UNITY BIOTECHNOLOGY

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

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

UBX1325
Phase 2 BEHOLD Study in DME
48 Week Top Line Results

NASDAQ: UBX

24 April 2023

Special Note Regarding Forward-Looking Statements

This presentation and the accompanying oral commentary contain forward-looking statements including statements related to Unity Biotechnology Inc.'s ("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, UNITY's expectations regarding potential benefits, activity, effectiveness, and safety of 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 enrollment and results of the clinical trials in 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, including the risk that interim results of our clinical studies may not be indicative of future results, 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 represent our views as of the date of this release. 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 release. 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 Annual Report on Form 10-K for the year ended December 31, 2022, filed with the Securities and Exchange Commission on March 15, 2023, 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 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. This presentation does not constitute an offer or invitation for the sale or purchase of securities and has been prepared solely for informational purposes.

UNITY BIOTECHNOLOGY

Top Line Results

UBX1325 Mechanism of Action

Clinical Development Plan

UBX1325 Led to a Statistically Significant and Clinically Meaningful Improvement in Visual Acuity in Patients with Diabetic Macular Edema Through 48 Weeks

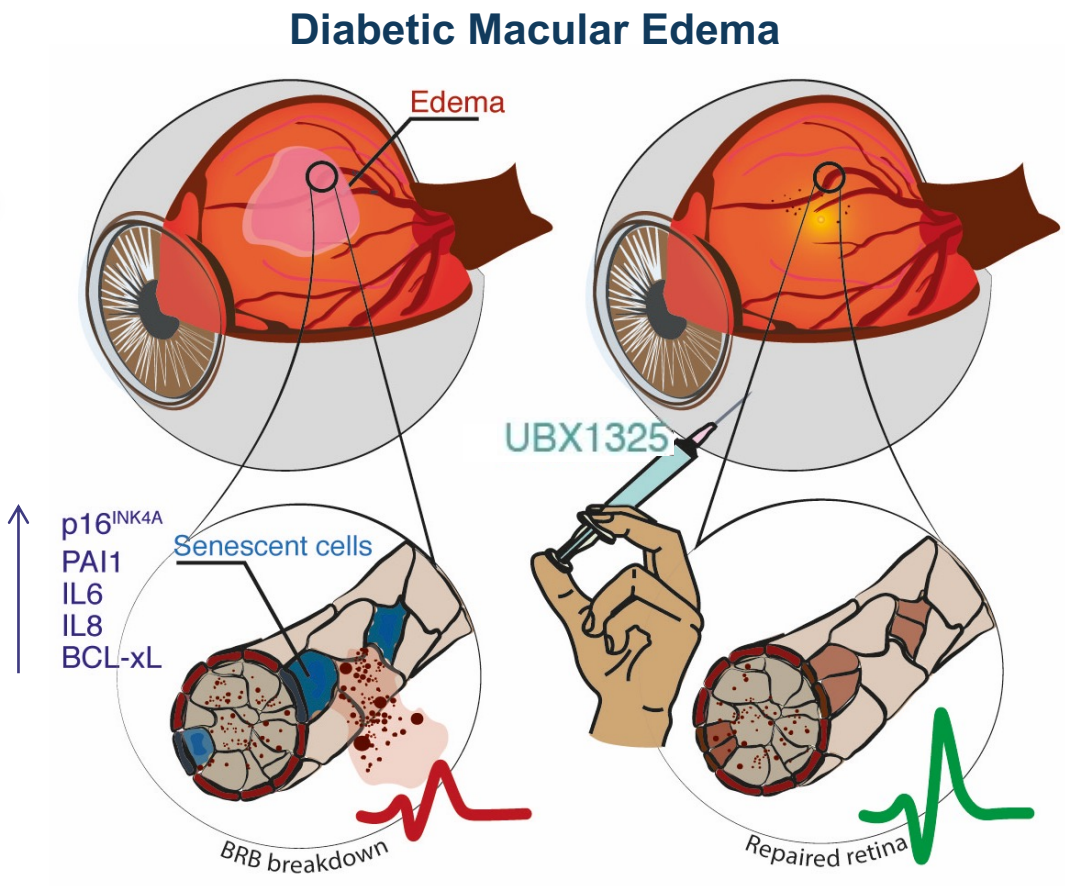
Phase 2 BEHOLD Study Data Highlights

A **single dose of UBX1325** demonstrated:

- UBX1325-treated patients had **a significant improvement in BCVA** of +6.2 ETDRS letters from baseline and +5.6 ETDRS letters compared to sham at 48 weeks
- Approximately **50% of UBX1325-treated patients did not require any additional injections** through 48 weeks
- There was more than a **30-week difference in median time-to-first-rescue** favoring UBX1325 over sham
- **Retinal structure was maintained** in UBX1325-treated patients with a central subfield thickness that was lower than baseline and was -37.9 µm compared to sham at 48 weeks
- UBX1325 had a **favorable safety and tolerability profile** with no evidence of intraocular inflammation

UBX1325 may be an important future therapeutic option for patients with diabetic macular edema

UNITY Is Developing Senolytic Medicines to Eliminate Senescent Cells to Restore Vascular Health and Improve Vision



DME:

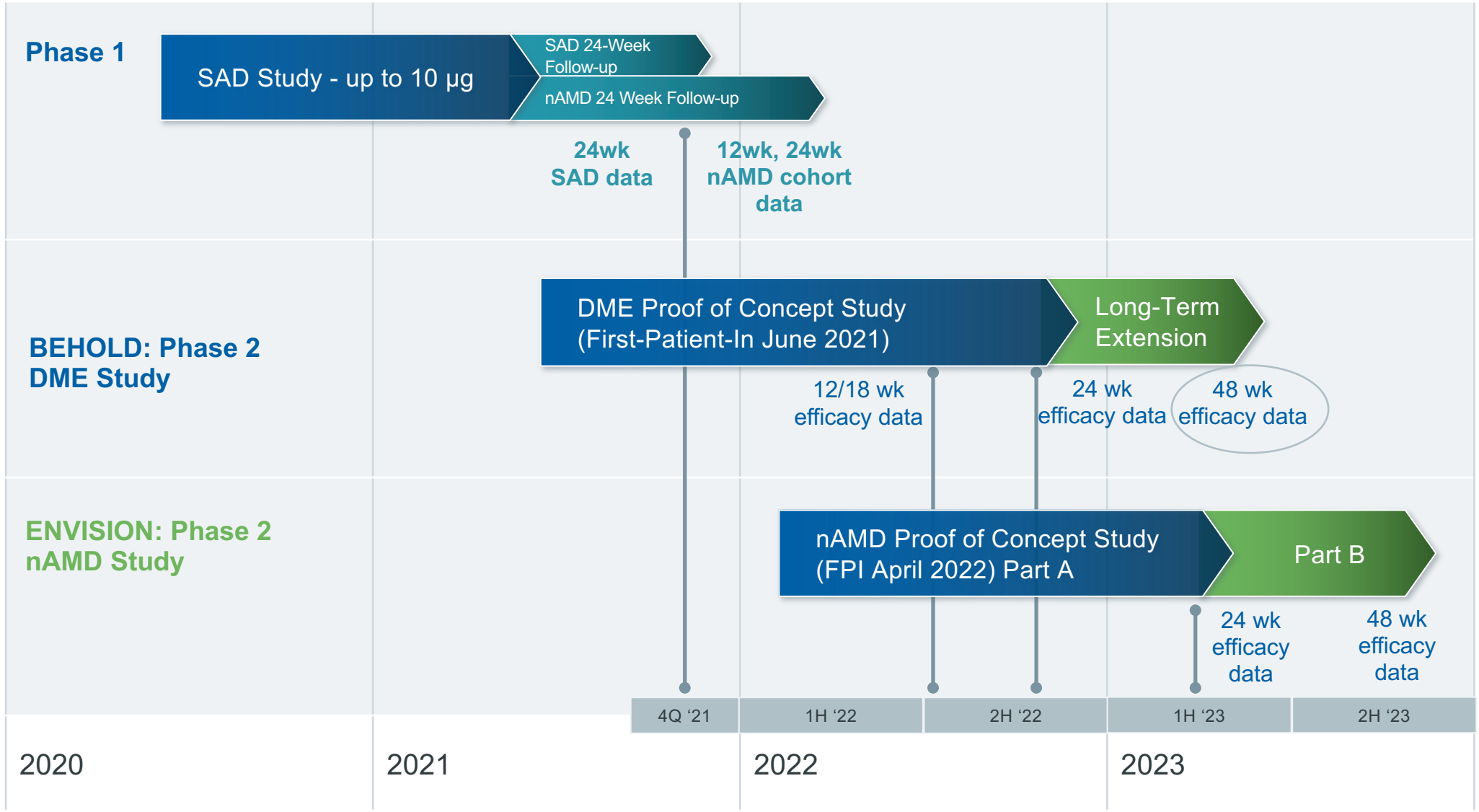
- Increased senescence burden
- Poor barrier function
- Production of inflammatory factors
- Loss of retinal function

