Investor Presentation

September 2024

EYEPOINT® PHARMACEUTICALS

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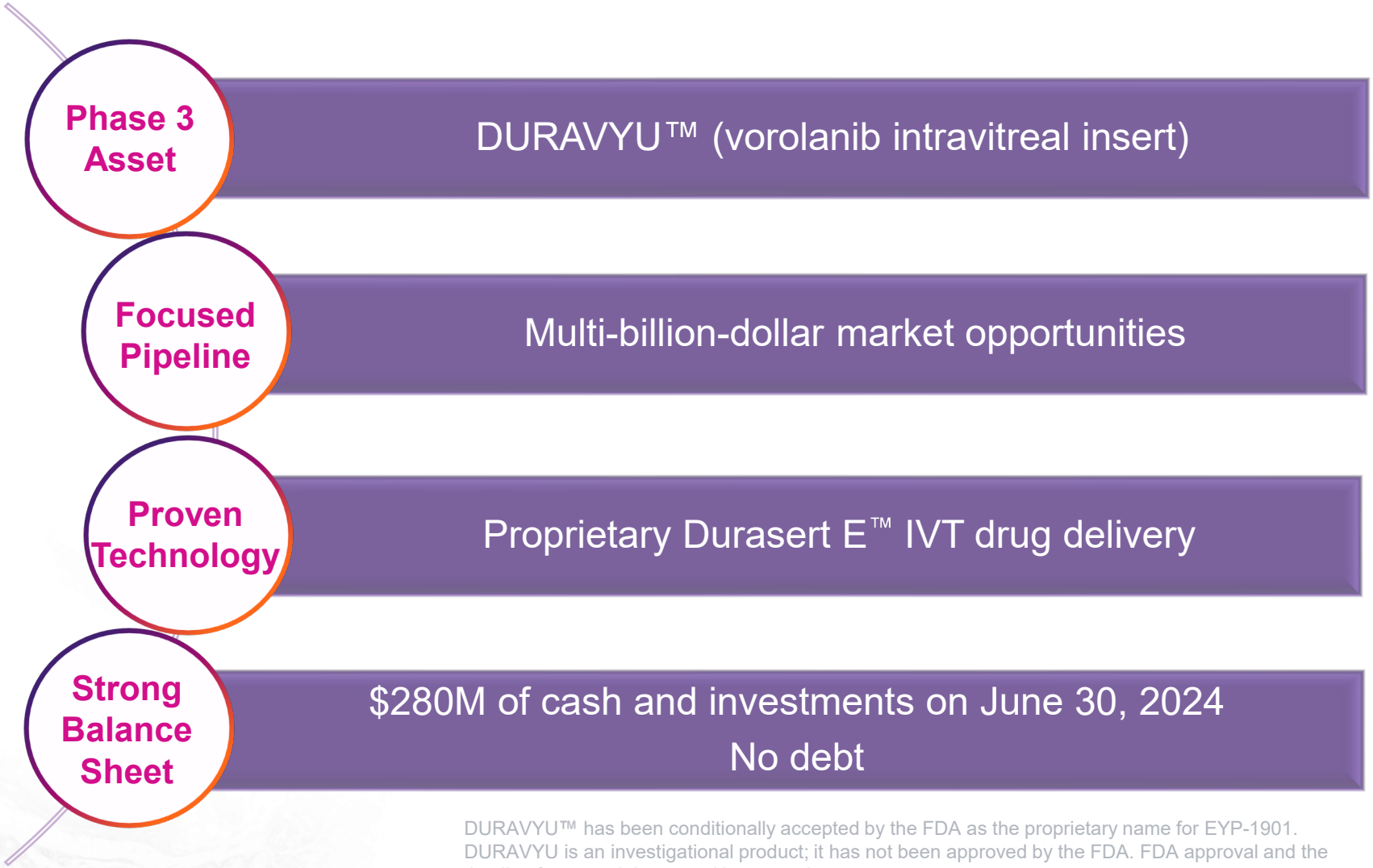
Committed to Developing Innovative Therapeutics to Improve the Lives of Patients with Serious Retinal Diseases

EyePoint Pharmaceuticals

Phase 3 Clinical Stage Biotech Company Pursuing Multi-Billion Dollar Markets



DURAVYU™ has been conditionally accepted by the FDA as the proprietary name for EYP-1901. DURAVYU is an investigational product; it has not been approved by the FDA. FDA approval and the timeline for potential approval is uncertain.

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Potential Multi Billion-Dollar Product Opportunities Leveraging Bioerodible Durasert E™ Drug Delivery Technology

Durasert E™ Programs	Indication	Discovery	Pre-Clin	Phase 1	Phase 2	Phase 3	Next Milestone
DURAVYU – vorolanib (tyrosine kinase inhibitor) (f/k/a EYP-1901)	**Wet AMD**	**PIVOTAL PHASE 3 TRIALS IN 2024**					First Phase 3 Trial patients dosing
	DME	**FULLY ENROLLED**					Topline data in Q1 2025
EYP-2301 – razuprotafib (TIE-2 agonist)	**serious retinal diseases**						Pre-clin tox and PK data
Complement inhibition	**GA**						Potential product candidate in 2024

non-clinical *trial underway*

wet AMD, wet age-related macular degeneration; SOC, standard of care; FPI, first patient in; DME, diabetic macular edema; GA, geographic atrophy

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TECHNOLOGY

BIOERODIBLE DURASERT E™

Safe, Sustained-Release IVT Drug Delivery

- Delivered via a **standard in-office IVT** injection
- Continuous dosing
- **Zero-order kinetics** drug release

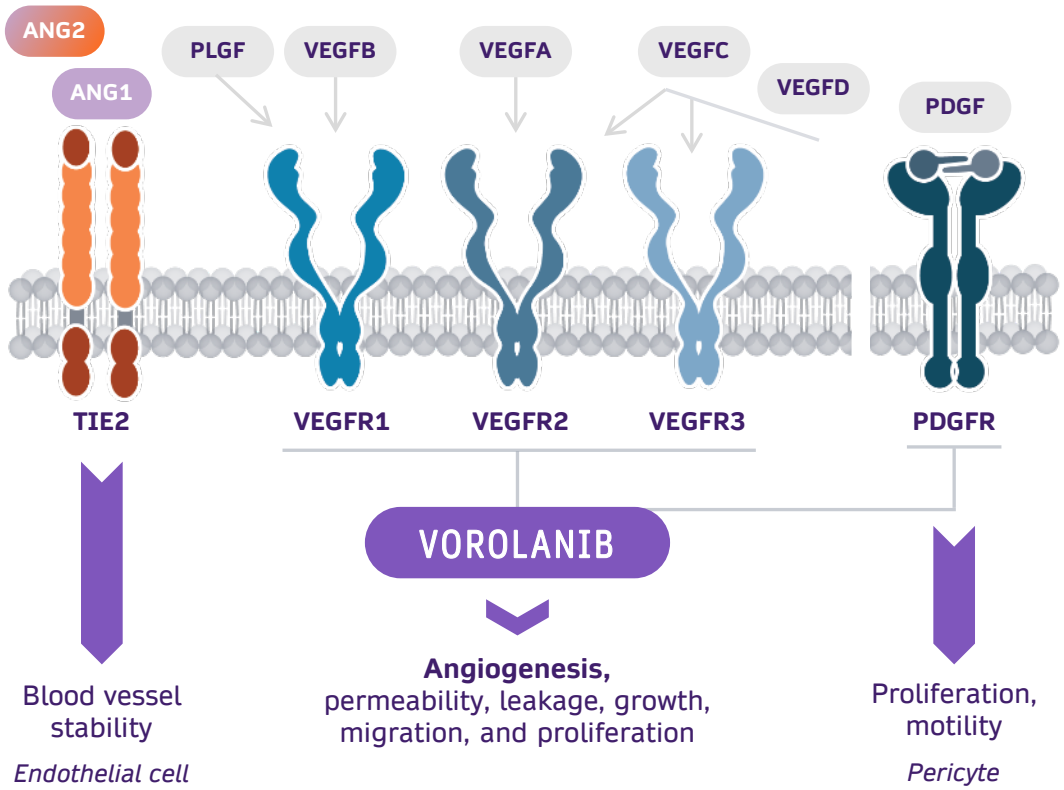
Durasert E™: bioerodible

- Drug embedded within a **bioerodible matrix** as a solid insert
- Designed to deplete drug load before **matrix fully erodes**
- **Favorable safety profile** across multiple indications

IVT, intravitreal

Vorolanib is a Potent and Highly Selective Pan-VEGF Receptor Inhibitor

- **Best-in-class** TKI
- Composition of matter **patent into 2037**
- Demonstrated **neuroprotection**
- Potential **antifibrotic**
- Does **not inhibit TIE-2**[1]



1. Sophie Bakri, M.D., et al. PLOS ONE, https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0304782, 2024.

VEGF(R), vascular endothelial growth factor (receptor); TKI, tyrosine kinase inhibitor; PDGF(R), platelet-derived growth factor (receptor); TIE-2, tyrosine-protein kinase receptor

