

New long-term data for Roche's Vabysmo show sustained retinal drying and vision improvements in retinal vein occlusion (RVO)

- **Vabysmo sustained robust drying of retinal fluid, often associated with distorted or blurry vision**
- **Up to 60% of people receiving Vabysmo were able to extend treatment intervals to three or four months apart**
- **Detailed results from two global Phase III RVO studies will be presented at Angiogenesis, Exudation, and Degeneration 2024**
- **Vabysmo is approved in the US for RVO, and in more than 90 countries around the world for people living with nAMD and DME**

Basel, 1 February 2024 - Roche (SIX: RO, ROG; OTCQX: RHHBY) announced today new 72-week data from two global Phase III studies, BALATON and COMINO, evaluating Vabysmo® (faricimab) in macular edema due to branch and central retinal vein occlusion (BRVO and CRVO).^{1,2} Whereas available RVO treatments are typically given every one to two months, the data showed nearly 60% of people receiving Vabysmo in BALATON and up to 48% of people in COMINO were able to extend their treatment intervals to three or four months apart.^{1,2,3,4} In addition, patients in the studies maintained vision gains and robust retinal drying achieved in the first 24 weeks of the studies for more than one year. Retinal drying is an important clinical measure as swelling from excess fluid in the back of the eye has been associated with distorted and blurred vision.⁵ In both studies, Vabysmo was well tolerated and the safety profile was consistent with previous studies.

“This is the first time that vision and anatomical improvements have been maintained for more than a year in global Phase III studies for both branch and central retinal vein occlusion,” said Levi Garraway, M.D., Ph.D., Roche’s Chief Medical Officer and Head of Global Product Development. “These long-term results build on the strong clinical and real-world data reinforcing Vabysmo as an effective treatment option for people affected by retinal conditions that can cause vision loss.”

Results will be presented virtually on 3 February 2024 at Angiogenesis, Exudation, and Degeneration 2024, organised by Bascom Palmer Eye Institute in Florida, United States (US).

“The sustained vision improvements and retinal drying seen up to 72 weeks reaffirm Vabysmo as an effective treatment for retinal vein occlusion,” said Ramin Tadayoni, M.D., Ph.D., head of ophthalmology at the Cité University in Paris, France, and president of EURETINA, who is presenting the data at Angiogenesis. “More treatment options are needed to better serve

people living with this condition, and these data show Vabysmo can potentially improve outcomes while reducing the number of clinic visits needed.”

Both studies evaluated the average change in best-corrected visual acuity (BCVA) score (the best distance vision a person can achieve – including with correction such as glasses – when reading letters on an eye chart) from baseline. The studies also tracked the amount of swelling in the back of the eye due to retinal fluid, as measured by central subfield thickness (CST). Reductions in CST indicate improvement. Overall, results showed the vision improvements and reductions in retinal fluid achieved in the first 24 weeks of the studies were maintained up to 72 weeks.

Results for BRVO (BALATON)¹:

- **Vision gains:** At 72 weeks, people receiving Vabysmo as a first-line treatment gained 18.1 letters on the eye chart, while people switched from aflibercept to Vabysmo gained 18.8 letters. During the first 24 weeks, vision gains were +16.8 eye chart letters in people receiving Vabysmo and +17.5 letters in people receiving aflibercept.
- **Retinal drying:** At 72 weeks, people receiving Vabysmo as a first-line treatment saw a 310.9 µm reduction in retinal swelling, as measured by CST, while those switched from aflibercept to Vabysmo saw a reduction in CST of 307 µm. During the first 24 weeks of the study, CST reductions were 314.5 µm in people receiving Vabysmo and 307.6 µm in people receiving aflibercept.

Results for CRVO (COMINO)²:

- **Vision gains:** People receiving Vabysmo as a first-line treatment gained 16.9 eye chart letters at 72 weeks, while people switched from aflibercept to Vabysmo gained 17.1 eye chart letters. During the first 24 weeks of the study, vision gains were +16.9 eye chart letters in people receiving Vabysmo and +17.3 letters in people receiving aflibercept.
- **Retinal drying:** People receiving Vabysmo as a first-line treatment saw a 465.9 µm reduction in retinal swelling, as measured by CST, while those switched from aflibercept to Vabysmo saw a reduction in CST of 460.6 µm at 72 weeks. During the first 24 weeks of the study, reductions in CST were 462.3 µm in people receiving Vabysmo and 447.8 µm in people receiving aflibercept.

