## 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): November 01, 2022

# UNITY BIOTECHNOLOGY, INC.

(Exact name of Registrant as Specified in Its Charter)

Delaware (State or Other Jurisdiction of Incorporation) 001-38470 (Commission File Number) 27-4726035 (IRS Employer Identification No.)

285 East Grand Ave. South San Francisco, California (Address of Principal Executive Offices)

94080 (Zip Code)

Registrant's Telephone Number, Including Area Code: (650) 416-1192

	(Forn	ner Name or Former Address, if Changed S	Since Last Report)						
Che	ck the appropriate box below if the Form 8-K filing is intended	to simultaneously satisfy the filing	g 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:								
	Title of each class	Trading Symbol(s)	Name of each exchange on which registered						
	Common Stock, par value \$0.0001 per share	UBX	The NASDAQ Global Select Market						
	icate by check mark whether the registrant is an emerging growt Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).	th company as defined in Rule 405	of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of						
Em	erging growth company 🗵								
	n emerging growth company, indicate by check mark if the regis punting standards provided pursuant to Section 13(a) of the Exc		tended transition period for complying with any new or revised financial						

#### Item 8.01 Other Events.

On November 1, 2022, Unity Biotechnology, Inc. ("UNITY" or the "Company") announced positive 24-week data from its Phase 2 BEHOLD study of UBX1325 in patients with diabetic macular edema (DME). The Company will host a conference call today, Tuesday, November 1, 2022, at 8:00 a.m., Eastern Time, to discuss the data results.

A copy of the press release and the presentation that will be referenced during the conference call are filed as Exhibit 99.1 and Exhibit 99.2, respectively, to this Current Report on Form 8-K and are incorporated by reference herein.

#### Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description		
99.1	Press release titled "UNITY Biotechnology Announces Positive 24-Week Data from Phase 2 BEHOLD Study of UBX1325 in Patients with Diabetic Macular Edema," dated November 1, 2022		
99.2	Presentation of Unity Biotechnology, Inc. dated November 1, 2022		
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)		

#### 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.

UNITY BIOTECHNOLOGY, INC.

Date: November 1, 2022 By: /s/ Anirvan Ghosh

Anirvan Ghosh, Ph.D. Chief Executive Officer



#### UNITY Biotechnology Announces Positive 24-Week Data from Phase 2 BEHOLD Study of UBX1325 in Patients with Diabetic Macular Edema

A single injection of UBX1325 led to a statistically significant and clinically relevant improvement in Best Corrected Visual Acuity (BCVA) of 7.6 ETDRS letters at 24 weeks compared to sham treatment

UBX1325 maintained stabilization of retinal structure, as measured by central subfield thickness (CST) at 24 weeks, as compared to worsening from baseline in sham-treated patients

The proportion of rescue-free patients in the UBX1325-treated arm was 59.4% at 6 months after a single injection, as compared to only 37.5% in the sham-treated arm

UNITY to host investor call with retinal expert Arshad M. Khanani, M.D., M.A., FASRS, today, November 1, at 8:00 a.m. ET

**SOUTH SAN FRANCISCO, Calif., November 1, 2022** – UNITY Biotechnology, Inc. ("UNITY") [Nasdaq: UBX], a biotechnology company developing therapeutics to slow, halt, or reverse diseases of aging, today announced that the key safety and efficacy endpoints were met at 24 weeks in the Phase 2 BEHOLD study of UBX1325 in patients with diabetic macular edema (DME). The Company intends to initiate a pivotal study in DME in the second half of 2023.

At 24 weeks after a single dose of UBX1325, the mean change in BCVA of UBX1325-treated subjects was an increase of +6.2 ETDRS letters, representing an improvement of +7.6 ETDRS letters compared to sham-treated subjects from baseline (p = 0.0084). In addition, patients treated with UBX1325 maintained CST compared to sham-treated patients who demonstrated worsening of CST (i.e., increased retinal thickness) through 24 weeks. Of patients treated with UBX1325, 59.4% did not require anti-VEGF standard of care through 6 months, as compared to only 37.5% of sham-treated patients.

