April 8, 2025

Opus Genetics Announces One-Month Clinical Data from Pediatric Patient in Phase 1/2 Trial of OPGx-LCA5 Gene Therapy in Inherited Retinal Diseases

First pediatric patient shows encouraging early safety profile and meaningful improvement in visual function at one month

A second pediatric patient was recently dosed, and the pediatric cohort is expected to complete enrollment in Q2 2025; initial data from all three patients anticipated in Q3 2025

FDA Type D meeting provided clarity on next steps for a registrational trial design to support BLA submission, with potential trial initiation in 2026

DURHAM, N.C., April 08, 2025 (GLOBE NEWSWIRE) -- Opus Genetics, Inc. (Nasdaq: IRD), a clinical-stage ophthalmic biotechnology company developing gene therapies for the treatment of inherited retinal diseases (IRDs) and to treat other ophthalmic disorders ("Opus" or the "Company"), today announced one-month clinical data from the first pediatric patient treated with its investigational gene therapy, OPGx-LCA5, in a Phase 1/2 open-label trial for LCA5-related inherited retinal disease (IRD). The new data builds upon previously reported positive results from adult patients treated in the same study.

"The preliminary results observed in our pediatric patient are encouraging and are consistent with the improvements we previously observed in adults," said Tomas Aleman, M.D., Scheie Eye Institute Perelman, the study Principal Investigator. "She noticed that objects were significantly brighter and was able to distinguish letters and navigate with an independence she had never had before, after only one-month following treatment. We're excited to continue enrolling patients and studying improvement over longer periods of time in this important study."

George Magrath, M.D., Chief Executive Officer of Opus Genetics added "We believe these findings provided further evidence supporting the potential of OPGx-LCA5 to restore meaningful vision in patients affected by LCA5. The meeting with the FDA regarding the design of our program may lead to the start of a trial in 2026. Early intervention may be particularly beneficial in pediatric patients, given the progressive nature of this disease."

OPGx-LCA5 is currently being evaluated in a Phase 1/2 trial in adult and pediatric patients with inherited retinal degeneration due to mutations in the LCA5 gene. The trial is progressing and began enrolling a cohort of three pediatric patients in February 2025. Initial data from this pediatric cohort are expected in the third quarter of 2025. LCA5 is a rare and

severe genetic disorder that leads to early-onset vision loss due to mutations in the *LCA5* gene, which encodes lebercilin, a protein essential for photoreceptor function. There are no approved therapies for LCA5-related IRD to date, making gene therapy a potentially transformative approach.

The first pediatric participant, aged 16 (at time of consent), received a single subretinal injection of OPGx-LCA5 and clinically meaningful improvement in vision was observed at one-month post treatment. In addition to these promising early efficacy signals, there have been no observed drug related adverse events reported to date. These data are preliminary, and we expect to be able to read out efficacy data for all three pediatric patients in the third quarter of 2025.

In the ongoing Phase 1/2 trial, we have observed early clinical proof of concept in adult patients. In previously announced results for OPGx-LCA5, we observed visual improvement in all 3 of the adult patients at six months. New one-year data from the study, to be presented at the Association for Research in Vision and Ophthalmology (ARVO) 2025 Meeting, on May 4, 2025 provide preliminary evidence that both subjective and objective signs of efficacy in these adult patients persisted for a year.

Next Steps for OPGx-LCA5 Following FDA Type D Meeting

An FDA meeting was held to discuss the potential regulatory path for OPGx LCA5, including the design of a potential registrational study. Opus proposed a single arm, adaptive pivotal study, to enroll as few as 19 patients, with a primary endpoint utilizing the multi-luminance orientation and mobility test (MLoMT), which is a functional vision and patient mobility test. MLoMT is a virtual-reality version of the multi-luminance mobility test (MLMT), which provided evidence to support a prior FDA approval. The company also received constructive feedback on its proposed statistical analysis plan (SAP) as well as chemistry, manufacturing, and controls (CMC). The FDA requested additional information on these topics, and Opus plans to submit further materials and continue discussions with the FDA. Opus anticipates the pivotal trial could initiate in Q1 2026.

Phase 1/2 Trial Design

This clinical trial was designed to evaluate the safety and preliminary efficacy of subretinal gene therapy with OPGx-LCA5 in patients with inherited retinal degeneration due to biallelic mutations in the LCA5 gene. It is an open-label, Phase 1/2 trial evaluating OPGx-LCA5. The trial has been enrolling both adult and pediatric patients. Dosing of the first pediatric patients began in February 2025. Efficacy endpoints include measurement of functional vision using: 1) the Multi-Luminance orientation and Mobility Test (MLoMT); 2) Full-Field Stimulus Testing (FST), which measures the retina's sensitivity to light; and 3) microperimetry, which measures point-wise sensitivity to light. For more information, visit clinicaltrials.gov (NCT05616793). The six-month results on adult patients treated with OPGx-LCA5 were presented in a Key Opinion Leader (KOL) webinar, hosted by Opus on December 11, 2024. A copy of the presentation from the webinar can be accessed here.

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 designed to evaluate its safety and preliminary efficacy in patients with inherited retinal degeneration due to biallelic mutations in the LCA5 gene.

