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UBX1325 Phase 1 Data Review

Robert Bhisitkul, M.D., Ph.D.
Professor of Ophthalmology
UCSF School of Medicine

Anirvan Ghosh, CEO
Jamie Dananberg, CMO
Lynne Sullivan, CFO

July 27, 2021

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This presentation and the accompanying oral commentary contain forward-looking statements including statements related to UNITY's understanding of cellular senescence and the role it plays in diseases of aging, the potential for UNITY to develop therapeutics to slow, halt, or reverse diseases of aging, including for ophthalmologic and neurologic diseases, our expectations regarding potential benefits, activity, effectiveness, and safety of our drug candidates including UBX1325, the potential for UNITY to successfully commence and complete clinical studies of UBX1325 for DME, AMD, and other ophthalmologic diseases, the expected timing of results of our studies including those of UBX1325, the timing of the expected commencement, progression, and conclusion of our studies including those of UBX1325, and UNITY's expectations regarding the sufficiency of its cash runway. These statements involve substantial known and unknown risks, uncertainties, and other factors that may cause our actual results, levels of activity, performance, or achievements to be materially different from the information expressed or implied by these forward-looking statements, including the risk that the COVID-19 worldwide pandemic may continue to negatively impact the development of preclinical and clinical drug candidates, including delaying or disrupting the enrollment of patients in clinical trials, risks relating to the uncertainties inherent in the drug development process, and risks relating to UNITY's understanding of senescence biology. We may not actually achieve the plans, intentions, or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions, and expectations disclosed in the forward-looking statements we make. The forward-looking statements in this presentation and the accompanying oral commentary represent our views as of the date of this presentation and oral commentary. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this presentation. For a further description of the risks and uncertainties that could cause actual results to differ from those expressed in these forward-looking statements, as well as risks relating to the business of UNITY in general, see UNITY's most recent Quarterly Report on Form 10-Q for the quarter ended March 31, 2021, filed with the Securities and Exchange Commission on May 11, 2021, as well as other documents that may be filed by UNITY from time to time with the Securities and Exchange Commission. This presentation concerns drug candidates that are under clinical investigation and which have not yet been approved for marketing by the U.S. Food and Drug Administration. They are currently limited by Federal law to investigational use, and no representation is made as to their safety or effectiveness for the purposes for which they are being investigated.

UNITY OVERVIEW, THERAPEUTIC HYPOTHESIS, AND PIPELINE

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UNITY IS DEVELOPING TRANSFORMATIVE MEDICINES TO SLOW, HALT, OR REVERSE DISEASES OF AGING

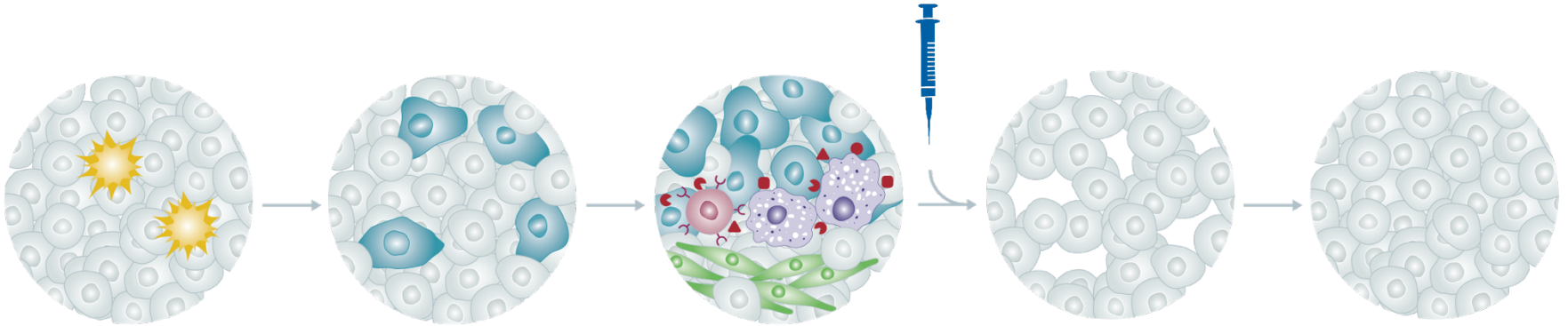
Targeting cellular senescence and aging-related biology

OPHTHALMOLOGY:
DME, AMD, Diabetic Retinopathy

NEUROLOGY:
Alzheimer's, FTD, PSP (and other Tauopathies), ALS, Cognitive Disorders

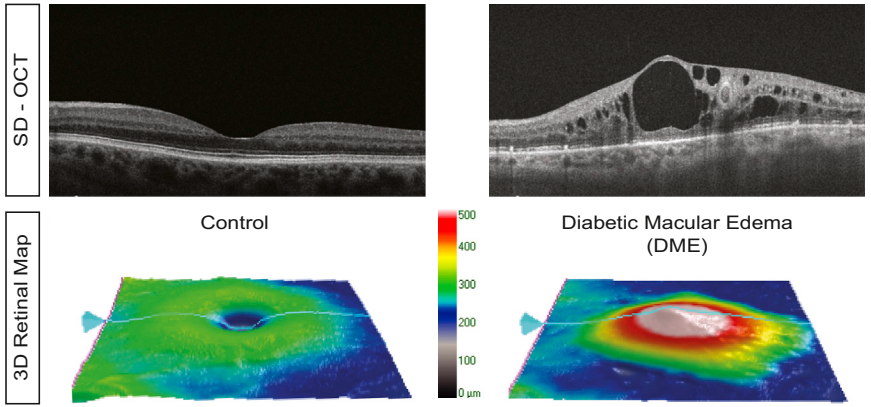
UNITY IS DEVELOPING SENOLYTIC MEDICINES TO ELIMINATE SENESCENT CELLS TO RESTORE TISSUE HEALTH

Target Senescent Cells and neutralize SASP factors to eliminate root cause of disease progression



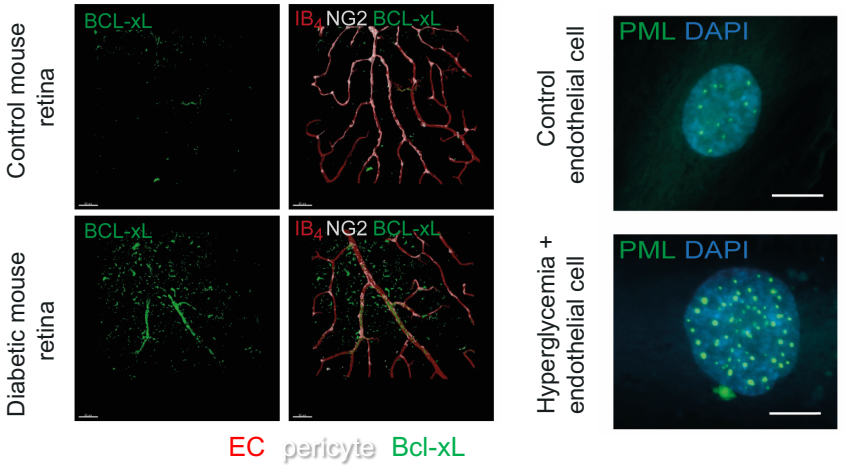
DISEASE HYPOTHESIS: VASCULAR ENDOTHELIAL SENESCENT CELLS LEAD TO BREAKDOWN OF BARRIER FUNCTION AND DISEASE PROGRESSION

