



Aspen Neuroscience Announces Publication of Sasineprocel Preclinical Data in "Cell Stem Cell"

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Peer-reviewed findings describe reproducible manufacturing, leading-edge genomic quality controls and preclinical evidence supporting clinical development of an autologous iPSC-derived neuron replacement therapy for Parkinson's disease, now entering Phase 3

SAN DIEGO, Sept. 18, 2026 (GLOBE NEWSWIRE) -- Aspen Neuroscience, Inc., a clinical-stage regenerative medicine biotechnology company developing personalized, autologous cell therapies for Parkinson's disease (PD), today announced publication of "Autologous iPSC-Derived Cell Therapy for Parkinson's Disease: Preclinical Evaluation through Genomic Quality Controls" in *Cell Stem Cell*.

The peer-reviewed paper describes the scientific and translational foundation for sasineprocel (ANPD001), Aspen's investigational autologous induced pluripotent stem cell (iPSC)-derived dopamine neuron replacement therapy for Parkinson's disease (PD), designed to restore dopamine and underlying neural circuitry lost in the progression of PD.

"As we enter Phase 3, it is an honor to share the early research that formed the strong foundation for the high-tech and high-quality development of sasineprocel translating personalized cell therapy from scientific promise into clinical development," said Xiaokui Zhang, Ph.D., Chief Scientific Officer of Aspen Neuroscience. "This work shows how we integrated whole-genome sequencing and transcriptomic analyses with functional preclinical studies to inform product quality. **NeuriTest™** is an important part of that framework and illustrates how data-driven, machine learning tools can support the translation of precise personalized cell therapies from the laboratory to the clinic."

The preclinical findings established a robust quality control framework showing that Aspen's approach demonstrates reproducible characterization and manufacturing of dopaminergic neuron precursor cells (DANPCs), from multiple cell lines, through analysis of whole-genome sequencing data.

The paper also describes **NeuriTest™**, Aspen's proprietary RNA sequencing-based bioinformatics assay. **NeuriTest™** applies machine-learning methods to transcriptomic data to evaluate whether patient-specific DANPC products exhibit molecular characteristics associated with desired cell identity and preclinical performance. The assay is part of Aspen's broader strategy to support consistent product quality across individualized autologous cell therapies.

Additionally, improvement in motor function was observed in these preclinical PD models, and there were no treatment-related adverse findings in a nine-month Good Laboratory Practice (GLP) safety study in a rodent model. These data supported advancement into the ongoing Phase 1/2a ASPIRO clinical trial*.

The manuscript is available online through [Cell Stem Cell](#).

About Aspen Neuroscience

Aspen Neuroscience is a leading, clinical-stage regenerative medicine biotechnology company developing autologous induced pluripotent stem cell-derived (iPSC) therapies beginning with neurodegenerative diseases of high unmet need including PD.

Its lead product candidate is sasineprocel (ANPD001), the most advanced autologous investigational cell therapy in the United States for treating PD.

About Sasineprocel (ANPD001)

Sasineprocel is a single-dose, autologous iPSC-based cell therapy being evaluated for the treatment of PD. We believe sasineprocel has the potential to be disease-modifying by replacing a patient's lost dopaminergic (DA) neurons with DANPCs and aiming to reconstruct the underlying neural circuitry lost in the progression of disease.

Specifically, sasineprocel is created from a patient's own cells via a small skin punch biopsy, reprogrammed to iPSCs (turning back the biological clock of the cells to a pre-disease state), and differentiated into DANPCs. Our proprietary cell composition is then delivered via image-guided administration to the putamen, the part of the brain where restoration of dopamine signaling is needed.

This approach is designed to establish a biologically active cellular microenvironment that supports engraftment, survival and functional integration of the transplanted cells to achieve durable clinical benefits for PD patients with the goal of slowing or halting

disease progression.

Since it is autologous (using a patient's own cells), immunosuppression, which is required for donor-derived (allogeneic) cell therapies, is not needed.

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