Vabysmo is the first and only bispecific antibody approved for the eye, uniquely engineered to target and inhibit two signalling pathways, which are linked to a number of vision-threatening retinal conditions, by neutralising angiopoietin-2 (Ang-2) and vascular endothelial growth factor-A (VEGF-A) to restore vascular stability.⁶⁻⁹

To date, Vabysmo is approved in more than 90 countries around the world for people living with neovascular or ‘wet’ age-related macular degeneration (nAMD) and diabetic macular

edema (DME), with public reimbursement in over 25 markets and more than 2.5 million doses distributed globally.¹⁰

In October 2023, the U.S. Food and Drug Administration approved Vabysmo for the treatment of macular edema following RVO.⁶ Data up to 72 weeks from the BALATON and COMINO studies have been submitted to health authorities around the world, including the European Medicines Agency, for the treatment of macular edema following RVO.

About the BALATON and COMINO studies^{1,2}

BALATON ([NCT04740905](#)) and COMINO ([NCT04740931](#)) are two randomised, multicentre, double-masked, global Phase III studies evaluating the efficacy and safety of Vabysmo[®] (faricimab) compared to aflibercept. For the first 20 weeks, people were randomised 1:1 to receive monthly injections for six months of either Vabysmo (6.0 mg) or aflibercept (2.0 mg). From weeks 24 to 72, all individuals received Vabysmo (6.0 mg) up to every four months, using a treat-and-extend dosing regimen.

The BALATON study was conducted in 553 people with branch retinal vein occlusion. The COMINO study was conducted in 729 people with central retinal or hemiretinal vein occlusion. The primary endpoint of each study was change in best-corrected visual acuity (BCVA) from baseline at 24 weeks. Secondary endpoints for weeks 0-24 of the studies included change in central subfield thickness (CST) and drying of retinal fluid, from baseline over time up to week 24. Secondary endpoints for weeks 24-72 of the studies assessed change in BCVA from baseline, change in CST from baseline and the proportion of individuals on treat-and-extend intervals.

About retinal vein occlusion (RVO)

RVO is the second most common cause of vision loss due to retinal vascular conditions. It affects an estimated 28 million adults globally, mainly those aged 60 or older, and can lead to severe and sudden vision loss.^{11,12} The level of angiotensin-2 (Ang-2) is elevated in RVO and it is thought that increased Ang-2 expression drives disease progression, alongside vascular endothelial growth factors (VEGF).^{13,14} RVO typically results in sudden, painless vision loss in the affected eye because the vein blockage restricts normal blood flow in the affected retina, resulting in bleeding, fluid leakage and retinal swelling called macular edema.^{12,15,16} Currently, macular edema due to RVO is typically treated with repeated intravitreal injections of anti-VEGF therapies.¹⁵ There are two main types of RVO: branch retinal vein occlusion, which affects more than 23 million people globally and occurs when one of the four smaller 'branches' of the main central retinal vein becomes blocked; and central retinal vein occlusion, affecting more than four million people worldwide, and occurs when the eye's central retinal vein becomes blocked.^{11,16}

About the Vabysmo® (faricimab) clinical development programme

Roche has a robust Phase III clinical development programme for Vabysmo. The programme includes AVONELLE-X, an extension study of TENAYA and LUCERNE, evaluating the long-term safety and tolerability of Vabysmo in neovascular or ‘wet’ age-related macular degeneration (nAMD), and RHONE-X, an extension study of YOSEMITE and RHINE, evaluating the long-term safety and tolerability of Vabysmo in diabetic macular edema (DME).^{17,18} Roche has also initiated several Phase IV studies, including the ELEVATUM study of Vabysmo in underrepresented patient populations with DME, the SALWEEN study of Vabysmo in a subpopulation of nAMD highly prevalent in Asia, as well as the VOYAGER study, a global real-world data collection platform.¹⁹⁻²¹ Roche also supports several other independent studies to further understand retinal conditions with a high unmet need.¹⁰

About Vabysmo® (faricimab)

Vabysmo is the first bispecific antibody approved for the eye.^{6,7} It targets and inhibits two signalling pathways linked to a number of vision-threatening retinal conditions by neutralising angiopoietin-2 (Ang-2) and vascular endothelial growth factor-A (VEGF-A). Ang-2 and VEGF-A contribute to vision loss by destabilising blood vessels, causing new leaky blood vessels to form and increasing inflammation. By blocking pathways involving Ang-2 and VEGF-A, Vabysmo is designed to stabilise blood vessels.^{8,9} Vabysmo is approved in more than 90 countries around the world, including the United States, Japan, the United Kingdom and the European Union for people living with neovascular or ‘wet’ age-related macular degeneration and diabetic macular edema, and in the United States for people living with macular edema following retinal vein occlusion. Review by other health authorities is ongoing.^{6,7,10,22,23}

About Roche in ophthalmology

Roche is focused on saving people’s eyesight from the leading causes of vision loss through pioneering therapies. Through our innovation in the scientific discovery of new potential drug targets, personalised healthcare, molecular engineering, biomarkers and continuous drug delivery, we strive to design the right therapies for the right patients.

