

**Materials** Science

Engineering

## Fall Seminar Series

## **Engineering Devices for Epilepsy**

Brian Litt, MD Professor of Neurology, Neurosurgery, and Bioengineering University of Pennsylvania

## Wednesday, October 31, 2:00 p.m. **PISB 104**

There is currently a revolution in new technologies and devices to treat neurological disease. Innovation is spanning materials, algorithms, whole devices and patient interfaces. In this talk, Dr. Litt will give an overview of some innovations from his laboratory and collaborators in this space, talk about opportunities for future innovation, and imagine what neuro devices of the future will look like. Examples will be taken from the world of epilepsy, his clinical specialty.

Brian Litt, M.D., is Professor of Neurology, Neurosurgery and Bioengineering at the University of Pennsylvania and Director of the University of Pennsylvania Epilepsy Center. He is one of the world's leading authorities on Neuroengineering, implantable brain devices and Neurotechnology, particularly for epilepsy. A clinician, scientist, inventor and entrepreneur, Dr. Litt divides his time between directing the Penn Epilepsy Center, Penn's Center for Neuroengineering and Therapeutics, Penn Health-Tech, a new university wide effort to bring new technologies from Penn scientists to patients, and his Philadelphia startup, Blackfynn. Dr. Litt has an Engineering degree from Harvard, received his MD and training in Medicine and Neurology from Johns Hopkins, and has served on the faculty at Hopkins, Emory University, Georgia Tech and the University of Pennsylvania. Dr. Litt's research focuses on Neuroengineering, specifically hardware, algorithms, machine learning, and high speed computing for implantable devices. He is a co-founder of Blackfynn, MC10 and IntelliMedix, and has contributed enabling technology to NeuroPace, NeuroVista, Medtronic, LevoNova among others. Dr. Litt has authored over 130 peer-reviewed papers, 17 patents, and received numerous honors and awards, including Dana, Klingenstein, Whitaker, Brain Research and Brain and Behavior Research Foundation Fellowships; and research innovation awards from the leading professional organizations in Neurology, Epilepsy and Bioengineering. He serves as an advisor to the NIH/NSF/White House BRAIN Initiative and is on the Editorial Board of Science Translational Medicine. He has mentored over 50 graduate students and postdoctoral Fellows who serve as leaders in academia, industry and government worldwide.