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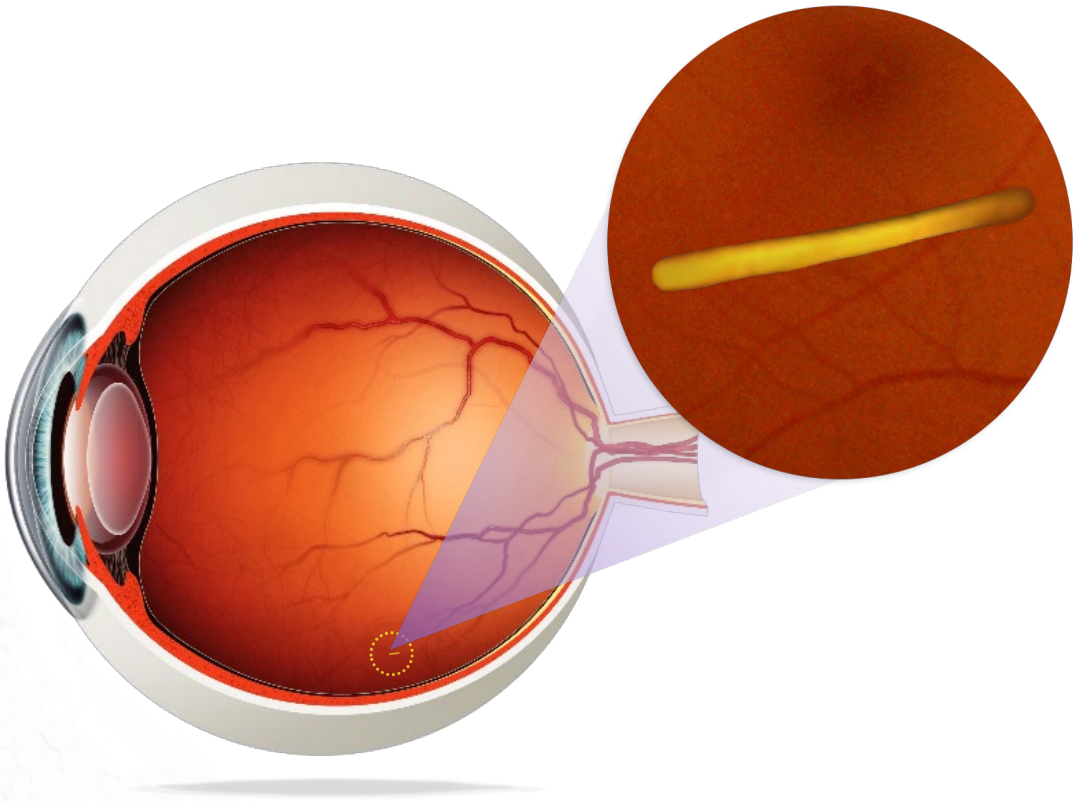
DURAVYU: Vorolanib in Bioerodible Durasert E™



- Solid insert is **94% drug** and **1/5000** of vitreous volume
- **Immediately bioavailable** – reaches therapeutic levels in target tissues within hours
- **Constant dosing** – zero-order kinetics release for at least six months
- **Controlled drug release** – bioerodible matrix controls drug release; **no free-floating drug**
- **No refrigeration** required – shipped and stored at ambient temperature

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DURAVYU Demonstrated Positive Efficacy Outcomes and Excellent Safety Profile Across Multiple Clinical Trials and Indications

DURAVYU Has Been Evaluated in 191 Patients to Date Across Multiple Indications

Clinical Trial	Indication	Safety	Key Efficacy Outcomes
DAVIO	wet AMD	**Favorable safety profile** **No DURAVYU related ocular or systemic SAEs**	• Stable BCVA and OCT • 74% reduction in treatment burden
DAVIO 2	wet AMD		• Statistically non-inferior BCVA vs on-label aflibercept • >80% reduction in treatment burden • Stable anatomy (OCT)
PAVIA	NPDR		• Stable or prevention of worsening disease severity
VERONA[1]	DME		• Trial underway

1. Interim, masked safety as of June 2024

Wet AMD, wet age-related macular degeneration; NPDR, non-proliferative diabetic retinopathy; DME, diabetic macular edema; SAEs, serious adverse events

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Phase 2 DAVIO 2 Positive Results in wet AMD

A NON-INFERIORITY TRIAL VERSUS AN AFLIBERCEPT CONTROL

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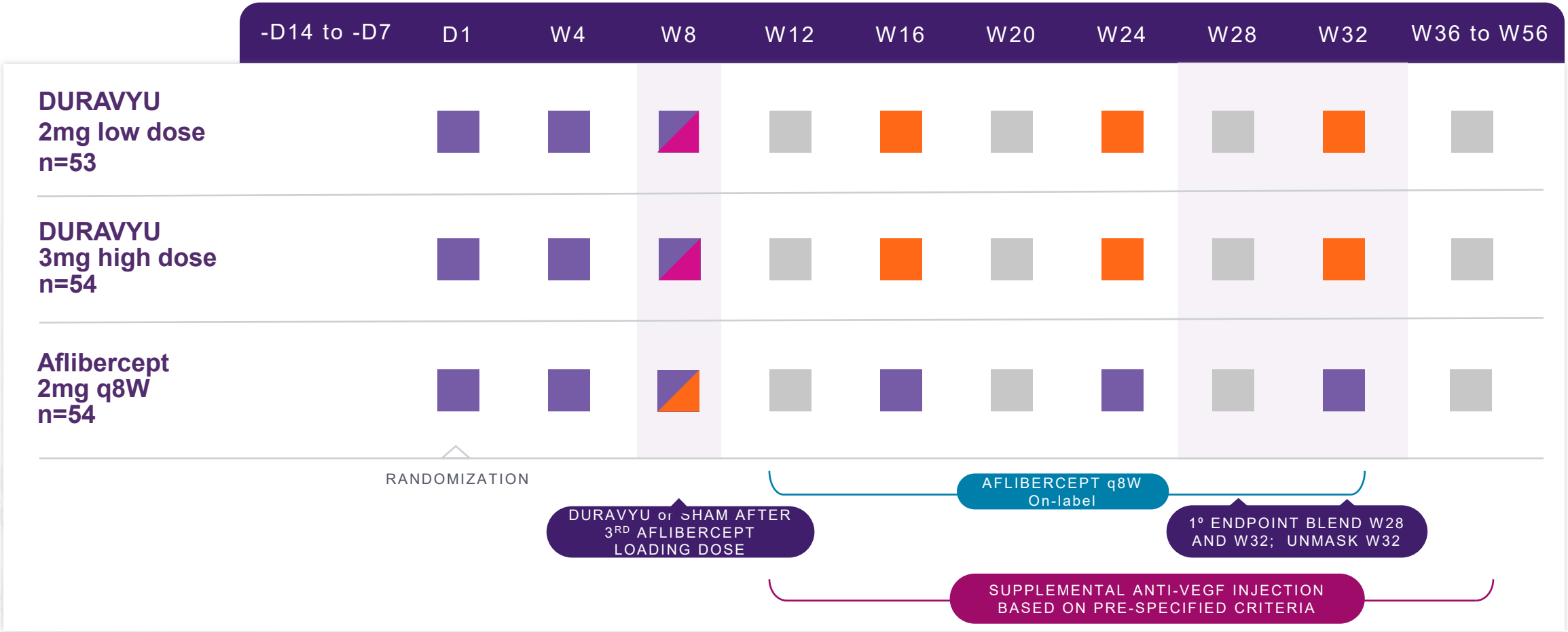
DAVIO 2 is Randomized, Double-Masked, Aflibercept Controlled* Trial with a Single DURAVYU Treatment at Two Doses



*Aflibercept on-label control required by FDA

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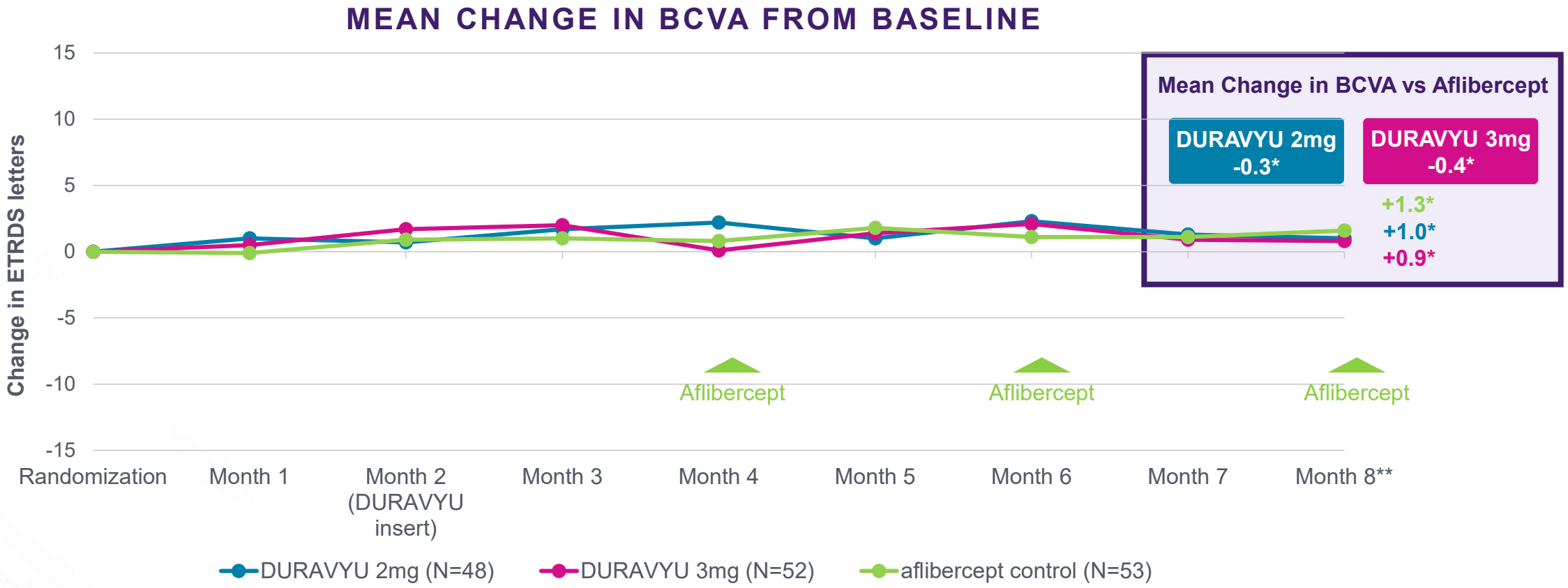
DURAVYU was Statistically Non-Inferior in Change in BCVA Compared to the Aflibercept Control (95% CI)



