



Society for Brain Mapping and Therapeutics (SBMT)

MEG/EEG Conference 2021:

Room 410 - Judith Ann Thatcher Memorial Session

Organized by Dr. Robert Thatcher,
Dr. Warren Boling, Dr. Zoltan Mari

Friday, July 9th 10:00-11:30 am

A7: New Advancements in Electrical Neuroimaging: Neuro-Surgical Planning and Pre vs Post Surgery Assessment



Chair & Recipient of SBMT 2020 Pioneer in Medicine Award: Dr. Robert Thatcher (Applied Neuroscience, Inc., CEO and Director Applied Neuroscience Research Institute, www.appliedneuroscience.com)

**10:00-10:15 am: Dr. Robert Thatcher, Ph.D. (Applied Neuroscience Research Institute)
Neuro-navigation of Functional and Effective Connectivity in Epilepsy**

10:15-10:30 am: Dr. Joel Lubar, Ph.D. (President Southeastern Neurofeedback Institute)

Electrical Neuroimaging of Epileptic Foci and Affected Networks

10:30-10:45 am: Dr. Wesley Center, Ph.D. (Brain and Behavior Associates)

Electrical Neuroimaging for Pre vs Post Treatment Evaluation

10:45-11:00 am: Emin Eralp, B.A. (Applied Neuroscience Research Institute)

3-Dimensional EEG Evaluation of Brain Networks

11:00-11:15 am: Dr. Richard Abbey, Ph.D. (Abbey Neuropsychology Clinic)

Electrical Neuroimaging and Diffusion Tensor Imaging

11:15-11:30 am: Session Discussion

Friday, July 9th 1:30-3:00 pm

A20: Epilepsy and Intraoperative Brain Mapping



Chairs: Dr. Dawn Eliashiv (Professor Co-Director, UCLA Seizure Disorder Center UCLA Department of Neurology)



Dr. Warren Boling (Professor and Chairman, Department of Neurosurgery Loma Linda University)

1:30-1:45 pm: Dr. Mohammad Dastjerdi (Loma Linda University)

Post-traumatic Epileptogenesis and Its Biomarkers

1:45-2:00 pm: Dr. Warren Boling (Loma Linda University)

Surgical Treatment of Epilepsy. A Brief History and Future Directions

2:00-2:15 pm: Dr. Gordon Baltzer (President of MEGIN)

The challenges in converting research and development into successful commercial products or services

2:15-2:30 pm: Dr. Dawn Eliashiv (University of California of Los Angeles)

Neuro stimulation network-based therapy for Epilepsy

2:30-2:45 pm: Dr. Yu Mike Chi, Ph.D. (Cognionics, Inc. and CGX LLC.)

The State of High-quality Dry and 'Almost-Dry' EEG Electrodes for Research and Clinical Applications

2:45-3:00 pm: Session Discussion

Friday, July 9th 3:30-5:00 pm

A32: MEG/EEG Clinical Applications

The EEG and MEG NeuroNavigator for the Evaluation of Epilepsy and Brain Network Dysregulation Using a Lifespan Normative Database from Birth to Senescence.



***Chair: Dr. Robert Thatcher.
(Applied Neuroscience, Inc., CEO and
Director Applied Neuroscience Research Institute,
www.appliedneuroscience.com)***

**3:30-3:45 pm: Dr. Robert Thatcher, Ph.D. (Applied Neuroscience Research Institute)
Real-Time Electrical Neuroimaging of the Cerebellum, Red Nucleus and
Sub-Thalamus: Future Applications in Parkinsonism and Ataxia.**

**3:45-4:00 pm: Dr. Wesley Center, Ph.D. (Brain and Behavior Associates)
Real-Time swLORETA EEG Neurofeedback of Veterans with PTSD**

**4:00-4:15 pm: Dr. Richard Abbey, Ph.D. (Abbey Neuropsychology Clinic)
Real-Time swLORETA EEG Neurofeedback of Autistic Spectrum Disorder**

**4:15-4:30 pm: Dr. Joel Lubar, Ph.D. (President Southeastern Neurofeedback Institute)
Electrical Neuroimaging in Epilepsy Patients**

**4:30-4:45 pm: Emin Eralp, B.A. (Applied Neuroscience Research Institute)
Real-Time swLORETA EEG Neurofeedback of TBI Patients.**

4:45-5:00 pm: Session Discussion

Saturday, July 10th 10:00-11:30 am

B45: Practical Advances in Electrical Neuroimaging: Hands On Training



Chair: Dr. Robert Thatcher (Applied Neuroscience, Inc., CEO and Director Applied Neuroscience Research Institute, www.appliedneuroscience.com)

**10:00-10:15 am: Dr. Robert Thatcher, Ph.D. (Applied Neuroscience Research Institute)
Electrical Neuroimaging and Diffusion Tensor Imaging of Functional and Effective Connectivity**

**10:15-10:30 am: Dr. Ernesto P. Soler, Ph.D. (Applied Neuroscience Research Institute)
Time Domain Evaluation of Epileptic Foci and Networks**

**10:30-10:45 am: Dr. Joel Lubar, Ph.D. (President Southeastern Neurofeedback Institute)
Real-Time Electrical Neuroimaging of the Cerebellum, Red Nucleus and Subthalamus**

**10:45-11:00 am: Dr. Joel Lubar, Ph.D. (President Southeastern Neurofeedback Institute)
Seizure Localization with Surface Projection and Diffusion Tensor Imaging (DTI)**

**11:00-11:15 am: Emin Eralp, B.A. (Applied Neuroscience Research Institute)
Real-Time swLORETA EEG Neurofeedback in PTSD**

11:15-11:30 am: Session Discussion

Saturday, July 10th 1:00-2:30 pm

B58: MEG/EEG Clinical Applications II



Chairs: Dr. Robert Thatcher (Applied Neuroscience, Inc., CEO and Director Applied Neuroscience Research Institute) and



Dr. Leslie S. Priscup (Chief Scientific Officer, BrainScope Company, Inc.)