"It is remarkable to see such clinically meaningful and sustained improvements in vision after a single injection of UBX1325 in patients who had reached a therapeutic plateau with anti-VEGF treatment," said Anirvan Ghosh, Ph.D., chief executive officer of UNITY. "In today's treatment paradigm for DME, most patients require frequent injections – and still a large proportion of patients with the current standard of care have residual visual deficits. Based on the results of this study we believe UBX1325 could lead to significant vision gain while reducing treatment burden for patients. The durable effect we've now observed through 6 months following just a single injection of UBX1325 suggests it could represent a longer-lasting, disease-modifying treatment option for patients."

Patients enrolled in BEHOLD had been on anti-VEGF treatment for at least 6 months prior to enrollment into the study (mean injection frequency of 4 in the preceding 6 months), with the last anti-VEGF injection occurring 3 – 6 weeks prior to randomization.



#### Evidence of favorable safety, visual acuity improvement, and structural stability in a difficult-to-treat patient population at 24 weeks:

- UBX1325 demonstrated a favorable safety and tolerability profile with no cases of intraocular inflammation, retinal artery occlusion, endophthalmitis, or vasculitis
- Patients treated with a single injection of UBX1325 had a mean improvement in BCVA of +7.6 letters compared to sham (p=0.0084). UBX1325-treated patients gained +6.2 ETDRS letters from baseline compared to a loss of -1.4 ETDRS letters in sham-treated patients
- Patients treated with UBX1325 had a mean change in CST of -5.4 microns from baseline compared to an increase (worsening) of +34.6 microns in sham-treated patients for a total difference of 40.0 microns (p=0.1244)
- 59.4% of UBX1325-treated patients went 6 months without receiving any anti-VEGF rescue compared to 37.5% of sham-treated patients

"A 7.6-letter gain in BCVA from baseline in UBX1325-treated patients who had visual deficits and retinal fluid despite being on anti-VEGF treatment is a clinically meaningful and impressive outcome," said Arshad M. Khanani, M.D., M.A., Director of Clinical Research at Sierra Eye Associates. "A potential treatment with a novel mechanism of action that provides significant and durable gain in vision would be of great value to patients with DME."

Jamie Dananberg, M.D., chief medical officer of UNITY added, "We believe we have altered the disease trajectory of patients treated with UBX1325, as evidenced by the 24-week results. Observing significantly greater letter gains and stabilization of retinal structure compared to the sham arm after a single injection of UBX1325 is encouraging and speaks to the potential of disease modification with a senolytic treatment. We look forward to further evaluating the durability of treatment effect through 48 weeks with our long-term extension of the BEHOLD study."

#### **Upcoming Clinical Milestones for UBX1325**

- 48-week long-term safety and efficacy data from Ph2 BEHOLD study in DME expected in Q2 2023
- 16-week safety and efficacy data from Ph2 ENVISION study in wet age-related macular degeneration (AMD) expected in Q1 2023, and 24-week safety and efficacy data expected in Q2 2023

#### Conference Call at 8:00 a.m. ET Today

UNITY will host a video conference call and webcast for investors and analysts today at 8:00 a.m. ET to discuss the most recent UBX1325 clinical data. Dr. Arshad M. Khanani, M.D., M.A., FASRS, Director of Clinical Research at Sierra Eye Associates, as well as members of the UNITY senior management team, will lead the discussion on the 24-week BEHOLD study results. The live webcast can be accessed in the "Investors and Media" section of our website, www.unitybiotechnology.com, under "Events & Presentations" or by clicking here. A replay will be available two hours after the completion of the call and can be accessed in the "Investors & Media" section of our website, under "Events and Presentations."