In the Pulsar trial, HD Eylea (16-week 8mg arm) change in BCVA vs. 2mg Eylea was -1.4 letters[1]

1 – AAO 2022 presentation, Paolo Lanzetta, on behalf of the PULSAR study investigators

*Blended week 28 and week 32 change vs. baseline
**Month 8 represents 6 months after DURAVYU injection
CI, Confidence Interval

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DURAVYU Demonstrated a Meaningful Reduction in Treatment Burden as a Potential Maintenance Treatment For Wet AMD

	DURAVYU 2mg	DURAVYU 3mg
Mean number of injections (week 8 through week 32)	0.55	0.73
Mean number of injections 6 months prior to screening (normalized)	4.98	5.02
Reduction in treatment burden vs. 6 months prior (%)	**89%**	**85%**

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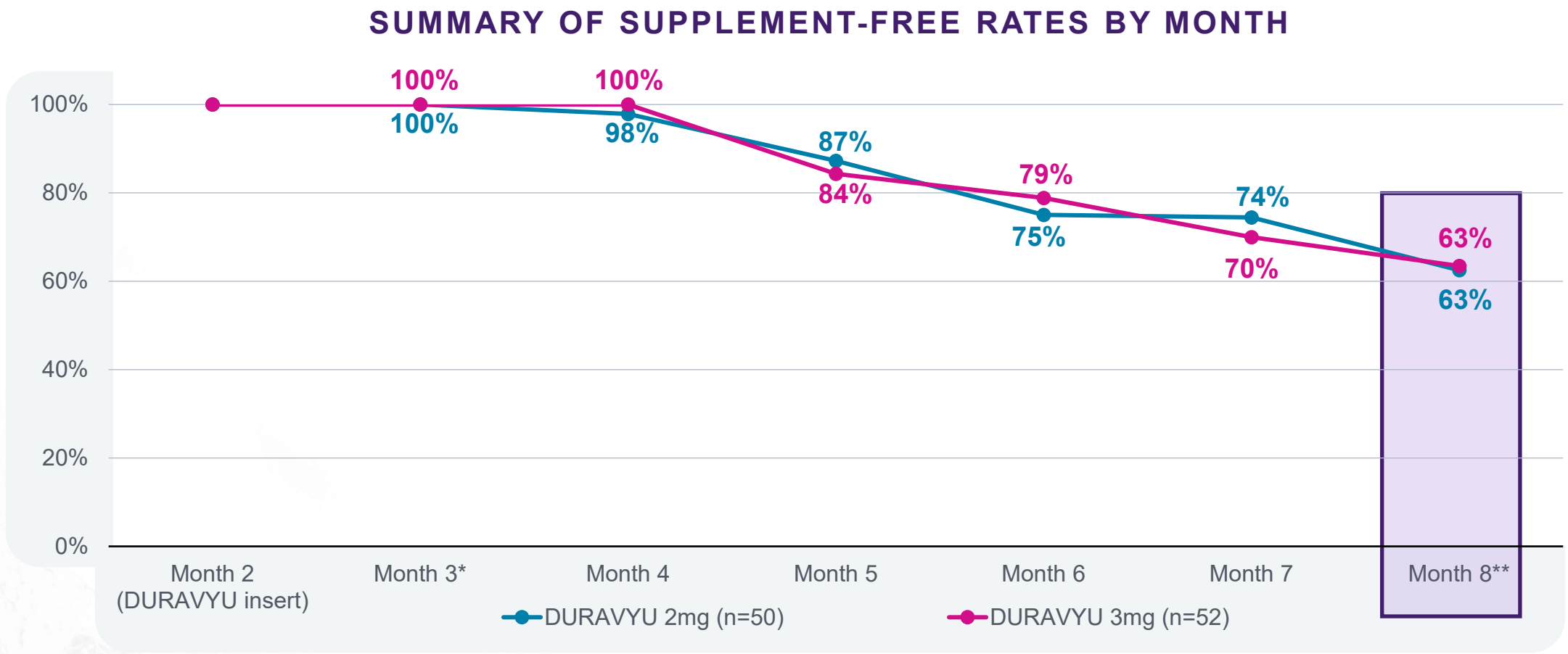
DURAVYU also Demonstrated a Meaningful Reduction in Treatment Burden When Measured Prospectively vs. the Aflibercept Control Arm

	DURAVYU 2mg	DURAVYU 3mg	Aflibercept 2mg q8W
Mean number of injections week 8 through week 32	0.55	0.73	3.28
Reduction in treatment burden vs. aflibercept control (%)	**83%**	**78%**	**NA**

Nearly Two-Thirds of Eyes Treated with DURAVYU were Supplement-Free up to Six-Months After a Single Treatment of DURAVYU



*First visit patients are eligible to be supplemented
**Month 8 represents 6 months post DURAVYU injection

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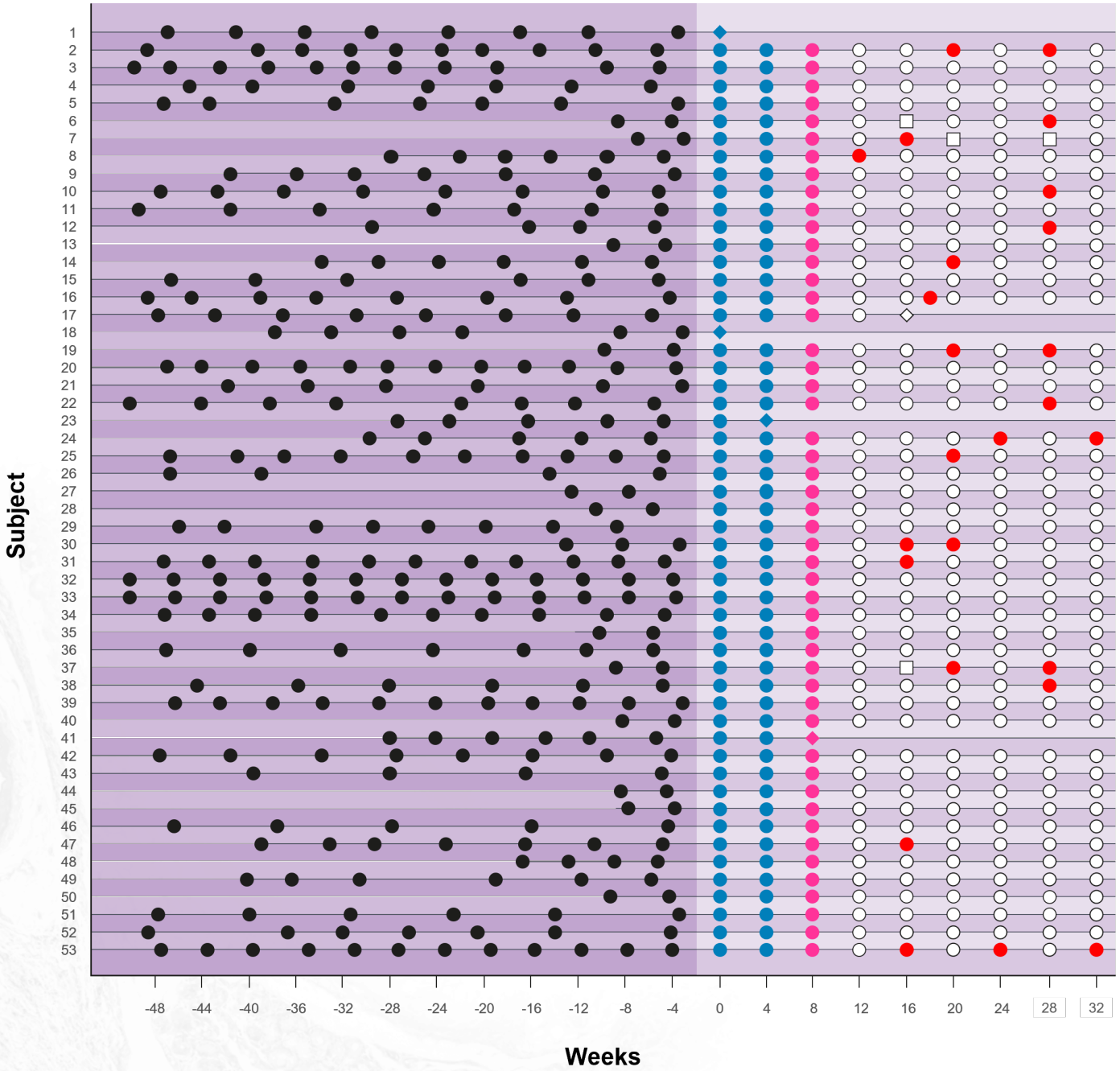
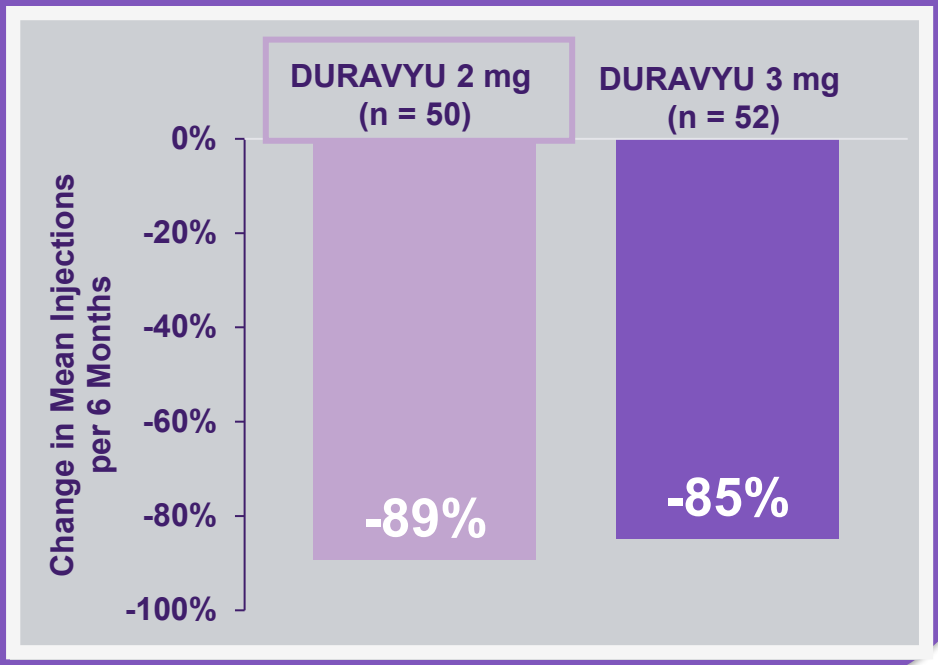


