treatment Diabetic Retinopathy Study; ITT, intention-to-treat.

3 -line ( 15 letter) improvement in BCVA deemed highly clinically relevant


ETDRS, Early Treatment Diabetic Retinopathy Study; ITT, intention-to-treat.
Data, analysis and conclusions are preliminary, and subject to change as full analysis is ongoing.

## $63.6 \mu \mathrm{~m}$ Reduction in CST Achieved with OCS-01 at Week 6

Central subfield thickness (CST) is a key metric used by physicians to manage DME patients


CI, confidence interval; CST, central subfield thickness; ITT, intention-to-treat; LS, least squares; SE, standard error. Multiple imputations for missing data. Imputation rules are applied based on a pattern-mixed model approach.
Data, analysis and conclusions are preliminary, and subject to change as full analysis is ongoing.

## Reduction in CST Achieved with OCS-01 Sustained to Week 12

Rapid improvements in CST with loading dose regimen sustained with maintenance regimen


BCVA, best corrected visual acuity; CI, confidence interval; ETDRS, Early Treatment Diabetic Retinopathy Study; ITT, intention-to-treat; LS, least squares; SE, standard error. imputations for missing data. Imputation rules are applied based on a pattern-mixed model approach. Data, analysis and conclusions are preliminary, and subject to change as full analysis is ongoing.

## No Unexpected Safety Findings

Treatment Emergent Adverse Events

|  | OCS-01 (N=100) <br> $\mathrm{n}(\%)$ | Vehicle ( $\mathbf{N}=\mathbf{4 8})$ <br> $\mathrm{n}(\%)$ |
| :--- | :---: | :---: |
| AnyTEAE | $70(70.0)$ | $30(62.5)$ |
| Diabetic retinal edema | $10(10.0)$ | $9(18.8)$ |
| Intraocular pressure increased | $14(14.0)$ | $1(2.1)$ |
| Hypertension | $10(10.0)$ | $1(2.1)$ |
| Ocular hypertension | $8(8.0)$ | 0 |
| Macular edema | $2(2.0)$ | $4(8.3)$ |
| COVID-19 | $2(2.0)$ | $2(4.2)$ |
| Dry eye | $3(3.0)$ | $1(2.1)$ |
| Diabetes mellitus | $3(3.0)$ | 0 |
| Dizziness | $3(3.0)$ | 0 |
| Dysgeusia | $3(3.0)$ | 0 |
| Nasopharyngitis | $2(2.0)$ | $1(2.1)$ |
| Type 2 diabetes | $2(2.0)$ | $1(2.1)$ |
| Visual acuity reduced | $1(1.0)$ | $2(4.2)$ |
| Vitreous haemorrhage | $2(2.0)$ | $1(2.1)$ |
| Arthralgia | $2(2.0)$ | 0 |
| Blood glucose increased | $2(2.0)$ | 0 |

Treatment Emergent Serious Adverse Events (SAE)

|  | $\begin{gathered} \text { OCS-01 }(N=100) \\ n(\%) \end{gathered}$ | $\begin{gathered} \text { Vehicle }(N=48) \\ n(\%) \end{gathered}$ |
| :---: | :---: | :---: |
| Any ocular SAE | 1 (1.0) | $\bigcirc$ |
| Vitreous haemorrhage | 1 (1.0) | 0 |
| Any non-ocular SAE | 4 (4.0) | 3 (6.3) |
| Death | 1 (1.0) | $\bigcirc$ |

- None of the SAEs reported were deemed related to study drug
- No evidence of cataract formation up to 12 weeks

|  | OCS-01 <br> $n=100$ <br> $n(\%)$ | Vehicle <br> $n=48$ <br> $n(\%)$ |
| :--- | :---: | :---: |
| Any IOP related AE | $22 / 100(22.0)$ | $1 / 48(2.1)$ | | 10 mmHg IOP change from baseline at any visit | $16 / 97(16.5)$ | $0 / 47(0)$ |
| :--- | :---: | :---: |
| Greater or equal to 25 mmHg IOP at any visit | $19 / 97(19.6)$ | $1 / 47(2.1)$ |
| Greater or equal to 35 mmHg IOP at any visit | $1 / 97(1.0)$ | $1 / 1$ |
| IOP lowering medications administered for AE | $11 / 22$ |  |