#### About the BEHOLD Study

The proof-of-concept Phase 2 BEHOLD study is a multi-center, randomized, double-masked, sham-controlled study designed to evaluate the safety, tolerability, efficacy and durability of a single 10 mcg dose of UBX1325 in patients with DME evaluated though 24 weeks. The study enrolled 65 patients being actively treated with anti-VEGF who had a visual acuity deficit (73 ETDRS letters, approximately 20/40, or worse) and residual retinal fluid (CST ≥300 microns). Patients have the option of continuing in the long-term extension portion of the study through 48-weeks. To date, a majority of patients have opted to remain in the study. More information about the study is available here (NCT04857996).

#### About UBX1325

UBX1325 is an investigational compound being studied for age-related diseases of the eye, including diabetic macular edema (DME), age-related macular degeneration (AMD), and diabetic retinopathy (DR) that is not approved for any use in any country. UBX1325 is a potent small molecule inhibitor of Bcl-xL, a member of the Bcl-2 family of apoptosis regulating proteins. UBX1325 is designed to inhibit the function of proteins that senescent cells rely on for survival. In a Phase 1 clinical study in advanced wet AMD and DME, UBX1325 showed a favorable safety profile and improvements in visual acuity sustained through 24 weeks following a single intravitreal injection. In preclinical studies, UNITY has demonstrated that targeting Bcl-xL with UBX1325 preferentially eliminated senescent cells from diseased tissue while sparing cells in healthy tissue. UNITY's goal with UBX1325 is to transformationally improve real-world outcomes for patients with DME, AMD, and DR.

#### **About UNITY**

UNITY is developing a new class of therapeutics to slow, halt, or reverse diseases of aging. UNITY's current focus is on creating medicines to selectively eliminate or modulate senescent cells and thereby provide transformative benefit in age-related ophthalmologic and neurologic diseases. More information is available at www.unitybiotechnology.com or follow us on Twitter and LinkedIn.

#### **Forward-Looking Statements**

This press release contains 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 UBX1325, the potential for UNITY to successfully commence and complete clinical studies of UBX1325 for DME, AMD, and other ophthalmologic diseases, the expected timing and nature of results of our studies of UBX1325 including BEHOLD and ENVISION, including the risk that interim results of our clinical studies may not be indicative of future results, 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. 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 press release 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 recently filed Quarterly Report on Form 10-Q for the quarter ended June 30, 2022, filed with the Securities and Exchange Commission on August 12, 2022, as well as other documents that may be filed by UNITY from time to time with the Securities and Exchange Commission.

#### **Media Contact**

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**Investor Contact** 

LifeSci Advisors, LLC Joyce Allaire jallaire@lifesciadvisors.com



BIOTECHNOLOGY

UBX1325
Phase 2 BEHOLD DME Study
24 Week Data

Arshad M. Khanani MD, MA, FASRS Director of Clinical Research at Sierra Eye Associates

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



### 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, 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 Quarterly Report on Form 10-Q for the quarter ended June 30, 2022, filed with the Securities and Exchange Commission on August 12, 2022, 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.

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# UBX1325 Led to a Statistically Significant and Clinically Relevant Improvement in Visual Acuity in Patients with Diabetic Macular Edema

### Phase 2 BEHOLD Study Data Highlights

- A single dose of UBX1325 led to a statistically significant and clinically relevant improvement in vision as measured by BCVA out to 24 weeks in DME patients
- Retinal structure was maintained through 24 weeks in UBX1325-treated patients, compared to worsening in sham-treated patients
- Approximately 60% of UBX1325-treated patients did not require anti-VEGF rescue through 24 weeks compared to only ~38% of sham-treated patients
- UBX1325, the first senolytic drug being explored in eye disease, had a favorable safety and tolerability profile, with no evidence of intra-ocular inflammation
- · This novel mechanism of action could benefit patients as monotherapy or in combination with anti-VEGF agents