DURAVYU 2mg Dose Reduced Treatment Burden by 89% Compared to Prior 6 Months

Injections in year prior and during the DAVIO 2 trial

- Anti-VEGF injection
- Aflibercept loading dose
- Aflibercept + DURAVYU
- No injection
- Missed Visit
- Supplemental injection



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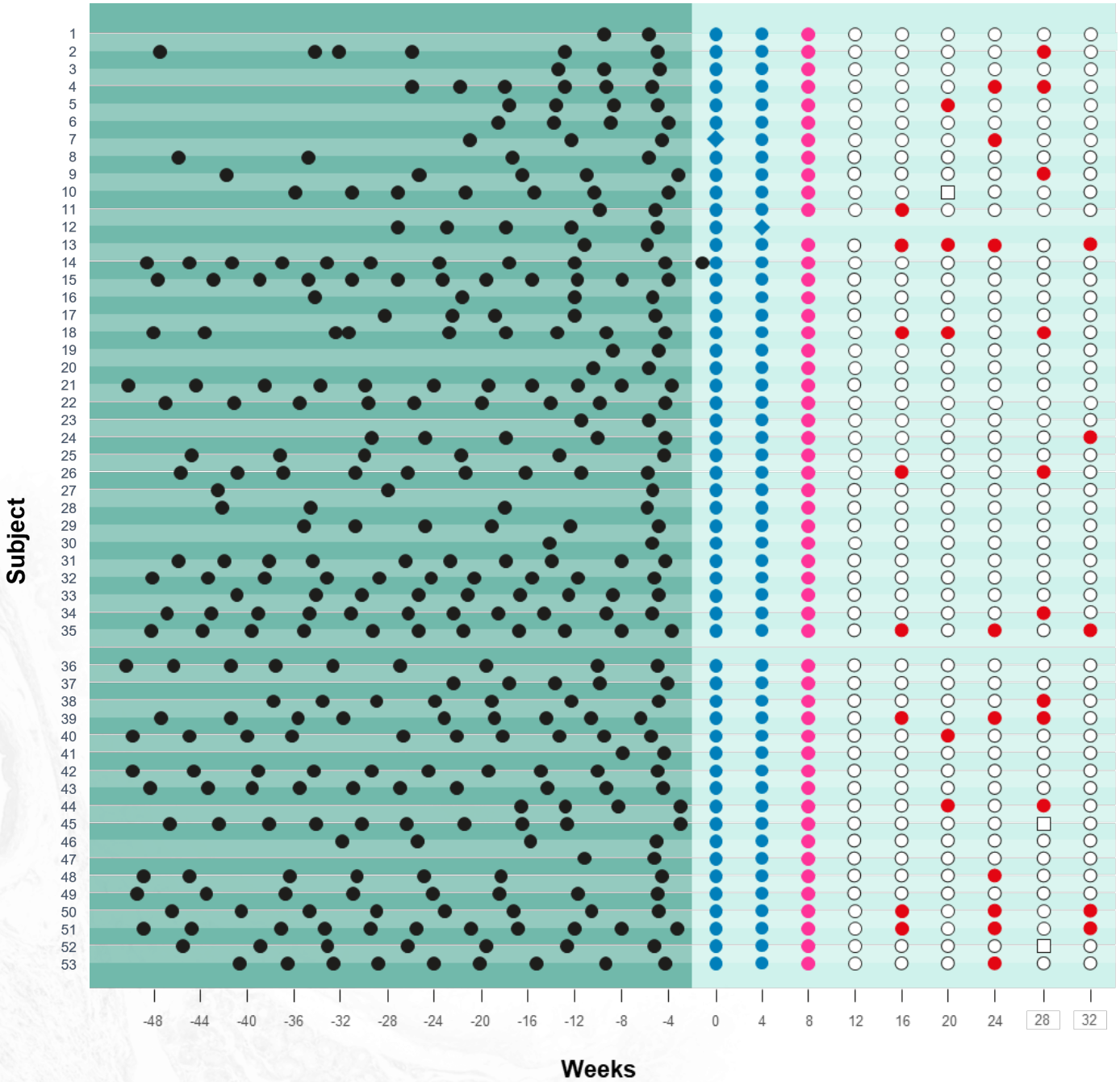
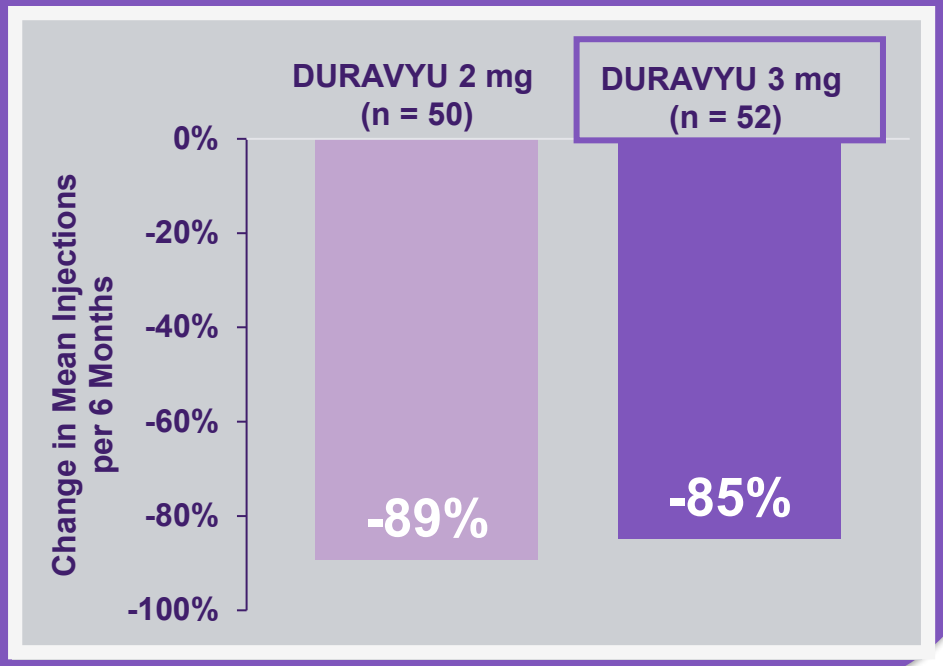


DURAVYU 3mg Dose Reduced Treatment Burden by 85% Compared to Prior 6 Months

Injections in year prior and during DAVIO 2 trial

- Anti-VEGF injection
- Aflibercept loading dose
- Aflibercept + DURAVYU
- No injection
- Missed Visit
- Supplemental injection