Diabetes induces macular edema



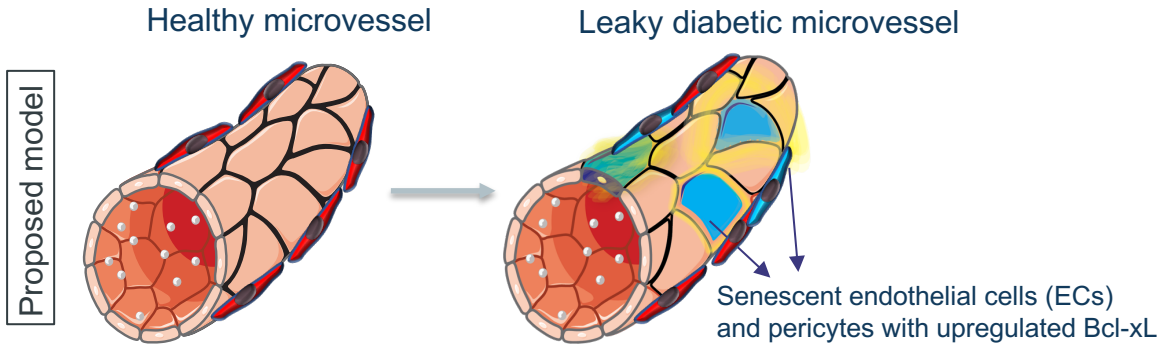
From Cerani et al. 2013

Diabetes induces senescence in the vascular unit

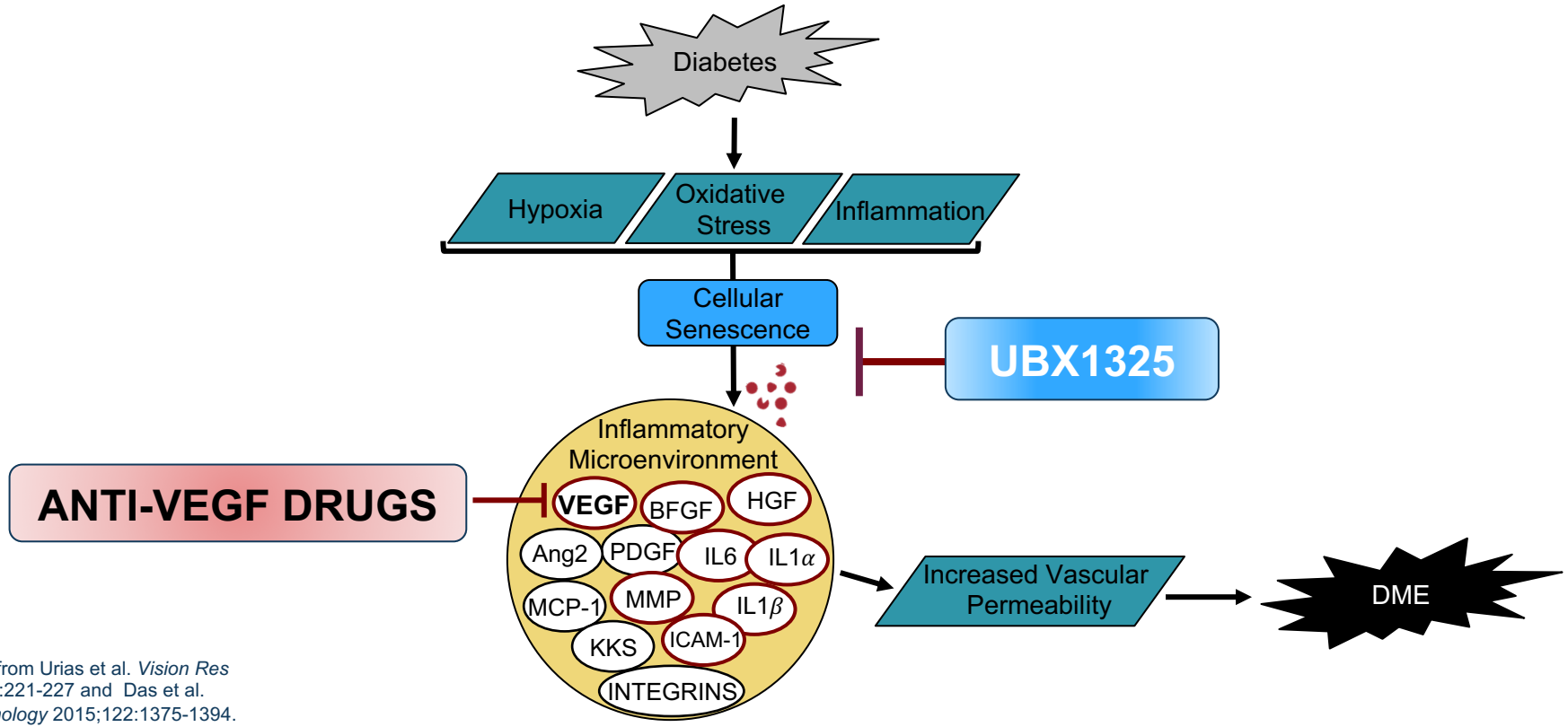


unpublished data

Proposed model



UBX1325 TARGETS A NODE UPSTREAM OF ANTI-VEGF THERAPIES



Modified from Urias et al. *Vision Res* 2017;139:221-227 and Das et al. *Ophthalmology* 2015;122:1375-1394.

