



Transposon Therapeutics' TPN-101 to be Studied for Extending Healthy Aging under ARPA-H Award for up to \$22M

ARPA-H PROSPR program to support the development of TPN-101 to slow aging and help people stay healthy longer

SAN DIEGO, California, March 4, 2026 – Transposon Therapeutics, a biotechnology company developing therapies for the treatment of neurodegenerative and aging-related diseases, today announced that the Advanced Research Projects Agency for Health (ARPA-H), a federal agency created to support high-impact biomedical projects that could lead to transformative advances in health, has awarded up to \$22 million to study Transposon's TPN-101 for healthy aging under the PROSPR (Proactive Solutions for Prolonging Resilience) program.

The award will support a multiphase research and development program to evaluate the ability of TPN-101 to improve aging-related outcomes and other measures of overall health. The ultimate goal of PROSPR is to extend healthspan, which the agency defines as the number of years aging adults live healthy lives and enjoy overall well-being by compressing the frailty and disability that comes with aging into a shorter duration of time near the end of life.

“This award represents a transformative opportunity to advance TPN-101 into an entirely new therapeutic category that targets the underlying causes of age-related disease,” said Dennis Podlesak, Chairman and Chief Executive Officer of Transposon. “With no FDA-approved therapies to extend healthspan, we believe TPN-101 has the potential to be at the forefront with a first-in-class approach to preserving function, preventing long-term disease, and extending the years of healthy life.”

TPN-101, a first-in-class LINE-1 reverse transcriptase inhibitor, was selected for testing in this program based on emerging evidence that activation of LINE-1 elements in the human genome contributes to cellular aging. LINE-1 elements are a class of retrotransposable elements that in humans are uniquely capable of replicating and moving to new locations within the genome. When this process becomes dysregulated, LINE-1 reverse transcriptase drives the overproduction of LINE-1 DNA, triggering innate immune responses that contribute to neurodegenerative, autoimmune, and aging-related disease pathology. TPN-101 specifically inhibits the LINE-1 reverse transcriptase, thereby reducing the activation of innate immunity and its associated inflammatory and senescence processes.

“We have known for years that non-infection related inflammation increases with age and is linked to poor aging outcomes,” says Andrew Brack, ARPA-H Program Manager and creator of the PROSPR program. “Because LINE-1 retrotransposons have recently been reported to increase inflammation as we age, we are excited about the possibility that anti-retroviral therapies, which have the added benefit of a long history of safety in non-diseased populations, will extend healthspan.”

“LINE-1 activation sits upstream of numerous age-related pathologies,” said Dr. Andrew Satlin, Chief Medical Officer of Transposon. “This program allows rigorous evaluation of TPN-101 as a treatment to help people stay healthier, stronger, and mentally sharper as they grow older, not by treating diseases one by one but by slowing a biological process that drives aging itself.”

Transposon is advancing TPN-101 in late-stage clinical trials for the treatment of neurodegenerative diseases, including progressive supranuclear palsy (PSP), amyotrophic lateral sclerosis (ALS) and Alzheimer’s disease. The pathology of these diseases involves disruption to the normal cellular processes that suppress LINE-1 expression, leading to further increases in LINE-1 activation beyond those seen as part of the aging process.

Transposon Therapeutics will collaborate with University of Rochester; Brown University; University of Connecticut; University of Texas Medical Branch, University of Texas Health; and University of Nebraska on the PROSPR project.

About Transposon

Transposon Therapeutics, Inc. is a clinical-stage biopharmaceutical company focused on developing transformational therapies for the treatment of neurodegenerative and aging-related diseases, including PSP, ALS, and Alzheimer’s disease. The company’s lead clinical compound, TPN-101, is first-in-class to address LINE-1 reverse transcriptase for the treatment of neurodegenerative and autoimmune diseases. The company also has a discovery platform supporting a deep pipeline of novel therapies to address additional indications.

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