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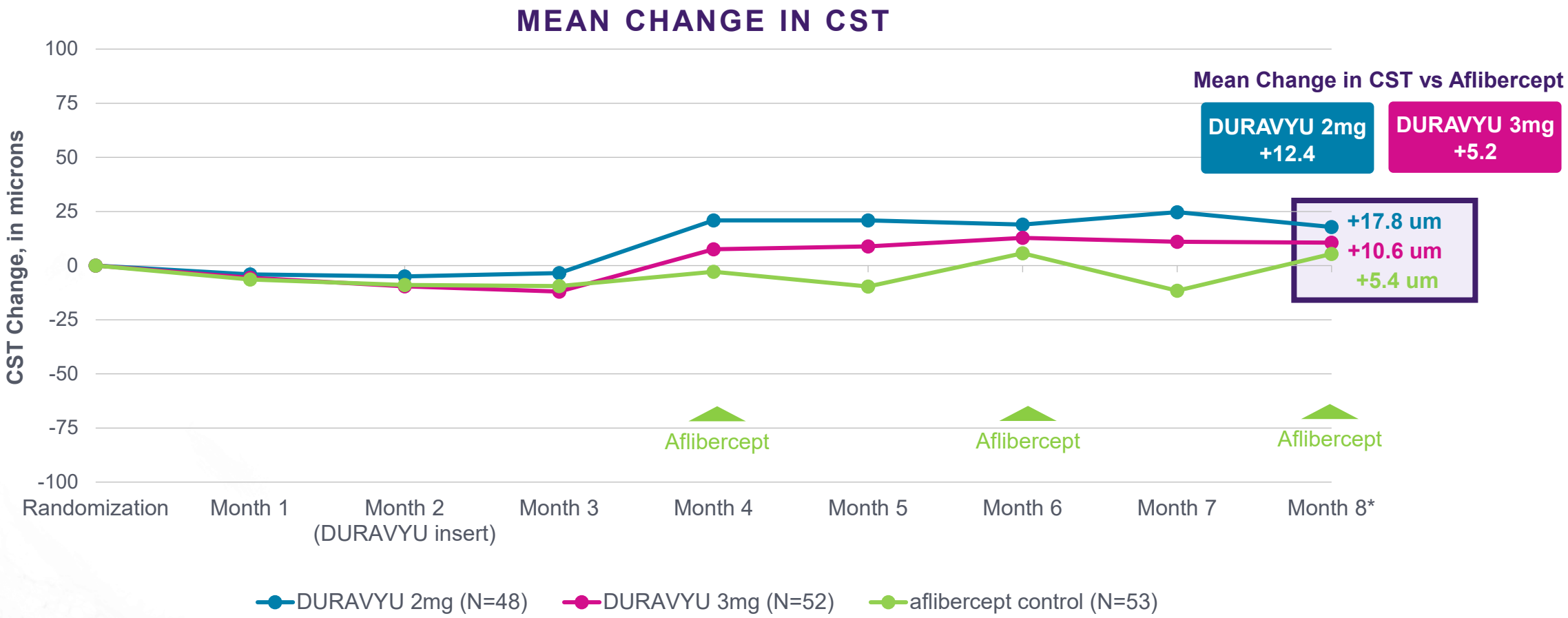
DAVIO 2 Data Demonstrates Strong Anatomic Control From a Single Treatment of DURAVYU



*Month 8 represents 6 months after first DURAVYU injection

DURAVYU Phase 2 DAVIO 2 Clinical Trial in Wet AMD Met All Primary and Secondary Endpoints

Endpoint	2mg	3mg
☑ **Primary**: Non-inferior change in BCVA vs. aflibercept	- 0.3 letters	- 0.4 letters
☑ **Secondary:** Favorable safety profile[1]	No DURAVYU-related SAEs	
☑ **Secondary:** Reduction in treatment burden vs. 6 mos. prior	89%	85%
☑ **Secondary:** Reduction in treatment burden vs. aflibercept	83%	78%
☑ **Secondary:** Supplement-free up to 6 months	63% 88% of eyes had 0 or 1 supplemental injections	63% 83% of eyes had 0 or 1 supplemental injections
☑ **Secondary:** Anatomical control vs. aflibercept	+12.4um	+5.2um

As of June 14, 2024 data cut

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Phase 2 DAVIO 2 Clinical Trial in Wet AMD

SUB-GROUP ANALYSIS OF PATIENTS ANTI-VEGF SUPPLEMENT-FREE UP TO 6 MONTHS

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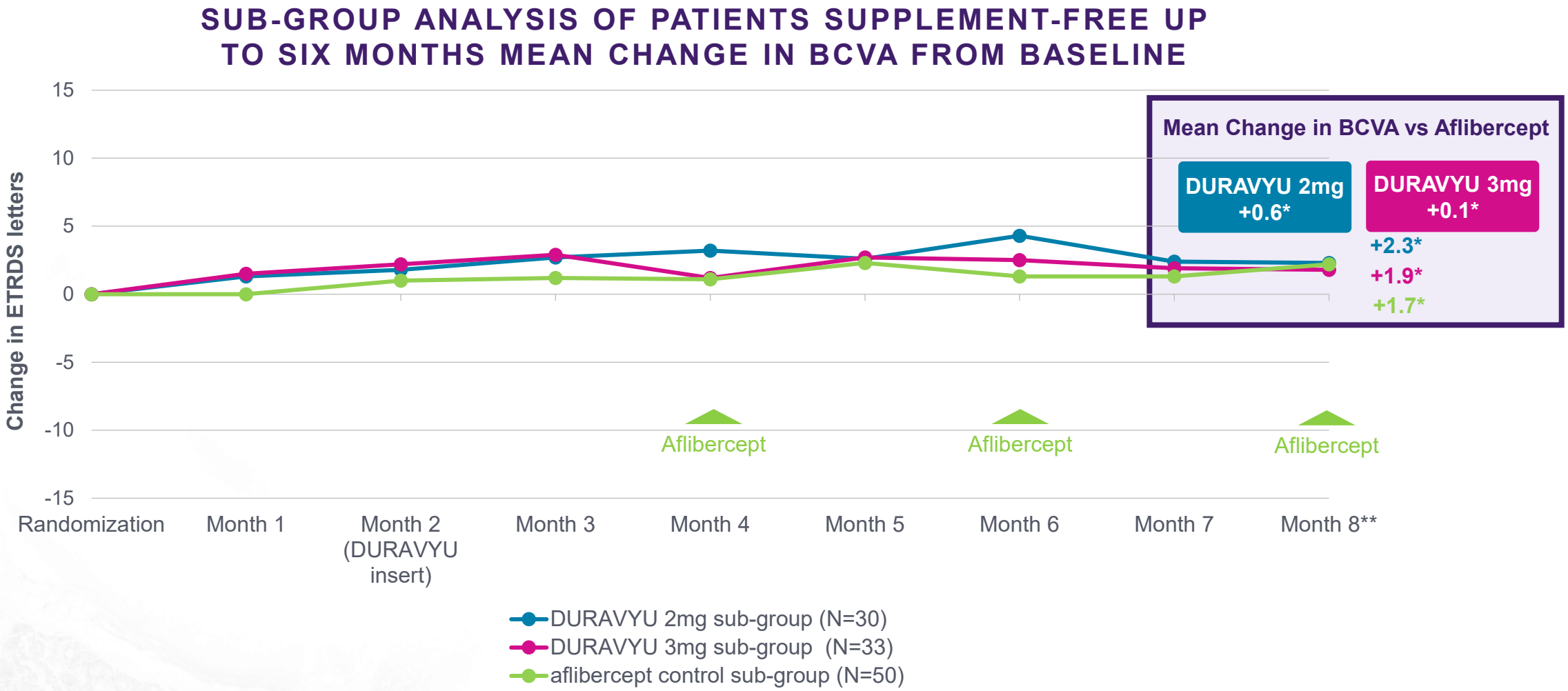
DURAVYU Treated Patients had Numerically Better Visual Acuity vs. Aflibercept On-Label Control Patients in Supplement-Free Sub-Group



*Blended week 28 and week 32 change vs. baseline
**Month 8 represents 6 months after DURAVYU injection

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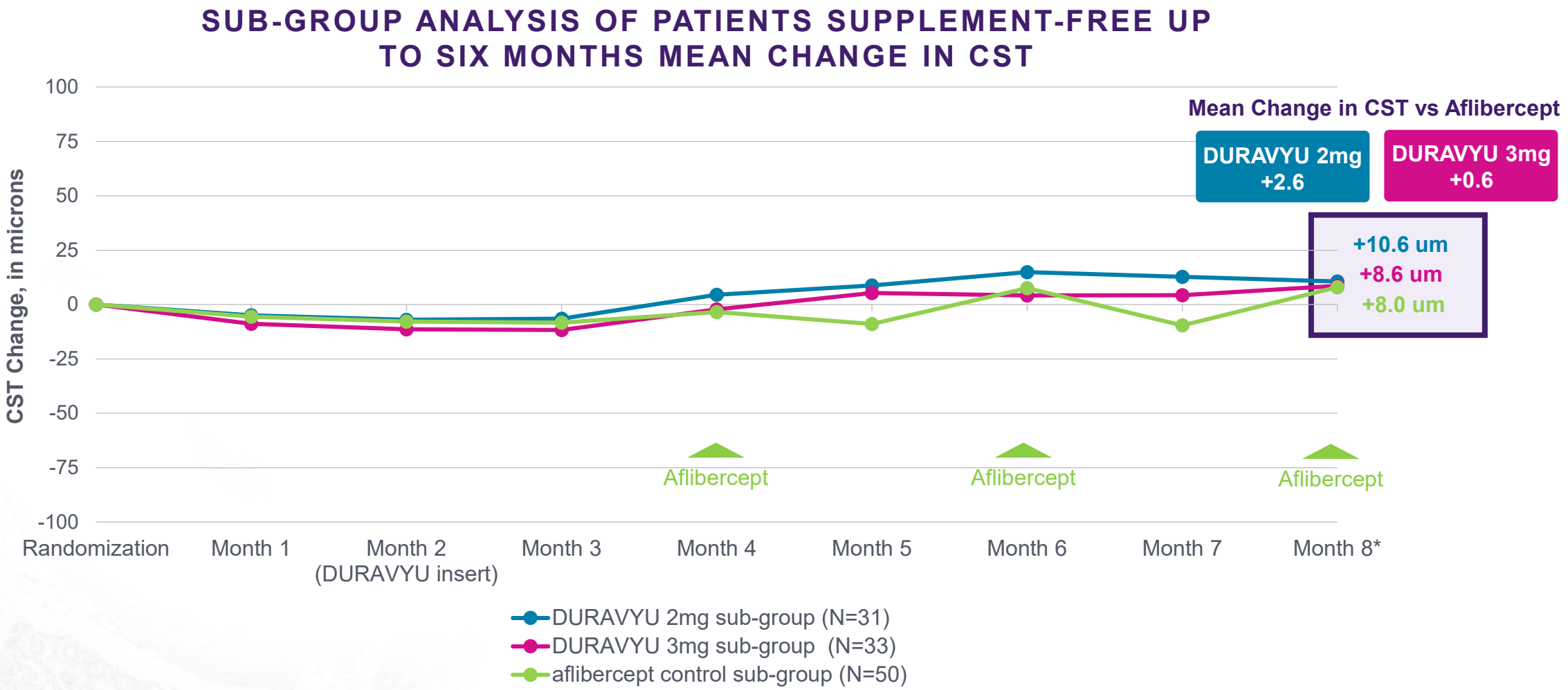
DURAVYU Treated Patients had Strong Anatomic Control vs. Aflibercept On-Label Control Patients in Supplement-Free Sub-Group