Study met its pre-specified objective i.e. to enable the selection of a dosing regimen for stage 2

Loading with 6 and Maintenance with 3 drops/day is an effective dosing regimen as proven by analysis at Week 12

Six times a day dosing of OCS-01 was observed to be a highly effective Loading Dose:

- To improve visual acuity
- To reduce macular edema and
- To increase the $\%$ of patients with a clinically relevant 3 -line or greater improvement in BCVA
(90) Three times a day dosing of OCS-01 was found to be an effective Maintenance Dose

No unexpected safety findings were observed

## Oculis

OCS-01 in DME Phase 3 DIAMOND-1 and DIAMOND-2 Next Steps

- Consultant: 4DMT, Achillion Pharma, Acucela, Adverum Biotechnologies, Aerie, AiViva Biopharma, Alcon, Aldeyra Therapeutics, Alimera Sciences, Alkahest, Allegro, Allergan, Allgenesis, Alzheon, Amgen, Amydis, Annexon Biosciences, Apellis, AGTC, AsclepiX, Ashvattha, Aviceda, Bausch \& Lomb, Bayer, Biogen, Bionic Vision Technologies, Biovisics Medical, Boehringer Ingelheim, Boxer Capital, Cell Care Therapeutics, Chengdu Kanghong Biotechnology, Ciana, Clearside Biomedical, Curacle Co, Delsitech, DTx, Eloxx, EyePoint, Gemini Therapeutics, Genentech, Glaukos, GrayBug Vision, jCyte, I2vision, Kala, Isarna, Iveric Bio, Kriya, Kyowa Kirin, Lineage Cell, LumiThera, Nanoscope, NGM Biotherapeutics, Novartis Ophthalmics, Ocular Therapeutix, Ocugen, Oculis SA, Ocuphire Pharma, OcuTerra, Ocutrx Vision Technologies, Opthea, Optigo Biotechnology, Oxurion NV, Palatin Technologies, Pfizer, Regeneron, RetinAI Medical AG, Ripple, Roche, Santen, Shenyang XingQi Pharma, Smilebiotek Zhuhai, Stealth BioTherapeutics, Surrozen, Syneos, Thea Laboratories, Unity Biotech, Vanotech Corp, Verseon Corp, Vitranu, Vitro Biopharma, Viva Vision Biotech
- Stock/Shareholder: Allegro, DigiSight (Verana Health)


## Purpose and Design

Purpose
To evaluate the efficacy and safety of OCS-01 in the treatment of patients with Diabetic Macular Edema (DME) The studies will provide the required clinical data for a New Drug Application (NDA) to the US FDA

## Design

- Two randomized, multi center, masked, vehiclecontrolled phase 3 pivotal clinical studies with identical protocols will be conducted.
- The design of the studies was agreed as pivotal by FDA in EoP2 meeting minutes.


DIAMOND 2 ( $\mathrm{N}=350-400$ ) 52 weeks

OCS-01: $6 x /$ day weeks $1-6 ; 3 x /$ day weeks 7-52

Vehicle: $6 \times$ /day weeks $1-6$; $3 x /$ day weeks 7-52

OCS-01 |The DIAMOND Program in DME at a Glance

Key Enrollment Criteria
Age 18-85 years
No participation in Stage 1 Confirmed diagnosis of DME Diabetes mellitus 1 and 2 ETDRS BCVA letter score and CST: same as stage 1
All comers incl. treatment- naive or previously- treated patients


Washout (if needed): 3-6 months
6-week loading phase followed by 46 -week maintenance phase depending on prior treatment

Endpoints
$\mathbf{1}^{0}$ endpoint: Change in BCVA ETDRS letter score at wk 52
Key $2^{0}$ endpoint: $\%$ with $\geq 3$-line gain in BCVA at wk 52
$\mathbf{2}^{\mathbf{0}}$ endpoint: Change in CST as measured by SD-OCT ${ }^{(1)}$ at wk 52