UBX1325 PROVIDES AN OPPORTUNITY FOR A TRANSFORMATIVE, DISEASE-MODIFYING THERAPY FOR DME AND nAMD PATIENTS

Phase 1 Data Highlights

- UBX1325, the first senolytic drug being explored in eye disease, had a favorable safety and tolerability profile
- Initial efficacy data show rapid improvements in vision and retinal structure in advanced DME and nAMD patients after a single dose

Implications for Addressing Unmet Need

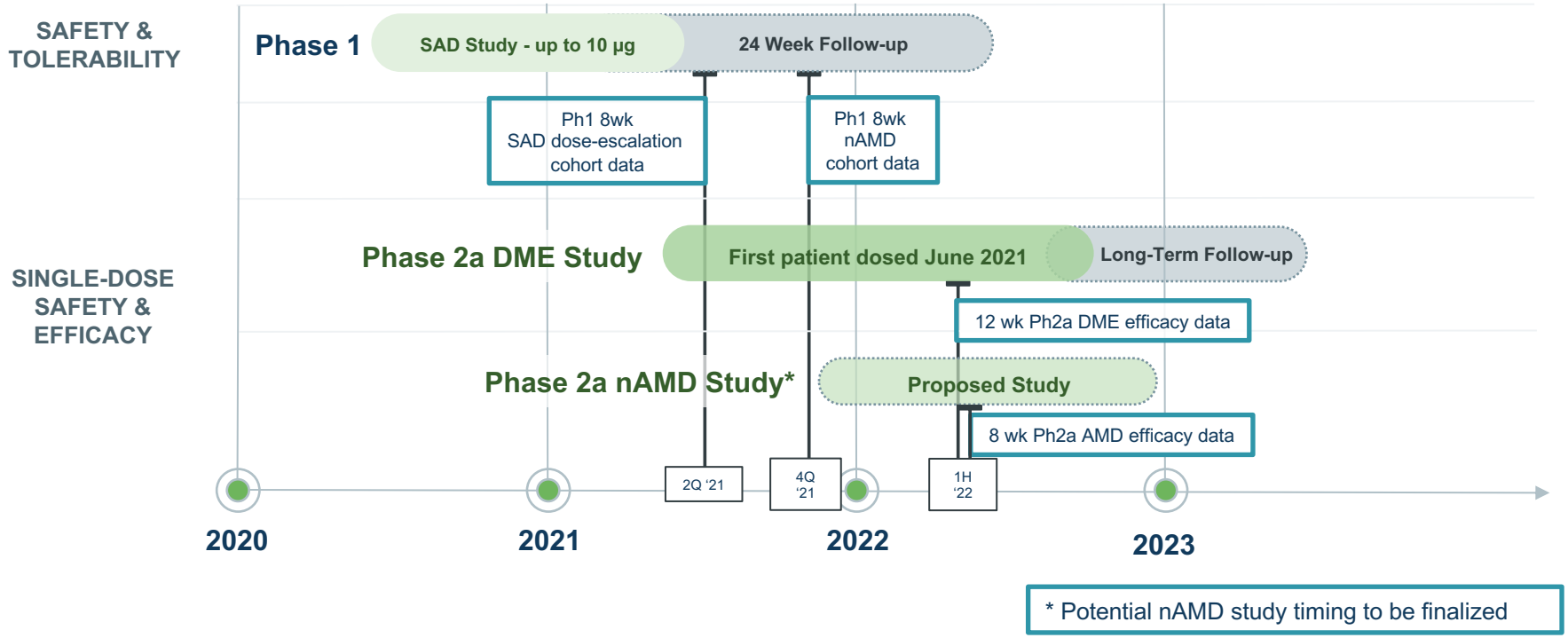
- Could provide disease-modification by reversing pathophysiology and restoring tissue health
- Novel mechanism of action could benefit both treatment-naïve patients as well as poor anti-VEGF responders

Built on UNITY's Senescent Cell Biology Platform

- Data support senolytic therapeutic hypothesis
- Mechanism has broad implication for diseases of aging

UBX1325 CLINICAL PROGRAM

Single Injection of UBX1325

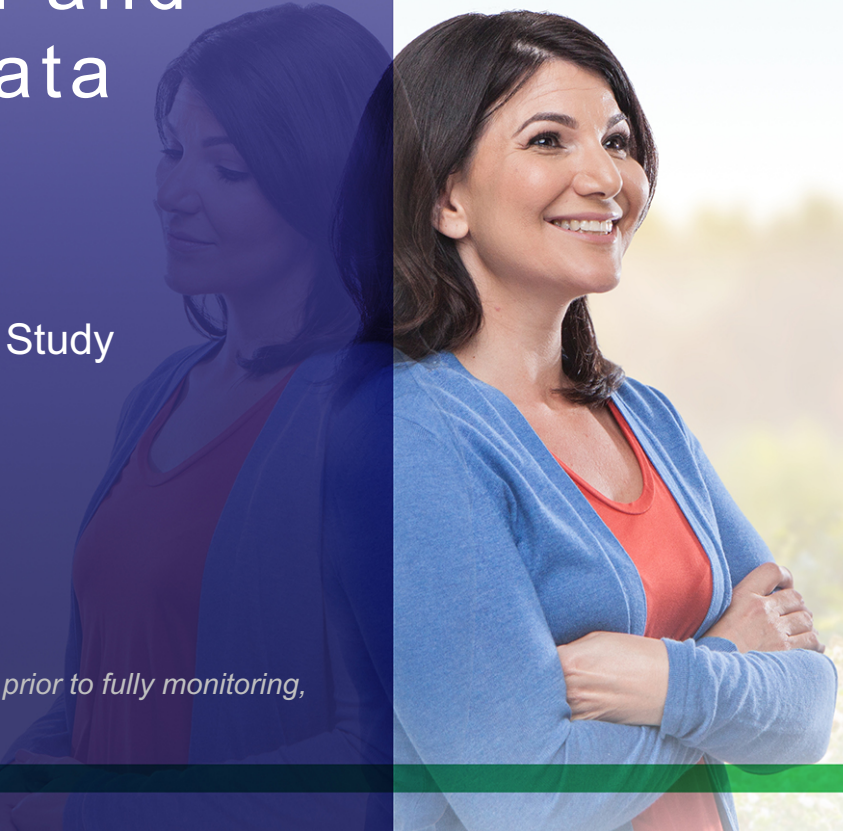


* Potential nAMD study timing to be finalized

UBX 1325 Phase 1 Trial Design and Summary Data

Initial 12 Patients in SAD Study

Data presented are preliminary reads prior to fully monitoring, validating, and locking the data sets.



