September 30, 2025

Opus Genetics Reports Positive Pediatric Data from OPGx-LCA5 Phase 1/2 Trial in Leber Congenital Amaurosis Type 5 (LCA5)

- Pediatric participants demonstrated large gains in cone-mediated vision; therapy remains well tolerated with no ocular serious adverse events or dose-limiting toxicities
- Lasting, durable responses observed out to 18 months in adult participants
- Expected FDA Meeting in Q4 2025
- Management to Host Webcast and Conference Call Today at 8:30 A.M. ET

RESEARCH TRIANGLE PARK, N.C., Sept. 30, 2025 (GLOBE NEWSWIRE) -- Opus Genetics, Inc. (Nasdaq: IRD), a clinical-stage biopharmaceutical company developing gene therapies for the treatment of inherited retinal diseases (IRDs) and small molecule therapies for other ophthalmic disorders, today announced positive three-month data from the pediatric cohort of its ongoing Phase 1/2 clinical trial (OPGx-LCA5-1001) evaluating OPGx-LCA5, an investigational gene augmentation therapy for Leber congenital amaurosis type 5 (LCA5).

“These pediatric results are particularly exciting, as they provide evidence that OPGx-LCA5 can potentially restore cone-mediated vision in teenagers who had already experienced profound vision loss,” said George Magrath, M.D., Chief Executive Officer, Opus Genetics. “These outcomes, alongside observed durable improvements observed in adults out to 18 months, give us confidence in the potential for OPGx-LCA5 to deliver meaningful and lasting benefit to patients. We expect to meet with the U.S. Food and Drug Administration (FDA) in the fourth quarter of this year to discuss these results and the next steps for our LCA5 program targeting this ultra-rare disease.”

Three pediatric participants aged 16-17 with severe baseline vision impairment received a single subretinal injection of OPGx-LCA5. All three participants had improvements across multiple measures of visual function, as described below:

- **Visual Acuity (VA):**
  For the pediatric cohort, early data showed a group average of a 0.3 logMAR improvement which is greater than was observed in the adult cohort.
  - Participant 01-05 had a baseline visual acuity of 2.2 logMAR with an improvement of 0.5 logMAR reported at one month.
  - Participant 01-06 had a baseline visual acuity of 0.96 logMAR with an

improvement of 0.2 logMAR reported at three months. They reported perceiving a clear difference in brightness between their treated and untreated eyes.

  - Participant 01-07 had a baseline visual acuity of 2.3 logMAR with an improvement of 0.7 logMAR reported at one month, which was maintained through three months.

- **Full-Field Stimulus Testing (FST):**
  All three participants showed improvements in the treated eyes from one month. Participants showed greater than one (>1) log unit improvement in cone sensitivity to both red and blue light. These changes provide evidence of recovery in retinal sensitivity.
- **Multi-Luminance Orientation and Mobility Test (MLoMT):**
  All participants identified more objects through three-months compared to baseline. Two out of the three participants had greater improvement in the treated eye compared to the control eye.
- **Microperimetry:**
  Two of the three pediatric participants could not conduct a microperimetry test due to their poor visual acuity and nystagmus at screening. However, microperimetry data was obtained on one participant, for whom early signs of improved fixation stability were observed, consistent with functional retinal recovery.

In addition, combined adult data support that improvements in visual acuity were sustained through 18 months, both in terms of mean change from baseline and mean interocular difference, underscoring the potential durability of the treatment response.

OPGx-LCA5 has been well-tolerated in all six participants treated to date (three adults and three pediatric participants). No ocular serious adverse events or dose-limiting toxicities have been observed. All ocular adverse events were mild in severity and were anticipated. No events were related to the study drug. One pediatric participant had a pre-existing cataract that worsened at three months, which was attributed to the surgical procedure itself and did not obscure improvements in retinal sensitivity.

“Seeing pediatric participants achieve measurable improvements in visual acuity, retinal sensitivity, and real-world navigation tasks within three months and adult participants maintaining those improvements is a remarkable step forward,” said Tomas S. Aleman, M.D., of the Scheie Eye Institute, University of Pennsylvania and principal investigator of the study. “This is important evidence supporting that gene augmentation therapy can potentially restore cone function in patients with LCA5.”

Conference Call & Webcast Details

Opus Genetics management will host a webcast and conference call today at 8:30 a.m. Eastern Time to discuss the OPGx-LCA5 clinical trial data. The live and archived webcast may be accessed on the Opus Genetics website under the Investors section: Events. The live call can be accessed by dialing 888-506-0062 (domestic) or 973-528-0011 (international) and entering conference code: 906168. Opus Genetics suggests participants join 15 minutes in advance of the event.

