Press Release

Neuvasq Presents Data Showcasing Promising Novel Multispecific Gpr124-Targeting Antibodies for Blood Retina Barrier Restoration at ARVO 2026

- Gpr124 represents a promising novel target for improving the integrity and function of the blood-retina barrier (BRB) with the goal of slowing, halting, preventing or even reversing vision loss
- Neuvasq's most advanced programs are NVQ401, a first-in-class bispecific antibody that selectively activates the Wnt/β-catenin signaling cascade via Gpr124/Lrp6, and NVQ501, a fusion of a Gpr124/Lrp6 based Wnt/β-catenin activating moiety and a VEGF-binding moiety
- New preclinical data presented demonstrate the candidates' therapeutic potential as innovative treatments for retinal vascular diseases, such as DME and wAMD, providing potent and long-lasting therapeutic effects, with the potential to become new standards of care

Gosselies, Belgium, May 5, 2026 – Neuvasq Biotechnologies ("Neuvasq"), a biotechnology company dedicated to advancing first-in-class disease modifying multispecific antibodies designed to repair neurovascular barriers in patients with ophthalmologic diseases, announced the presentation of new preclinical data demonstrating the therapeutic potential of targeting the Wnt co-receptors Gpr124 and Lrp6. This approach supports the maintenance and repair of the blood-retina barrier (BRB) with the potential to slow, halt, prevent or even reverse vision loss in retinal vascular diseases, such as Diabetic Macular Edema (DME) and wet Age-related Macular Degeneration (wAMD). The oral presentation entitled, **"Novel multispecific Gpr124-targeting antibodies correct vascular pathology in preclinical retinopathy models"**, was delivered on May 5th, 2026 at the Association for Research in Vision and Ophthalmology (ARVO) 2026 Annual Meeting in Denver, Colorado.

"The data presented at ARVO 2026 demonstrate that these novel therapeutic molecules targeting Gpr124/Lrp6 have the potential to improve the integrity and function of the blood-retina barrier," explains **Ralph Laufer, Ph.D., Chief Scientific Officer of Neuvasq**. "Selective activation of the Wnt/β-catenin pathway through these targets was associated with reversal of vascular pathology in preclinical disease models, supporting their potential to provide a new therapeutic approach combining very high potency with the possibility for long-lasting therapeutic effects".

Press Release

Engineered bi-specific and tri-specific molecules demonstrated high potency and therapeutic potential in several preclinical retinopathy models

NVQ401, a first-in-class bispecific antibody, was shown to be a highly potent activator of Wnt receptor signaling in *in vitro* retinal models, **supporting the potential for quarterly dosing**. The role of NVQ401 in addressing the underlying pathophysiology of retinal diseases was further assessed:

- NVQ401 reversed VEGF-induced vascular permeability in **human retinal cells**.
- Robust ***in vivo* efficacy was demonstrated across three relevant disease models**.
- In the **oxygen-induced retinopathy (OIR) model**, **NVQ401 reduced both neovascularization and avascular areas**. Supporting its potential to protect against vascular leakage and abnormal vessel growth and to induce normal vessel growth in retinal diseases.

To further expand the therapeutic profile of NVQ401, **a trispecific molecule, NVQ501, was engineered by combining β-catenin activation with anti-VEGF functionality**, two clinically validated approaches. The role of NVQ501 in preclinical models was assessed and compared to currently approved treatments as well as NVQ401:

- NVQ501 potently **activated β-catenin signaling** in human retinal endothelial cells, and **fully inhibited VEGF induction of PLVAP**, a major mediator of retinal damage**.**
- In the OIR model, it showed **enhanced efficacy versus the bispecific in reducing neovascularization**, and, unlike the parent anti-VEGF drug, demonstrated statistically significant reductions in **avascular areas.**

Altogether, these data demonstrate that combining two clinically validated approaches, β-catenin activation with VEGF neutralization could become **a new standard of care**.

NVQ501 is currently advancing towards CMC and IND-enabling studies, with an estimated timeline of **15 months to reach IND**.

ABOUT BLOOD-RETINA BARRIER BIOLOGY

The formation and maintenance of the BRB are regulated by the Wnt/β-catenin signaling pathway. In endothelial cells of the central nervous system, this pathway is primarily activated by Wnt7a/b and Norrin ligands. Wnt7a/b signal through a membrane receptor complex including the co-receptors Reck and Gpr124. The BRB maintains the tightly regulated environment of the retina by controlling the exchange of molecules, fluids, and cells between the bloodstream and the parenchyma. However, when vascular leakage occurs, uncontrolled infiltration of blood-derived fluids, proteins, and immune cells into the tissue leads to edema, inflammation, oxidative stress, and neuronal damage, resulting in vision loss.

Press Release

ABOUT RETINAL DISEASES ASSOCIATED WITH BLOOD-RETINA BARRIER (BRB) DISRUPTION

Diabetic Macular Edema (DME) affects ~20 million patients worldwide, with ~300,000 new cases annually across the EU, North America, and Japan. DME is a leading cause of vision loss in people with diabetes, driven by vascular leakage resulting from chronic hyperglycemia - highlighting the urgent need for therapies that restore retinal vessel integrity beyond symptom control.

Wet Age-related Macular Degeneration (wAMD) impacts 20–30 million patients globally, with ~400,000 new patients each year in key markets. As the most common cause of vision impairment in aging populations, wAMD is driven by choroidal neovascularization and leaky vessels.

The current standard of care for wAMD and DME are anti-VEGF injections that initially improve patients' vision acuity, but those initial benefits are decreasing over time due to waning responses as well as lack of compliance, supporting the need for new disease-modifying approaches.

ABOUT NEUVASQ BIOTECHNOLOGIES

Neuvasq is a biotechnology Company dedicated to advancing first-in-class disease modifying multispecific antibodies designed to restore and protect the integrity of the blood-retina vascular barrier, addressing the underlying cause of neurovascular dysfunction in a range of ophthalmic diseases.

The Company was founded in 2021 as a spin-off from the Université libre de Bruxelles by Professor Benoît Vanhollebeke, whose innovative research identified the role of Gpr124 and Reck in mediating Wnt7a/b signaling specifically in the central nervous system (CNS). With its unique expertise in neurovascular biology, Neuvasq develops next-generation multispecific antibody-based therapies targeting this validated biological pathway to induce neurovascular repair. For more information, visit www.neuvasq.com and follow us on LinkedIn.

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