

Creative Biolabs' Webinar Explores New Mechanisms Driving Neurodegeneration

Discover how iPSC-derived human brain tissue models are uncovering genetic, cellular, and vascular mechanisms underlying neurodegenerative disease.

SHIRLEY, NY, UNITED STATES, June 5, 2026 /EINPresswire.com/ -- Creative Biolabs is pleased to announce its upcoming webinar, "Decoding the Mechanisms Underlying Susceptibility to [Neurodegeneration with iPSC-Derived Human Brain Tissue](#)," to be held at 10:00 AM EDT on July 14, 2026.

The webinar will feature Joel W. Blanchard, PhD, Associate Professor in the Nash Family Department of Neuroscience and the Department of Cell, Developmental & Regenerative Biology at the Icahn School of Medicine at Mount Sinai. Dr. Blanchard leads a

research program dedicated to understanding how genetic and environmental factors contribute to neurodegeneration by developing advanced stem cell-derived human brain models.

[Neurodegenerative diseases](#), including Alzheimer's disease (AD) and Parkinson's disease (PD), remain among the most pressing challenges in modern medicine. While genetic risk factors and pathological hallmarks have been identified, the mechanisms that render certain individuals and cell types particularly vulnerable to degeneration are still being uncovered. Human induced pluripotent stem cell (iPSC)-derived brain tissue models are emerging as powerful tools for investigating these complex disease processes in a physiologically relevant setting.

During this webinar, Dr. Blanchard will present how multicellular human brain tissue models can reveal previously unrecognized pathways driving neurodegeneration. Drawing from recent research, he will highlight three compelling examples:



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- * A rare genetic mutation associated with severe juvenile Parkinson's disease, revealing a novel lysosome–polyamine–epigenetic axis that contributes to neurodegeneration.
- * The role of [APOE4](#) in promoting α -synuclein co-pathology, demonstrating how glial dysfunction can accelerate neurodegenerative processes.
- * How APOE4 drives cerebrovascular remodeling and blood-brain barrier dysfunction in Alzheimer's disease, providing new insights into the vascular contributions to neurodegeneration.

About the Speaker

Dr. Blanchard's laboratory focuses on uncovering the cellular and molecular mechanisms that drive cognitive decline and disease susceptibility. His team develops sophisticated stem cell-derived 3D human brain models to investigate blood-brain barrier dysfunction, myelination, neuro-immune-vascular interactions, and genetic risk factors such as APOE4. By combining stem cell engineering, organoid technology, and functional genomics, the Blanchard lab studies disease progression, therapeutic response, and the effects of aging, injury, and environmental stressors on the brain.

Who Should Attend

- * Neuroscientists and neurodegeneration researchers
- * Stem cell and organoid researchers
- * Alzheimer's and Parkinson's disease investigators
- * Translational medicine and drug discovery scientists
- * Academic and industry professionals interested in human-relevant disease models

Webinar Details

Title: Decoding the Mechanisms Underlying Susceptibility to Neurodegeneration with iPSC-Derived Human Brain Tissue

Date: July 14, 2026

Time: 10:00 AM EDT

Registration: <https://neuros.creative-biolabs.com/decoding-the-mechanisms-underlying-susceptibility.htm>

Reserve your place today to gain insights into cutting-edge approaches for investigating the cellular and molecular basis of neurodegenerative diseases.

About Creative Biolabs

Creative Biolabs is committed to advancing neuroscience research through innovative technologies and customized solutions, supporting scientists worldwide in disease modeling, drug discovery, and translational research.

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