About the OPGx-LCA5-1001 Phase 1/2 Clinical Trial

The OPGx-LCA5-1001 trial is a Phase 1/2 open-label, ascending-dose study evaluating the safety and preliminary efficacy of OPGx-LCA5 administered via subretinal injection in participants with inherited retinal degeneration due to biallelic mutations in the LCA5 gene. The trial has enrolled a total of six participants: three adults and three pediatric participants. Efficacy evaluations include measurements of visual acuity; Full-Field Stimulus Testing (FST), which measures the retina's sensitivity to light; performance outcomes on the Multi-Luminance orientation and Mobility Test (MLoMT); and microperimetry, which measures point-wise sensitivity to light. For more information, visit clinicaltrials.gov (NCT05616793).

About OPGx-LCA5

OPGx-LCA5 is designed to address a form of Leber congenital amaurosis (LCA) due to biallelic mutations in the LCA5 gene (LCA5), which encodes the lebercilin protein. LCA5-associated inherited retinal disease is an early-onset severe inherited retinal dystrophy. Studies in patients with this mutation have reported evidence for the dissociation of retinal architecture and visual function in this disease, suggesting an opportunity for therapeutic intervention through gene augmentation. OPGx-LCA5 uses an adeno-associated virus 8 (AAV8) vector to precisely deliver a functional LCA5 gene to the outer retina. OPGx-LCA5 is currently being evaluated in a Phase 1/2 clinical trial at the University of Pennsylvania. Data from pediatric participants demonstrated large gains in cone-mediated vision, and the therapy remains well tolerated with no ocular serious adverse events or dose-limiting toxicities. The adult cohort showed durable improvements in cone sensitivity and visual function out to 18 months. OPGx-LCA5 has received Rare Pediatric Disease, Orphan Drug and Regenerative Medicine Advanced Therapy (RMAT) designations from the FDA.

About Leber Congenital Amaurosis (LCA) and LCA5

Leber congenital amaurosis (LCA) is a group of inherited retinal diseases characterized by severe impaired vision or blindness at birth. Some retinal experts consider LCA to be a severe form of retinitis pigmentosa (RP). The condition is caused by degeneration and/or dysfunction of photoreceptors, the cells in the retina that make vision possible. Mutations in one of more than two dozen genes can cause LCA.

LCA5 is an ultra-rare disease caused by mutations in the LCA5 gene, which encodes lebercilin, a protein essential for photoreceptor structure and function. LCA5 accounts for roughly 2% of all LCA cases, or approximately 200 patients. There are currently no approved therapies for LCA5-related inherited retinal degeneration, making gene therapy a potentially transformative approach.

About Opus Genetics

Opus Genetics is a clinical-stage biopharmaceutical company developing gene therapies for the treatment of inherited retinal diseases (IRDs) and small molecule therapies for other ophthalmic disorders. The Company’s pipeline features AAV-based gene therapies targeting inherited retinal diseases including Leber congenital amaurosis (LCA), bestrophinopathy, and retinitis pigmentosa. Its lead gene therapy candidates are OPGx-LCA5, which is in an ongoing Phase 1/2 trial for LCA5-related mutations, and OPGx-BEST1, a gene therapy targeting BEST1-related retinal degeneration. Opus Genetics is also advancing

Phentolamine Ophthalmic Solution 0.75%, a partnered therapy currently approved in one indication and being studied in two Phase 3 programs for presbyopia and reduced low light vision and nighttime visual disturbances. The Company is based in Research Triangle Park, NC. For more information, please visit www.opusgtx.com.

Forward Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements include, but are not limited to the clinical development of, and clinical results and future plans for, OPGx-LCA5, potential meetings with the FDA regarding our OPGx-LCA5 program, and expectations regarding us, our business prospects, and our results of operations and are subject to certain risks and uncertainties posed by many factors and events that could cause our actual business, prospects and results of operations to differ materially from those anticipated by such forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those described under the heading “Risk Factors” included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2024 , our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2025 and June 30, 2025, and in our other filings with the U.S. Securities and Exchange Commission. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this press release. These forward-looking statements are based upon our current expectations and involve assumptions that may never materialize or may prove to be incorrect. Actual results and the timing of events could differ materially from those anticipated in such forward-looking statements as a result of various risks and uncertainties. In some cases, you can identify forward-looking statements by the following words: “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “aim,” “may,” “ongoing,” “plan,” “potential,” “predict,” “project,” “should,” “will,” “would” or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words. We undertake no obligation to revise any forward-looking statements in order to reflect events or circumstances that might subsequently arise.

Contacts

Investors
Jenny Kobin
Remy Bernarda
IR Advisory Solutions
ir@opusgtx.com

Media
Kimberly Ha
KKH Advisors
917-291-5744
kimberly.ha@kkhadvisors.com

Source: Opus Genetics, Inc.

Source: Opus Genetics, Inc.