## Timelines

FPFV: 2H 2023

## Population

Eligibility Criteria and Number of Patients

- Approximately $700-800$ patients with DME (across both studies), aged $18-85$ years with best corrected vision (BCVA) of $24-65$ letters, and central retinal thickness (CST) $\geq 310 \mu \mathrm{~m}$ will be enrolled.
- Eligibility criteria defining DME were selected to be similar:
- to criteria used in previous pivotal studies (e.g. Ozurdex) leading to approval
- to previous studies of OCS-01 where efficacy was demonstrated
- The number of patients to be enrolled accounted for the power needed to test the statistical hypothesis as well as mitigating the risk of missing data and drop-out over the 52 weeks period.


## Methods and Main Outcome Measures

## Methods

- Patients will be randomized 1:1 to study treatment with OCS-01 or matching vehicle and will be followed for 52 weeks.
- Study treatment will be administered as an eye drop 6 times a day (loading phase) for 6 weeks followed by 3 times a day (maintenance phase) for the remaining 46 weeks.


## Main Outcome Measures

- Pre-defined efficacy endpoints for FDA are:
- Primary : mean change in BCVA from baseline to week 52 and
- Key secondary: proportion of patients achieving 15 letters or more gain from baseline.
- Other secondary: mean change in CST as measured by SD-OCT at wk 52
- Safety outcomes include adverse events, Intraocular pressure (IOP), lens clarity and HbAic.


## Operational Organization and Timelines

## Operational Organization

- The studies will be conducted globally in selected sites based on expertise and experience. Centers in the US and ex-US will be included in each study.
- A best-in-class CRO was selected for the global conduct of the study.
- A Steering Committee, composed of experienced industry experts and leading retina specialists was formed to support and oversee the design and conduct of the program.


## Timelines

- First Patient First Visit (FPFV) for the DIAMOND program is targeted for 2 H 2023.

| SC member | Affiliation |
| :--- | :--- |
| David S. Boyer, MD | Retina -Vitreous Associates Medical Group, Los Angeles, CA, USA |
| Bastian Dehmel, MD | Oculis Head of Development, Lausanne, Switzerland |
| Arshad M. Khanani, MD | Retina- Sierra Eye Associates, Reno, NV, USA |
| Sabri Markabi, MD | R\&D Adviser, Miami, FL, USA |
| Steve Snapinn, PhD | Seattle-Quilcene Biostatistics, Seattle, WA, USA |
| Ramin Tadayoni, MD | Retina- Université Paris Cité, Lariboisiere \& St. Louis and Rothschild <br> Foundation Hospitals, Paris, France |

## Oculis

## OCS-01 PoC LEOPARD Trial in CME

Quan Dong Nguyen,
MD, MSc, FARVO, FASRS

# Efficacy and Safety Of Dexamethasone OphthaLmic Suspension Eye DrOps In Uveitic and Post Surgical MAculaR EDema - The LEOPARD Study <br> <br> LEOPARD 

 <br> <br> LEOPARD}

Study Overview

Quan Dong Nguyen, MD, MSc, FAAO, FARVO, FASRS
Byers Eye Institute
Stanford University School of Medicine
Palo Alto, California

## Disclosure

- Stanford University, the employer of Dr. Nguyen, has received research funding from Boehringer-Ingelheim, Genentech, Novartis, Oculis, Regeneron, Santen, and Belite Bio among others
- Dr. Nguyen serves on the Scientific Advisory Boards for Belite Bio, Boehringer-Ingelheim, Genentech, Kriya, Oculis, Regeneron, and Santen, among others
- The LEOPARD Study is an Investigator-Sponsored Trial coordinated by the Global Ophthalmic Research Center (GORC) and the Byers Eye Institute at Stanford University with the study drug provided by Oculis


# InTRODUCTION AND Study Rationale 

## Uveitic Macular Edema

- Uveitic macular edema (UME) is a common complication of uveitis $\sim 33 \%\left({ }^{(1)}\right.$
- Even after control of active inflammation, uveitic macular edema may persist ${ }^{(2)}$
- Intravitreal steroid results in complete resolution of 50-60\% of uveitic macular edema ${ }^{(3)}$