DME treated with Senolytic (intended results):

- Senescent cells removed
- Barrier function improved
- Inflammatory factors reduced
- Sustained improvement in retinal function

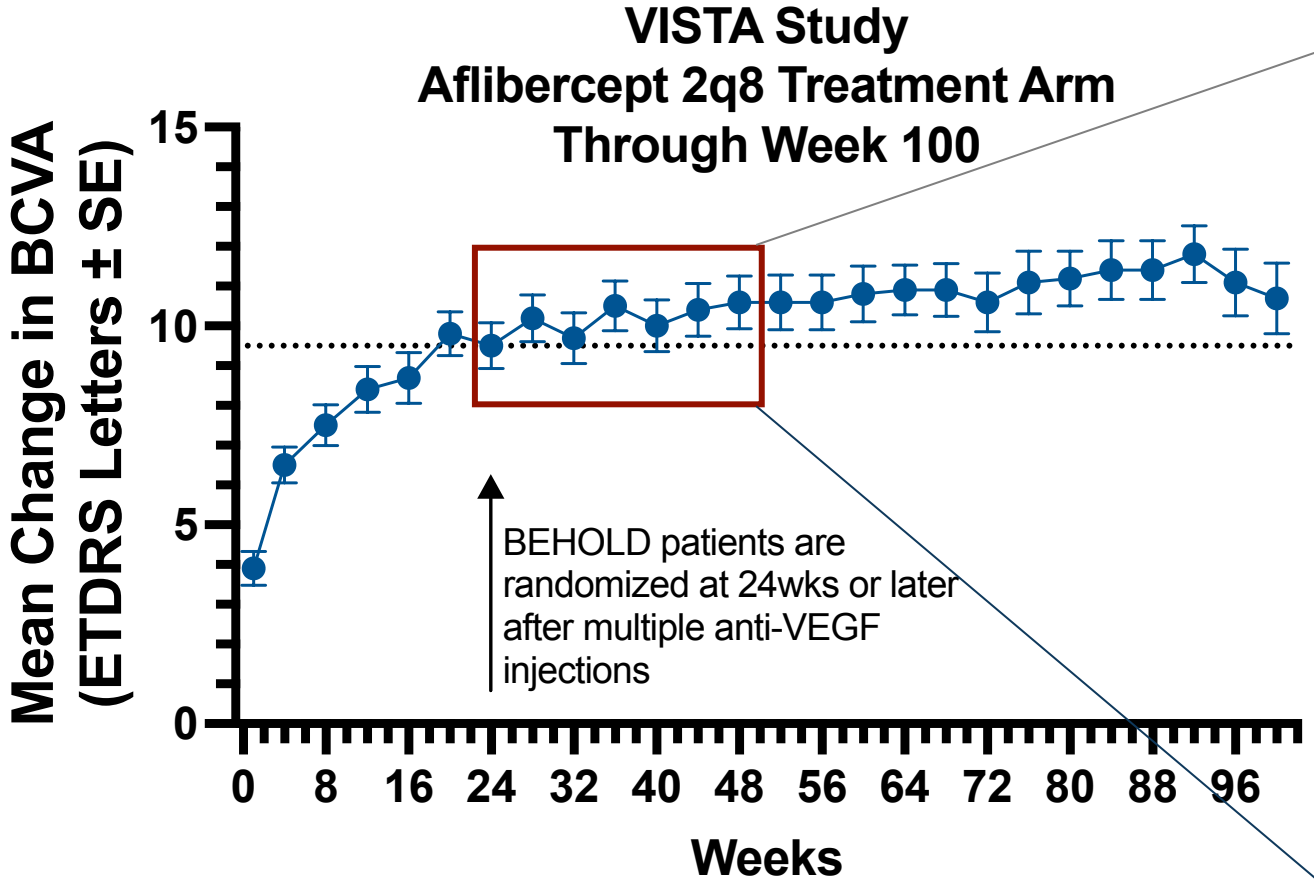
UNITY illustration

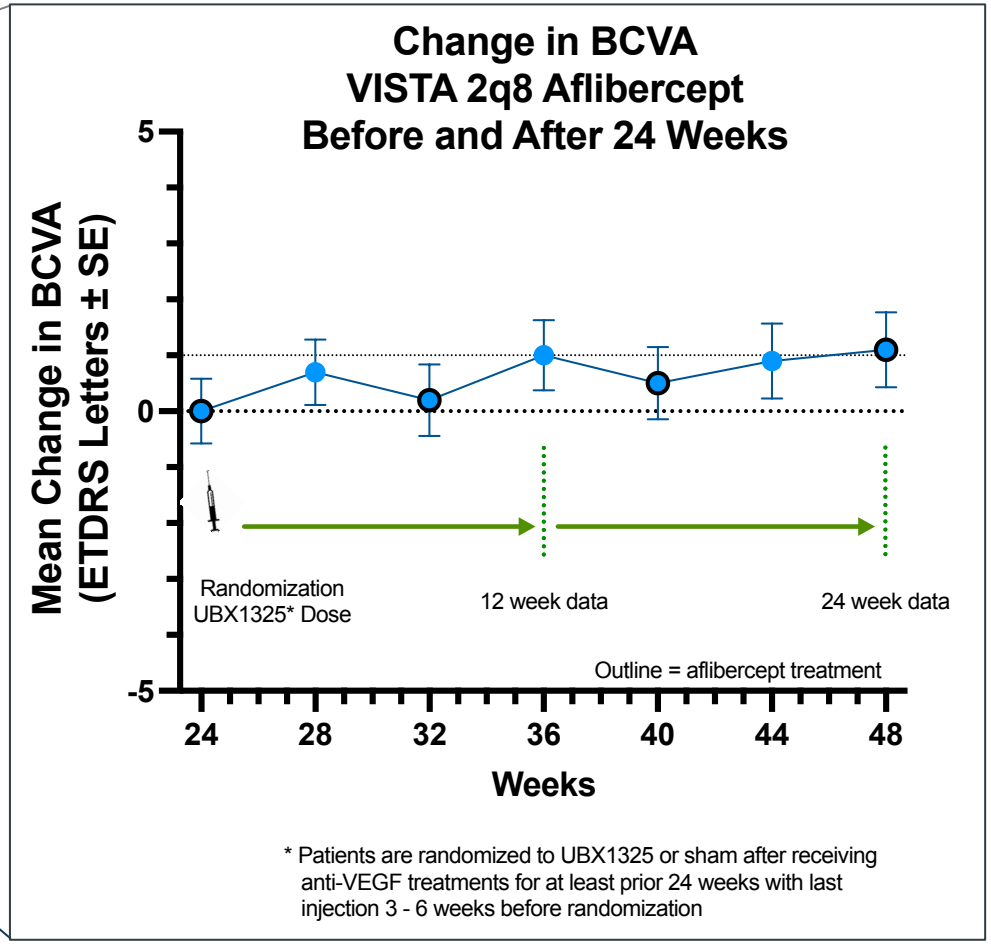
UBX1325 Clinical Program Overview



UNITY BIOTECHNOLOGY

Context for 24wk DME Data: After Anti-VEGF Effect Has Plateaued, Patients Gain Approximately 1 Letter in Subsequent 6 Months on Aflibercept Treatment





VISTA BLA 125387 Suppl 48, 25 Mar 2015

UNITY BIOTECHNOLOGY

UBX1325 Ph2 BEHOLD Study

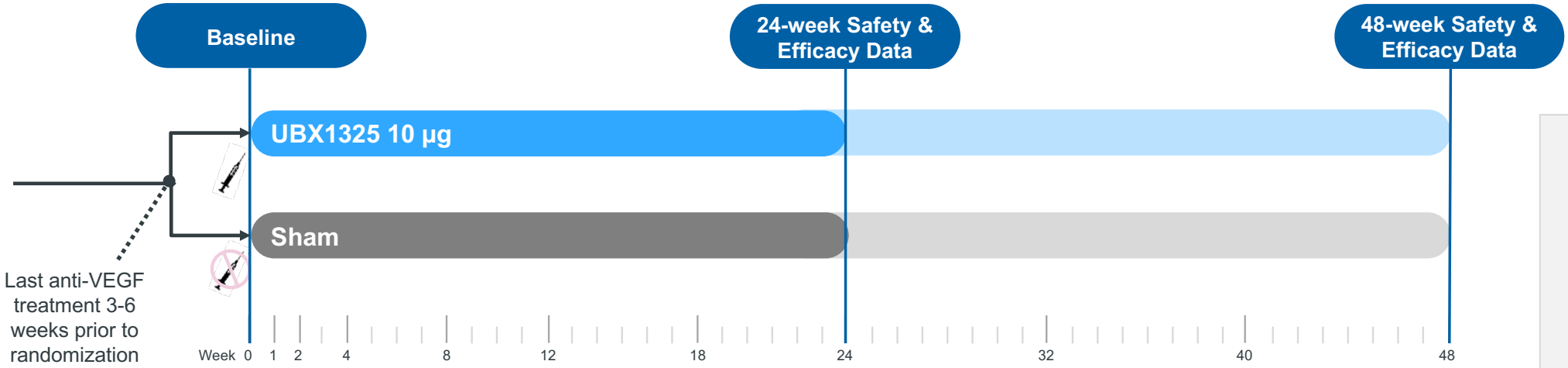
48-week data in patients with DME

BEHOLD Study Design, Patient Population, and Endpoints

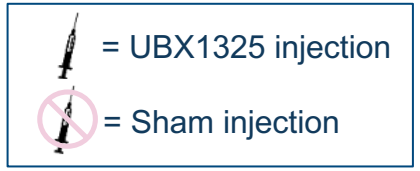
Patient Population

Individuals with **Diabetic Macular Edema**

- **Repeated anti-VEGF** treatments (≥2 injections/6 months) – Actual: 4.1 injections in prior 6 months
- **Residual retinal fluid** (≥300 µm) – Actual: 439.6 µm
- **Visual acuity deficit** (73 ETDRS letters or worse) – Actual: 61.4 ETDRS letters



	Sham	UBX	Total
Full Analysis Set	33	32	65
Completed to 24 Weeks only	4	5	9
Lost to follow-up	1	3	4
Site Closure	1	0	1
Patient withdrawal	1	0	1
Available through 48 Weeks	26	24	50



Endpoints

- Safety and tolerability
- BCVA change from baseline
- Durability of response
- Sub- and intra-retinal fluid, CST changes
- Proportion of UBX1325 patients requiring 2 or more rescue treatments

Source: t_14_1_1

Patient characteristics at baseline were well balanced between groups

Parameter, Units (SD)	Sham	UBX1325
Age, Years	61.4 (9.09)	63.6 (9.33)
HBA1c, %	7.4 (1.36)	8.0 (1.68)
Diabetes Dx, Years	17.5 (10.53)	17.2 (11.41)
DME Dx, Years	3.0 (2.32)	3.5 (3.60)
BCVA, ETDRS letters	61.8 (9.61)	60.9 (9.97)
CST, µm	456.2 (98.07)	422.5 (84.16)
Anti VEGF prior 190 days		
Afilbercept	13	13
Aflibercept, bevacizumab	4	1
Bevacizumab	15	16
Ranibizumab	1	2

