Faricimab in Neovascular Age-Related Macular Degeneration (nAMD): Updated Week 48 Efficacy, Safety and Durability in the Phase 3 TENAYA and LUCERNE Trials

Niro Narendran, MBBS, MD, FRCOphth[1]; Anna-Maria Demetriades, MD, PhD[2]; Carlos Quezada Ruiz, MD[2]; David Silverman, MSc, MBChB, MRCOphth, FFPM[3]; Jane Ives, MSc[3]; Karen Basu, PhD[4]; and Hugh Lin, MD, MBA[2]

[1] New Cross Hospital, Wolverhampton, UK; [2] Genentech, Inc., South San Francisco, CA, USA; [3] Roche Products Ltd., Welwyn Garden City, UK; [4] Roche Products (Ireland) Ltd., Dublin, Ireland

Key Clinical Question

What are the week 48 efficacy, safety and durability results of the phase 3 TENAYA and LUCERNE trials comparing faricimab up to every 16 weeks (Q16W) with aflibercept Q8W in patients with neovascular age-related macular degeneration (nAMD)?

Introduction

- Dual inhibition of angiopoietin-2 and vascular endothelial growth factor-A with faricimab, a bispecific antibody designed for intraocular use, may promote vascular stability and durable efficacy in patients with nAMD[1-4]
- This poster reports updated week 48 pooled results of the phase 3 TENAYA (NCT03823287) and LUCERNE (NCT03823300) trials comparing efficacy, safety and durability of faricimab with aflibercept in patients with nAMD[3]

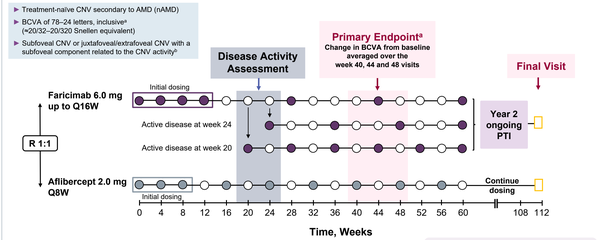
Methods

- Patients with nAMD were randomised 1:1 to faricimab up to Q16W (n = 665) or aflibercept Q8W (n = 664)
- After 4 initial Q4W doses, faricimab-treated patients were treated Q8W, Q12W or Q16W, based on protocol-defined disease activity assessments at weeks 20 or 24
- The primary endpoint was mean change from baseline in best-corrected visual acuity (BCVA) averaged over weeks 40, 44 and 48
- Secondary efficacy endpoints, including visual and anatomic outcomes and safety, were assessed Q4W through week 48

Conclusions

- Faricimab targets 2 distinct disease pathways to promote vascular stability, which may lead to a more durable therapy while maintaining long-term vision gains
- Faricimab up to Q16W showed BCVA improvement, with ~45% of patients on Q16W and almost 80% on ≥ Q12W dosing at week 48
- Meaningful central subfield thickness reductions and visual gains with faricimab up to Q16W were comparable with aflibercept Q8W through week 48
- Faricimab was well tolerated. No cases of retinal vasculitis or occlusive retinal vasculitis were reported

1. TENAYA and LUCERNE Investigated Faricimab Using an Individualised Treatment Interval of Up to Q16W Dosing



[a] BCVA was measured using the ETDRS visual acuity chart at a starting distance of 4 m. [b] Identified by FFA or OCT.
AMD, age-related macular degeneration; BCVA, best-corrected visual acuity; CNV, choroidal neovascularisation; ETDRS, Early Treatment Diabetic Retinopathy Study; FFA, fundus fluorescein angiography; nAMD, neovascular age-related macular degeneration; OCT, optical coherence tomography; PTI, personalised treatment interval; Q8W, every 8 weeks; Q16W, every 16 weeks; R, randomised.

2. Key Baseline Characteristics Were Generally Well Balanced Across Treatment Arms

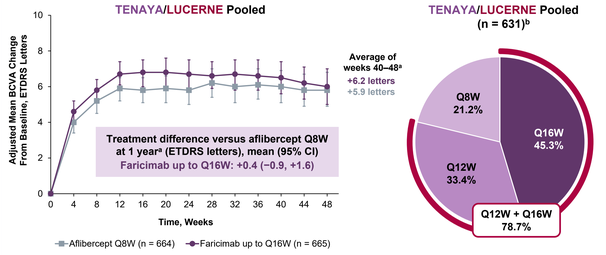
ITT Population

Characteristic[a]	TENAYA/LUCERNE Pooled: Faricimab Up to Q16W (n = 665)	TENAYA/LUCERNE Pooled: Aflibercept Q8W (n = 664)
Age, years, mean (SD)	75.4 (8.5)	76.4 (8.7)
Female, n (%)	394 (59.2%)	399 (60.1%)
White, n (%)	581 (87.4%)	572 (86.1%)
BCVA, ETDRS letters, mean (SD)	60.0 (13.3)	60.2 (13.1)
CST, µm, mean (SD)[b]	356.8 (122.1)	357.5 (119.4)
Phakic, n (%)	383 (57.6%)	369 (55.6%)
Presence of IRF, n (%)	288 (43.3%)	311 (46.8%)
Presence of SRF, n (%)	437 (65.7%)	447 (67.3%)
CNV location by FFA, n (%): Subfoveal	410 (61.7%)	377 (56.8%)
Juxtafoveal	161 (24.2%)	172 (25.9%)
Extrafoveal	83 (12.5%)	99 (14.9%)