(1) Lardenoye et al. Impact of Macular Edema on Visual Acuity in Uveitis, Ophthalmology, AAO, vol. 113, Issue 8, P1446-1449 August 2006 (2) Koronis et al. Update in treatment of uveitic macular edema, Drug Des Devel Ther 2019, v.13; 667-680
(3) Thorne et al. The POINT trial, Ophthalmology, Feb. 2019, 126(2): 283-295


## Post-Surgical Macular Edema

- Cataract extraction is the most prevalent surgical procedure of all medical specialties with an estimated 3.7 million cases per year in the USA, 7 million in Europe and 20 million worldwide ${ }^{(1)}$
- Clinically significant CME occurs in up to $5.8 \%$ of cataract surgeries ${ }^{(2)}$ representing up to:
- $\sim 215,000$ cases in the USA, and $\sim 400,000$ cases in EU and $\sim 1.16 \mathrm{M}$ cases worldwide per year
- PSME can also occur after other intraocular surgeries, i.e., vitreoretinal surgery
- Cystoid Macular Edema (CME) is the most significant cause of postoperative vision loss after ocular surgery
- Approximately $30 \%$ of patients ${ }^{(3)}$ who undergo ocular surgery have higher risk of CME, including patients with diabetes, uveitis and other risk factors
- Up to $\mathbf{5 6 \%}$ of high-risk patients ${ }^{(2)}$ may experience clinically significant CME following ocular surgery
- No established guidelines (topical steroids, topical NSAIDs, intravitreal steroids/anti-VEGFs, interferon, tocilizumab)
- Can be refractory
(1) Tommaso Rossi et Al., Cataract surgery practice patterns worldwide: a survey, BMJ 2020, Volume 6, Issue 1.
(2) https://crstodayeurope.com/articles/2013-julaug/prevention-of-cme-after-cataract-surgery
(3) ARVO Annual Meeting Abstract, June 2021, Hennings et al. Prognostic determinants of postoperative pseudophakic macular oedema in a tertiary hospital setting


## The Unmet Needs to Be Addressed by LeOPARD

- There is no optimal treatment for uveitic and post-surgical macular edema
- OCS-01 has demonstrated excellent safety and efficacy profiles in diabetic macular edema in clinical trials to-date
- Previous study (Shulman et al, 2015) has shown that topical dexamethasonecyclodextrin nanoparticle eye drops was effective for non-infectious uveitic macular edema, and thus ... we believe OCS-01 would work in UME and PSME


## We Need More Effective Therapeutic Options

## Dexamethasone Ophthalmic Suspension (OCS-01)

- A high-concentration OPTIREACH formulation of dexamethasone ( $15 \mathrm{mg} / \mathrm{ml}$ ) conjugate forming nano- and microparticles
- Cyclodextrins are hydrophilic carriers that can:

1. Enhance the permeation of relatively lipophilic molecules (e.g., dexamethasone) through biomembranes (e.g., cornea)
2. Maintain high concentrations of molecules in aqueous environments (e.g., aqueous humor)


- Preclinical trials have shown that OCS-01 can reach the retina in significant concentrations


## Study Design

## Study Objectives

1. To evaluate the effects of OCS-01 Ophthalmic Suspension on visual acuity and central subfield thickness (CST) in subjects with UME and PSME
2. To monitor the safety of OCS-01

## Study Overview

- Prospective, multi-center, single masked, randomized, controlled study
- Subjects and BCVA examiner will be masked
- 24 eligible subjects
- 12 with UME
- 12 with PSME
- Study Duration: 24 weeks for each subject
- Four Phases

1. Screening Phase
2. Loading Phase: All subjects will receive 1 drop of OCS-01 Ophthalmic Suspension 6 times a day (every 4 hours) for 4 weeks.
3. Treatment Phase: At week 4, both UME and PSME subjects will be randomized into 2 groups and receive treatment until primary end point - Week 12:
a. High dose group ( 6 drops of OCS -01 per day)
b. Low dose group (3 drops of OCS-01 and 3 placebo per day)
4. Follow-up Phase: Retreatment or Taper