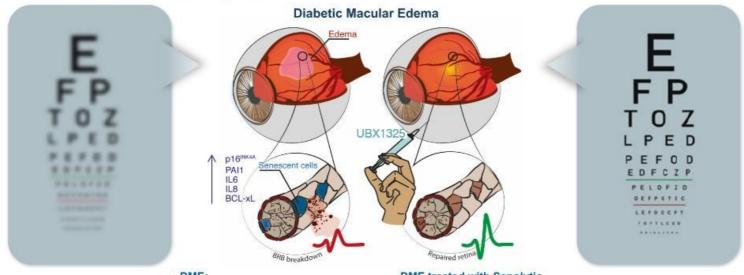
### **Built on UNITY's Senescent Cell Biology Platform**

- Preclinical mechanism of action and efficacy data support senolytic therapeutic hypothesis
- Mechanism has broad implication for diseases of aging

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



#### DME:

- · Increased senescence burden
- · Retinal vasculature affected
- Blood retinal barrier (BRB) Breakdown
- · Loss of vision

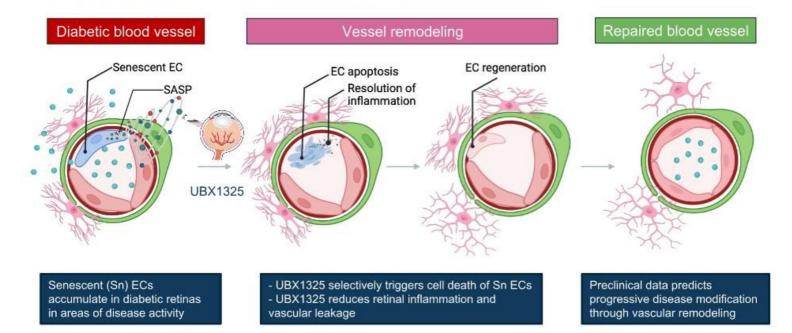
# DME treated with Senolytic intended results:

- Senescent cells removed
- Retinal vasculature restored
- · Improvement in vision

UNITY illustration.

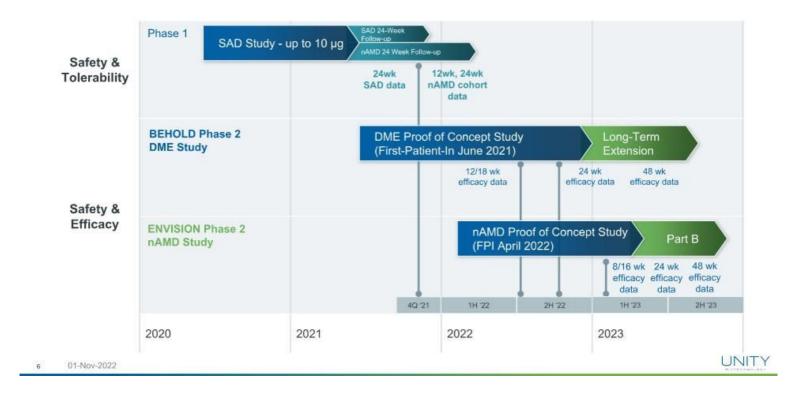


# Proposed Mechanism of Action for UBX1325



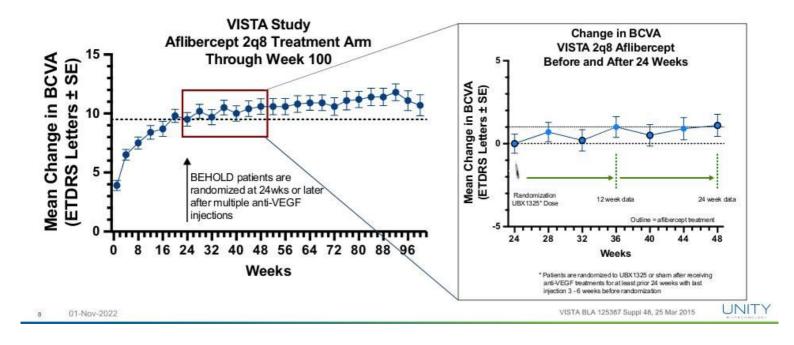
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## **UBX1325 Clinical Program Overview**