Balanced on other parameters at baseline: ethnicity & race, BMI, DRSS score

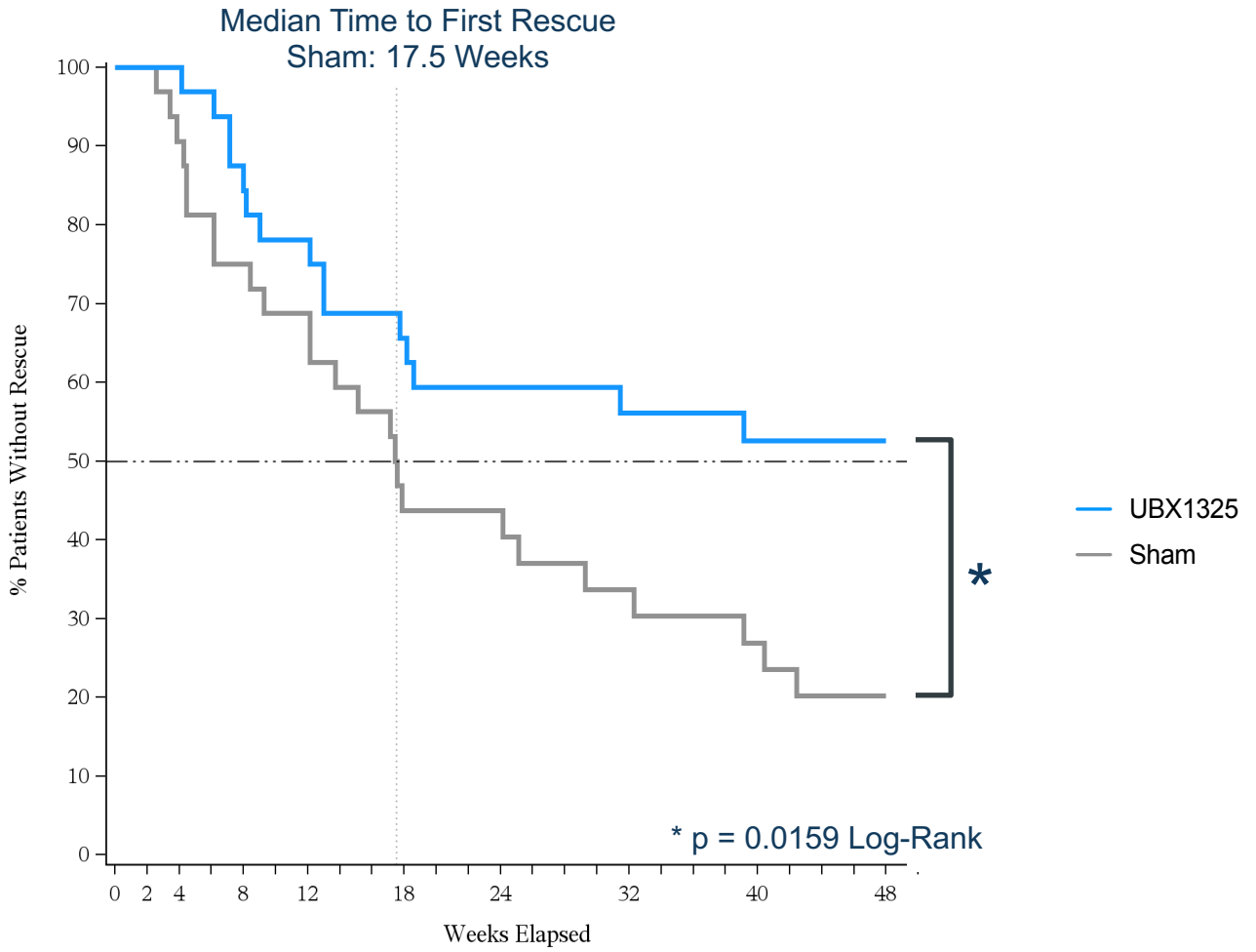
Source: t_14_1_2

UBX1325-treated patients had marked drop in need for anti-VEGF rescue beyond week 18 compared to Sham-treated patients through 48 weeks

- Median Time-To-First-Rescue in UBX arm was >48 weeks (at least 30 weeks greater than Sham arm)
- ~50% of UBX-treated patients went without rescue through duration of study
- ~80% of sham-treated patients required rescue before 48 weeks

Rescue Criteria (Either)

- Decrease of 10 ETDRS or more letters from any peak value
- Increase in CST of 75 µm or more from baseline

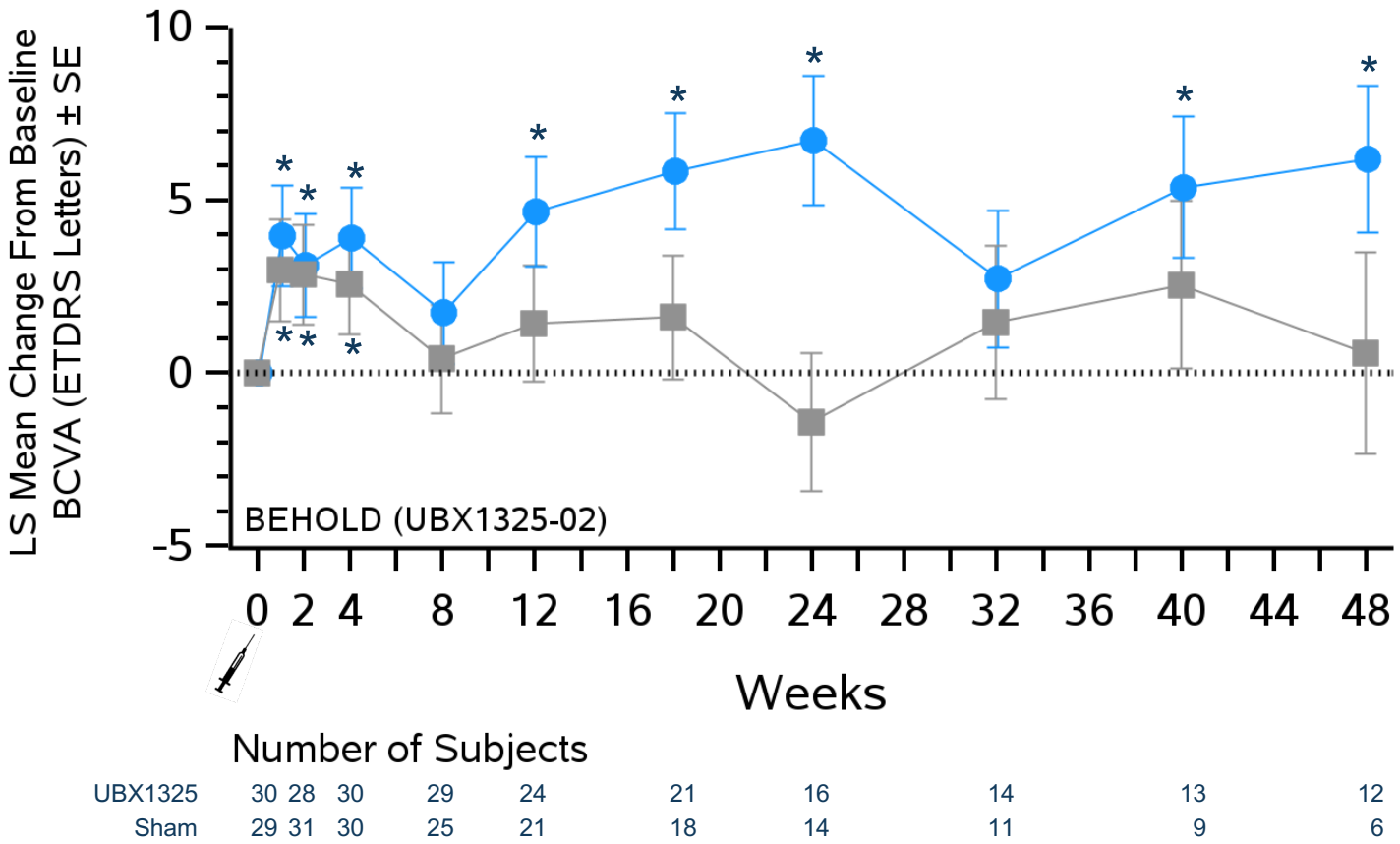


Efficacy analyses *excluding* and *including* data post anti-VEGF rescue show a treatment benefit of UBX1325

Source: f_km_plots_listings; f_km_plots

UNITY BIOTECHNOLOGY

UBX1325-treated patients had a significant improvement in BCVA from baseline† of 6.2 letters at 48 weeks (*excluding* data post-rescue)



* p < 0.05 vs. baseline

UBX1325
Sham

BCVA CFBL (ETDRS Letters)	UBX1325	Sham	Delta	Between Group p-value
Week 24	6.7	-1.4	8.1	0.0031
CFBL p-value	0.0004	NS		
Week 48	6.2	0.6	5.6	0.1198
CFBL p-value	0.0037	NS		