[a] Not all race categories are presented; percentages do not add up to 100. Age is at randomisation. [b] CST is measured as ILM-RPE.
BCVA, best-corrected visual acuity; CNV, choroidal neovascularisation; CST, central subfield thickness; ETDRS, Early Treatment Diabetic Retinopathy Study; FFA, fundus fluorescein angiography; ILM, internal limiting membrane; IRF, intraretinal fluid; ITT, intent-to-treat; Q8W, every 8 weeks; Q16W, every 16 weeks; RPE, retinal pigment epithelium; SRF, subretinal fluid.

3. Faricimab Demonstrated Durable Vision Gains at Week 48: ~45% of Patients on Q16W and Almost 80% on ≥ Q12W Dosing

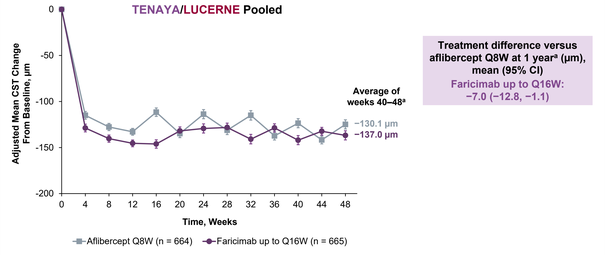
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[a] Adjusted mean BCVA change from baseline at 1 year, averaged over weeks 40, 44 and 48. Results are based on a mixed model for repeated measures analysis in the ITT population. 95% CIs are shown. [b] Percentages are based on number of patients randomised to the faricimab arm who have not discontinued the study at week 48. Treatment interval at week 48 is defined as the treatment interval decision followed at that visit.
BCVA, best-corrected visual acuity; ETDRS, Early Treatment Diabetic Retinopathy Study; ITT, intent-to-treat; Q8W, every 8 weeks; Q12W, every 12 weeks; Q16W, every 16 weeks.

4. Faricimab Resulted in Meaningful and Comparable CST Reductions Compared With Aflibercept Q8W, Which Was Achieved With Almost 80% of Faricimab Patients on ≥ Q12W Dosing

ITT Population



Results are based on a mixed model for repeated measures analysis. 95% CIs are shown. CST is measured as ILM-RPE, as graded by central reading centre.
[a] Adjusted mean CST change from baseline at 1 year, averaged over weeks 40, 44 and 48.
CST, central subfield thickness; ILM, internal limiting membrane; ITT, intent-to-treat; Q8W, every 8 weeks; Q12W, every 12 weeks; Q16W, every 16 weeks; RPE, retinal pigment epithelium.

5. Low Rates of Ocular AEs and AEs of IOI, and No Cases of Retinal Vasculitis Reported in Either Study, Through Week 48

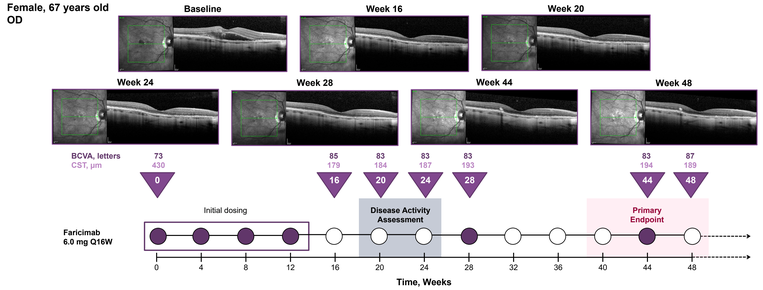
Common Ocular AEs Through Week 48	TENAYA/LUCERNE Pooled: Faricimab Up to Q16W (n = 664)	TENAYA/LUCERNE Pooled: Aflibercept Q8W (n = 662)
Patients with any event, n (%)	254 (38.3%)	246 (37.2%)
Patients with events, n (%)		
Conjunctival haemorrhage	45 (6.8%)	51 (7.7%)
Neovascular age-related macular degeneration	38 (5.7%)	38 (5.7%)
Vitreous detachment	22 (3.3%)	20 (3.0%)
Cataract	20 (3.0%)	14 (2.1%)
Vitreous floaters	20 (3.0%)	11 (1.7%)
Retinal pigment epithelial tear	19 (2.9%)	9 (1.4%)
Eye pain	17 (2.6%)	20 (3.0%)
Intraocular pressure increased	17 (2.6%)	15 (2.3%)
Dry eye	13 (2.0%)	22 (3.3%)
Foreign body sensation in eyes	10 (1.5%)	13 (2.0%)
Punctate keratitis	9 (1.4%)	13 (2.0%)
Dry age-related macular degeneration	8 (1.2%)	8 (1.2%)