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



UBX1325 Phase 2 BEHOLD Study

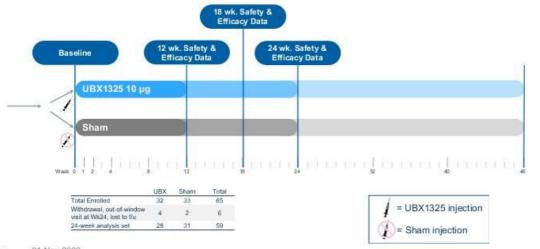
24-Week Data in Patients With DME





## BEHOLD Study Design, Patient Population, and Endpoints

Individuals with Diabetic Macular Edema (with moderate diabetic proliferative retinopathy or better), residual retinal fluid (≥300 µm) and visual acuity deficit (73 ETDRS letters or worse) despite having received repeated anti-VEGF treatments (≥2 injections over last 6 months, last 3-6 weeks prior to randomization). Most subjects had 3 or more injections in preceding 6-month period.

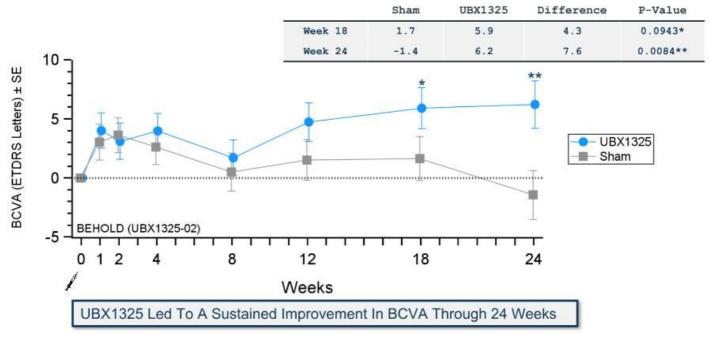


#### **Endpoints**

- · 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
- · Changes in choroidal blood flow (OCT-A)



# BEHOLD: 24-Week BCVA Change from Baseline<sup>†</sup> Met Pre-specified Criteria for Proof of Concept

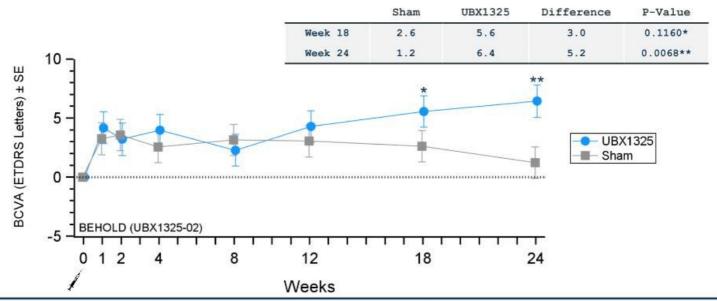


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† MMRM Analysis



## BEHOLD: 24-Week BCVA Change from Baseline<sup>†</sup> Including Post-Rescue Data



UBX1325 with As-Needed anti-VEGF Rescue Outperformed Sham with As-Needed Rescue Through 24 Weeks<sup>††</sup>

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† MMRM Analysis †† More rescues in Sham vs. UBX arms