NS: not significant

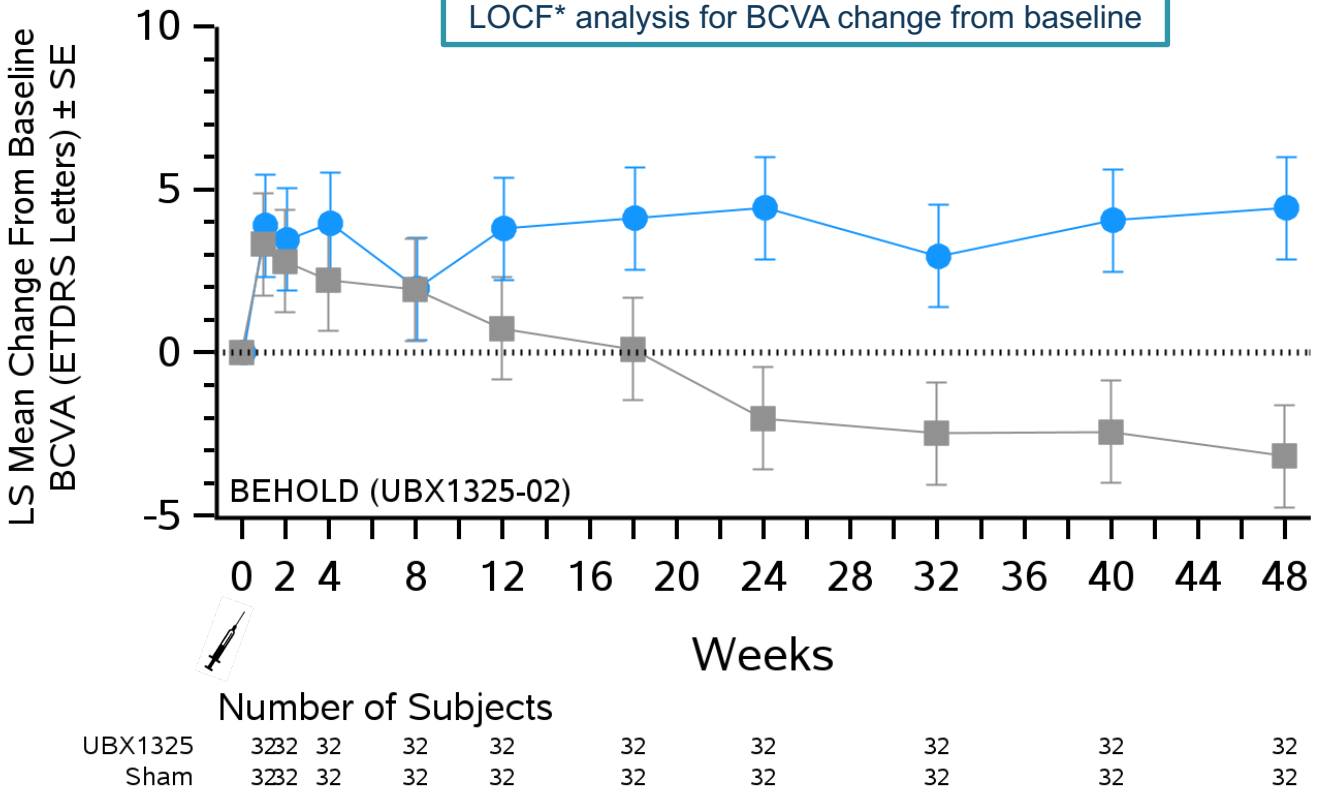
† MMRM Analysis

Source: f_14_2_1_1; t_14_2_1_1

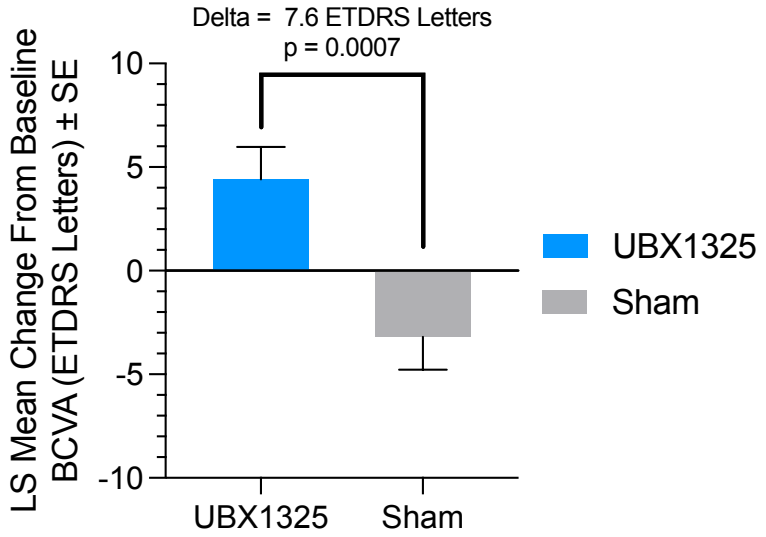
UNITY BIOTECHNOLOGY

UBX1325-treated patients had significant visual acuity gains compared to Sham based on analysis of last observation prior to rescue or end of study†

LOCF* analysis for BCVA change from baseline



Mean BCVA change from baseline to last observation



* Last observation carried forward (to rescue or end of study participation)

