KSI-301 Anti-VEGF Antibody Biopolymer Conjugate for Retinal Vein Occlusion: Primary 24-Week Efficacy and Safety Outcomes of the BEACON Phase 3 Pivotal Study

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on behalf of the BEACON Study Group

Unabridged version (includes slides 8, 17, 18, 22 and 23 that were not presented at EURETINA due to time constraints)

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Presenter's Financial Disclosures:

- Consultant: Abbvie, Adverum, AGTC, Aldebaran Therapeutics, Alimera, Apellis, Arrowhead, Asclepix, Aviceda, Bausch and Lomb, Broadwing Bio, Cholgene, 4DMT, Eyepoint, Frontera Therapeutics, Gemini, Genentech, Inc., Graybug, Gyroscope, Iveric Bio, Janssen, Kartos Therapeutics, Kato Pharma, Kodiak, Kriya Therapeutics, Ocular Therapeutix, Oculis, Ocuterra, Opthea, Oxurion, Nanoscope, Novartis, Perfuse, PolyPhotonix, Protagonist, Ray Therapeutics, Recens Medical, Regeneron, Retrotope, Regenxbio, RevOpsis, Roche, Stealth, Thea, Unity Bio, Vanotech, Vial
- Research Support: Adverum, Alkahest, Annexon, Apellis, Asclepix, 4DMT, Gemini, Genentech, Inc., Graybug Vision, Gyroscope, Iveric Bio, Kodiak, Neurotech, NGM Bio, Ocular Therapeutix, Oculis, Ocuterra, Opthea, Oxurion, Novartis, Recens Medical, Regenxbio, Roche, Unity Bio
- Speaker: Abbvie, Apellis, Bausch and Lomb, Genentech, Inc., Novartis
- Equity: Aviceda, Recens Medical, Retrotope, RevOpsis, PolyPhotonix
- This presentation will discuss IRB/IEC approved research of an investigational medicine.

RVO real-world anti-VEGF treatment outcomes fall short of clinical trial outcomes – more durable treatments are needed

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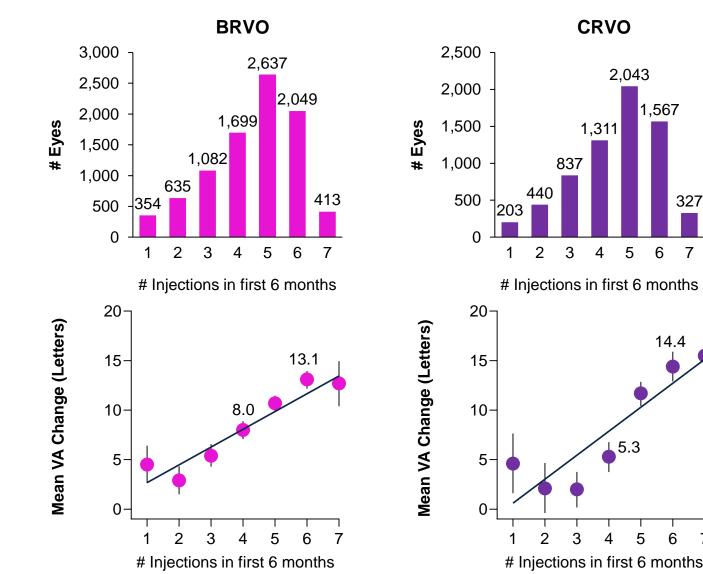
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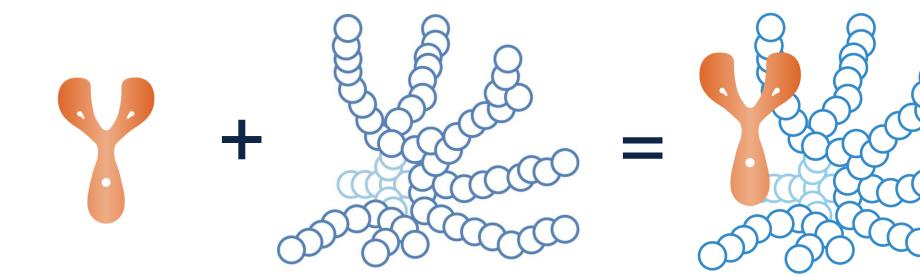
Monthly dosing is difficult to achieve in clinical practice, where 72% of patients received less than monthly dosing

With currently available anti-VEGFs, treatment less often than monthly compromises vision outcomes in RVO

A less frequent therapy that achieves comparable outcomes would be an important advance

Adapted from Ciulla T, et al. Br J Ophthalmol 2021;105:1696–1704. doi:10.1136/bjophthalmol-2020-317337. Represents 8,876 BRVO eyes, 6,737 CRVO eyes from Vestrum database. Mean 4.5 and 4.6 anti-VEGF injections over first 6 months (aflibercept, ranibizumab, or bevacizumab) in BRVO and CRVO, respectively. VA, Visual acuity. RVO, retinal vein occlusion. BRVO, branch retinal vein occlusion. CRVO, central retinal vein occlusion.