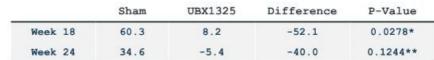


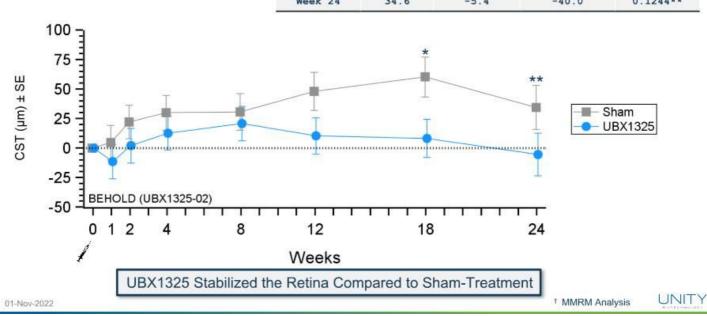
# Greater Proportion of Patients in UBX1325 Arm Have Larger Visual Acuity Gains Compared to Sham at 24 Weeks



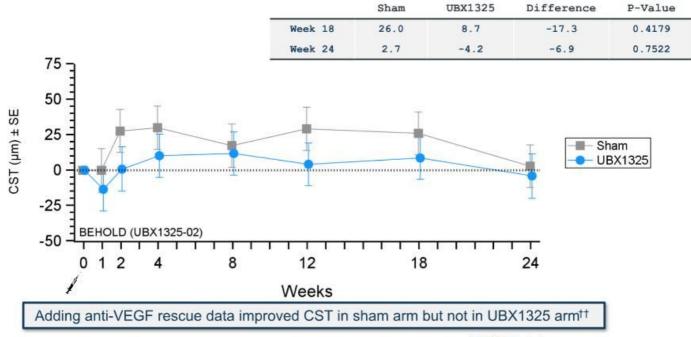
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# BEHOLD: 24-Week CST Change from Baseline<sup>†</sup> Met Pre-specified Criteria for Proof of Concept





# BEHOLD: 24-Week CST Change from Baseline<sup>†</sup> Including Post-rescue Data



† MMRM Analysis †† More rescues in Sham vs. UBX arms

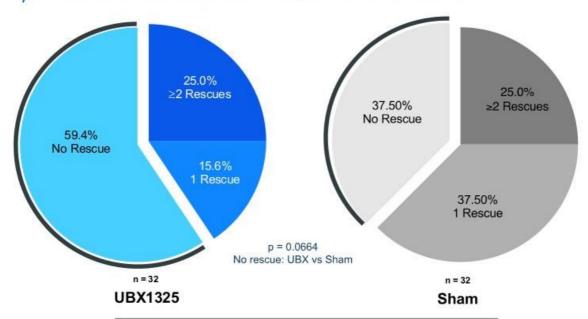


## Summary of Subgroup Analyses at 24 Weeks

- In BEHOLD, 4 subgroup factors with 8 total subgroups (2 each) were evaluated based on baseline values for:
  - BCVA (≤60 vs. >60 ETDRS letters)
  - CST (≤400 vs. >400μm)
  - DRSS Score (<47 vs. ≥47)</li>
  - A1c (≤7 vs. >7%)
- For the response of BCVA, there was a numeric advantage in all 8 subgroups for UBX1325-treated patients
- For the response of CST, there was a numeric advantage in all 8 subgroups for UBX1325-treated patients

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# Majority of Patients on UBX1325 Were Rescue-free for 6 Months



#### Rescue Eligibility Criteria (Either Triggers Rescue):

- Increase in CST of +75μm from the lowest value (trough)
- Decrease in BCVA of -10 ETDRS letters from the highest value (peak)

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# **Summary of Treatment Emergent Adverse Events**