We have the broadest retina pipeline in ophthalmology, which is led by science and informed by insights from people with eye diseases. Our pipeline includes gene therapies and treatments for geographic atrophy and other vision-threatening diseases, including rare and inherited conditions.

Applying our extensive experience, we have already brought breakthrough ophthalmic treatments to people living with vision loss. Susvimo™ (previously called Port Delivery System with ranibizumab) 100 mg/mL for intravitreal use via ocular implant is the first United States Food and Drug Administration-approved refillable eye implant for neovascular or ‘wet’ age-related macular degeneration that continuously delivers a customised formulation of ranibizumab over a period of months.²⁴ Vabysmo® (faricimab) is the first bispecific antibody approved for the eye, which targets and inhibits two signalling pathways linked to a number of

vision-threatening retinal conditions.⁶⁻⁹ Lucentis® (ranibizumab injection) is the first treatment approved to improve vision in people with certain retinal conditions.⁴

About Roche

Founded in 1896 in Basel, Switzerland, as one of the first industrial manufacturers of branded medicines, Roche has grown into the world's largest biotechnology company and the global leader in in-vitro diagnostics. The company pursues scientific excellence to discover and develop medicines and diagnostics for improving and saving the lives of people around the world. We are a pioneer in personalised healthcare and want to further transform how healthcare is delivered to have an even greater impact. To provide the best care for each person we partner with many stakeholders and combine our strengths in Diagnostics and Pharma with data insights from the clinical practice.

In recognising our endeavour to pursue a long-term perspective in all we do, Roche has been named one of the most sustainable companies in the pharmaceuticals industry by the Dow Jones Sustainability Indices for the fifteenth consecutive year. This distinction also reflects our efforts to improve access to healthcare together with local partners in every country we work.

Genentech, in the United States, is a wholly owned member of the Roche Group. Roche is the majority shareholder in Chugai Pharmaceutical, Japan.

For more information, please visit www.roche.com.

^Lucentis® (ranibizumab injection) was developed by Genentech, a member of the Roche Group. Genentech retains commercial rights in the United States and Novartis has exclusive commercial rights for the rest of the world.

All trademarks used or mentioned in this release are protected by law.

References

- [1] Clinical Trials.gov. A study to evaluate the efficacy and safety of faricimab in participants with macular edema secondary to branch retinal vein occlusion (BALATON) [Internet; cited January 2024]. Available from: <https://clinicaltrials.gov/ct2/show/NCT04740905>.
- [2] Clinical Trials.gov. A study to evaluate the efficacy and safety of faricimab in participants with macular edema secondary to central retinal or hemiretinal vein occlusion (COMINO) [Internet; cited January 2024]. Available from: <https://clinicaltrials.gov/ct2/show/NCT04740931>.
- [3] U.S. Food and Drug Administration (FDA). Highlights of prescribing information, Aflibercept 2 mg. 2011. [Internet; cited January 2024]. Available from: https://www.accessdata.fda.gov/drugsatfda_docs/label/2022/125387s076lbl.pdf.
- [4] U.S. FDA. Highlights of prescribing information, Lucentis. 2006. [Internet; cited January 2024]. Available from: https://www.accessdata.fda.gov/drugsatfda_docs/label/2014/125156s105lbl.pdf.
- [5] U.S. National Institutes of Health - National Eye Institute. Macular Edema. 2023. [Internet; cited January 2024.] Available from: <https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/macular-edema>.
- [6] U.S. FDA. Highlights of prescribing information, Vabysmo. 2022. [Internet; cited January 2024]. Available from: https://www.accessdata.fda.gov/drugsatfda_docs/label/2022/761235s000lbl.pdf.