KSI-301 (tarcocimab tedromer): Antibody Biopolymer Conjugates (ABCs) A novel class of biologics engineered for increased durability and efficacy



ANTIBODY

IgG1 Anti-VEGF Antibody Immunologically inert

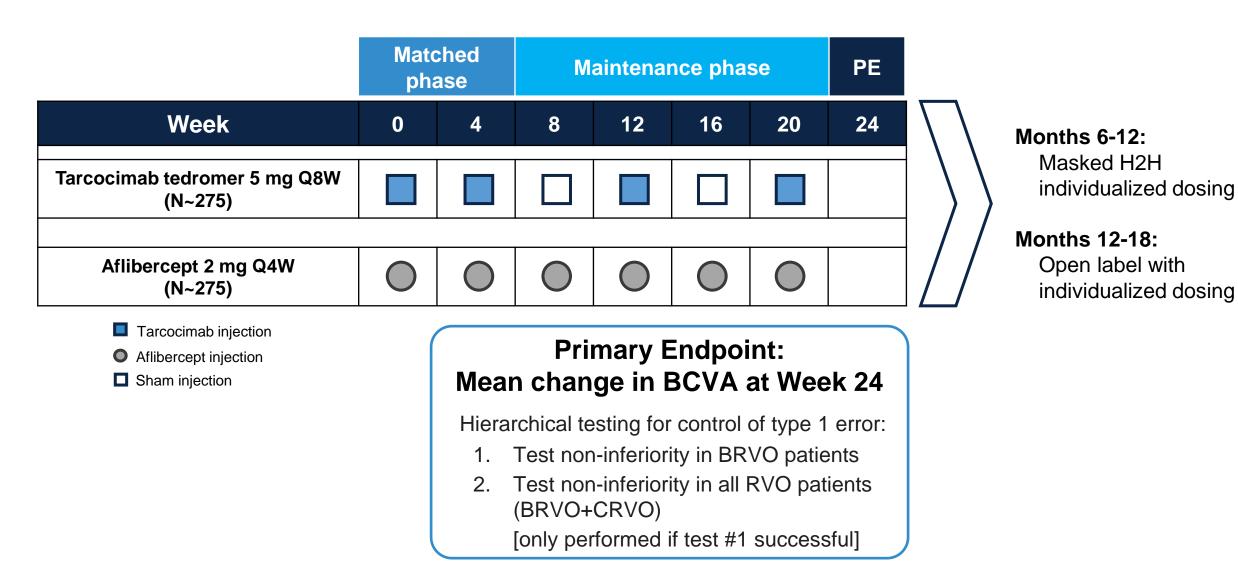
BIOPOLYMER

Branched, Optically Clear, High Molecular Weight Phosphorylcholine Polymer

CONJUGATE

KSI-301 (tarcocimab tedromer) is an anti-VEGF ABC that blocks all VEGF-A isoforms

BEACON: Phase 3 non-inferiority study of tarcocimab tedromer every 2 months after only two loading doses vs aflibercept every 1 month in treatment-naïve RVO patients



Key Ophthalmic Inclusion Criteria

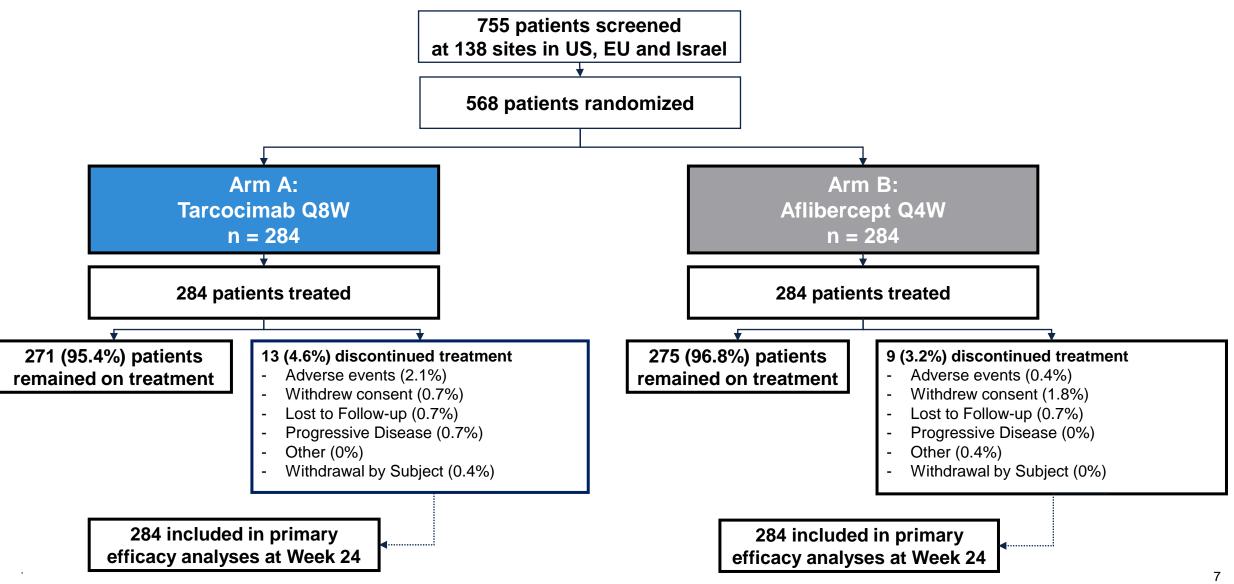
- Treatment-naïve macular edema secondary to RVO (BRVO or CRVO) of ≤ 6 months duration
- BCVA of 80 to 25 ETDRS letters (≈20/25 to 20/320 Snellen)
- CST of ≥320 microns on SD-OCT