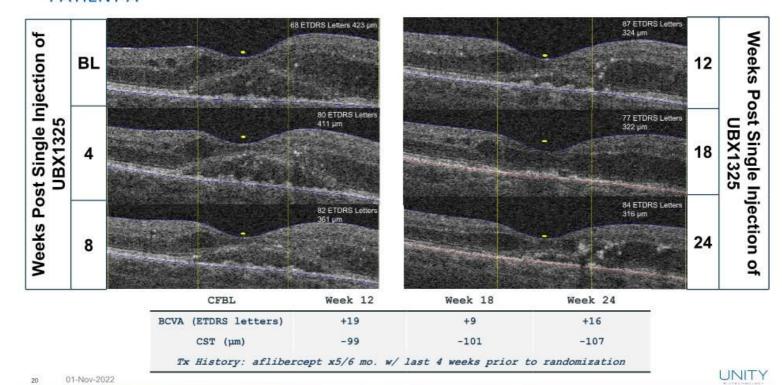
	Sham (%) (N = 33)	UBX1325 10 μg (%) (N = 32)	Overall (%) (N = 65)
Subjects with at least one TEAE	28 (84.8)	24 (75.0)	52 (80.0)
Related TEAE	3 (9.1)	6 (18.8)	9 (13.8)
Grade ≥3 TEAE	4 (12.1)	3 (9.4)	7 (10.8)
Serious TEAE	3 (9.1)*	4 (12.5)*	7 (10.8)
Ocular TEAE for Study Eye	23 (69.7)	19 (59.4)	42 (64.6)
Treatment-related Ocular TEAE for Study Eye	3 (9.1)**	6 (18.8)**	9 (13.8)
TEAE leading to death	0	0	0
Intraocular inflammation, endophthalmitis, retinal artery occlusion, or vasculitis	0	0	0

Unrelated or likely unrelated to treatment
 2/3 Sham and 5/6 UBX most likely attributable to procedure: Conjunctival hemorrhage, eye irritation, conjunctival hyperemia
 All mild – moderate, resolved without further intervention

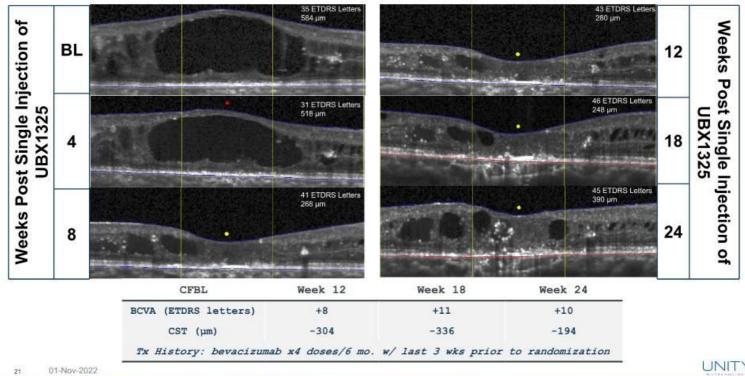




### **PATIENT A**



## **PATIENT B**



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# A Single Injection of UBX1325 Provided Evidence of a Senolytic Agent Improving Visual Acuity in Patients with Diabetic Macular Edema



### In the BEHOLD Study, UBX1325:

- Was well tolerated with a favorable safety profile and no intraocular inflammation
- Minimum of 6 months after one dose
- Allowed ~60% of patients to avoid anti-VEGF treatment for at least 6 months
- Maintained retinal structure vs. sham-treated subjects

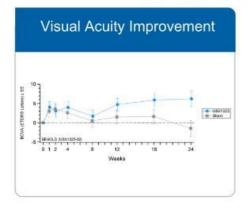
UBX1325 Provides an Opportunity for a Transformative First-in-Class and Best-in-Disease Therapy

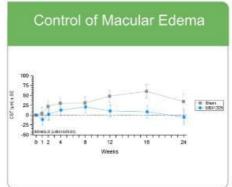
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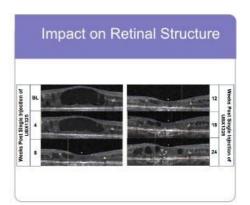
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# Key Highlights from Phase 2 BEHOLD DME Study 24-Week data underscore the therapeutic potential of UBX1325