*Month 8 represents 6 months after first DURAVYU injection

Phase 2 DAVIO 2 Clinical Trial 12-Month Results in wet AMD

A NON-INFERIORITY TRIAL VERSUS AN AFLIBERCEPT CONTROL

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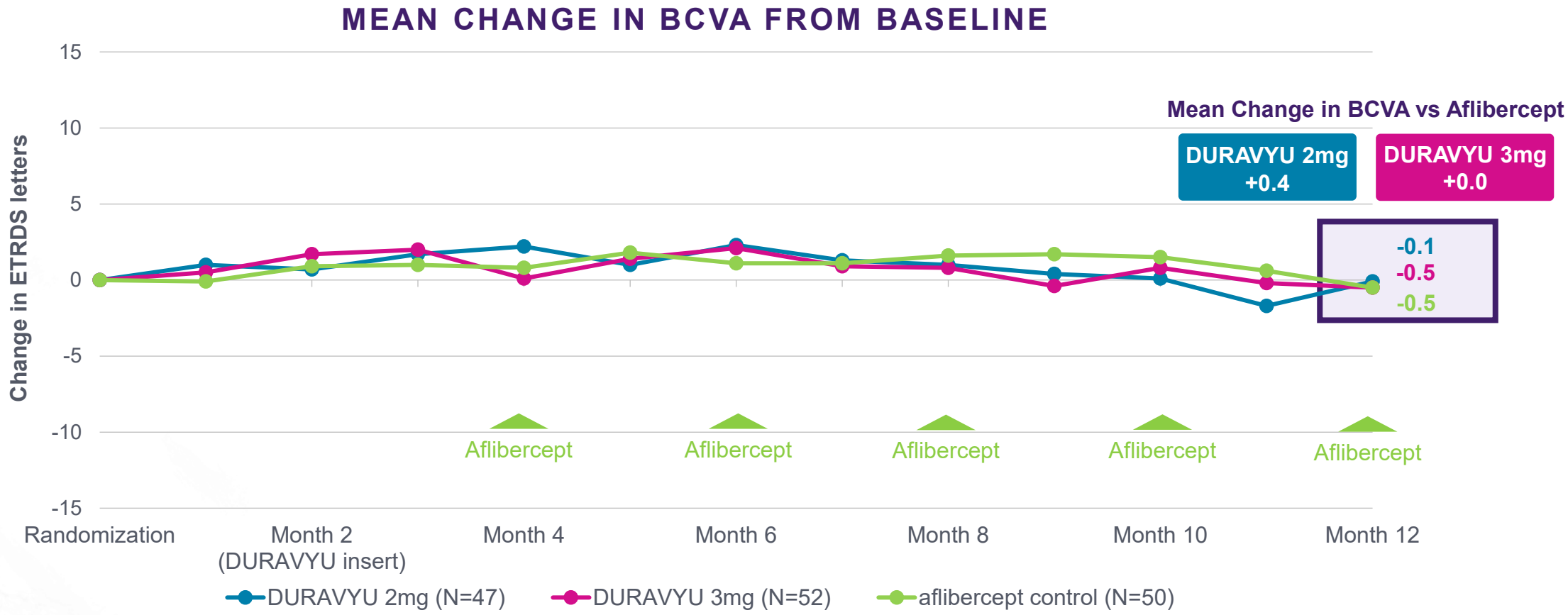
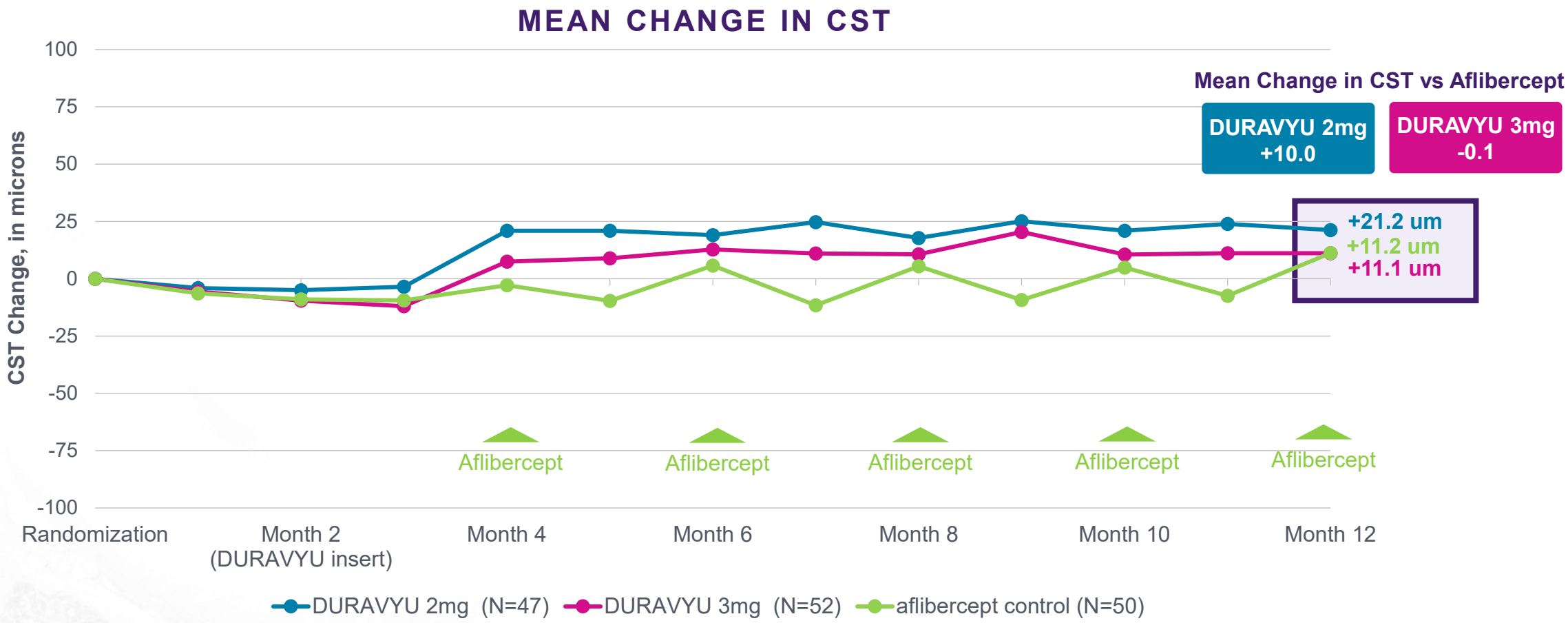
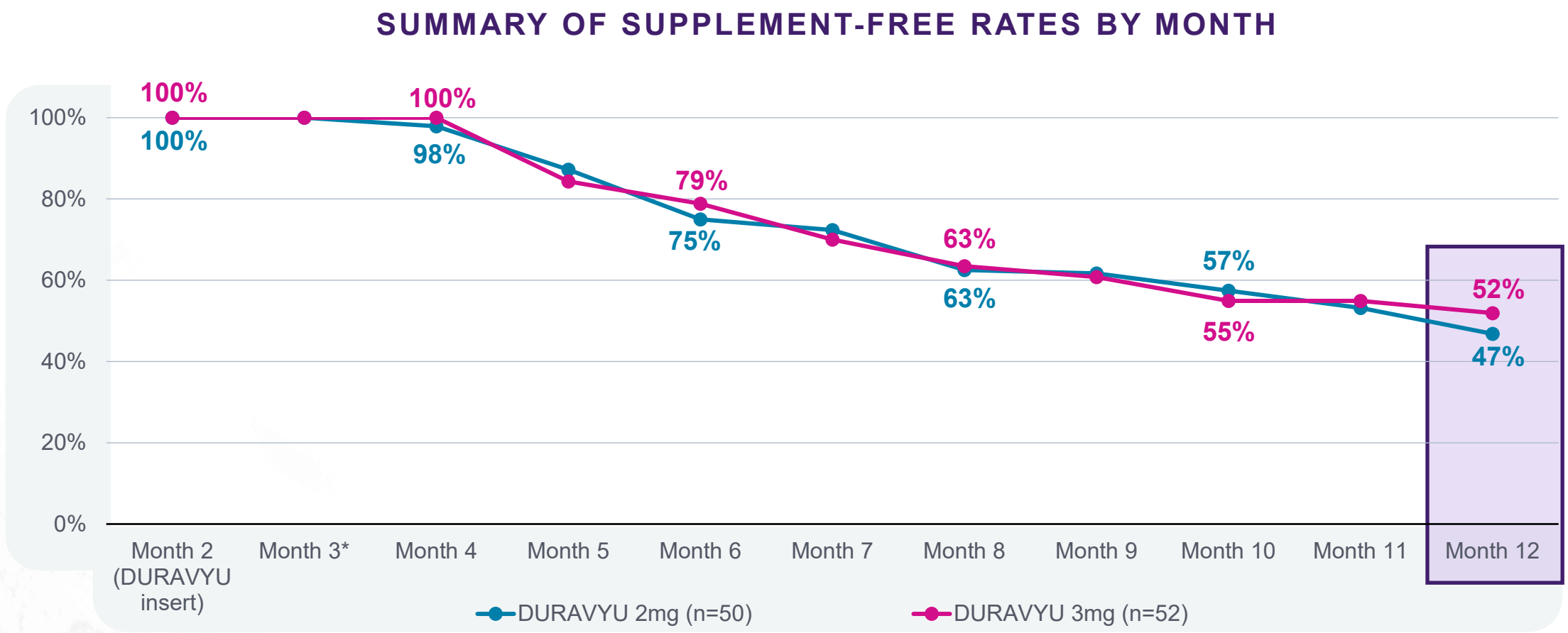
DURAVYU Treated Patients had Nearly Identical BCVA Change Compared to Aflibercept On-Label Through 12-Months After a Single Treatment of DURAVYU; Statistically Significant (95% CI)