## Primary Outcomes

1. Mean change in central subfield thickness (CST) on optical coherence tomography (OCT) at week 12 compared to baseline
2. Mean change in ETDRS BCVA letter score at Week 12

## Secondary Outcomes

1. Mean change in ETDRS BCVA letters at weeks $2,4,6,8,16,20$, and 24 compared to baseline
2. The percentage of subjects who gain $\geq 10$ or $\geq 15$ ETDRS letters at week 12 and 24 compared to baseline
3. Mean change in central subfield thickness (CST) at weeks $2,4,6,8,16,20$, and 24 compared to baseline
4. Improvement in quality of life as assessed by NEI VFQ-25 at Week 12, and 24 compared to baseline
5. The percentage of subjects showing reduction of macular leakage on FA at week 12 and 24 compared to baseline

## Safety Endpoints

- Adverse Events (AEs) at 8, 12, and 24 weeks
- Slit Lamp Examination Parameters indicating ocular toxicity to the investigational drug at 8, 12, and 24 weeks
- Intraocular Pressure at 8,12 , and 24 weeks
- Percentage of subjects who lose $\geq 15$ ETDRS letters or more at weeks 8,12 , and 24 compared to baseline


## Retreatment Criteria

- Subjects who continue to have ME on OCT from week 12 onwards, will be treated according to the following criteria:
- Subjects randomized to High-Dose group (6 drops OCS-01 daily) will continue to receive 6 drops OCS-01 daily.
- Subjects randomized to Low-Dose group (receive 3 drops OCS-01 + 3 drops placebo daily) will be switched to receive 6 drops OCS-01 daily.


## Eligibility Criteria

## Inclusion Criteria

- Age 18 years or older
- A diagnosis of UME or PSME
- Can provide written informed consent prior to any study procedure being performed, able and willing to follow all instructions, and attend all study visits
- An ETDRS BCVA letter score $\leq 70$ (Snellen 20/40) and $\geq 35$ (Snellen 20/200) in the study eye at baseline (Visit 2)
- If both eyes are eligible, the eye with the worse BCVA will be selected as the study eye. If both eyes have the same BCVA, the non-dominant eye will be selected


## Study Timelines

May - June 2023
Activation of Sites (completed)

June 2023 to January 2024
Enrollment

Q3 2024
LPLV

Q4 2024/Q1 2025
Topline Results

## Clinical Sites

- Byers Eye Institute at Stanford, Palo Alto, CA
- Texas Retina Associates, Dallas, TX
- Valley Retina Institute, McAllen, TX
- Stein Eye Institute at UCLA, Los Angeles, CA
- Retina Vitreous Associates Medical Group, Beverly Hills, CA

Byers Eye Institute

Valley Retina Institute

## UCLA Stein Eye Institute

## Summary

- OCS-01, a high-concentration OPTIREACH formulation of dexamethasone ( $15 \mathrm{mg} / \mathrm{ml}$ ), is being evaluated as therapeutic option for uveitic macular edema (UME) and post-surgical macular edema (PSME), aiming to address important unmet needs, in addition to diabetic macular edema (DME)
- Strong safety profile observed with no unexpected adverse events beyond what have been seen in other studies with DME
- The LEOPARD Study is ongoing at multiple clinical centers of excellence in the United States

OCS-01 May Become a Potent, Relatively Non-Invasive Therapeutic Option for Retinal Vascular and Uveitic Diseases and First-Line Therapy for Macular Edema in Post-Operative High-Risk Patients and High-Risk Surgeries

## Thank You

## LEOPARD <br> STUDY

## Oculis

## OCS-05 PoC ACUITY Trial in AON

Sophie Bonnin, M.D.

HÔPITAL FONDATION

A REFERENCE TETE ET COU

# ACUITY study: towards neuroprotection 

Sophie Bonnin, MD

## Why neuroprotection is an unmet medical need?



Diabetic Retinopathy:
spots or dark strings floating in vision


Macular Degeneration:
blurred or no vision in the center of visual field


In all these diseases, the loss of neurons, i.e. ganglion cells, is responsible for the loss of vision.