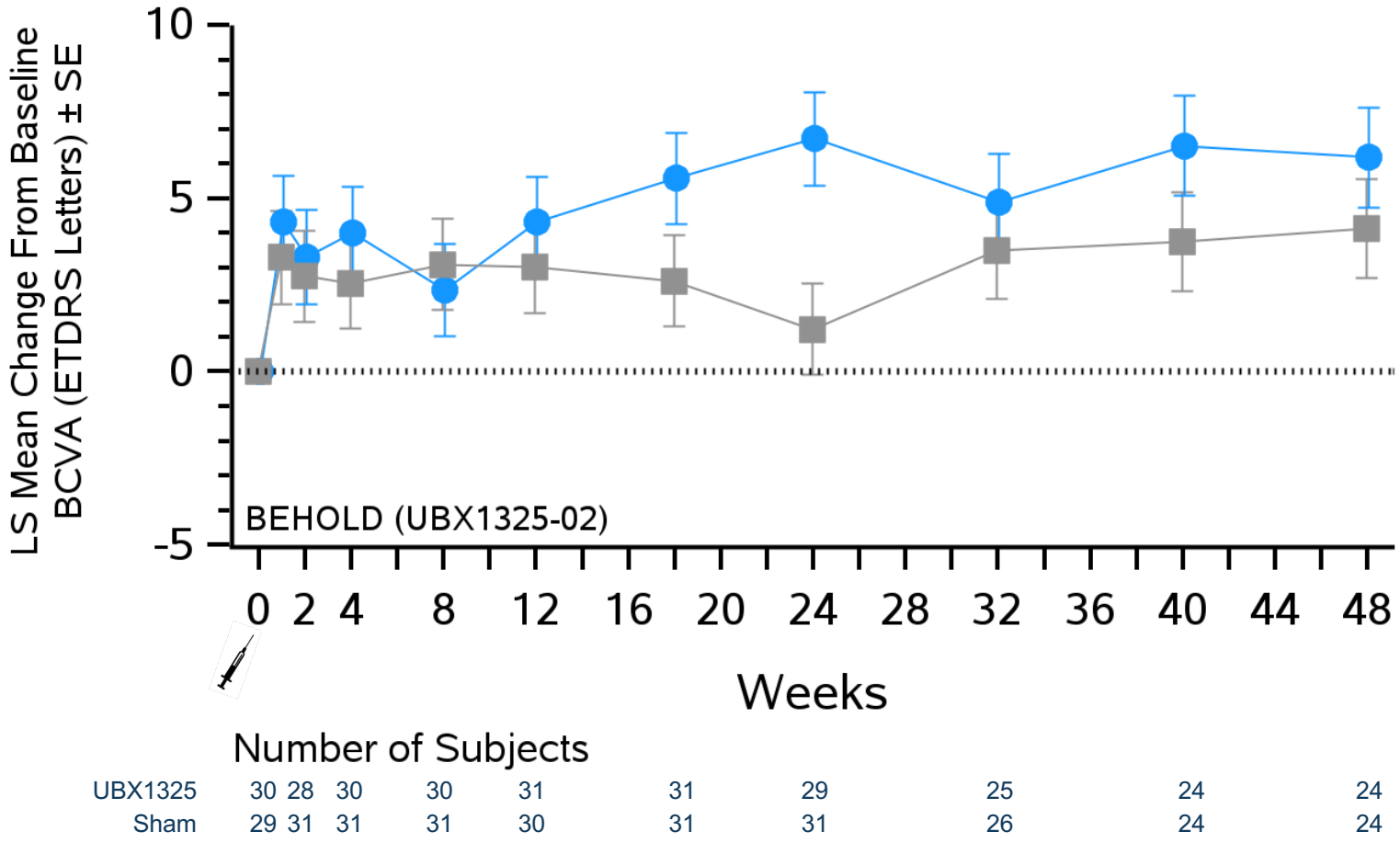
† Supplemental Analysis

24 April 2023

Source: f_14_2_1_35

UNITY BIOTECHNOLOGY

At all timepoints, UBX1325-treated patients had a statistically significant improvement in BCVA from baseline† (*including* post-rescue data)



All points p < 0.05 vs. baseline *except* Sham Weeks 4, 24 and UBX Week 8

UBX1325
Sham

BCVA CFBL (ETDRS Letters)	UBX1325	Sham	Delta	Between Group p-value
Week 24	6.7	1.2	5.5	0.0036
CFBL p-value	<0.0001	NS		
Week 48	6.2	4.1	2.0	NS
CFBL p-value	<0.0001	0.0042		