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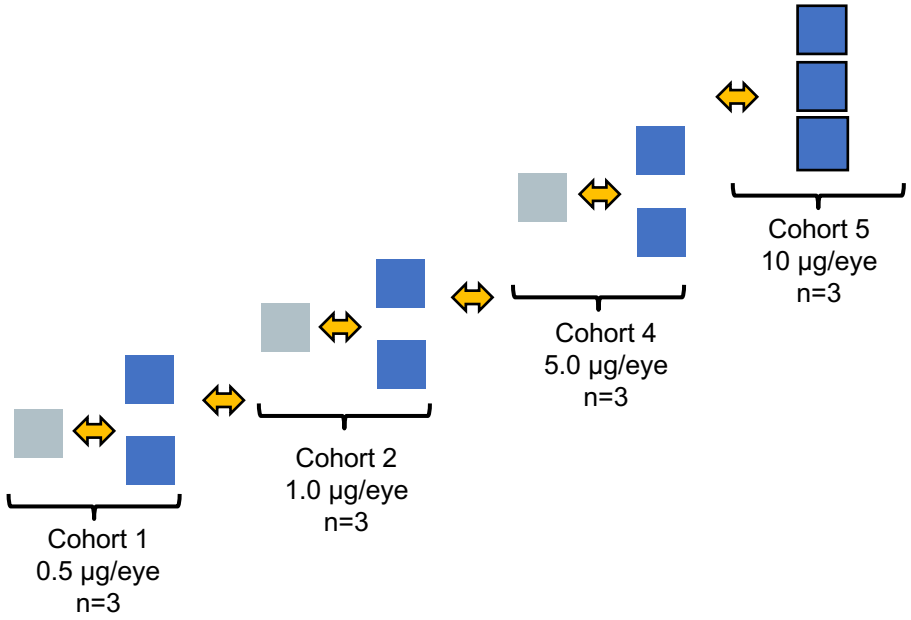
STUDY UBX1325-01: SINGLE ASCENDING DOSE SAFETY STUDY IN PATIENTS WITH ADVANCED DME OR nAMD

Study Population

- Advanced DME or nAMD with BCVA of 20/80 (55 ETDRS letters) or worse in the first 2 cohorts; 20/40 (70 ETDRS letters) or worse in later cohorts
- Patients for whom anti-VEGF therapy was no longer considered beneficial
- Patients had received neither an anti-VEGF agent nor a corticosteroid in the 3 months preceding enrollment
- DME patients had ≥350 µm of fluid; nAMD patient had presence of either sub- or intra-retinal fluid



EXECUTIVE SUMMARY: UBX1325 PHASE 1 SAD STUDY

Favorable Safety and Tolerability Profile

- In patients with advanced DME and nAMD in the SAD Phase 1 study, UBX1325 was **well tolerated with favorable acute safety profile** supporting development; no dose-limiting toxicities; a total of two nonserious, nondrug-related AE's were reported

BCVA: Gain in ETDRS Letters from Baseline

- Overall (all doses): 10 of 12 patients showed a **gain** at 2 weeks; 9 of 12 patients at 4 weeks
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CST: Decrease from Baseline

- Overall (all doses): 6 of 12 patients had **a decrease** at 2 weeks; 5 of 12 patients at 4 weeks
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Reduction in Subretinal / Intraretinal Fluid in nAMD Patients

Current data is highly indicative of disease-relevant biologic activity

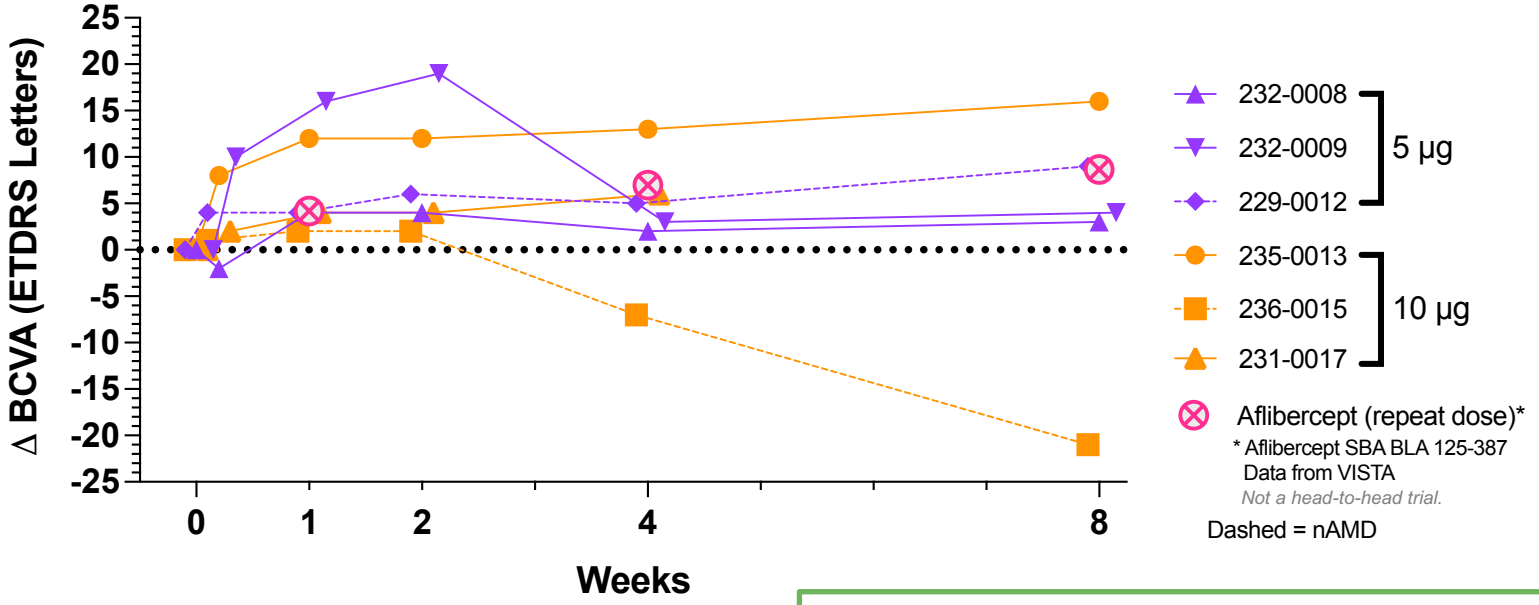
UBX1325 WAS WELL-TOLERATED THROUGH ALL DOSES

Measure	Assessment
Acute inflammation	None observed
Evidence of ocular infection	None observed
Persistent and clinically relevant increases in intraocular pressure	None observed
Clinically relevant changes in BCVA	2 events in 2 patients*
Retinal changes as determined by color fundus photography	None observed
Adverse structural changes to retina as measured by SD-OCT	None observed
Retinal or vitreal hemorrhage	None observed
Structural changes by slit-lamp exam	None observed
Retinal detachment	None observed
Other clinical or laboratory assessments	None observed
Patient reported symptoms	2 decreased VA in 2 patients*
Dose-limiting toxicity	None observed

Safety and Tolerability acceptable to advance to additional clinical studies with UBX1325 in ocular diseases

