

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

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

8:35-9:00 AM

Short Timescale Biomarkers of Parkinson's Disease

Wael Asaad, MD, PhD

Associate Professor of Neurosurgery
Brown University
Providence, RI

9:00-9:25 AM

Computational Modeling of Cortical Stimulation

William S. Anderson, MA, MD, PhD

Associate Professor of Neurosurgery
Johns Hopkins Medicine
Baltimore, MD

9:25-9:50 AM

Advanced Imaging in Deep Brain Stimulation

Chengyuan Wu, MD, MSBmE

Assistant Professor of Neurosurgery
Thomas Jefferson University
Philadelphia, PA

9:50-10:05 AM Discussion

10:05-10:20 AM Break

NEW INDICATIONS AND TREATMENT MODALITIES

10:20-10:45 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

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

EPILEPSY

1:00-1:25 PM **RNS Programming and Management**

Fadi Mikhail, MD
Instructor of Neurology
Perelman School of Medicine
University of Pennsylvania
Philadelphia, PA

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

Timothy Lucas, MD, PhD

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 and 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