Neuroprotection aims to preserve neurons from damage, delaying disease progression.

## Unmet medical need in glaucoma

## $\sim 80 \mathrm{M}$ people have glaucoma WW reaching $\mathbf{1 1 1 M}$ by $2040^{(1)}$

Global number of glaucoma patients in $M^{(1)}$


While standard-of-care drugs reduce IOP
(a risk factor), there is no treatment to protect against optic nerve damage


About 10\% of patients still go blind or suffer from sight impairment ${ }^{(2)}$

Cumulative incidences of blindness ${ }^{(2)}$

"Currently available therapies for [glaucoma] only attempt to reduce intraocular pressure, the major risk factor, without addressing the associated optic neuropathy and retinopathy.
"Development of glaucoma neuroprotective treatment is therefore a pressing unmet medical need"(3)
"...subset of patients with glaucoma may have more aggressive disease and may be particularly susceptible to progression, possibly because of non-IOP-related factors that contribute to retinal ganglion cell (RGC) death and vision loss" (4)
(1) https://www.brightfocus.org/glaucoma/article/glaucoma-facts-figures
(2) Peters D, Bengtsson B, Heijl A. Lifetime risk of blindness in open-angle glaucoma. Am J Ophthalmol. 2013;156:724-730
(3) Yang et al 2013;
(4) Forchheimer et al 2011

## Is OCS-05 effective in neuroprotection?

SGK-2 activator peptidomimetic small molecule with a unique mode of action for neuro-ophthalmology

Disease modifying drug to protect and repair neurons

- Activates neurotrophic signalling pathways supporting neuronal survival and repair

OCS-05 targets SGK as part of the neurotrophic factor signalling pathways triggering multiple beneficial effects on apoptosis, antioxidation and anti-inflammation


## OCS-05: Glaucoma neuroprotection model results

OCS-05 promotes neuroprotection in glaucoma by preventing damage to the retinal ganglion cells

OCS-05 eyedrops | H\&E for RGC density


OCS-05 intravitreal \| H\&E for RGC density


OCS-05 (eyedrops and intravitreal) prevents RGCs damage without reducing intraocular pressure.

## OCS-05: Prevention of retinal ganglion cell loss in optic neuritis



Lysolecithin induced demyelinating model in rat (model of acute optic neuritis)

## OCS-05: Safety and pharmacokinetic in healthy subjects

Phase I study included 48 healthy subjects: 36 were treated by OCS-05. No serious adverse events were reported in the OCS-05 group.

|  | $\begin{aligned} & \text { Placebo } \\ & (\mathrm{N}=4) \end{aligned}$ | $\begin{aligned} & 2.4 \mathrm{mg} / \mathrm{kg} \\ & \mathrm{OCS}-05 \\ & (\mathrm{~N}=6) \end{aligned}$ | $\begin{aligned} & 3.0 \mathrm{mg} / \mathrm{kg} \\ & \mathrm{OCS}-05 \\ & (\mathrm{~N}=6) \end{aligned}$ | $\begin{aligned} & \text { Overall } \\ & (\mathrm{N}=16) \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| Number of TEAEs | 7 | 1 | 1 | 9 |
| Number (\%) of subjects reporting at least one: |  |  |  |  |
| teae | 3 (75.0) | 1 (16.7) | 1 (16.7) | 5 (31.3) |
| Serious TEAE | 1 (25.0) | 0 (0.0) | 0 (0.0) | 1 (6.3) |
| TEAE Leading to Withdrawal | $0(0.0)$ | $0(0.0)$ | $0(0.0)$ | $0(0.0)$ |
| Number (\%) of subjects with TEAE by severity: |  |  |  |  |
| Mild | 2 (50.0) | $0(0.0)$ | 1 (16.7) | 3 (18.8) |
| Moderate | 0 (0.0) | 1 (16.7) | 0 (0.0) | 1 (6.3) |
| Severe | 1 (25.0) | $0(0.0)$ | 0 (0.0) | 1 (6.3) |
| Number (\%) of subjects with TEAE by relationship to IMP: |  |  |  |  |
| Almost Definite | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Probable | $0(0.0)$ | 0 (0.0) | 0 (0.0) | $0(0.0)$ |
| Possible | $0(0.0)$ | $0(0.0)$ | 0 (0.0) | $0(0.0)$ |
| Unlikely | $1(25.0)$ | 0 (0.0) | 1 (16.7) | 2 (12.5) |
| Unrelated | $2(50.0)$ | 1 (16.7) | 0 (0.0) | 3 (18.8) |

Table 3. Overall summary of TEAES-MAD part.