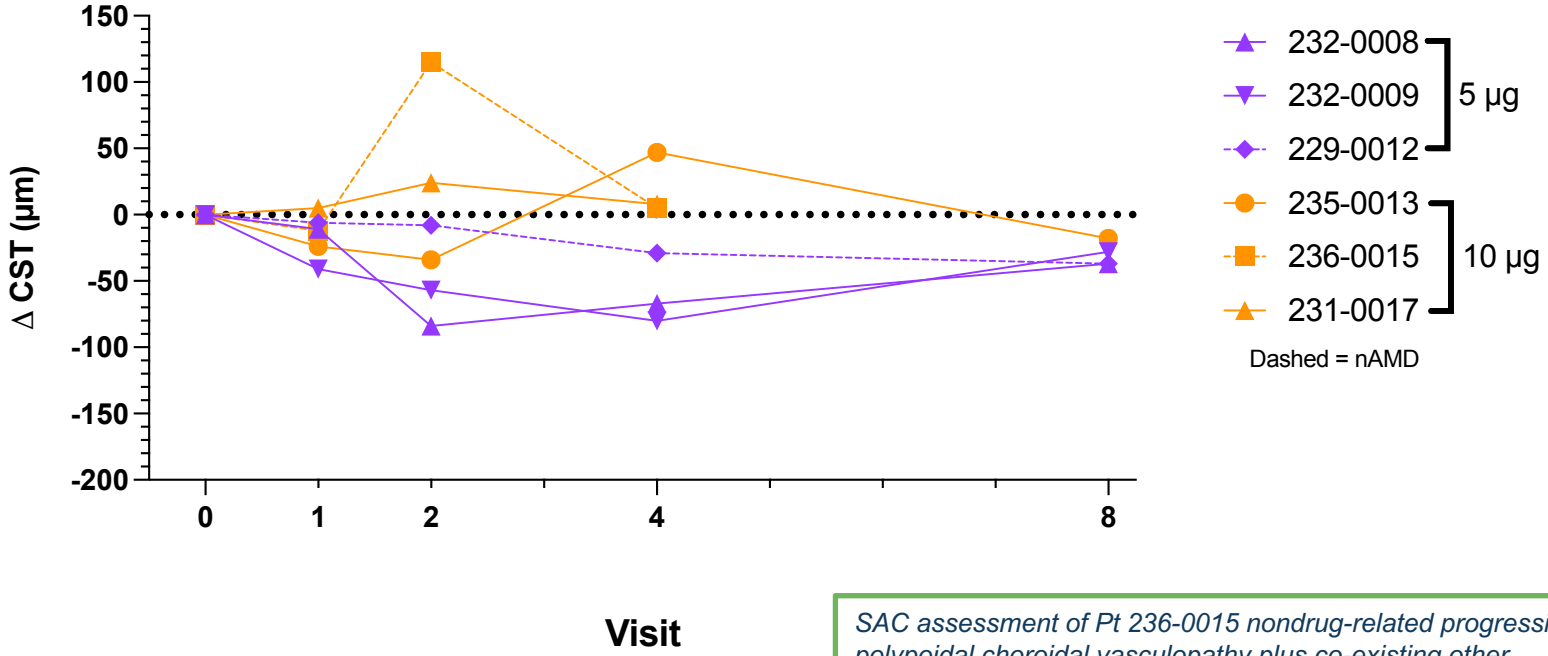
* Same patients, not treatment-related

BY 4 WEEKS, PATIENTS SHOW RAPID INCREASE IN BCVA AMONGST HIGH DOSE COHORTS AFTER SINGLE DOSE UBX1325



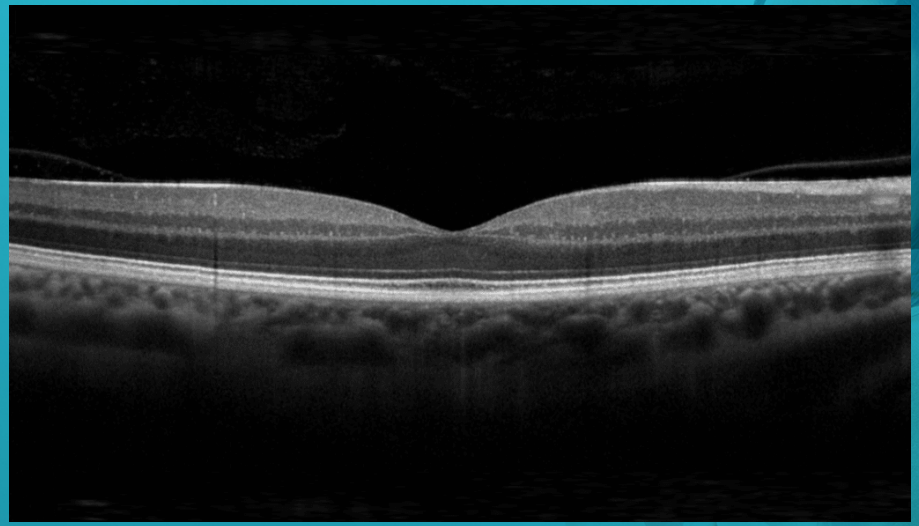
SAC assessment of Pt 236-0015 nondrug-related progression of polypoidal choroidal vasculopathy plus co-existing other retinovascular disease

BY 4 WEEKS, MAJORITY OF PATIENTS SHOW DECREASE IN CST AMONGST HIGH DOSE COHORTS AFTER SINGLE DOSE UBX1325



SAC assessment of Pt 236-0015 nondrug-related progression of polypoidal choroidal vasculopathy plus co-existing other retinovascular disease

Examples of Imaging Data



Normal Optical Coherence Tomograph (OCT)

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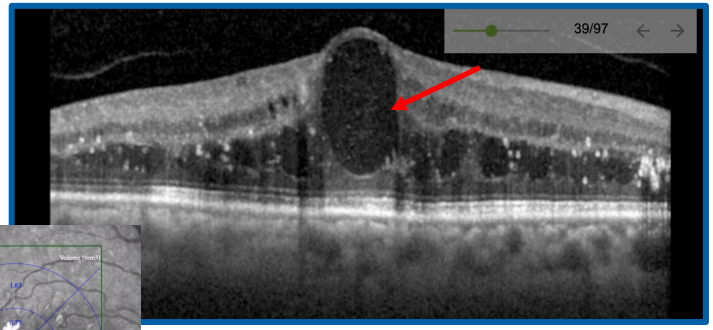
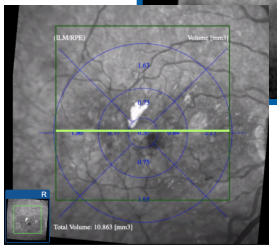
DME PATIENT 232-0009, 5 µg
BCVA IMPROVED, CST DECREASED