Key Ophthalmic Exclusion Criteria

- Macular edema in the Study Eye considered to be secondary to a cause other than RVO
- Active iris or angle neovascularization, neovascular glaucoma, neovascularization of the optic disc, retinal neovascularization or vitreous hemorrhage in the Study Eye
- Significant media opacities, including cataract, in the Study Eye that might interfere with visual acuity, assessment of safety, optical coherence tomography or fundus photography
- Prior vitrectomy in the Study Eye
- Active retinal disease other than the condition under investigation in the Study Eye
- Any history or evidence of a concurrent ocular condition that in the opinion of the Investigator could require either medical or surgical intervention or affect macular edema or alter visual acuity during the study (e.g. vitreomacular traction)
- No specific exclusion for ischemic RVO

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Patient Disposition – discontinuations were low and balanced between groups; over 95% of patients remained on treatment at Week 24



Baseline Patient Demographics – comparable between groups

	Tarcocimab Q8W (n=284)	Aflibercept Q4W (n=284)
Gender		
Female	141 (49.6%)	138 (48.6%)
Male	143 (50.4%)	146 (51.4%)
Age at Randomization, years		
Mean (SD)	66.0 (11.76)	64.7 (11.32)
Ethnicity		
Hispanic or Latino	31 (10.9%)	29 (10.2%)
Not Hispanic or Latino	242 (85.2%)	246 (86.6%)
Chose Not to Respond	11 (3.9%)	9 (3.2%)
Race		
American Indian or Alaska Native	0	1 (0.4%)
Asian	5 (1.8%)	5 (1.8%)
Black or African American	23 (8.1%)	17 (6.0%)
Multiple	1 (0.4%)	2 (0.7%)
Other	4 (1.4%)	3 (1.1%)
White	240 (84.5%)	245 (86.3%)
Region		
Ex-US (Europe, Israel)	91 (32.0%)	91 (32.0%)
US	193 (68.0%)	193 (68.0%)

n = Number of participants treated; The denominator for percentages is the number of participants treated within each treatment arm

Baseline Ocular Characteristics – tarcocimab treated patients started at a slightly higher baseline BCVA

Parameter		nab Q8W 284)		ept Q4W 284)	
RVO Type , n (%) BRVO CRVO		220 (77.5%) 64 (22.5%)		218 (76.8%) 66 (23.2%)	
	BRVO n=220	All Patients n=284	BRVO n=218	All Patients n=284	
BCVA, ETDRS Letters, mean (SD)	62.6 (12.24)	61.0 (13.19)	61.4 (13.33)	59.8 (14.18)	
BCVA Category, n (%) ≤ 49 ETDRS Letters 50 – 69 ETDRS Letters 70 – 80 ETDRS Letters	27 (12.3%) 120 (54.5%) 73 (33.2%)	45 (15.8%) 155 (54.6%) 84 (29.6%)	30 (13.8%) 118 (54.1%) 70 (32.1%)	47 (16.5%) 155 (54.6%) 82 (28.9%)	
Disease Duration, n (%) < 3 months ≥3 months	201 (91.4%) 19 (8.6%)	262 (92.3%) 22 (7.7%)	195 (89.4%) 23 (10.6%)	256 (90.1%) 28 (9.9%)	
OCT Central Subfield Thickness (CST), μm, mean (SD)	526.0 (160.20)	568.4 (187.07)	543.5 (162.91)	587.5 (197.63)	
Intraocular Pressure, mmHg, mean (SD)	15.3 (3.22)	15.1 (3.24)	15.3 (3.24)	15.2 (3.20)	

n = Number of participants treated; The denominator for percentages is the number of participants treated within each treatment arm.

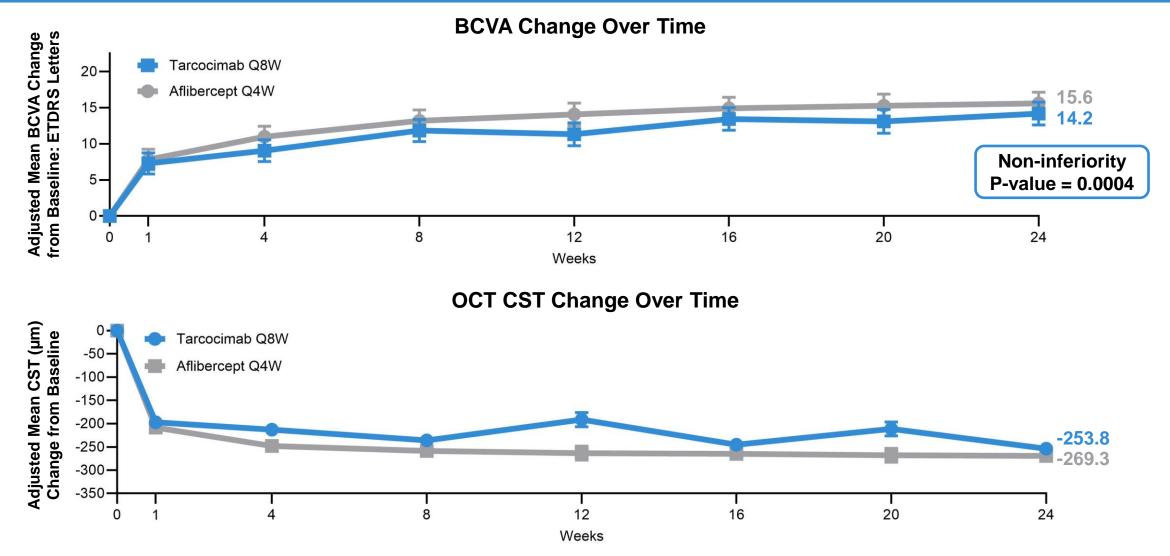
RVO: retinal vein occlusion; BRVO: branch retinal vein occlusion; CRVO: central retinal vein occlusion; BCVA: best-corrected visual acuity; ETDRS: early treatment diabetic retinopathy study; OCT: optical coherence tomography

