SPARINGVISION

GENOMIC MEDICINES FOR OCULAR DISEASES

SparingVision Doses First Patient with SPVN20 for Advanced Retinitis Pigmentosa in NYRVANA Trial

- *SPVN20 aims to restore visual acuity and aspects of color vision by creating an alternative light-signaling cascade in malfunctioning cone photoreceptors*
- *Delivered through a single intravitreal injection, SPVN20 targets prevalent retinal diseases with no existing standard of care independently of their causes*

Paris, 28 October 2025 – SparingVision ("the Company"), a clinical-stage genomic medicine company transforming the treatment of retinal diseases, today announced that the first patient has been successfully dosed in its NYRVANA first-in-human clinical trial.

SPVN20 is a gene-agnostic, intravitreal AAV-based gene therapy designed to restore visual acuity and aspects of color vision in people affected by retinal diseases. The therapy targets dormant cones, light-sensing cells in the retina that remain alive but have lost their ability to respond to light due to disease. This innovative gene therapy delivers a gene encoding a human G protein-gated inwardly rectifying potassium (GIRK) channel via an intravitreal injection using an AAV vector, enabling dormant cones to regain their ability to convert light into electrical signals that the brain interprets as vision. This unique mechanism of action functions independently of the underlying genetic cause of the disease, making SPVN20 broadly applicable across multiple retinal degenerative diseases.

The NYRVANA first-in-human trial is an open-label, multicenter, dose-escalation study investigating the safety, tolerability, and preliminary efficacy of a single intravitreal injection of SPVN20 over six months in advanced retinitis pigmentosa (RP) patients who retain dormant cone photoreceptors. The study includes a long-term follow-up period of five years. Safety and efficacy data will be collected over 2026 and 2027.

The trial has been initiated in Belgium and will now expand recruitment in France and Ireland. The Clinical Trial Application (CTA) was supported by a comprehensive nonclinical package demonstrating SPVN20-mediated light-evoked responses and functional rescue in

cone photoreceptors across multiple *in vitro*, *ex vivo,* and *in vivo* models, as well as robust and targeted transgene expression in the fovea and a favorable safety profile in non-human primates following a single intravitreal administration of SPVN20.

Together with SPVN06, SparingVision's two lead clinical programs establish the first and most comprehensive gene-agnostic approach for RP, with the potential to treat all patients, regardless of genetic background or stage of the disease.

Stéphane Boissel, CEO of SparingVision commented: *"The initiation of NYRVANA represents a pivotal milestone for SparingVision and validates the therapeutic potential of our gene-agnostic gene therapy portfolio, offering a comprehensive approach to treat a variety of retinal diseases at different stages. With two clinical programs now advancing in parallel, we are moving closer to our mission of transforming outcomes for patients with blinding retinal diseases."*

Kali Stasi, Chief Medical Officer of SparingVision, added*: "Optogenetics has been a remarkable achievement for late-stage retinal disease, proving that vision can be restored and paving the way for further innovation. With SPVN20, we are taking this progress forward by reactivating dormant cones — the dedicated photoreceptor cells of the retinal circuit located at the start of the visual transmission pathway, which utilize the naturally occurring photosensitive protein opsin. This approach maximizes the chances of restoring central visual function that closely mirrors natural cone-mediated vision through a more physiological mechanism, improving the lives of these patients with no current treatment available. "*

Silvia Cerolini, Eyes on the Future and RDH12 Global Alliance, Founder, Patient Advocate, member of the NYRVANA trial's Data Safety Monitoring Board (DSMB), concluded: "*The initiation of the NYRVANA trial represents a powerful moment of hope for our inherited retinal dystrophy community. We are encouraged by the promise SPVN20 holds for people living with advanced RP, many of whom have been waiting decades for new treatment options. We are grateful to the clinical investigators and the SparingVision team for their commitment to bringing this opportunity to patients."*

More trial information is available on the EU's Clinical Trials website under the name NYRVANA.

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About SparingVision

SparingVision is a clinical-stage genomic medicines company with a mission to translate pioneering science into vision saving treatments. Leveraging its unparalleled understanding of retinal diseases, SparingVision has built the world's most compelling portfolio of synergistic cutting-edge gene therapy and genome editing treatments for blinding retinal diseases. Its most advanced products, SPVN06 and SPVN20 look to go beyond single gene correction therapies to deliver new mutation agnostic treatments for Retinitis Pigmentosa (RP) and geographic atrophy secondary to dry-AMD, two leading causes of blindness globally.

SparingVision is a spin-off from the Paris Vision Institute and backed by high-quality investors including 4BIO Capital, Adbio Partners, Bpifrance, Retinal Degeneration Fund, the venture arm of the Foundation Fighting Blindness, Fondation Voir & Entendre, UPMC Enterprises, Jeito Capital and Ysios Capital.

Visit www.sparingvision.com for more and follow us on LinkedIn and X @SparingVision

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About SPVN20

SPVN20 is a proprietary mutation-agnostic investigational gene therapy using an AAV vector to deliver GIRK (G-protein inwardly rectifying potassium channel), a human-derived protein that reactivates malfunctioning cone photoreceptors known as dormant cones by restoring their light sensitivity and ability to transmit visual signals to the brain. By targeting existing retinal cells rather than replacing them, SPVN20 seeks to reestablish a physiological pathway of vision. This approach may have broader applicability in other retinal diseases in which cone degeneration and functional silencing are implicated, notably dry age-related macular degeneration (AMD).

SPVN20 is currently being evaluated in a first-in-human clinical trial for patients with late-stage retinitis pigmentosa with malfunctioning cone photoreceptor cells known as dormant cones. The therapy is administered as a single intravitreal injection, a standard office-based procedure. SPVN20 is the result of world-leading ophthalmology research at the Paris Vision Institute.