ENCODED THERAPEUTICS, INC.
341 Oyster Point Blvd. South San Francisco, CA 94080

Encoded Therapeutics Addresses Common Source of Gene Therapy Toxicity While Achieving Precise Brain Expression in Non-Human Primates, Presented at the American Society of Gene and Cell Therapy 26th Annual Meeting

May 19, 2023

Attained >10x expression reduction in dorsal root ganglion (DRG) by applying proprietary human genomic de-targeting regulatory elements (REs) without loss of expression in therapeutic target in gene therapy program

SOUTH SAN FRANCISCO, Calif. – Encoded Therapeutics announced today the presentation of non-human primate (NHP) validation of the company's technology to drive desired gene and protein expression patterns at the American Society of Gene and Cell Therapy (ASGCT) 26th Annual Meeting. An important challenge of developing gene therapy in many central nervous system (CNS) disorders is the toxicity concern associated with high transgene expression in the dorsal root ganglion (DRG). By incorporating a DRG de-targeting regulatory element (RE) derived from Encoded's research platform into a CNS-targeted gene therapy construct, the company achieved a significant reduction in DRG protein expression to endogenous baseline. This resulted in a greater than 10-fold selective reduction in DRG transcriptional activity without impacting brain expression.

"Off-target expression in the DRG and other organs has created limitations on gene therapy efficacy optimization," said Encoded CEO Kartik Ramamoorthi, Ph.D. "In addition to de-targeting the DRG and other organ systems, we believe that Encoded REs have the potential to drive high levels of cell-type selectivity, potency and specificity, irrespective of the gene modulation approach at hand. We're incorporating this technology into our pipeline to unlock novel indications, and we hope to have an even greater impact for people living with CNS diseases by collaborating with other gene therapy developers in the future."

Encoded tested over 10,000 REs *in vivo* with its high-throughput NGS-based platform to screen for human genomic sequences that can modulate transgene expression and produce a more highly targeted gene therapy expression profile in mice. The research team analyzed top candidates in NHPs, showing successful translation to higher species while still achieving precise expression in the CNS.

About Encoded Therapeutics

Encoded Therapeutics is creating one-time, disease-modifying gene therapies for pediatric central nervous system (CNS) disorders with its cell-selective targeting and regulation platform. The Encoded approach offers potentially unprecedented gene specificity and cell selectivity to unlock novel opportunities by targeting a range of disease mechanisms. Encoded's technology is compatible with any delivery system to control where and when therapeutic transgenes are expressed, thereby shaping the functionality of target cells and holding broader therapeutic potential beyond CNS disorders. For more information, please visit www.encoded.com.

Contacts

communications@encoded.com