



Robert Krencik, PhD

Assistant Professor of Neurosurgery, Academic Institute

Assistant Member, Research Institute

Houston Methodist

Weill Cornell Medical College

Neuromodulation of Bioengineered Organoids with Reactive Human Astrocytes

Dr. Krencik received his PhD in Neuroscience at the University of Wisconsin-Madison and conducted a postdoctoral fellowship at the University of California, San Francisco. He is now a Principal Investigator in the Center for Neuroregeneration and Department of Neurosurgery at Houston Methodist Research Institute, and is also affiliated with Weill Cornell Medicine, Rice University, and Texas A&M University. His specific research goals are to uncover the mechanisms by which human astrocytes contribute to neuronal activity during healthy and diseased states. The experimental approach utilized in his lab consists of modulating functionally mature neural networks in the form of bioengineered organoid cultures that are generated from human pluripotent stem cells. Altogether, the purpose of these studies is to subsequently translate research findings into novel therapeutic strategies.