



BCL 2023

Edition IV



Josef Parvizi

**Professor,
Neurology & Neurological Sciences
Stanford University, USA**



11 Jan | 09:00 - 10:00

Studying Cognition with Intracranial Recordings and Electrical Stimulation of the Human Brain

Abstract: Cognition, as a function of the brain, depends on cross-regional interactions, in the millisecond temporal window, between discretely localized populations of neurons. In my lab, we use direct intracranial recordings from inside the brain that offer millimeter anatomical precision and millisecond temporal resolution and combine it with direct intracranial electrical stimulation of the recording sites to acquire unique information about the causal relevance of our observations to human behavior and subjective experience. Our multimodal approach has revealed previously unknown profiles of physiological activity within the human brain that could not have been attained with non-invasive methods. In this presentation, I will highlight some of our most recent findings of cross regional interactions relevant to the processing of autobiographical memories.

Brief Bio: Dr. Parvizi is a clinical neurologist at Stanford University Medical Center and is the principal investigator at the Laboratory of Behavioral and Cognitive Neuroscience that specializes in studying cross-regional dynamics of activity within the human brain. Dr. Parvizi completed his medical education at the University of Oslo and moved to the United States to complete his PhD training with Dr. Antonio Damasio (cognitive neuroscience) and Dr. Gary Van Hoesen (neuroanatomy). He completed his internship training at Mayo Clinic - Rochester and Neurology residency at Harvard. He completed epilepsy training at UCLA and has been working in the Department of Neurology and Neurological Sciences at Stanford University since 2007.