



EyeDNA Therapeutics Announces Positive 24-month Data Presented at ARVO from Ongoing Phase I/II Trial of HORA-PDE6b Gene Therapy in Patients with Retinitis Pigmentosa Caused by Bi-allelic Mutations in PDE6b

Clinically meaningful benefit in visual functions and good safety profile of HORA-PDE6b is confirmed at 24-month follow-up

Phase I/II results will be discussed with US and European health authorities to define optimal path to making HORA-PDE6b available to patients with PDE6b Retinitis Pigmentosa

Paris, France, May 7, 2024 – eyeDNA Therapeutics ('eyeDNA'), a newly created subsidiary of Coave Therapeutics ('Coave'), a genetic medicine company focused on developing life-changing therapies, today announces positive 24-month follow-up results from its Phase I/II study ([NCT03328130](https://clinicaltrials.gov/ct2/show/study/NCT03328130)) evaluating the safety and efficacy of HORA-PDE6b, its investigational gene therapy for retinitis pigmentosa (RP) caused by bi-allelic mutations in the PDE6b gene (PDE6b RP). These data were reported during an oral presentation* on May 6, at the Association for Research in Vision and Ophthalmology (ARVO) 2024 meeting in Seattle, WA, US.

The positive 24-month follow-up data presented confirm results from the previous interim analysis of the trial conducted at the 12-month follow-up point and support preparation for a registrational trial for HORA-PDE6b in PDE6b RP patients. Further discussions with health authorities in the US and Europe are planned to define the optimal path to making HORA-PDE6b available to PDE6b RP patients.

To date, HORA-PDE6b has been administered in 17 evaluable patients aged 18 years and older presenting an advanced form of PDE6b RP using two ascending doses in four consecutive cohorts. The treatment was administered in the more affected eye while the other eye served as an untreated control.

In a subgroup of clinical interest of six patients receiving the high dose, with less advanced disease (Best Corrected Visual Acuity (BCVA) score ≤ 75 ETDRS letters [$\leq 20/32$ Snellen equivalent]), Goldmann Visual Field (GVF) ≥ 10 degrees), positive efficacy results were reported at 24 months on the BCVA and the GVF outcomes. The BCVA mean change from baseline increased by +0.09 LogMar in the untreated eye, while acuity in the treated eye was stabilized (+0.02 LogMar). From baseline, the mean reduction of the GVF was over 300 deg² superior in the untreated eyes compared to the treated eye.

Interestingly, long-term data available from patients from the low dose group (n=7) followed up over a five-year period found that the BCVA of the untreated eyes consistently declined (increase of 0.05 to 0.08 LogMAR/year from the second year), which is in line with the natural history of the disease. Meanwhile, the mean change from baseline of BCVA of the treated eyes in the same group is stabilized (between +0.03 and +0.06 LogMAR over the same follow-up period). The difference of BCVA mean change from baseline between the treated eyes and the untreated eyes at five years is 0.25 LogMAR (12 Letters).



Furthermore, the full-field stimulation test (FFST) in blue light assessing rod function continues to show an improvement of the light perception threshold in favor of the treated eyes, which is considered clinically meaningful (improvement of almost six decibels). The interesting positive trend on the retinal anatomical evaluation by Optical Coherence Tomography (OCT; Ellipsoid Zone horizontal length) observed at 12-month follow-up on the subgroup of clinical interest is maintained after 24 months.

Following the 24-month study period, both doses were well tolerated (n=17). Five ocular Serious Adverse Events (SAEs) occurred including two resolved SAEs possibly related to HORA-PDE6b (one chorioretinitis and one reduced visual acuity). Patients did not receive preventive oral corticosteroids.

An additional cohort of four to six younger patients aged 13-17 years old with a GVF at baseline ≥ 20 degrees in each meridian and at an earlier disease stage is ongoing with three patients enrolled.

“The highly encouraging safety and efficacy data observed in patients two years after treatment with HORA-PDE6b continue to support our view that this novel gene therapy could provide an important clinical benefit for PDE6b RP patients. These data will support our discussions with regulators to determine the optimal route for getting HORA-PDE6b to patients,” said Rodolphe Clerval, Chief Executive Officer. “At the same time, we continue to evaluate HORA-PDE6 in an expansion cohort of younger patients with less advanced disease, for whom treatment with HORA-PDE6b could have an even greater therapeutic impact.”

“PDE6b retinitis pigmentosa is a progressive and irreversible inherited degenerative disease that leads to significant visual impairment and blindness. These two-year safety and promising efficacy results are of great medical interest and could represent a significant step towards providing an effective treatment for patients with this devastating disease,” commented Dr. Jean-Baptiste Ducloyer, MD, Nantes University Department of Ophthalmology.

***[Abstract 2134](#):**

JB Ducloyer, et al. 12-month Safety and Efficacy Evaluation of HORA-PDE6b, a Gene Therapy Targeting Patients with Retinitis Pigmentosa Due to Biallelic PDE6B Gene Mutation

About eyeDNA Therapeutics and HORA-PDE6b

eyeDNA Therapeutics, a wholly owned subsidiary of Coave Therapeutics, is a clinical-stage gene therapy company, focused on developing life-changing therapeutics for inherited retinal disorders. Our lead program HORA-PDE6b, an AAV5-based gene replacement therapy, is being evaluated in a Phase I/II trial for the treatment of retinitis pigmentosa (RP) caused by bi-allelic mutations of the PDE6b gene (PDE6b RP) ([NCT03328130](#)).

eyeDNA and Théa Open Innovation ('TOI') are partners for the development and commercialization of HORA-PDE6b. eyeDNA is responsible for the global development of HORA-PDE6b and retains commercial rights to the product in the US, Japan, South Korea, China and other territories outside Europe. In Europe and certain other countries, HORA-PDE6b is being co-developed by Coave and TOI



under a license and development agreement with exclusive rights granted to TOI to commercialize HORA-PDE6b in these territories.

About Coave Therapeutics

At Coave Therapeutics, we are leading the transition of genetic medicine from rare to prevalent conditions, starting with neurodegenerative and eye diseases. Our proprietary ALIGATER™ (Advanced Vectors-Ligand Conjugates) platform introduces chemical modifications onto AAV capsids or Lipid Nanoparticles (LNPs) to overcome the limitations of current vectors on efficacy, safety, and manufacturability.

With low doses and optimized routes of administration, our conjugated vectors have demonstrated markedly improved transduction and biodistribution in the central nervous system and the eye across different species. Our diverse pipeline of novel genetic medicines can potentially transform the lives of people afflicted by rare and prevalent neurodegenerative and ocular diseases – including genetically and non-genetically defined indications.

Coave recently created its subsidiary eyeDNA Therapeutics to focus on the development – up to the marketing authorization application – of its unique gene therapy HORA-PDE6b for the treatment of inherited retinal diseases caused by mutations in the human PDE6b gene.

Headquartered in Paris, France, Coave Therapeutics is backed by leading international life sciences investors. For more information about the science, pipeline, and people, please visit <https://coavetx.com/> and follow us on [LinkedIn](#).

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