DURAVYU Treated Patients Showed Strong Anatomic Control Through Month 12 From a Single Treatment of DURAVYU



DURAVYU Treated Patients had Clinically Meaningful Supplement-Free Rates After a Single Treatment



*First visit patients are eligible to be supplemented

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DURAVYU Demonstrated a Favorable Safety Profile Through Month 12

- No DURAVYU-related ocular or systemic SAEs[1]
- No insert migration into the anterior chamber
- No retinal occlusive vasculitis
- Low patient discontinuation rate
  - No discontinuations were related to DURAVYU treatment

1. As deemed by the investigator
Data as of June 14, 2024
SAE, serious adverse event; AE, adverse event; IVT, intravitreal injection

Phase 3 Pivotal Trials Design

NON-INFERIORITY VERSUS AN AFLIBERCEPT CONTROL

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Phase 3 Trials are Designed to Enable Global Regulatory Approval of DURAVYU

LUGANO/LUCIA: TWO GLOBAL, RANDOMIZED, DOUBLE-MASKED, AFLIBERCEPT CONTROLLED

OBJECTIVE

Demonstrate DURAVYU, when administered **every six months**, achieves similar visual outcomes to **on-label aflibercept** while **reducing treatment burden**

DESIGN

- Two global, **non-inferiority** trials
- US and ex-US sites in both trials
- **~400** patients per trial
- **Two arms**: 2.7mg DURAVYU vs. on-label aflibercept control

ENDPOINTS

Primary Endpoint: difference in mean change in BCVA from Day 1 to Week 52 and 56 (blended) versus aflibercept control

Secondary endpoints: safety, reduction in treatment burden, percent of eyes supplement-free, anatomical stability

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Phase 3 Program is Designed to Drive Global Regulatory and Commercial Success

KEY TRIAL DESIGN ELEMENTS

- Only sustained release wet AMD pivotal program to evaluate reinjection for label
- Trials will enroll patients with active wet AMD (previously treated and treatment naïve)
- All patients will receive three loading doses of aflibercept
- Sham injections will be used for masking
- Primary efficacy endpoint at 12 months (basis for NDA submission)
    - Safety will be monitored for 24 months

On track to be first sustained release wet AMD program with two pivotal trials to enable NDA submission to the FDA

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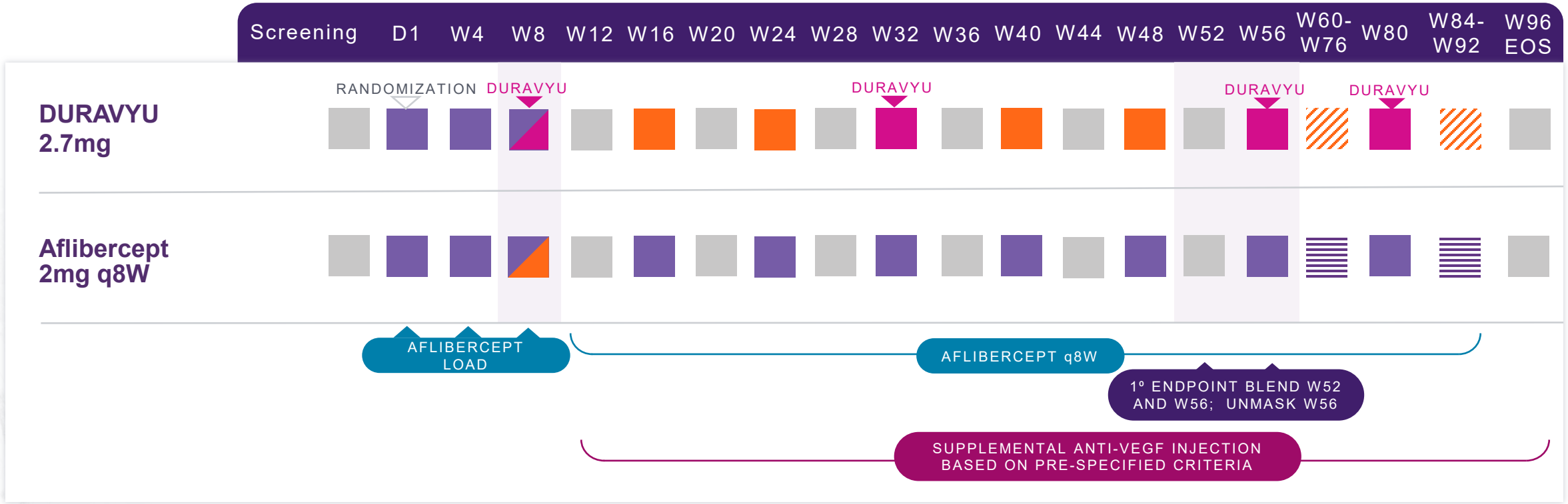
DURAVYU in Wet AMD Phase 3 Pivotal Trial Design



- REQUIRED AFLIBERCEPT INJECTION VISIT
- VISIT SCHEDULED
- DURAVYU DOSE
- SHAM INJECTION FOR MASKING
- AFLIBERCEPT Q8W
- SHAM INJECTION TO MASK FOR AFLIBERCEPT INJECTION

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Our Phase 3 Non-Inferiority Trials are Designed to Achieve Global Regulatory Success and Revolutionize Real-World Outcomes for Patients

- ✓ **FDA aligned study design –** two global non-inferiority trials vs. aflibercept control; consistent with historical FDA approvals
- ✓ **Broad patient population –** potential to enhance trial outcomes
- ✓ **6-month re-dosing –** only sustained release wet AMD pivotal program to evaluate reinjection for label
- ✓ **Expected rapid enrollment –** strong patient and physician support with >130 sites selected across US and ex-US

On track to dose first patients in 2024

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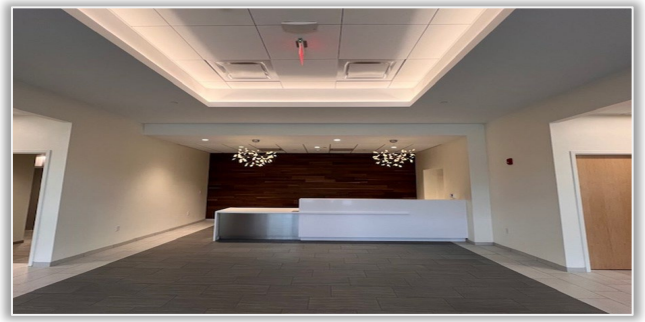
Commercial Manufacturing Facility

- New manufacturing site for clinical and commercial products
- Conveniently located in Northbridge, MA, near EyePoint headquarters
- Built to EYPT specifications with no capital investment required preserving cash
- Built to US FDA and EU EMA standards
- 40,000sf cGMP manufacturing facility



FDA, Federal Drug Administration; EMA, European Medicines Agency

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DURAVYU: vorolanib in Durasert E™

PHASE 2 VERONA CLINICAL TRIAL IN DIABETIC MACULAR EDEMA (DME)