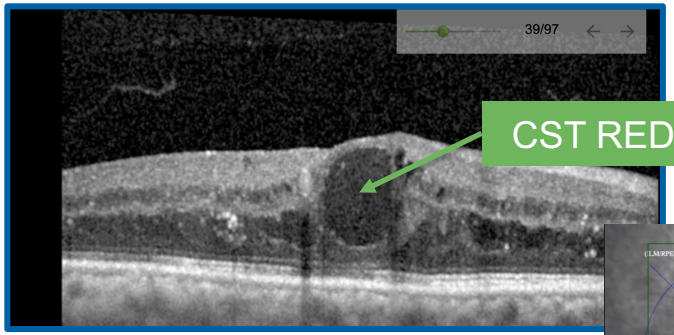
Baseline

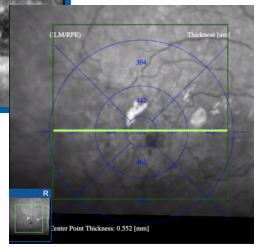




Registered Image

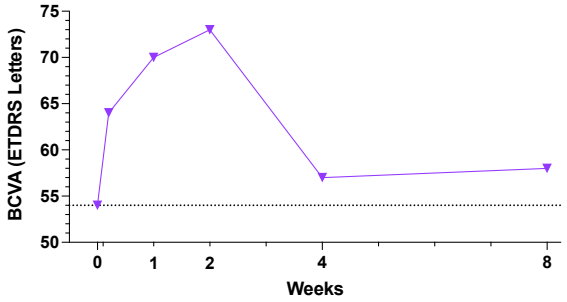
Week 4



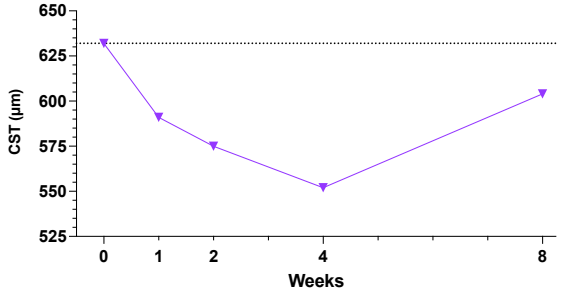


Registered Image

BCVA Change from Baseline Pt 232-0009

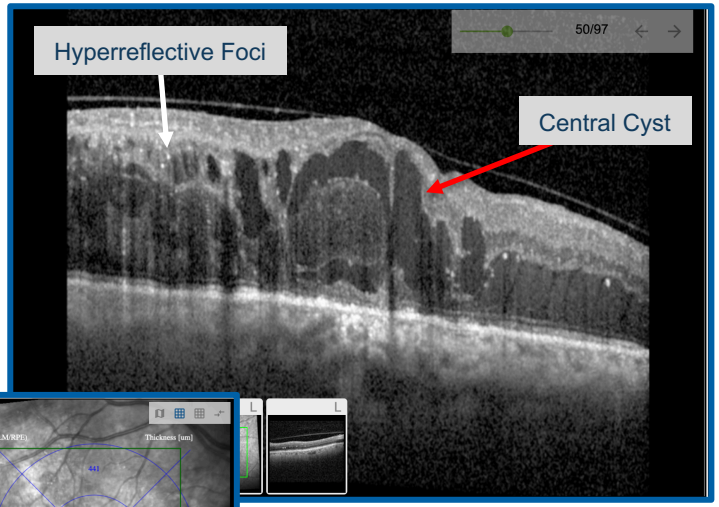


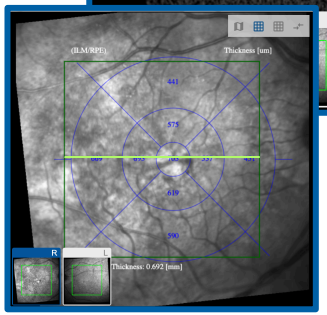
CST Pt 232-0009



DME PATIENT 232-0008, 5 µg
BCVA IMPROVED, CST DECREASED

Baseline





Registered Image

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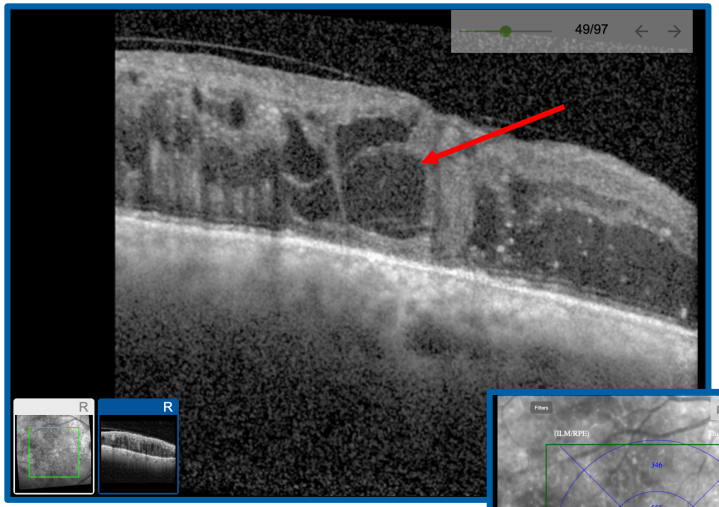
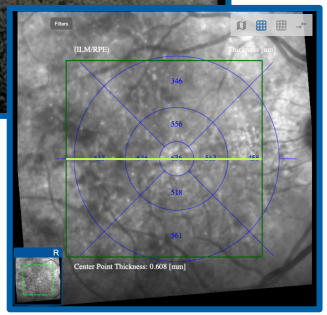
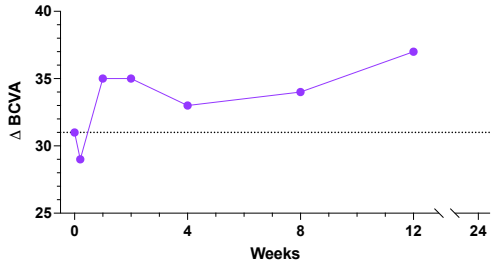