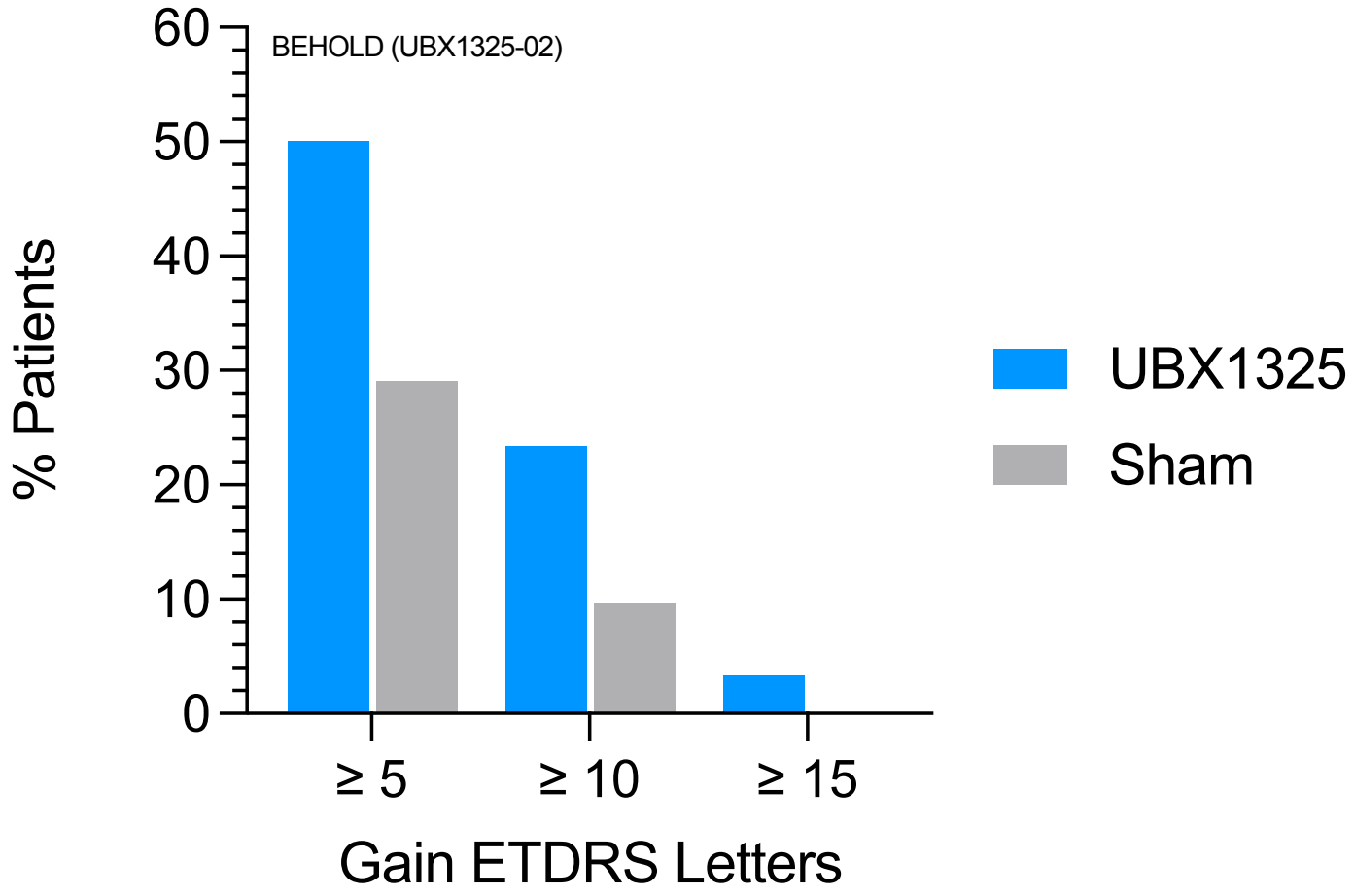
NS: not significant

† MMRM Analysis

Source: f_14_2_1_13; t_14_2_1_2

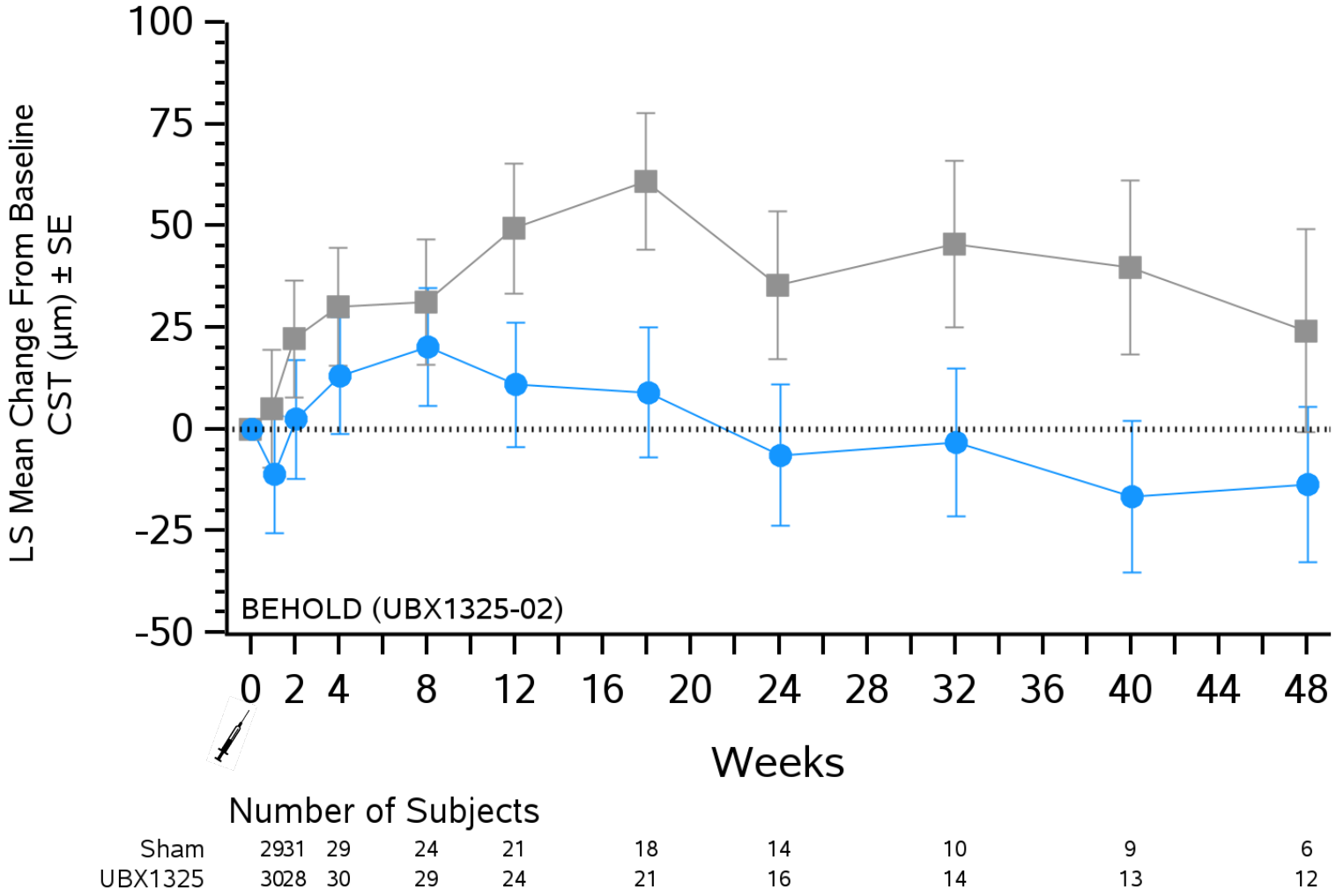
UNITY BIOTECHNOLOGY

50% of UBX1325-treated patients gained at least 5 letters of vision through 48 weeks, with over 20% gaining at least 10 letters (*excluding* post-rescue data)



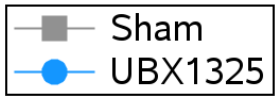
Source: t_14_2_4_1

CST remained stable in UBX1325-treated patients compared to worsening in Sham patients (*excluding* post-rescue data)