**1:00-1:15 pm: Dr. Leslie S. Priscup, Ph.D. (BrainScope Company, Inc.)
Triage of acute traumatic brain injury using electrophysiological biomarkers**

**1:15-1:30 pm: Dr. Robert Isenhardt, M.S. (Wave Neuroscience)
QEEG optimization of TMS treatment**

1:30-1:45 pm: Emin Eralp, B.A. (Applied Neuroscience Research Institute) **Real-Time Imaging of Brain Networks**

**1:45-2:00 pm: Dr. Ernesto P. Soler, Ph.D. (Applied Neuroscience Research Institute)
MEG and EEG Neuroimaging of Functional and Effective Connectivity**

**2:00-2:15 pm: Dr. Wesley Center, Ph.D. (Brain and Behavior Associates)
Real-Time Electrical Neuroimaging and EEG Neuromodulation**

**2:15-2:30 Dr. Richard Abbey, Ph.D. (Abbey Neuropsychology Clinic)
Electrical Neuroimaging Linking Symptoms**

2:30-2:45 pm: Session Discussion

Saturday 21st 3:00-4:30 pm

B66: Epilepsy and intraoperative monitoring



***Chairs: Dr. Antal Berenyi, MD PhD (Adjunct Assistant Professor, Neuroscience Institute, New York University, NY)
and***

Dr. Zoltan Mari (Lou Ruvo Clinic, Cleveland Clinic)



**3:00-3:15 pm: Dr. Brach Poston (University of Nevada, Las Vegas)
Transcranial direct current stimulation to improve motor function in Parkinson's disease**

**3:15-3:30 pm: Dr. Teresa Arroyo-Gallegos (NQ- Medical)
Natural typing as a digital biomarker for fine motor impairment**

**3:30-3:45 pm: Dr. Yousef Salimpour (The John Hopkins Hospital)
Phase-dependent neuromodulation for treating Parkinson's disease symptoms**

**3:45-4:00 pm: Dr. Laszlo Grand (The John Hopkins University)
Multi Electrode Array (MEA) Technology: Understanding the Neurophysiological Characteristics of Neural Networks Modeling Neurological Disorders In-vitro**

**4:00-4:15 pm: Dr. Antal Berenyi (University of Szeged, Hungary, Neunos Ltd. New York University)
Oscillotherapy – Closed-loop transcranial electric stimulation in epilepsy and PTSD**

4:15-4:30 pm: Session Discussion

Sunday, July 11th 10:00-11:30 am

C84: MEG Sensors.



***Chairs: Dr. Peter Schwindt (Distinguished Member of
Technical Staff Sandia National Laboratories)***

and



***Dr. Amir Borna (Distinguished Member of Technical Staff
Sandia National Laboratories)***

**10:00-10:15 am: Dr. Peter Schwindt (Sandia National Laboratories, NM, US)
Moving Closer to the Brain: Introduction to On-Scalp Magnetoencephalography**

**10:15-10:30 am: Dr. Vishal Shah (QuSpin, Inc., CO, US)
Next Generation Magnetoencephalography (MEG)**

**10:30-10:45 am: Mr. Ryan Hill (University of Nottingham, United Kingdom)
Next Generation Neuroimaging with Optically Pumped Magnetometer
Magnetoencephalography (OPM-MEG)**

**10:45-11:00 am: Dr. Svenja Knappe (University of Colorado, Fieldline, Inc.)
Towards a MEG system with microfabricated OPMs**

**11:00-11:15 am: Dr. Amir Borna (Sandia National Laboratories, NM, US)
Non-Invasive Functional-Brain-Imaging with an OPM-based**

11:15-11:30 am: Session Discussion

Sunday, July 11th 3:00-4:30 pm

C110: Software Session for MEG/EEG

The Neuro-Navigator for EEG Source and Connectivity Analyses of Cortical and Cerebellar Network Nodes



Chairs: Dr. Robert Thatcher (Applied Neuroscience, Inc., CEO and Director Applied Neuroscience Research Institute, www.appliedneuroscience.com)

and



Dr. Ernesto Palmero Soler (Applied Neuroscience, Inc., Senior Scientist & Software Engineer, www.appliedneuroscience.com)

**3:30-3:45 pm: Dr. Robert Thatcher, Ph.D. (Applied Neuroscience Research Institute)
Real-Time swLORETA Cerebellar EEG Neurofeedback of Parkinson Patients**

**3:45-4:00 pm: Dr. Nicholas Peatfield Ph.D. (Proto-Me)
Modern Software Tools for MEG/EEG**

**4:00-4:15 pm: Dr. Ernesto P. Soler, Ph.D. (Applied Neuroscience Research Institute)
MEG and EEG Neuroimaging of Functional and Effective Connectivity**

**4:15-4:30 pm: Dr. William Lambos, Ph.D. (President & Licensed Psychologist at ABF Behavioral Health)
Real-Time swLORETA EEG Neurofeedback in PTSD**

**4:30-4:45 pm: Dr. William Lambos, Ph.D. (President & Licensed Psychologist at ABF Behavioral Health)
Neuronavigation of EEG Functional and Effective Connectivity and Diffusion Tensor Imaging**

4:15-4:30 pm: Session Discussion

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