First Time Results

Primary Endpoint Met

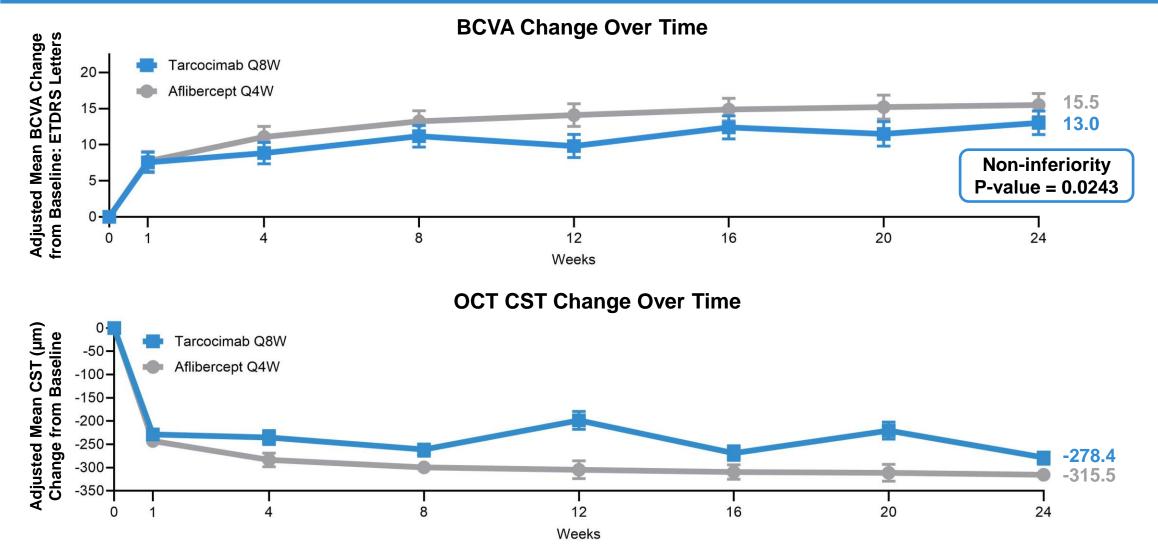
Tarcocimab Q8W was non-inferior to aflibercept Q4W in both analyses

Tarcocimab Q8W improved BCVA and OCT CST comparably to aflibercept Q4W from baseline to Week 24 in <u>BRVO patients</u> – non-inferiority to aflibercept demonstrated



Results are based on a mixed model repeated measures (MMRM) analysis, with the change from baseline value as the dependent variable; treatment, visit (Week 1 through Week 24), and treatment by visit interaction as fixed effects; randomization stratification variables [baseline BCVA (\geq 70, 69-50 and \leq 49 letters), disease duration (<3 months or \geq 3 months), and geographical location (North America and Rest of World)] as covariates; and subject as a random effect. Non-inferiority margin = 4.5 ETDRS letters. Δ (95.02% CI): -1.4 (-3.11, 0.30) for tarcocimab - aflibercept. BCVA: best-corrected visual acuity; ETDRS: early treatment diabetic retinopathy study; OCT: optical coherence tomography; CST: central subfield thickness. 95% CI are displayed.

Tarcocimab Q8W improved BCVA and OCT CST comparably to aflibercept Q4W from baseline to Week 24 in <u>all RVO patients</u> – non-inferiority to aflibercept demonstrated

