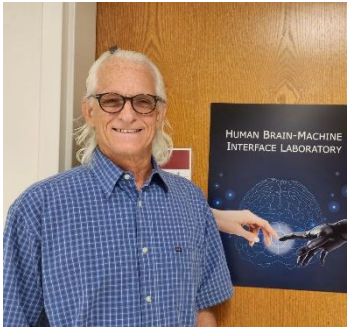




Ian Burkhart is C5 tetraplegic due to a diving accident in 2010. He took part in a clinical trial involving a brain-computer interface to manage muscle stimulation. This helped restore movement in his fingers and wrist. He will share his experience during the webinar. He is a member of the **BCI Pioneers Coalition**, a digital forum led by the world's first implantable BCI research participants.



Scott Imbrie is an incomplete quad with fine motor skill limitation (C3-C5) from a car accident in 1985. In 2020, he joined the BCI study at UChicago wanting to help people with spinal cord injuries. Scott controls a robotic hand and arm aided by sensory feedback, also providing needed data for science.



Mijail Serruya, MD, PhD, directs the Raphael Center for Neurorestoration at the Farber Institute for Neuroscience at Thomas Jefferson University in Philadelphia. He co-founded Cyberkinetics and helped design the first BrainGate trial. Following training in neurology at the University of Pennsylvania, Dr. Serruya joined the faculty at Jefferson. In 2020 and 2021, he led the Cortimo trial in which four Blackrock arrays were implanted in the cerebral cortex of a person with chronic subcortical stroke; neural signals were decoded in real-time to trigger a powered orthosis to restore hand movement on the paretic hand.

Abstract: Dr. Serruya will describe the trial design, main findings and lessons learned from the Cortimo trial. He will discuss the NuroSleeve upper extremity assistive system and the RISES spinal cord stimulation program. He will briefly touch on currently available assistive devices and the applications of implanted vagus nerve, deep brain cerebellar, cortical and spinal cord stimulation to movement recovery after stroke.