About Opus Genetics

Opus Genetics is a clinical-stage ophthalmic biopharmaceutical company developing therapies to treat patients with inherited retinal diseases (IRDs) and other treatments for ophthalmic disorders. Our pipeline includes adeno-associated virus (AAV)-based investigational gene therapies that address mutations in genes that cause different forms of bestrophinopathy, Leber congenital amaurosis (LCA) and retinitis pigmentosa. Our most advanced investigational gene therapy program is designed to address mutations in the LCA5 gene, which encodes the lebercilin protein and is currently being evaluated in a Phase 1/2 open-label, dose-escalation trial, with encouraging early data. Our pipeline also includes BEST1 investigational gene therapy, designed to address mutations in the BEST1 gene, which is associated with retinal degeneration. The pipeline also includes Phentolamine Ophthalmic Solution 0.75%, a non-selective alpha-1 and alpha-2 adrenergic antagonist being investigated to reduce pupil size, and APX3330, a novel small-molecule inhibitor of Ref-1 being investigated to slow the progression of non-proliferative diabetic retinopathy. Phentolamine Ophthalmic Solution 0.75% is currently being evaluated in Phase 3 trials for presbyopia and dim (mesopic) light vision disturbances. We have reached agreement with the FDA under SPA for a Phase 3 trial to evaluate oral APX3330 for the treatment of DR 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, expectations regarding our cash runway, expectations of potential growth, expectations regarding integration following our acquisition of privately-held Opus Genetics Inc., including with respect to the combination of their portfolio of clinical assets into our existing portfolio and our combined focus on gene therapy treatment, and statements concerning data from and future enrollment for our clinical trials and our pipeline of additional indications.

These forward-looking statements relate to 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 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. 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.

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, including, without limitation:

- Data reported in this press release is preliminary and related to one patient, and, as a result, data that initially appears promising may be revised, updated, or invalidated at a later data readout and/or may ultimately not be capable of duplication in additional patients;

- Failure to successfully integrate our businesses with Former Opus could have a material adverse effect on our business, financial condition and results of operations;

- The Opus acquisition significantly expanded our product pipeline and business operations and shifted our business strategies, which may not improve the value of our common stock;

- Our gene therapy product candidates are based on a novel technology that is difficult to develop and manufacture, which may result in delays and difficulties in obtaining regulatory approval;

- Our planned clinical trials may face substantial delays, result in failure, or provide inconclusive or adverse results that may not satisfy FDA requirements to further develop our therapeutic products;

- Changes in regulatory requirements could result in increased costs or delays in development timelines;

- We depend heavily on the success of our product pipeline; if we fail to find strategic partners or fail to adequately develop or commercialize our pipeline products, our business will be materially harmed;

- Others may discover, develop, or commercialize products similar to those in our pipeline before or more successfully than we do or develop generic variants of our products even while our product patents remain active, thereby reducing our market share and potential revenue from product sales;

- We do not currently have any sales or marketing infrastructure in place and we have limited drug research and discovery capabilities;

- The future commercial success of our products could significantly depend upon several uncertain factors, including third-party reimbursement practices and the existence of competitors with similar products;

- Product liability lawsuits against us or our suppliers or manufacturers could cause us to incur substantial liabilities and could limit commercialization of any product candidate that we may develop;

- Failure to comply with health and safety laws and regulations could lead to material fines;
- We have not generated significant revenue from sales of any products and expect to incur losses for the foreseeable future;
- Our future viability is difficult to assess due to our short operating history and our future need for substantial additional capital, which could be limited by any adverse developments that affect the financial services industry;
- Raising additional capital may cause our stockholders to be diluted, among other adverse effects;
- We operate in a highly regulated industry and face many challenges complying to sudden changes in legislative reform or the regulatory environment, which affects our pipeline stability and could impair our ability to compete in international markets;
- We may not receive regulatory approval to market our developed product candidates within or outside of the U.S.;
- With respect to any of our product candidates that receive marketing approval, we may be subject to substantial penalties if we fail to comply with applicable regulatory requirements;
- Our potential relationships with healthcare providers and third-party payors will be subject to certain healthcare laws and regulations, which could expose us to extensive potential liabilities;
- We rely on third parties for material aspects of our business, such as conducting our nonclinical and clinical trials and supplying and manufacturing bulk drug substances, which exposes us to certain risks;
- We may be unsuccessful in entering into or maintaining licensing arrangements (such as the Viatris License Agreement) or establishing strategic alliances on favorable terms, which could harm our business;
- Our current focus on the cash-pay utilization for future sales of RYZUMVI may limit our ability to increase sales or achieve profitability with this product;
- Inadequate patent protection for our product candidates may result in our competitors developing similar or identical products or technology, which would adversely affect our ability to successfully commercialize;
- We may be unable to obtain full protection for our intellectual property rights under U.S. or foreign laws;
- We may become involved in lawsuits for a variety of reasons associated with our intellectual property rights, including alleged infringement suits initiated by third parties;
- We are dependent on our key personnel, and if we are not successful in attracting and retaining highly qualified personnel, we may not be able to successfully implement our

business strategy;

- As we grow, we may not be able to operate internationally or adequately develop and expand our sales, marketing, distribution, and other corporate functions, which could disrupt our operations;
- The market price of our common stock is expected to be volatile and subject to certain dilutive risks associated with our Equity Line of Credit arrangement; and
- Factors out of our control related to our securities, such as securities litigation or actions of activist stockholders, could adversely affect our business and stock price and cause us to incur significant expenses.

The foregoing review of important factors that could cause actual events to differ from expectations should not be construed as exhaustive. Readers are urged to carefully review and consider the various disclosures made by us in this report and in our other reports filed with the Securities and Exchange Commission that advise interested parties of the risks and factors that may affect our business. All forward-looking statements contained in this press release speak only as of the date on which they were made. We undertake no obligation to update such statements to reflect events that occur or circumstances that exist after the date on which they were made.

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