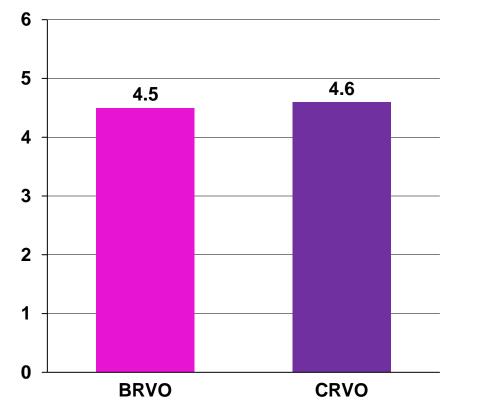


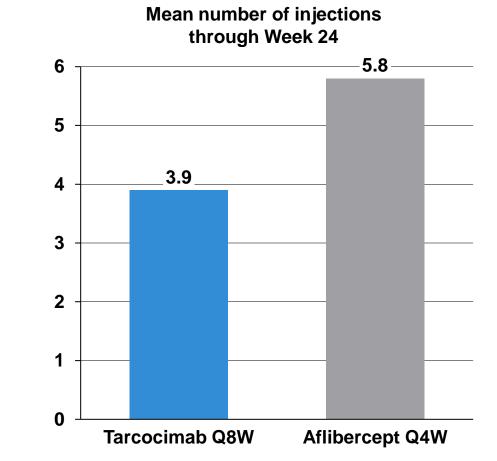
Results are based on a mixed model repeated measures (MMRM) analysis, with the change from baseline value as the dependent variable; treatment, visit (Week 1 through Week 24), and treatment by visit interaction as fixed effects; randomization stratification variables [RVO subtype (CRVO and BRVO), baseline BCVA (\geq 70, 69-50 and \leq 49 letters), disease duration (<3 months or \geq 3 months), and geographical location (North America and Rest of World)] as covariates; and subject as a random effect. Non-inferiority margin = 4.5 ETDRS letters. Δ (95.02% CI): -2.5 (-4.24, -0.71) for tarcocimab - aflibercept. BCVA: best-corrected visual acuity; ETDRS: early treatment diabetic retinopathy study; OCT: optical coherence tomography; CST: central subfield thickness. 95% CI are displayed.

Tarcocimab is the first anti-VEGF therapy to demonstrate non-inferior vision outcomes with fewer doses than the average used in clinical practice

Real World Evidence¹

Mean number of anti-VEGF injections in the first 6 months of RVO treatment

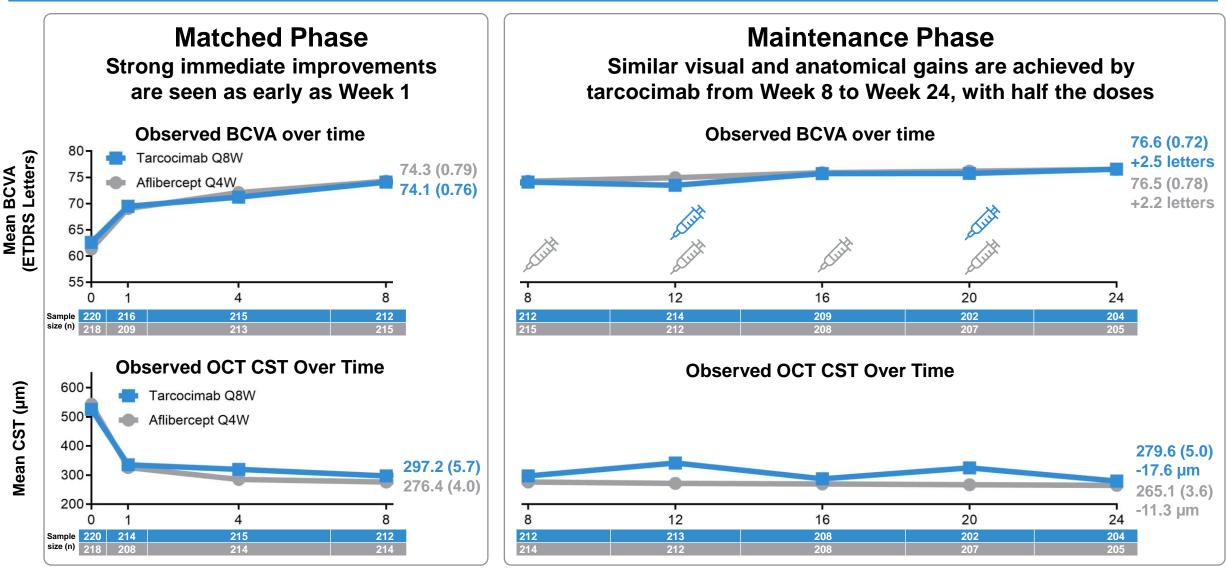




BEACON

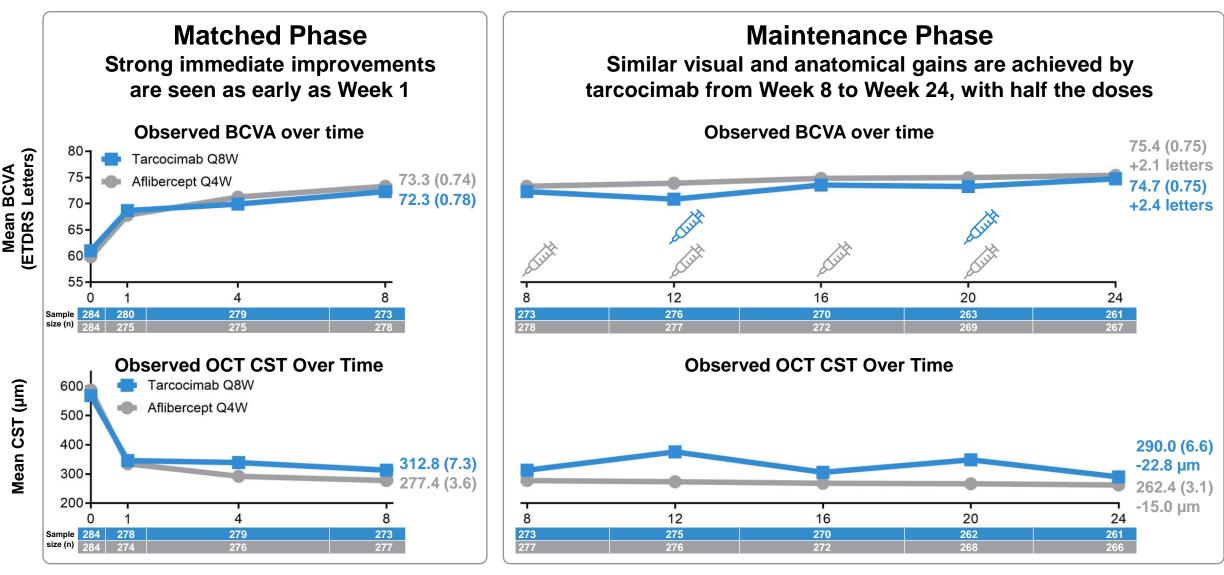
1. Ciulla T, et al. Br J Ophthalmol 2021;105:1696–1704. doi:10.1136/bjophthalmol-2020-317337. Represents 8,876 BRVO eyes, 6,737 CRVO eyes from Vestrum database. Mean 4.5/4.6 anti-VEGF injections over first 6 months (aflibercept, ranibizumab, or bevacizumab).