IOI Events Through Week 48	TENAYA/LUCERNE Pooled: Faricimab Up to Q16W (n = 664)	TENAYA/LUCERNE Pooled: Aflibercept Q8W (n = 662)
Patients with any AEs of IOI (excluding endophthalmitis), n (%)	13 (2.0%)	8 (1.2%)
Patients with events, n (%)		
Intis	3 (0.5%)	2 (0.3%)
Uveitis	2 (0.3%)	2 (0.3%)
Keratic precipitates	1 (0.2%)	0
Vitritis	3 (0.5%)	1 (0.2%)
Iridocyclitis	3 (0.5%)	2 (0.3%)
Chorioretinitis	1 (0.2%)	0
Post-procedural inflammation	0	1 (0.2%)
Endophthalmitis, n (%)	0	1 (0.2%)

Events Through Week 48	TENAYA/LUCERNE Pooled: Faricimab Up to Q16W (n = 664)	TENAYA/LUCERNE Pooled: Aflibercept Q8W (n = 662)
Retinal vasculitis events through week 48, n (%)		
Number of patients with events	0	0
Retinal occlusive events through week 48, n (%)		
Patients with any event	1 (0.2%)	0
Patients with events		
Retinal vein occlusion	0	0
Retinal artery occlusion	0	0
Retinal artery embolism	1 (0.2%)	0

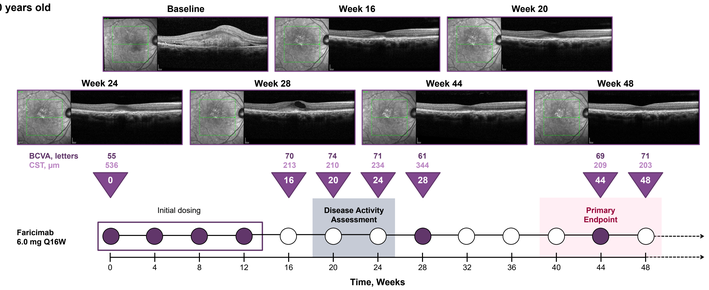
Results are presented based on the safety-evaluable population. Common ocular AEs defined as those occurring in > 2% of any arm. All events are investigator reported. Percentages are based on n in the column headings.
For frequency counts by Preferred Term, multiple occurrences of the same AE in an individual are counted only once. Includes AEs with onset up to day 349 (last day of week 48 analysis visit window).
AE, adverse event; IOI, intraocular inflammation; Q8W, every 8 weeks; Q16W, every 16 weeks.

6. Case 1: Faricimab Q16W Dosing Resulted in Sustained Improvements in BCVA and Reductions in CST



CST is measured as ILM-RPE, as graded by central reading centre.
BCVA, best-corrected visual acuity; CST, central subfield thickness; ILM, internal limiting membrane; OD, right eye; Q16W, every 16 weeks; RPE, retinal pigment epithelium.

7. Case 2: Faricimab Q16W Dosing Resulted in Sustained Improvements in BCVA and Reductions in CST



CST is measured as ILM-RPE, as graded by central reading centre.
BCVA, best-corrected visual acuity; CST, central subfield thickness; ILM, internal limiting membrane; OD, right eye; Q16W, every 16 weeks; RPE, retinal pigment epithelium.

Presented at the Royal College of Ophthalmologists Annual Congress
Glasgow, UK & Virtual I 23–26 May 2022

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4. Khanani AM et al. *Ophthalmol Sci*. 2021;1(4):10076.

Financial Disclosures

- NN: Honoraria: Bayer, Novartis, Roche/Genentech, Inc.
- A-MD: Employee: Genentech, Inc., at time of study; currently at Vedere Bio II, Inc.
- CQR, HL: Employee: Genentech, Inc.
- DS, JI, KB: Employee: Roche Products Ltd.

Study and Product Disclosures

- Faricimab has been approved for the treatment of neovascular age-related macular degeneration and diabetic macular oedema in the United States and Japan, and is currently being studied for the treatment of macular oedema due to retinal vein occlusion. Please note that faricimab has not been approved for use outside these countries, or for use outside its approved indications
- This study includes research conducted on human subjects
- Institutional Review Board approval was obtained prior to study initiation

- Funding was provided by F. Hoffmann-La Roche Ltd. for the study and third-party writing assistance, which was provided by Ashley Sizer, PhD, of Envision Pharma Group