



2022 Annual MEG Course
Friday, May 6 and Saturday May 7, 2022

FRIDAY, May 6, 2022

9:00 – 11:50am ET Part I: Principles and Practice of Clinical MEG

9:00 AM	Introduction <i>Jeffrey R. Tenney, MD, PhD</i>
9:05 AM	Welcome and Course Overview <i>Andrew Zillgitt, DO</i>
9:10 AM	Neurophysiologic Basis and Recording Fundamentals of MEG and EEG <i>Richard C. Burgess, MD, PhD</i>
10:00 AM	The Logistics of MEG Operation and Practicing According to the ACMEG Clinical Practice Guidelines (CPG) <i>Anto Bagic, MD, PhD</i>
10:50 AM	Break
11:00 AM	Best Practices in Clinical MEG – Patient preparation and Data Acquisition <i>John Mosher, PhD</i>

11:50am – 4:45pm ET Part II: Principles and Practice of Clinical MEG

11:50 AM	Dipole Modeling of Epileptiform Activity Using Equivalent Current Dipole (ECD) – How to Pick and Analyze a Spike <i>Michael Funke, MD, PhD</i>
12:20 AM	Other Mechanisms of Modeling Epileptiform Activity with MEG <i>Jeffrey R Tenney, MD, PhD</i>
1:00 PM	Lunch
2:00 PM	Normal Variants in MEG <i>Richard C. Burgess, MD, PhD</i>
2:50 PM	Artifact in MEG <i>Stefan Rampp, MD</i>
3:30 PM	Source Modeling of Evoked Activity <i>Tony Wilson, PhD</i>
4:15 PM	Interactive Q&A with Speakers
4:45 PM	Adjourn

SATURDAY, May 7, 2022

9:00am – 12:45pm ET Part III: MEG Contributions to Patient Management

9:00 AM	Introduction <i>Jeffrey R. Tenney, MD, PhD</i>
9:05 AM	Welcome and Overview <i>Andrew Zillgitt, DO</i>
9:10 AM	Evidence-Based MEG Indications in Presurgical Epilepsy Evaluation <i>Anto Bagic, MD, PhD</i>
10:00 AM	Introduction to Case Presentation <i>Michael Watkins, MD and Christopher Laohathai, MD</i>
10:05 AM	Adult MEG Cases <i>Andrew Zillgitt, DO</i> <i>Ai Sumida, MD</i> <i>Heidi Kirsch, MS, MD</i>
11:00 AM	Break
11:15 AM	Pediatric MEG Cases <i>Michael Watkins, MD</i> <i>Ismail Mohamed, MD</i> <i>Jeffrey R Tenney, MD, PhD</i>
12:15 PM	Interactive Q&A with Speakers
12:45 PM	Adjourn

CME INFORMATION

Educational Needs: Digital processing of EEG and MEG is required to utilize fully the clinical information in these signals. Few training programs provide with experience with these forms of advanced data analysis, which creates a significant gap between current levels of practice and what is ideally needed. This program provides both didactic and workshop experience with advanced analysis methods for source characterization and localization using clinical MEG and EEG data. This experience will enhance competence in modern clinical magnetoencephalographic and electroencephalographic techniques.

Learning Objectives

At the conclusion of this program, the learner should be able to:

1. Describe the underlying physics of MEG generation and recording;
2. Describe the most common and efficient organization of an MEG laboratory;
3. Identify epileptiform MEG waveforms with and without EEG correlates;
4. Process MEG and EEG data with source localization software;
5. Interpret dipole models of MEG and EEG epileptiform spikes and normal evoked fields;
6. Distinguish abnormal MEG transients from normal variants; and
7. Provide a localization of MEG and EEG activity to aid in pre-surgical epilepsy evaluations.

Target Audience: This educational activity is directed to clinical neurophysiologists, neurologists, psychiatrists, physiatrists, neurosurgeons, trainees in these disciplines and other physicians and researchers who utilize clinical neurophysiological techniques and knowledge in the diagnosis and management of patients with disorders of the nervous system.

Accreditation Statement

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the American Clinical Neurophysiology Society (ACNS) and the American Clinical Magnetoencephalography Society (ACMEGS). ACNS is accredited by the ACCME to provide continuing medical education for physicians.

Credit Designation

ACNS designates this activity for a maximum of 10.5 *AMA PRA Category 1 Credit(s)*[™]. Physicians should claim only credit commensurate with the extent of their participation in the activity.

ASET-CEUs

ASET - The Neurodiagnostic Society, has granted 6.5 ASET Continuing Education Unites (ASET-CEUs) for this program. Such credentialing, however, should not be construed by program participants as an endorsement of any type of instruments or supplies mentioned in these presentations.

PLANNING COMMITTEE CONFLICT OF INTEREST DISCLOSURE

Anto Bagic, MD, PhD	University of Pittsburgh	No Relationships
Michael Funke, MD, PhD	University of Texas Health Sciences at Houston	No Relationships
Andrew Zillgitt, DO	Beaumont Health	UCB (d)

FACULTY CONFLICT OF INTEREST DISCLOSURE

Anto Bagic, MD, PhD	University of Pittsburgh	No Relationships
Richard C. Burgess, MD, PhD	Cleveland Clinic Epilepsy Center	No Relationships
Ismail S. Mohamed, MD	UAB, Birmingham	No Relationships
John Mosher, PhD	Cleveland Clinic Epilepsy	No Relationships
Andrew Zillgitt, DO	Beaumont Health	UCB (d)

Grants/Research Support; b. Consultant; c. Stock/Shareholder (self-managed); d. Speaker's Bureau; e. Advisory Board or Panel; f. Salary, Contractual Services; g. Other Financial or Material Support (royalties, patents, etc.)