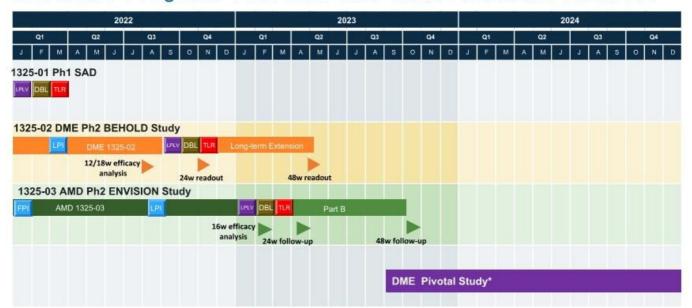






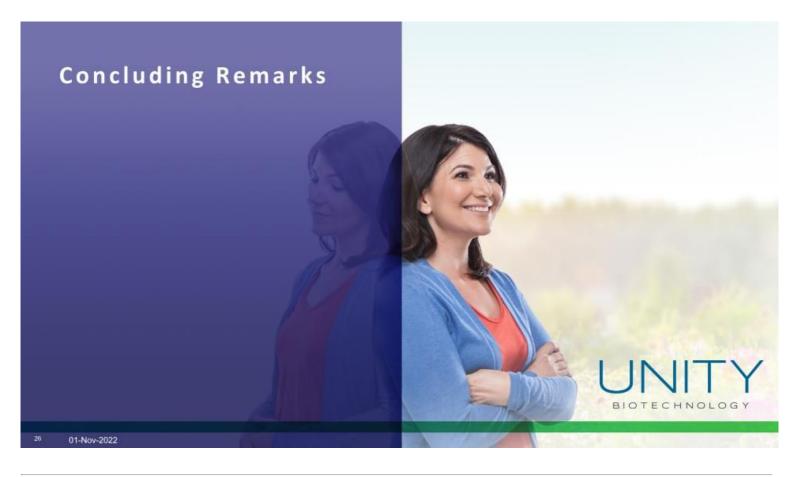


# UBX1325 Program Overview and Data Readouts 2022-24



\*intended for 2H2023; readout 2025

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## UBX1325 Has a Differentiated Profile With Best-In-Disease Potential

Potential to meaningfully change the treatment paradigm

Safety and Efficacy Profile	Current standard of care (Aflibercept)	aVEGF/Ang2 bispecific (Faricimab)	UBX1325
Favorable safety and PK profile	✓	✓	✓
Strong efficacy signal in broad patient population including sub-optimal anti-VEGF responders	X	X	✓
>50% patients achieve 6-month treatment free interval after single injection	X	X	<b>✓</b>
Reduction of ischemic regions of the retina and potential for disease modification	X	X	✓

✓supported by clinical data

✓ supported by preclinical data







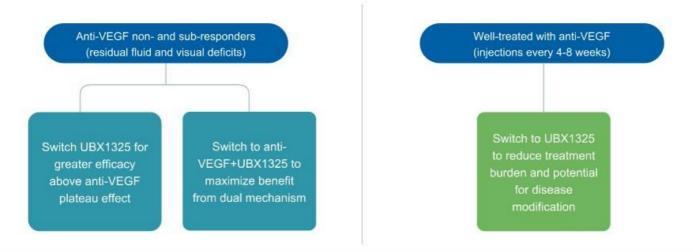
# **Market Snapshot**

#### **Financials**

- \$64.5 million cash, cash equivalents and marketable securities as of June 30, 2022.
  - Completed underwritten offering in August raising \$41.8 million in net proceeds
- Focused capital allocation to extend cash runway into 2024, funding UBX1325 Phase 2 proof-ofconcept studies and 48-week long-term extension



# Positioning of UBX1325 in Current DME Therapeutic Landscape



Patients achieving worse than 20/40 vision despite anti-VEGF treatment, represent a significant opportunity for UBX1325\*\*

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<sup>\*\* ~50%</sup> of patients on anti-VEGF do not achieve 20/40 vision after 2 years of treatment (Shimura M, et al. Br J Ophthalmol 2020;104:1209–1215)