PINPOINT GENE THERAPY

Press Release

EG 427 highlights at ASGCT major advances made with its HERMES platform in neurology using versatile non-replicative herpes vectors

- Data highlights advantages of single, non-replicative HSV-1 (nrHSV-1) vector hosting two transgenes with independent expression kinetics
- Vectors also show high transduction rate of neurons in the CNS at very low doses and can be efficiently distributed to connected brain regions via retrograde transfer
- Supports pipeline growth leveraging new vector attributes to address genetic medicine challenges in highly prevalent pathologies

Paris, France, May 13, 2025 – EG 427 announced today data highlighting the Company's leading role in developing non-replicating HSV-1 (nrHSV-1) vector technology in neurology. Data will be presented at the 28th Annual Meeting of the American Society of Cell and Gene Therapy (ASGCT), May 13-17, New Orleans.

In the first of two accepted posters, EG 427 will describe a vector containing two different transgenes under the control of independent regulatory elements in different epigenetic regions of the HSV-1 genome. *In vitro* and *in vivo* studies have shown that this unique vector technology allows the two transgenes to be expressed with different duration patterns. In this case, the transgene inserted outside of the so-called latency region displayed a short expression duration, while the transgene inserted in the latency region was stably expressed for the duration of tested time points.

"This innovative dual-payload nrHSV-1 vector, which enables the delivery of multiple transgenes with distinct expression dynamics within the same cell, provides a completely new approach for genetic medicines of the future," said Teddy Jégu, Ph.D., VP of Research of EG 427. "Our ability to offer two transgenes with independent expression profiles in one vector is a huge advantage over other vector technologies, especially when we see the AAV field struggling with multiple vector constructs to deliver a single transgene. Our vision is to be able to develop a single vector with, for example, the ability to delete genes in vivo, through a transient expression of gene editing proteins, and to replace with a corrected gene with the capacity to deliver long-term expression to treat autosomal dominant disease."

A second poster will highlight the development of a nrHSV-1 vector that, when administered in the striatum, broadly targets cortical neurons projecting in this area. This vector, derived from our HERMES platform, expresses the mGreenLantern reporter gene under the control of the CAG promoter. When stereotactically injected into the striatum of mice, our vector demonstrated high-level transgene expression in layer V cortical neurons. This contrasts with prior academic experiments showing poor transgene expression with highly defective HSV-1 vectors. Furthermore, cells expressing mGreenLantern in the cortex were found to be exclusively neurons. Stable transgene expression levels were seen at least six weeks post-administration. This opens the way for unique targeted biodistribution of therapeutic proteins within the brain to address a broad range of neurodegenerative diseases.

"We have made great progress in advancing our novel non-replicative HSV-1 vector platform, which is not only seen in the data presented at ASGCT but also in the significant milestone

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announced early this year when we treated the first patient in our clinical study of EG110A in spinal cord patients suffering from urinary bladder dysfunction," said Philippe Chambon, M.D., Ph.D., founder and CEO of EG 427. "These advances provide strong, early evidence that our genetic medicines could offer safe, targeted and cost-effective ways to treat some of the large medical needs of patients suffering of chronic neurological diseases."

Poster Details
Presentations to be made May 13 at 6-7:30 pm CDT in Hall I2

873: New gene therapy vehicle for the expression of multiple transgenes with distinct kinetics of expression
Presented by Justine Basset (Senior Scientist)

537: Long-term expression of transgene in targeted cortical neurons following inoculation in the mouse striatum of a non-replicative HSV-1 vector.
Presented by Julien Ratelade (Preclinical manager)

About EG 427
EG 427 is the global leader in non-replicating HSV-1 (nrHSV-1) vector technology in neurology. EG 427 has started a phase 1/2 study in the US with its lead genetic medicine candidate, EG110A, in patients with neurogenic detrusor overactivity (neurogenic bladder)-related incontinence. This is the first human study of this type of a vector targeting sensory neuron-based diseases. EG110A is being developed to addresses multiple severe bladder diseases, including overactive bladder (OAB), and has the potential to be a major improvement over existing therapies, resulting in better care for patients and lower costs for healthcare systems.

The company's unique HERMES platform delivers pinpoint neurotherapeutics to treat prevalent diseases of the peripheral and central nervous system. Its vectors can achieve focal transduction in specific regions and then selective expression of transgenes in targeted subsets of neurons thanks to the control of sophisticated regulatory elements. With demonstrated clinical safety and possible repeated dosing, the large payload capacity of nrHSV-1 vectors allows for versatile DNA delivery for smarter genetic medicine.

For more information:
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