

# ADVANCES IN FUNCTIONAL NEUROSURGERY

FRIDAY, AUGUST 3, 2018

Room 505 E/W  
JORDAN MEDICAL EDUCATION CENTER  
PHILADELPHIA, PA

7:30-8:00 AM Registration & Breakfast

8:00-8:10 AM

## Welcome

**H. Isaac Chen, MD**

Assistant Professor of Neurosurgery  
Perelman School of Medicine  
University of Pennsylvania  
Staff Neurosurgeon  
VA Medical Center  
Philadelphia, PA

**Timothy Lucas, MD, PhD**

Assistant Professor of Neurosurgery  
Perelman School of Medicine  
University of Pennsylvania  
Philadelphia, PA

## NEUROMODULATION

8:10-8:35 AM

## Focused Ultrasound for the Treatment of Movement Disorders

**Gordon Baltuch, MD, PhD**

Professor of Neurosurgery  
Perelman School of Medicine  
University of Pennsylvania  
Philadelphia, PA

8:35-9:00 AM

## Pediatric Epilepsy/Functional: Not Just Little Adults

**Benjamin Kennedy, MD**

Assistant Professor of Neurosurgery  
Perelman School of Medicine  
Director of Epilepsy and Functional Neurosurgery  
Children's Hospital of Philadelphia  
Philadelphia, PA

9:00-9:25 AM

## Short Timescale Biomarkers of Parkinson's Disease

**Wael Asaad, MD, PhD**

Associate Professor of Neurosurgery  
Brown University  
Providence, RI

9:25-9:50 AM

## Computational Modeling of Cortical Stimulation

**William S. Anderson, MA, MD, PhD**

Associate Professor of Neurosurgery  
Johns Hopkins Medicine  
Baltimore, MD

9:50-10:05 AM Discussion

10:05-10:20 AM Break

## NEW INDICATIONS AND TREATMENT MODALITIES

10:20-10:45 AM **Advanced Imaging in Deep Brain Stimulation**

**Chengyuan Wu, MD, MSBmE**

Assistant Professor of Neurosurgery

Thomas Jefferson University

Philadelphia, PA

10:45-11:10 AM **Focused Ultrasound for Epilepsy**

**Travis Tierney, MD, DPhil**

Director of Neurosurgery

Sperling Neurosurgery Associates

Miami, FL

11:10-11:35 AM **Global Brain Dynamics of Coma and Consciousness**

**Charles Mikell, MD**

Assistant Professor of Neurosurgery

SUNY Stony Brook

Stony Brook, NY

11:35-11:50 Discussion

11:50-1:00 PM Lunch/Discussion of direction of ASSFN led by Dr. Joseph Niemat

## EPILEPSY

1:00-1:25 PM **RNS: The University of Pennsylvania Experience**

**Danielle Becker, MD**

Assistant Professor of Neurology

Perelman School of Medicine

University of Pennsylvania

Philadelphia, PA

1:25-1:50 PM **RNS Patient Interview**

**Danielle Becker, MD**

1:50-2:15 PM **Multimodal Network Analyses to Improve Epilepsy Surgery**

**Dario J. Englot, MD, PhD**

Assistant Professor of Neurosurgery, Radiology, and Biomedical Engineering

Vanderbilt University

Nashville, TN

2:15-2:40 PM **Targeting Neural Networks for the Treatment of Epilepsy**

**Jason L. Gerrard, MD, PhD**

Assistant Professor of Neurosurgery

Yale University

New Haven, CT

2:40-3:00 PM Discussion

3:00-3:25 PM Break

### EMERGING TECHNOLOGIES

3:25-3:45 PM **Novel Robotic Therapies for Epilepsy**

**Joseph S. Neimat, MD**

Professor & Chair of Neurosurgery

University of Louisville

Louisville, KY

3:45-4:05 PM **Using Human Cerebral Organoids to Repair Brain Circuitry**

**H. Isaac Chen, MD**

4:05-4:25 PM **Sensory Brain-computer Interfaces**

**Timothy Lucas, MD, PhD**

4:25-5:00 PM Discussion

5:00 PM Adjourn