- [7] MHRA approves faricimab through international work-sharing initiative [Internet; cited January 2024]. Available from: <https://www.gov.uk/government/news/mhra-approves-faricimab-through-international-work-sharing-initiative>.
- [8] Heier JS, et al. Efficacy, durability, and safety of intravitreal faricimab up to every 16 weeks for neovascular age-related macular degeneration (TENAYA and LUCERNE): two randomised, double-masked, phase III, non-inferiority trials. *The Lancet*. 2022;399:729-740.
- [9] Wykoff C, et al. Efficacy, durability, and safety of intravitreal faricimab with extended dosing up to every 16 weeks in patients with DME (YOSEMITE and RHINE): two randomised, double-masked, phase III trials. *The Lancet*. 2022;399:741-755.
- [10] Roche data on file.
- [11] Song P, et al. Global epidemiology of retinal vein occlusion: a systematic review and meta-analysis of prevalence, incidence, and risk factors. *J Glob Health*. 2019;9:010427. Song P, et al. Global epidemiology of retinal vein occlusion: a systematic review and meta-analysis of prevalence, incidence, and risk factors. *J Glob Health*. 2019;9:010427.
- [12] Moorfields Eye Hospital, United Kingdom National Health Service Foundation Trust. RVO [Internet; cited January 2024]. Available from: <https://www.moorfields.nhs.uk/condition/retinal-vein-occlusion>.
- [13] Jousseaume J, et al. Angiopoietin/Tie2 signalling and its role in retinal and choroidal vascular diseases: a review of preclinical data. *Eye*. 2021;35:1305-1316.
- [14] Regula JT, et al. Targeting key angiogenic pathways with a bispecific CrossMab optimized for neovascular eye diseases. *EMBO Molecular Medicine*. 2016;8:1265-88.
- [15] Schmidt-Erfurth U, et al. Guidelines for the Management of Retinal Vein Occlusion by the European Society of Retina Specialists (EURETINA). *Ophthalmologica*. 2019;242:123-162.
- [16] Campochiaro P. Molecular pathogenesis of retinal and choroidal vascular diseases. *Prog Retin Eye Res*. 2015;49:67-81.
- [17] ClinicalTrials.gov. A study to evaluate the long-term safety and tolerability of Vabysmo in participants with nAMD (AVONELLE-X) [Internet; cited January 2024]. Available from: <https://clinicaltrials.gov/ct2/show/NCT04777201>.
- [18] ClinicalTrials.gov. A study to evaluate the long-term safety and tolerability of Vabysmo in participants with DME (Rhone-X) [Internet; cited January 2024]. Available from: <https://clinicaltrials.gov/ct2/show/NCT04432831>.
- [19] ClinicalTrials.gov. A study to investigate faricimab treatment response in treatment-naïve, underrepresented patients with DME (ELEVATUM). [Internet; cited January 2024]. Available from: <https://clinicaltrials.gov/ct2/show/NCT05224102>.
- [20] APVRS. Design and Rationale of the SALWEEN Trial: A Phase 3b/4 Study of Faricimab, a Dual Angiopoietin-2 and Vascular Endothelial Growth Factor-A Inhibitor, in Patients With Polypoidal Choroidal Vasculopathy. [Internet; cited January 2024]. Available from: <https://2022.apvrs.org/abstract/?code=200351>.
- [21] ClinicalTrials.gov. A Real-World Study to Gain Clinical Insights Into Roche Ophthalmology Products (VOYAGER). [Internet; cited January 2024]. Available from: <https://clinicaltrials.gov/ct2/show/NCT05476926>.
- [22] Chugai obtains regulatory approval for Vabysmo, the first bispecific antibody in ophthalmology, for neovascular age-related macular degeneration and diabetic macular edema [Internet; cited January 2024]. Available from: https://www.chugai-pharm.co.jp/english/news/detail/20220328160002_909.html.
- [23] European Medicines Agency. Summary of Product Characteristics, Vabysmo, 2022 [Internet; cited January 2024]. Available from: https://www.ema.europa.eu/en/documents/product-information/vabysmo-epar-product-information_en.pdf.
- [24] U.S. FDA. Highlights of prescribing information, Susvimo. 2006 [Internet; cited January 2024]. Available from: https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/761197s000lbl.pdf.

Roche Global Media Relations

Phone: +41 61 688 8888 / e-mail: media.relations@roche.com

Hans Trees, PhD

Phone: +41 79 407 72 58

Dr. Rebekka Schnell

Phone: +41 79 205 27 03

Simon Goldsborough

Phone: +44 797 32 72 915

Karsten Kleine

Phone: +41 79 461 86 83

Nina Mähltitz

Phone: +41 79 327 54 74

Kirti Pandey

Phone: +49 172 6367262

Sileia Urech

Phone: +41 79 935 81 48

Roche Investor Relations

Dr. Bruno Eschli

Phone: +41 61 68-75284

e-mail: bruno.eschli@roche.com

Dr. Sabine Borngräber

Phone: +41 61 68-88027

e-mail: sabine.borngraeber@roche.com

Dr. Birgit Masjost

Phone: +41 61 68-84814

e-mail: birgit.masjost@roche.com

Investor Relations North America

Loren Kalm

Phone: +1 650 225 3217

e-mail: kalm.loren@gene.com