Sham: p < 0.15 vs BL all points *except* Weeks 1 and 48

UBX: All points not significantly different from baseline



BCVA CFBL (ETDRS Letters)	UBX1325	Sham	Delta	Between Group p-value
Week 24	-6.4	35.4	-41.8	0.0985
CFBL p-value	NS	0.0534		
Week 48	-13.7	24.2	-37.9	NS
CFBL p-value	NS	NS		

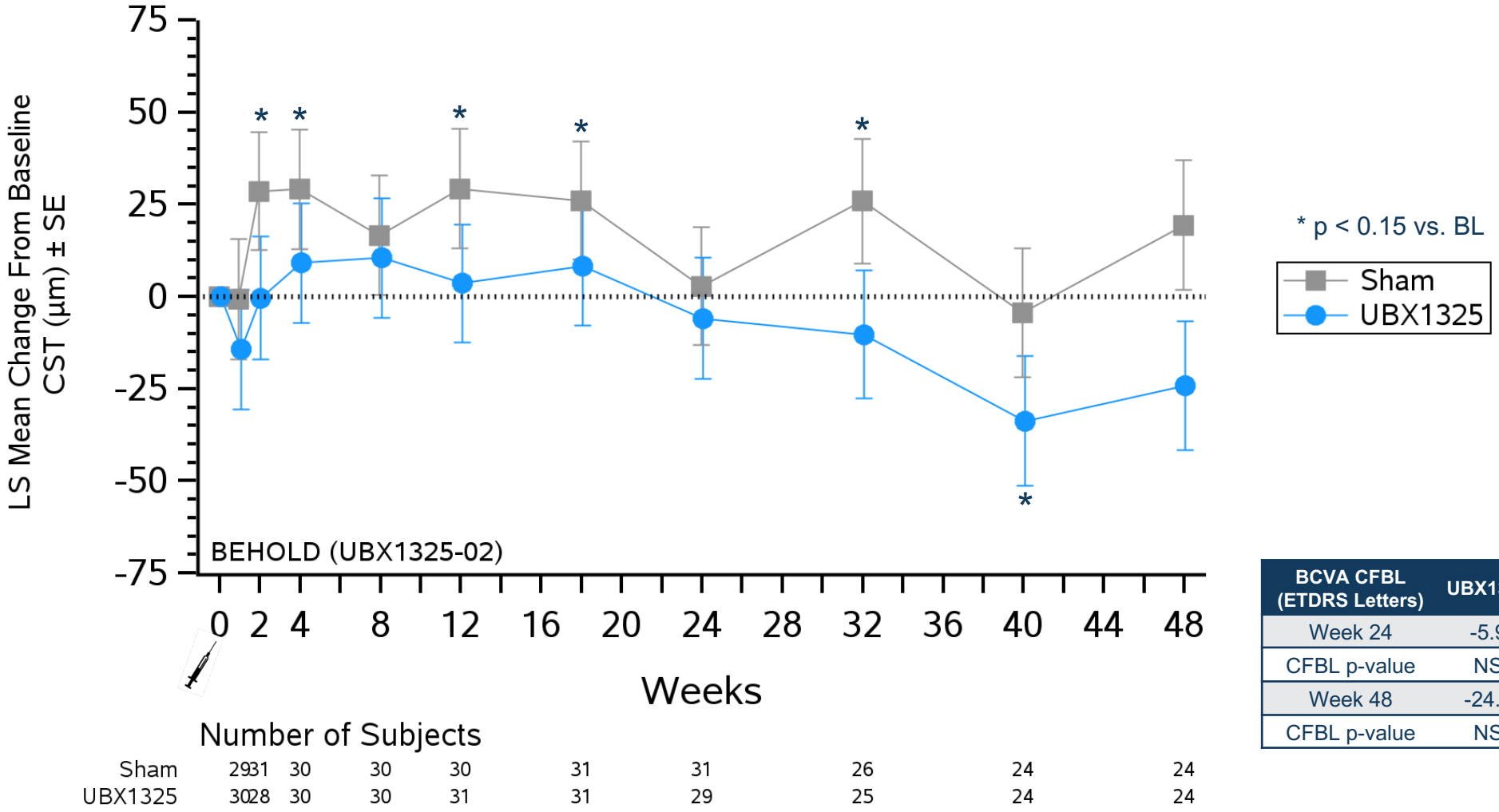
NS: not significant

24 April 2023

Source: f_14_2_1_2; t_14_2_1_3

UNITY BIOTECHNOLOGY

Mean CST was significantly lower in UBX1325-treated patients compared to Sham patients at 48 weeks (*including* post-rescue data)