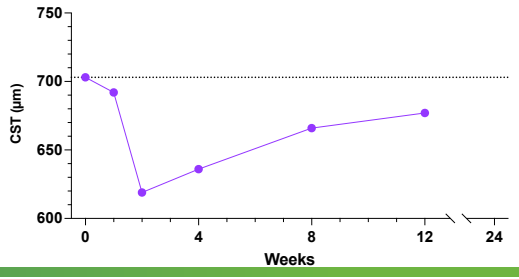


Registered Image

BCVA Change from Baseline Pt 232-0008

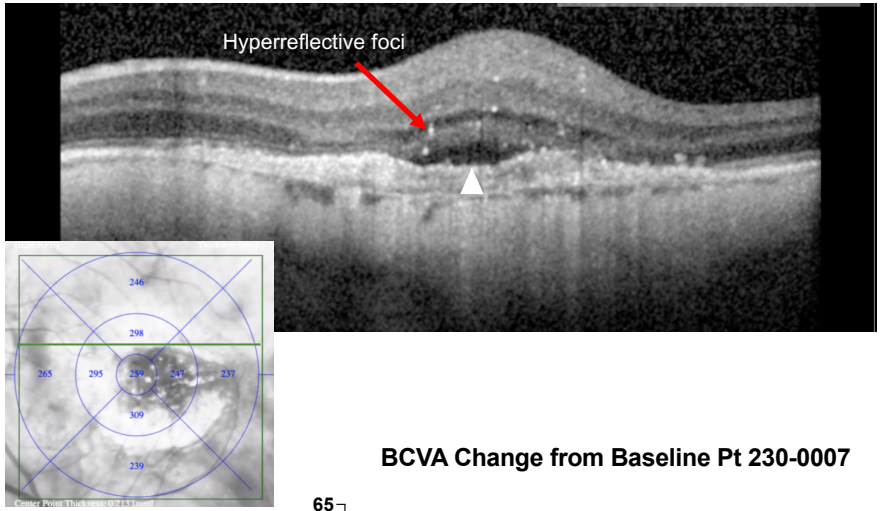


CST Pt 232-0008

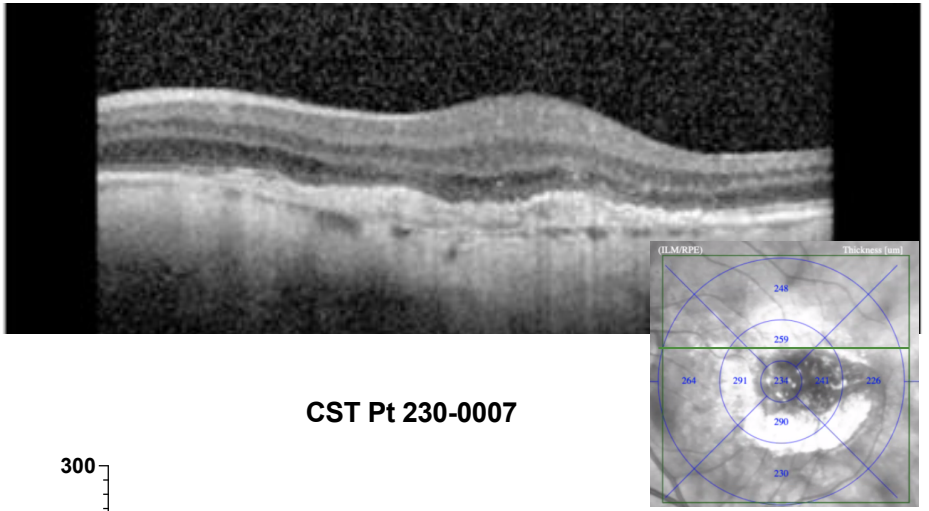


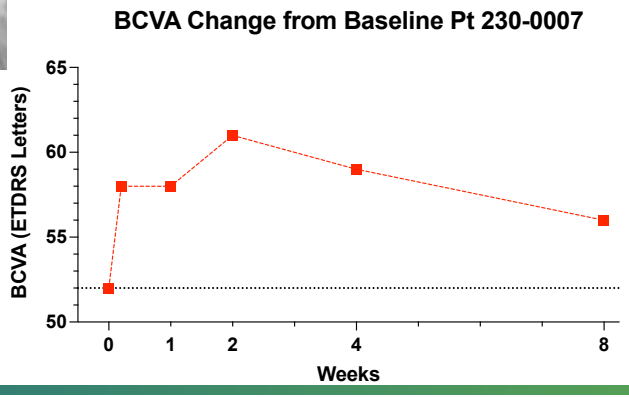
nAMD PATIENT 230-0007: 1 µg
BCVA IMPROVED, CST AND SRF REDUCED

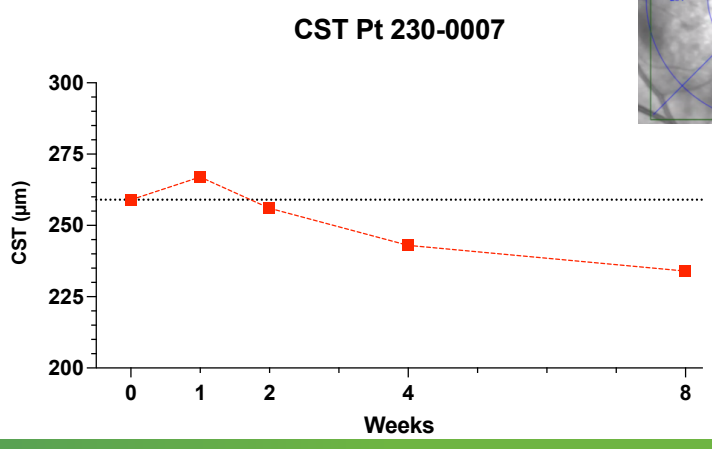
Baseline



Week 8

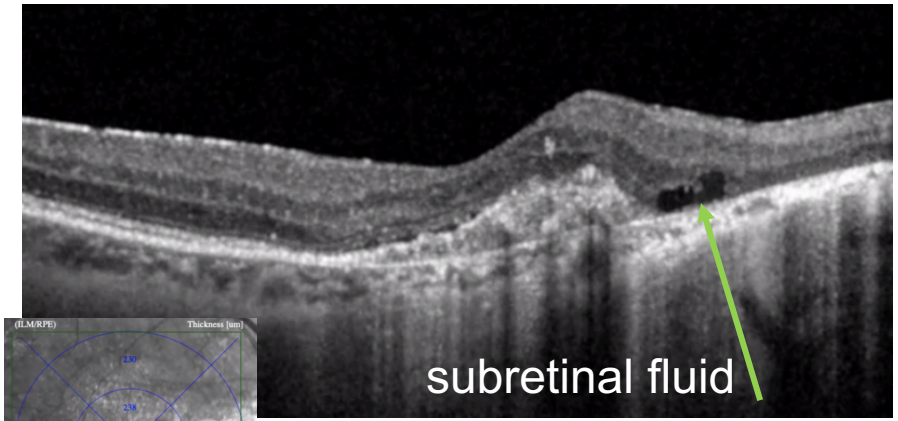


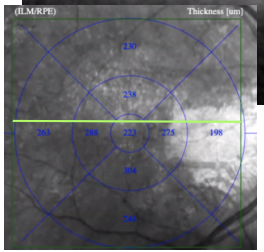




nAMD PATIENT 229-0012: 5 µg
BCVA IMPROVED, CST AND SRF REDUCED

Baseline





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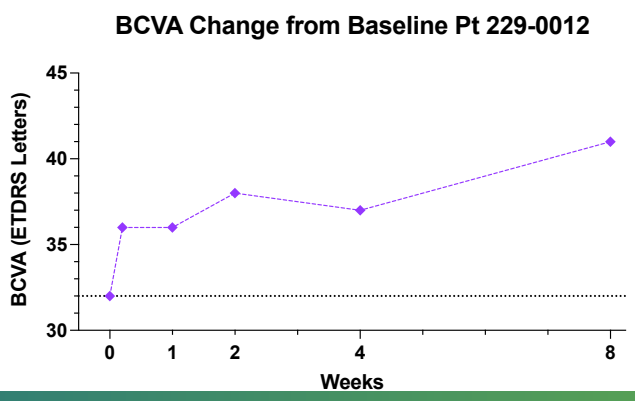