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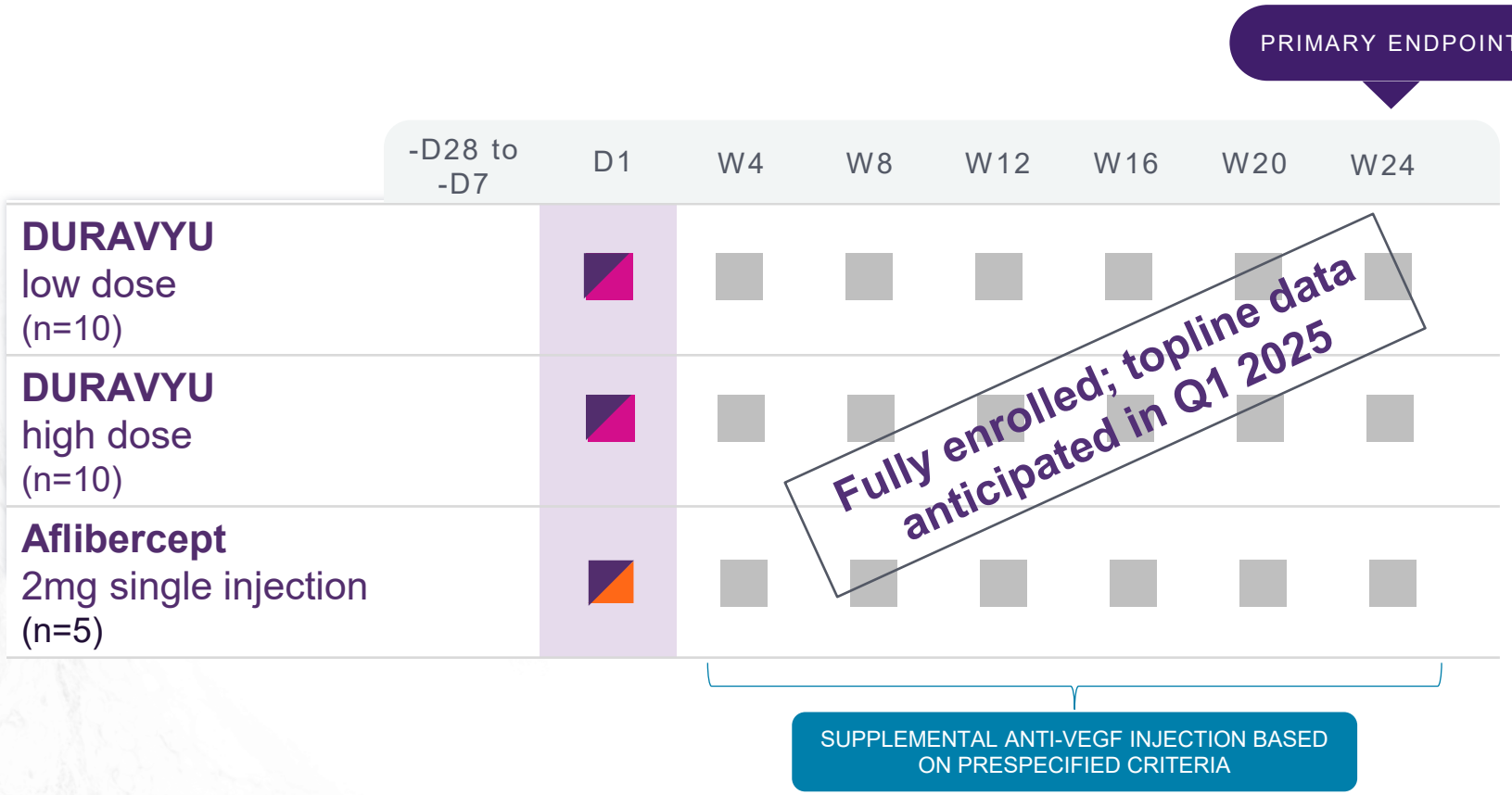
Phase 2 VERONA Clinical Trial is a Randomized, Open-Label, Aflibercept Controlled Trial with a Single DURAVYU Injection



- Potential 6-month treatment in previously treated DME patients
- Objectives:
  - Evaluate the safety and efficacy of two doses of DURAVYU in the DME patient population
  - Collect dose-ranging data to inform future clinical trials
- Primary endpoint: time to supplemental anti-VEGF injection up to week 24
- Secondary endpoints: Change in BCVA vs. aflibercept control, stable anatomical outcome as measured by OCT, DRSS over time

DME, diabetic macular edema; VEGF, vascular endothelial growth factor; BCVA, best corrected visual acuity; OCT, optical coherence tomography; DRSS, diabetic retinopathy score scale

EYP-2301: razuprotafib in Durasert E™

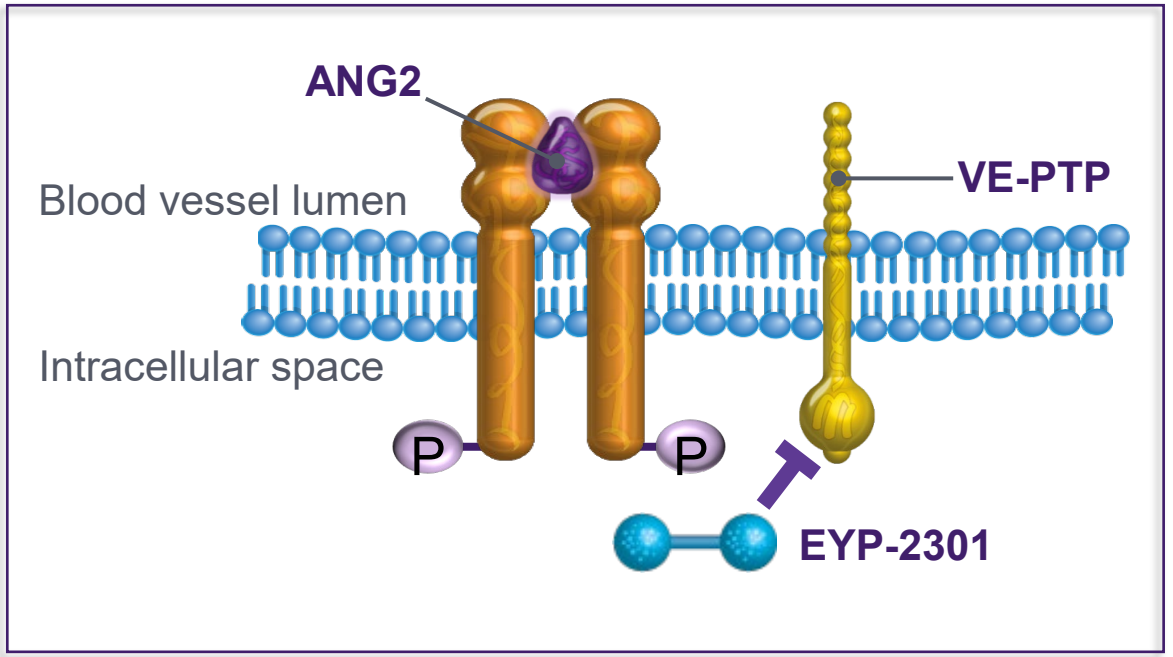
A SUSTAINED DELIVERY TIE-2 AGONIST FOR SEVERE RETINAL DISEASES

EyePoint Pharmaceuticals

EYP-2301: Razuprotafib in Durasert E™ is a Patented TIE-2 Agonist as a Potential New MOA for Treating Serious Retinal Diseases

EYP-2301 targets vascular endothelial protein tyrosine phosphatase (VE-PTP) to promote TIE-2 activation and maintain vascular stability in the retina

- Tie-2 activation combined with VEGF inhibition has the potential to **enhance efficacy and extend durability**[1] of treatment
- Razuprotafib (f/k/a AKB-9778) delivered subcutaneously demonstrated preclinical and **clinical proof of concept** in posterior segment disease [2,3]



1. Heier et al. Retina, 2021;41:1-19. and Joussen et al. Eye 2021; 35:1305-1316.; 2. Hammes, et. Al – Diabetes.2011 Jan 1; 3. Shen et al. JCI, 2014; 124:4564; 4. Campochiaro et al. Ophthalmology, 2016; 123:1722-1730

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Continued Execution And Well-Funded Through Key DURAVYU Milestones

DURAVYU™

✓	VERONA - DME Phase 2 Trial initiation	Q1 2024
✓	FDA conditional approval of DURAVYU proprietary name	March 2024
✓	Positive EOP2 meeting with FDA for wet AMD	Q2 2024
✓	PAVIA for NPDR topline data	Q2 2024
✓	DAVIO 2 12-month data	Q2 2024
☐	**First patients dosed - wet AMD Phase 3 trials**	**2H 2024**
☐	**VERONA Phase 2 DME topline data**	**Q1 2025**

Corporate

✓	Appointed new Chief Medical Officer	March 2024
✓	Expanded SAB with world-renowned retina specialists	April 2024
✓	R&D Day	June 2024
✓	Appointed Fred Hassan to Board of Directors	September 2024

DME, diabetic macular edema; EOP2, End of Phase 2; wet AMD, wet age-related macular degeneration; SAB, Scientific Advisory Board

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Clinical and Preclinical Data will be Presented at Multiple Scientific Conferences

Medical Conference	Data	Timing
Retina Society	Topline DAVIO 2 12-month data	September 2024
EURetina	DAVIO 2 sub-group analyses DAVIO 2 12-month data	September 2024
AAO	DAVIO 2 12-month sub-group analyses	October 2024
FloRetina	DAVIO 2 encore presentation	December 2024
Hawaiian Eye	DAVIO 2 sub-group analyses DAVIO 2 12-month data	January 2025

Publications	Link
Phase I DAVIO Trial: EYP-1901 Bioerodible, Sustained-Delivery Vorolanib Insert in Patients With Wet Age-Related Macular Degeneration Patel S, Storey P, Barakat M, et al. *Ophthalmology Science.* 2024 Apr 8:4(5)	https://www.ophthalmologyscience.org/article/S2666-9145(24)00063-0/fulltext
Vorolanib, sunitinib, and axitinib: A comparative study of vascular endothelial growth factor receptor inhibitors and their anti-angiogenic effects Bakri S, Lynch J, Howard-Sparks M, et al. *PLOS One*. 2024 June 4	https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0304782

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September 2024

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