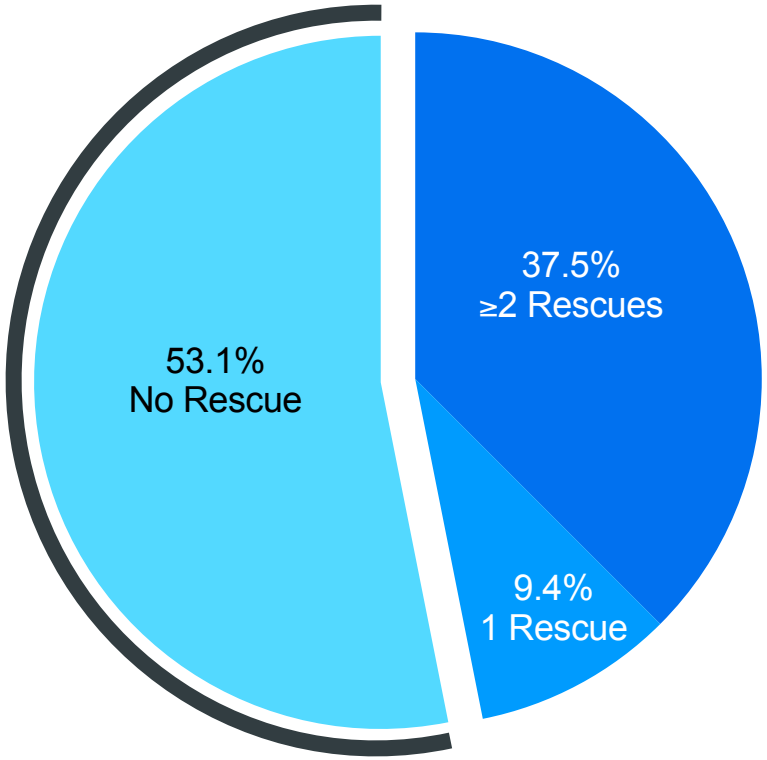


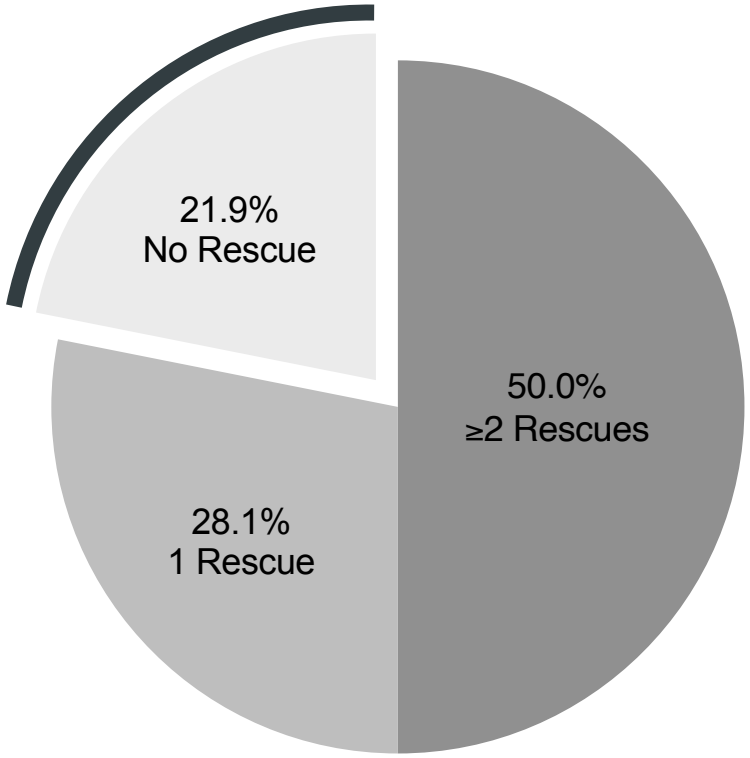
BCVA CFBL (ETDRS Letters)	UBX1325	Sham	Delta	Between Group p-value
Week 24	-5.9	2.8	-8.7	NS
CFBL p-value	NS	NS		
Week 48	-24.2	19.4	-43.6	0.0794
CFBL p-value	NS	NS		

NS: not significant

Source: f_14_2_1_14; t_14_2_1_4

53.1% of UBX1325-treated patients in the study did not require anti-VEGF rescue compared to 21.9% of Sham patients





Rescue Criteria (Either)

- Decrease of 10 ETDRS or more letters from any peak value
- Increase in CST of 75 µm or more from baseline

UBX vs. Sham
p = 0.0096

n = 32
UBX1325

n = 32
Sham

Source: f_14_2_4_1; t_14_2_2_1

UNITY BIOTECHNOLOGY

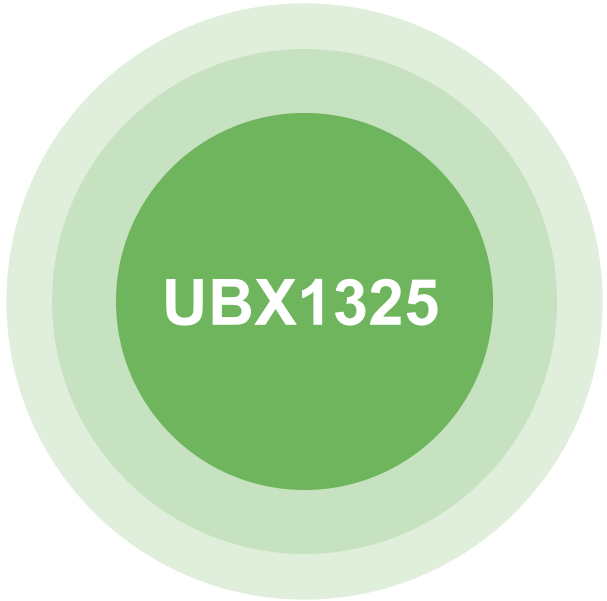
UBX1325 demonstrated a favorable overall safety and tolerability profile with no instances of intraocular inflammation

Parameter, No. of Patients	Sham (N = 33)	UBX1325 10 µg (N = 32)
Subjects with at least one TEAE	31 (93.9)	26 (81.3)
Related TEAE	3 (9.1)	6 (18.8)
Grade >=3 TEAE	4 (12.1)	5 (15.6)
Serious TEAE	3 (9.1)	5 (15.6)
Ocular TEAE for Study Eye	28 (84.8)	23 (71.9)
Treatment-related Ocular TEAE for Study Eye	3 (9.1)*	6 (18.8)*
TEAE leading to death	0	0
Intraocular inflammation, endophthalmitis, retinal artery occlusion, or vasculitis	**0**	**0**

* Most are likely procedural related, all were mild-mod, and self-limited:
Sham: 1 conj. hemorrhage, 1 conj. hyperemia, 1 diabetic macular edema
UBX: 5 conj. hemorrhage, 1 ant. chamber pigmentation, 1 eye irritation

Source: t_14_3_1_1

Summary of Findings and Concordance of Evidence Supporting a Treatment Effect of UBX1325 in Diabetic Macular Edema



In the BEHOLD Study, UBX1325:

- Improved visual acuity at 48 weeks by **6.2 letters from baseline after a single injection**
- Led to ~50% of patients achieving a **rescue-free interval of at least 48 weeks** and may represent the **potential for disease modification**
- **Maintained retinal structure** throughout the duration of the study without the need for anti-VEGF rescue
- Had a **generally favorable safety and tolerability profile** with no intraocular inflammation

UBX1325 may be an important future therapeutic option for patients with diabetic macular edema

UNITY
BIOTECHNOLOGY

Q&A