Tarcocimab achieved comparable visual and anatomical outcomes in <u>BRVO patients</u>, in both the matched phase and the maintenance phase



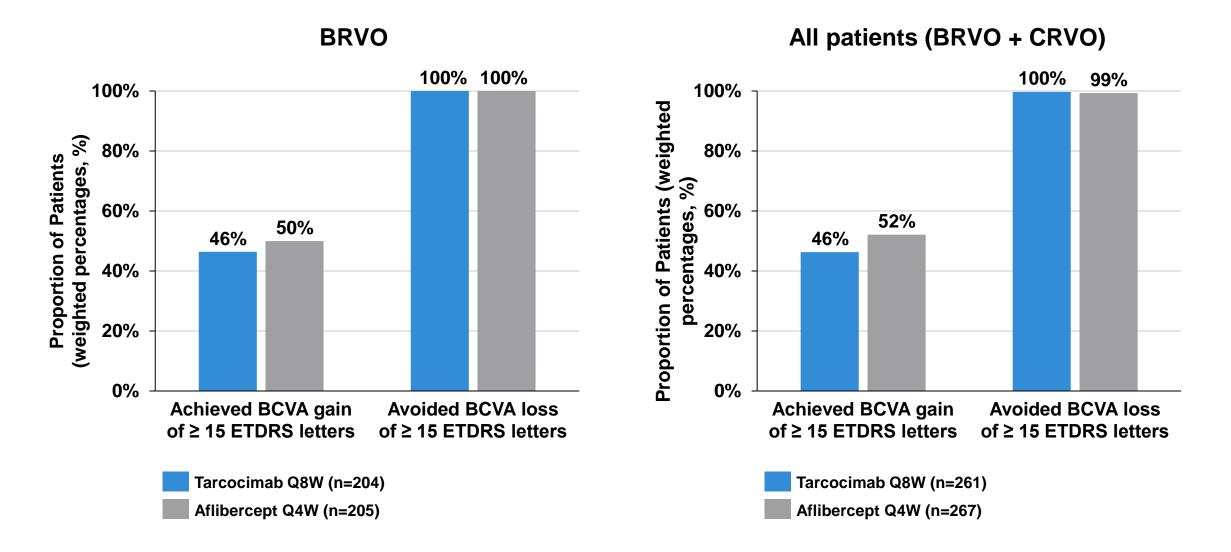
Observed data, graphed as Mean ± Standard Error of the Mean; Week 8 and 24 datapoints are Mean (Standard Error of the Mean). Standard errors are not visible on the graphs BCVA: best-corrected visual acuity; ETDRS: early treatment diabetic retinopathy study; OCT: optical coherence tomography; CST: central subfield thickness.

Similarly, tarcocimab achieved comparable visual and anatomical outcomes in <u>all RVO patients</u>, in both the matched phase and the maintenance phase

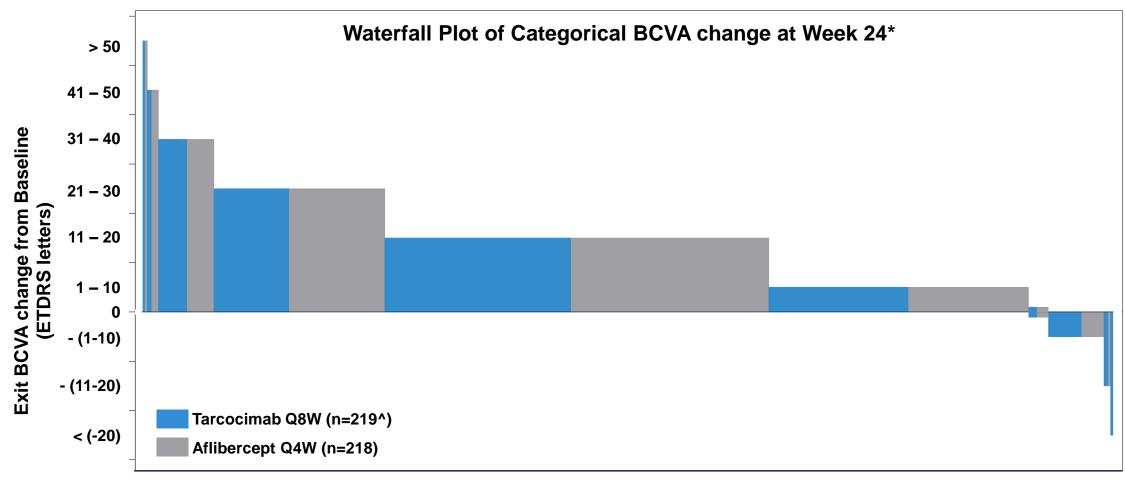


Observed data, graphed as Mean ± Standard Error of the Mean; Week 8 and 24 datapoints are Mean (Standard Error of the Mean). Standard errors are not visible on the graphs BCVA: best corrected visual acuity; ETDRS: early treatment diabetic retinopathy study; OCT: optical coherence tomography; CST: central subfield thickness.