Figure 2. Summary of Derived Pharmacokinetic Parameters Following Multiple Dose Administration of OCS05 (I.V. Infusion) to Healthy Male and female Subjects.

## Towards the assessment of the efficacy of OCS-05 in patients: Phase 2 ACUITY Trial in acute optic neuritis

## Acute optic neuritis :

Rare disease with acute inflammation and demyelination of the optic nerve, occurring in young patients.

Sub-acute loss of vision and eye pain occurring over several days.

Slow improvement but persistent vision deficits.

B. 2 weeks after onset of ON

D. 6 months after onset of ON


## Acute optic neuritis and multiple sclerosis

Acute optic neuritis: occurring in adults between the age 20 and 40 years

Aetiology: multiple sclerosis, idiopathic, neuromyelitis optica, ...

## Multiple sclerosis is affecting more than $\mathbf{2 . 8}$ million persons worldwide ${ }^{(1)}$

Mean age at diagnosis: 32 years and with heterogeneous prognosis
(1) https://www.medicalnewstoday.com/articles/newly-discovered-marker-of-multiple-sclerosis-severity-may-lead-to-bettertreatmentsf: : : text=As\%20of\%202020\%2C\%20about\%202.8,over\%20time\% $2 \mathrm{C} \% 20$ causing\% 20 permanent\%20issues. Jacobs LD, et al. N Engl J Med 2000;343(13):898-904
Scalfari A, et al. Brain 2010;133(pt 7):1914-29
Walton C, et al. Multiple Sclerosis Journal, 2020; 26(14):1816-1821


Disability Need for walk after a median of 18 years


Cognitive impairment in $43 \%$ to $65 \%$ of cases ${ }^{4}$

## Acute optic neuritis: towards neuroprotection

Ongoing multiple sclerosis treatment : anti-inflammatory drugs

Neuroprotective therapies are required for multiple sclerosis and acute optic neuritis.

The retinal changes can be non-invasively and accurately measured by optical coherence tomography.
"Acute optic neuritis is a suitable condition to test neuroprotective and remyelinating therapies after acute inflammation"



## OCS-05 in acute optic neuritis: Phase 2 ACUITY Trial

## ACUITY (Acute optiC neUrITis with a demYelinating origin)

Aim: To assess the safety and to explore the efficacy of OCS-05, compared to placebo, in patients with acute optic neuritis receiving the standard of care

Design: 2 arms randomized double-blind placebo-controlled study (1 OCS-05: 1 placebo)

Drug treatment:
Intra-venous perfusion once-a-day for 5 days, and 6 months follow-up
All patients receive concomitant standard of care therapy (corticosteroid IV)


Dr. Céline Louapre


Dr. Louise-Laure
Mariani

## OCS-05 in acute optic neuritis: Phase 2 ACUITY Trial <br> ACUITY (Acute optiC neUrITis with a demYelinating origin)

Primary endpoints: safety \& tolerability

## Exploratory endpoints: efficacy

Gold Standard vision-related outcome measures consider structure and function of the visual pathway including routine non-invasive optical coherence tomography and low-contrast visual acuity

Sites: Hôpital La Pitié Salpêtrière, Paris, Rothschild Foundation Hospital in Paris, Nice and Lyon)


## OCS-05: this neuroprotective treatment offers hope for our patients

Multiple sclerosis : several neuroprotective drugs in development but no validated drug.