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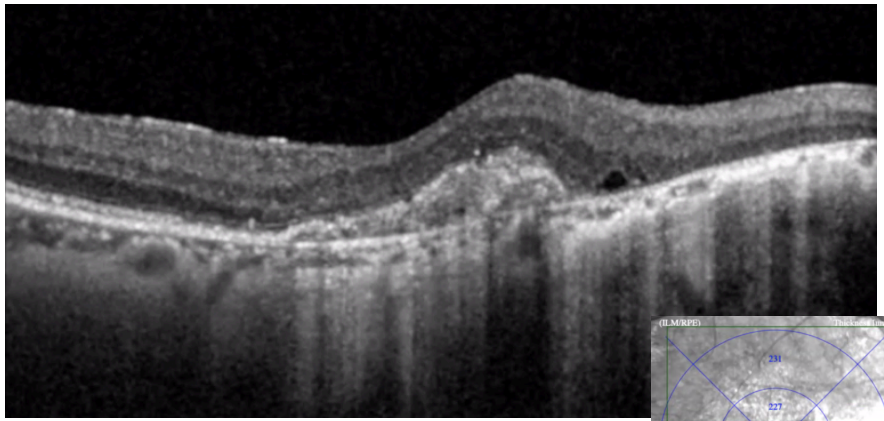

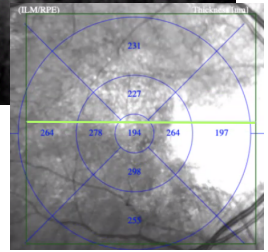

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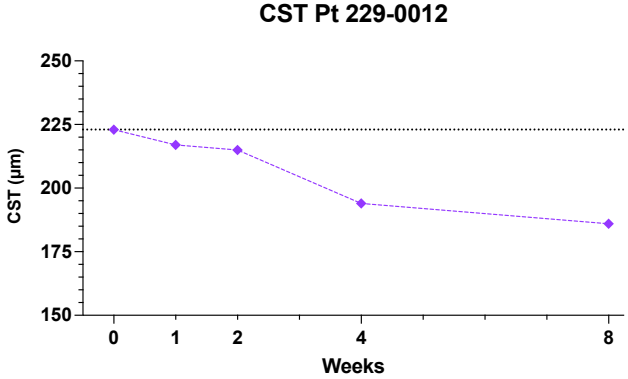

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Reduction in Subretinal / Intraretinal Fluid in nAMD Patients

Current data is highly indicative of disease-relevant biologic activity

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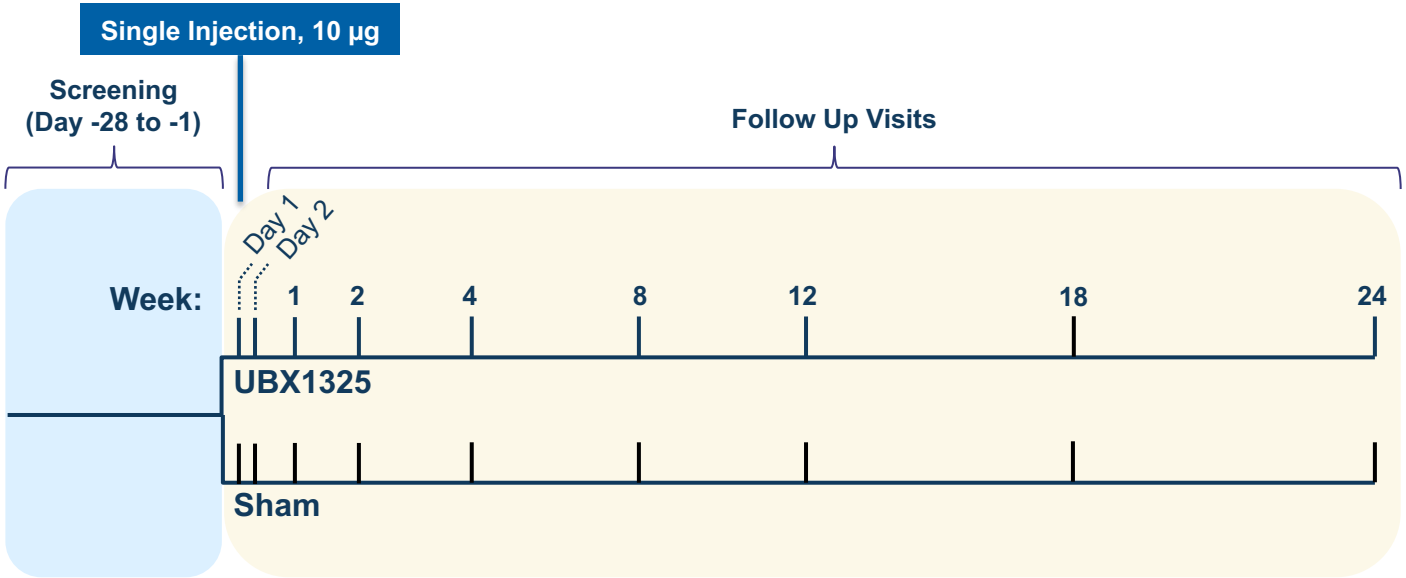
PH2A PROOF-OF-CONCEPT STUDY DESIGN

Patient population: Patients with DME who had at least 3 anti-VEGF IVTs in the preceding 6-month period and with residual CST ≥350µm. Last anti-VEGF should be approximately 3-5 weeks prior to enrollment. 31 patients per arm.

Duration: 24 weeks

First Patient Dosed: June 2021



PHASE 2A PROOF OF CONCEPT STUDY ENDPOINTS

Safety	BCVA change	CST change	DRSS change
Proportion of patients who require 2 or more anti-VEGF	Determination of systemic exposure	Improvement on capillary nonperfusion	Proportion of patients with dry retina

UBX1325 PROVIDES AN OPPORTUNITY FOR A TRANSFORMATIVE BEST-IN-DISEASE THERAPY

UBX1325

Aspirational Treatment for DME and nAMD Patients

- **Rapid effect with greater efficacy and durability than SoC**
- **Novel MOA and favorable pharmacology**
- **Able to use in combination with anti-VEGF agents**
- **Potential for improvement of retinal/choroidal blood flow**
- **Able to reduce ischemic regions of the retina**
- **Potential for disease modification**

UBX1325
Ph1 Data Conference Call

Q&A

Bob Bhisitkul, M.D., Ph.D.
Professor of Ophthalmology
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July 27th, 2021

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