Secondary endpoints: Comparable proportions of tarcocimab Q8W and aflibercept Q4W patients gained or maintained vision at Week 24



Tarcocimab Q8W achieved similar distribution of vision outcomes among <u>BRVO patients</u> compared to aflibercept Q4W at Week 24

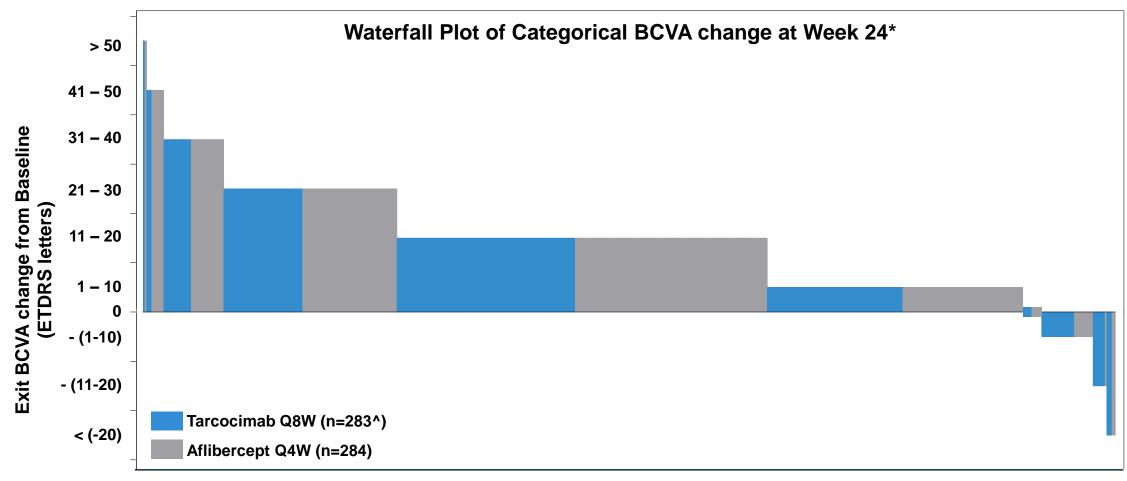


Width of bars corresponds to number of patients from each treatment group

* Observed data. For patients with missing data at Week 24, the last value observed was used. BCVA: best corrected visual acuity; ETDRS: early treatment diabetic retinopathy study

^ Excludes one subject who does not have post-baseline data

Tarcocimab Q8W achieved similar distribution of vision outcomes among <u>all RVO patients</u> compared to aflibercept Q4W at Week 24



Width of bars corresponds to number of patients from each treatment group

* Observed data. For patients with missing data at Week 24, the last value observed was used. BCVA: best corrected visual acuity; ETDRS: early treatment diabetic retinopathy study

^ Excludes one subject who does not have post-baseline data

Safety: tarcocimab Q8W was well-tolerated, with low rates of adverse events

Adverse Events (AEs) up to Week 24	Tarcocimab Q8W (n=284)	Aflibercept Q4W (n=284)
Ocular - Study Eye Subjects with any ocular AE	86 (30.3%)	71 (25.0%)
Subjects with any ocular serious AE (SAE) Subjects with any Injection Procedure Related AEs	4 (1.4%) 41 (14.4%) 1 (0.4%)	0 32 (11.3%)
Subjects with any Injection Procedure Related SAE Non-Ocular Subjects with any Non-Ocular AE	1 (0.4%) 123 (43.3%)	108 (38.0%)
Subjects with at Least One Non-Ocular SAE Subjects with any APTC-classified ATE events Any Deaths	15 (5.3%) 4 (1.4%) 2 (0.7%)	15 (5.3%) 3 (1.1%) 0

Rates of intraocular inflammation were low and comparable between treatment groups, and there were no cases of endophthalmitis

Intraocular Inflammation in Study Eye up to Week 24	Tarcocimab Q8W (n=284)	Aflibercept Q4W (n=284)
Subjects Reporting at Least 1 Intraocular Inflammation AE	4 (1.4%)	1 (0.4%)
Uveitis	2 (0.7%)	0
Keratic precipitates	1 (0.4%)	0
Vitritis	1 (0.4%)*	1 (0.4%)

Endophthalmitis (Procedure-Related) in Study Eye up to Week 24	Tarcocimab Q8W (n=284)	Aflibercept Q4W (n=284)
Endophthalmitis (Procedure-Related)	0	0

No cases of intraocular inflammation with vasculitis or vascular occlusion were observed