Optic neuropathies and retinal diseases : the focus is on antiinflammatory treatment or antiVEGF treatment but not on neuroprotection even though neurons are crucial for the vision


Franklin et al, 2017, Nat Rev Neuroscience

## OCS-05 summary: First SGK neuroprotective candidate in ophthalmology



Data supporting
MoA and safety

ACUITY First-inpatient study ongoing

Potential impact of neuroprotection in ophthalmology

- Disease modifying drug which protects and repairs neurons
- Potential paradigm shift in treating major blinding diseases by acting directly on retinal neurons
- Preclinical data showing neuroprotection by preventing retinal ganglion cell death and improvement of function in Glaucoma, MS and AON models
- Phase 1 study data demonstrated OCS-05 was well-tolerated in 48 healthy volunteers
- Proof-of-concept data readout in AON expected in 2H 2024
- Potential applications for a neuroprotective agent in ophthalmology include Glaucoma, Geographic Atrophy, Diabetic Retinopathy, and corneal indications such as Neurotrophic Keratitis


AP-HP. Nord Université Paris Cité

## Thank you for your attention



Results validated loading and maintenance regimen to optimize OCS-01 efficacy potential in DME with robust statistical significance

OCS-01 met all functional and clinical benefit endpoints in a robust, statistically superior manner (in 3-month trial):

- Improvement of visual acuity (Functional Endpoint)
- Increase in proportion of patients with a 3-line or greater gain (Clinical Benefit Endpoint)
- Reduction in macular edema as measured by OCT imaging (Pharmacodynamic Endpoint)


## No unexpected safety findings observed

Next Step: Continue DIAMOND program with full 52 weeks trials to support NDA filing of OCS-01 for DME treatment

## DME- OCS-01 Offers Significant Potential Value to all Key Stakeholders

Benefits highlighted in third-party market research performed independently with payers \& physicians ${ }^{(1,2)}$
DME Patients

+ Early intervention treatment
+ Accessible: Eye drops always
preferred
+ Benefits for working-age DME
patients


## DME Patients

Early intervention treatment

+ Accessible: Eye drops always preferred

Benefits for working-age DME patients


## Current addressable US patient population: 1.2 million ${ }^{(3,4)}$

- Potential to be the first topical and non-invasive treatment for DME
- Total addressable US patient population for DME $\sim 1.2 \mathrm{M}^{(1)(2)}$
In Phase 3 with a

broad reach | - On-going Phase 3 programs in DME and Ocular Surgery |
| :--- |
| - Positive Phase 3 Stage 1 in DME |
| - PoC study in CME |

DME and CME

- Continue DIAMOND program with full 52 weeks trials to start in 2 H 2023

Next Steps

- OCS-01 could if approved provide significant value to patients, physicians \& payors


## First SGK Neuroprotective <br> Ophthalmic Candidate

## In PoC status and IND enabling in the US

- Disease modifying drug which protects and repairs neurons
- Potential application in ophthalmology including Glaucoma, Geographic Atrophy,
Diabetic Retinopathy, and corneal indications such as Neurotrophic Keratitis
- Preclinical data showing neuroprotection by preventing retinal ganglion cell death and improvement of function in $\mathrm{MS}^{(1)}$ models
- Phase 1 study data showed OCS-05 was well-tolerated in 48 healthy volunteers

Next Steps

- To continue ACUITY trial with FPFV 2 H 23.
- IND enabling activities on-going in the US to achieve IND status

```
Targeting critical unmet needs in 3 major
- OCS-01: \(1^{\text {st }}\) Eye drop for Diabetic Macular Edema (DME) in Ph 3
- OCS-02: \(1^{\text {st }}\) Biologic eye drop for Dry Eye Disease (DED) in Ph 2b (upside potential from biomarker-driven precision medicine approach)
- OCS-05: \(1^{\text {st }}\) Neuroprotective agent for neuro-retina treatments in PoC

OCS-01 DME Phase 3 (Stage 1) readout
- OCS-01 Ocular Surgery Phase 3 readout
- OCS-01 Ocular Surgery NDA
- OCS-01 CME \({ }^{(1)} \mathrm{Ph} 2\) PoC readout
- OCS-02 DED Ph 2 b readout
- OCS-02 Uveitis Ph \(2 b\) readout
- OCS-05 AON \({ }^{(2)}\) Ph 2 PoC readout


To drive innovation to save sight andimprove eye carel```