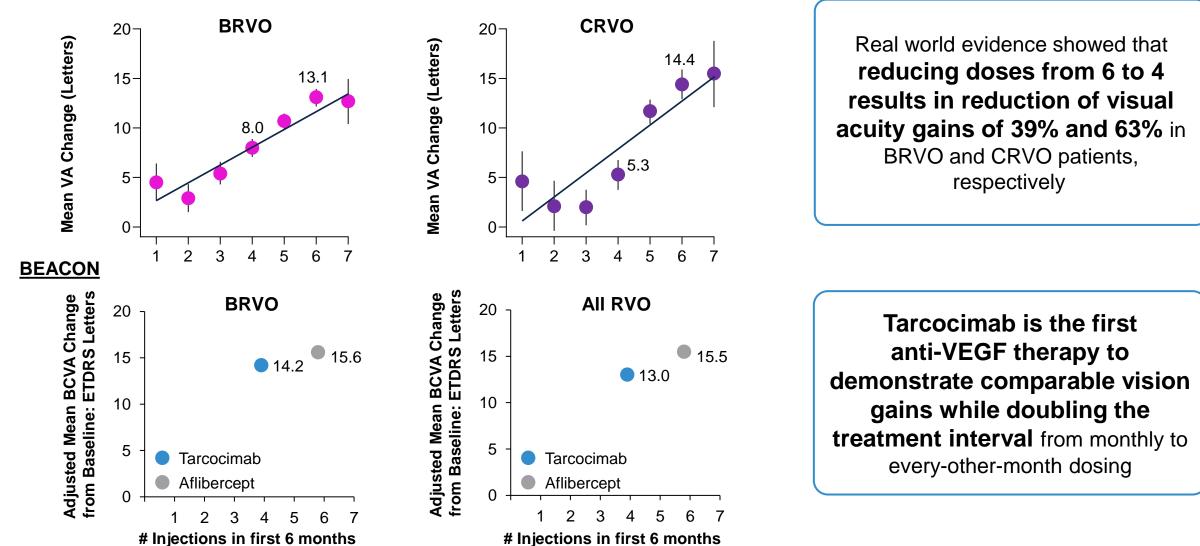
Rates of common ocular adverse events (≥1.5% in either study arm) and ocular serious adverse events were low

Common Ocular Adverse Events (AEs) up to Week 24	Tarcocimab Q8W (n=284)	Aflibercept Q4W (n=284)
Subjects with any AE in the Study Eye	86 (30.3%)	71 (25.0%)
Conjunctival haemorrhage	25 (8.8%)	21 (7.4%)
Eye Pain	11 (3.9%)	3 (1.1%)
Vitreous floaters	7 (2.5%)	5 (1.8%)
Dry eye	6 (2.1%)	3 (1.1%)
Eye irritation	5 (1.8%)	2 (0.7%)
Intraocular pressure increased	5 (1.8%)	3 (1.1%)
Vitreous detachment	5 (1.8%)	5 (1.8%)

Other Ocular Serious Adverse Events (SAEs) in Study Eye up to Week 24	Tarcocimab Q8W (n=284)	Aflibercept Q4W (n=284)
Glaucoma	1 (0.4%)	0
Intraocular pressure increased	1 (0.4%)	0
Rhegmatogenous retinal detachment	1 (0.4%)	0

Relevance: reducing the treatment burden from 6 to 4 doses/injections/visits while maintaining vision outcomes is highly meaningful for patients

Real World Evidence¹



1. Ciulla T, et al. Br J Ophthalmol 2021;105:1696–1704. doi:10.1136/bjophthalmol-2020-317337. Represents 8,876 BRVO eyes, 6,737 CRVO eyes from Vestrum database. Mean 4.5/4.6 anti-VEGF injections over first 6 months (aflibercept, ranibizumab, or bevacizumab).

Phase 3 studies in DME, wet AMD and NPDR are fully enrolled and will provide continuing data over next 12 months on the efficacy, safety and durability of tarcocimab tedromer

GLEAM and GLIMMER Studies ¹	DAYLIGHT Study ²	GLOW Study ³
Treatment of Diabetic Macular Edema	Treatment of Wet AMD	Treatment of Non-Proliferative Diabetic Retinopathy and Prevention of Vision-Threatening Complications
tarcocimab tedromer once every 2 to 6 months after 3 monthly loading doses	tarcocimab tedromer once every month	tarcocimab tedromer once every 6 months after 3 initiating doses
Comparator:	Comparator:	Comparator:
aflibercept once every 2 months after 5 monthly doses	aflibercept once every 2 months after 3 monthly loading doses	sham
Primary endpoint: average of Weeks 60 and 64	Primary endpoint: average of Weeks 40, 44 and 48	Primary endpoint: Week 48

Conclusions

BEACON met primary endpoint	Mean change in BCVA with tarcocimab Q8W was non-inferior to aflibercept Q4W in RVO
Similar efficacy, meaningfully fewer doses	 Tarcocimab is the first anti-VEGF therapy to show comparable visual acuity outcomes to monthly aflibercept while doubling the treatment interval <u>Matched phase:</u> strong efficacy with comparable vision and anatomic improvement as early as Week 1 <u>Maintenance phase:</u> similar BCVA, OCT gains from Week 8 to Week 24 with half the doses
Safe and well- tolerated	Favorable safety profile with low rates of intraocular inflammation and no cases of intraocular inflammation with vasculitis or vascular occlusion No new or unexpected ocular or non-ocular safety signals
Ongoing tarcocimab Phase 3 program	Successful outcomes from BEACON lend confidence to ongoing studies across indications

Thank you to all BEACON investigators and site staff!

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