



EVENT: 2023 Principles and Practice of Intraoperative Neuromonitoring

Join Zoom Meeting

<https://us02web.zoom.us/meeting/register/tZlqdOqgrDkvE9wU8MsC27R8aGwxmPdINdMA>

University of Pittsburgh – Scaife Hall, Room 3785

3550 Terrace St. Pittsburgh, PA 15261

And hosted online via Zoom

Overview and Learning Objectives:

Attendees will participate in interactive workshops and discussions with other attendees and our faculty from the fields of Intraoperative Neuromonitoring, Neurosurgery, Cardiothoracic surgery, Orthopedic Surgery, Neurology, Vascular surgery, and Anesthesiology.

Who Should Attend:

The Principles and Practice of Intraoperative Neuromonitoring Workshop is designed for advanced professionals performing or involved in intraoperative neuromonitoring including but not limited to neurologists, PM&R physicians, anesthesiologists, board certified neurophysiologists, senior neurophysiology technologists, and neurological, orthopedic, vascular and ENT surgeons.

Course Directors:

	Katherine Anetakis, MD <i>Assistant Professor, Neurological Surgery</i>
	Jeffrey Balzer, PhD <i>Associate Professor of Neurological Surgery; Director of Clinical Services, Center for Clinical Neurophysiology</i>
	Partha Thirumala, MD <i>Professor of Neurological Surgery and Neurology, Medical Director Center for Clinical Neurophysiology</i>
	Varun Shandal, MD <i>Clinical Assistant Professor, Neurological Surgery</i>

Claiming Credits: Physicians

For those seeking CME credit and a certificate of attendance, please follow these instructions to create an account with UPMC's Center for Continuing Education in Health Sciences (CCEHS) and complete the surveys *do not do this if you need ASET CEUs*. **MUST BE SUBMITTED BEFORE NOVEMBER 18, 2023**

If new user: Create an account at: <http://cce.upmc.com/>

Step 1: Record your attendance:

- Go to <http://cce.upmc.com/code>
- Login to your account
- Enter code: **BEYDAG**

Step 2: Complete the course evaluation

- Go to My Account, My Courses, Choose Pending Activities
- Click on the course title then click the register/complete course button to complete the course evaluation

Certificates will be available to download and stored for future reference

Claiming Credits: ASET CEUs

For those seeking ASET CEUs and/or a certificate of attendance, please follow this link to complete survey questions regarding the course.

Certificate of Attendance will be available to download once surveys are completed

<https://www.classmarker.com/online-test/start/?quiz=thb653fcec0a8f3d>

Link to Course handouts and videos (videos available after the course):

https://drive.google.com/drive/folders/1gR-vYMoM_P8NYC-KNAO2IUBFRS_ETE5N?usp=sharing

Course Faculty:

Nittin Agarwal, MD – University of Pittsburgh Department of Neurological Surgery

Greg Adams, CNIM – Procirca Center for Clinical Neurophysiology

Katherine Anetakis, MD – University of Pittsburgh Department of Neurological Surgery

Jeffrey Balzer, PhD – University of Pittsburgh Department of Neurological Surgery

Jessica Barley, PhD – Medical University of South Carolina

Jonathan Drumheller, CNIM - Procirca Center for Clinical Neurophysiology

Patrick Coppler, PA-C – University of Pittsburgh Department of Critical Care Medicine

Shane Gordon, CNIM - Procirca Center for Clinical Neurophysiology

Anthony Gossett, CNIM – Procirca Center for Clinical Neurophysiology

Michael Lang, MD – University of Pittsburgh Department of Neurological Surgery

John K. Lee, MD, PhD – University of California Los Angeles (UCLA) Department of Neurology

Rachel Mihal, CNIM – Procirca Center for Clinical Neurophysiology

Michelle Mora, DO – Private Practice Neurologist

Andrew Moyer, CNIM – Procirca Center for Clinical Neurophysiology

John Ney, MD – Boston University Department of Neurology and Veterans Affairs VISN 1

Aravindakshan Parthasarathy, PhD – University of Pittsburgh Department of Communication Science and Disorders

Dreux Priore, MHA, R. EEG T., R. NCS T. – Procirca Center for Clinical Neurophysiology

Derek Serna-Gallegos, MD – University of Pittsburgh Department of Cardiovascular Surgery

Varun Shandal, MD – University of Pittsburgh Department of Neurological Surgery

Jeremy Shaw, MD – University of Pittsburgh Department of Orthopedic Surgery

R. Joshua Sunderlin, MS, CNIM – Procirca Center for Clinical Neurophysiology

Partha Thirumala, MD – University of Pittsburgh Department of Neurological Surgery

Nestor Tomycz, MD – Allegheny General Hospital Neurosurgery & Drexel University

Georgios Zenonos, MD – University of Pittsburgh Department of Neurological Surgery

Pascal Zinn, MD – University of Pittsburgh Department of Neurological Surgery

Course Schedule:

DAY 1: Friday Nov 3

700A – 715A	Welcome Address – Partha Thirumala, MD; R. Joshua Sunderlin, MS, CNIM
715A – 745A	Lecture: IONM Past, present, and future (Partha Thirumala, MD)
745A – 830A	Interactive Case Studies: SSEP and TcMEP fundamentals and troubleshooting (Andrew Moyer, CNIM)
830A – 900A	Technical Overview: DRG-S placements utilizing dSSEPs, MEPs, EMG and EEG (Jessica Barley, PhD)
900A – 915A	Break 15 min
915A – 945A	Lecture: MIS & Lateral Transpsoas Procedures (Nittin Agarwal, MD)
945A – 1015A	Lecture: Spinal cord stimulator (Nestor Tomycz, MD)
1015A – 1100A	Interactive Case Studies: IONM for stroke detection in Cardiovascular cases (Derek Serna-Gallegos, MD; Katherine Anetakis, MD)
1100A – 1145A	KEYNOTE DAY 1 – ACNS Speaker – Cost effectiveness in IONM (John Ney, MD)
1145A – 1245P	Lunch
1245P – 115P	Lecture: OUTSIDE THE BOX – Auditory Processing – (Aravind Parthasarathy, PhD)
115P – 200P	Interactive Case Studies: TcMEP cases (Varun Shandal, MD; Jonathan Drumheller, CNIM)
200P – 230P	Workshop: Cadaver lab - Safety Briefing and Bloodborne Pathogen exam for Cadaver Lab (R. Joshua Sunderlin, MS, CNIM)
230P – 330P	Workshop: Cadaver lab – placing electrodes part 1 (Dreux Priore, MHA, R.EEG T; Rachel Mihal, CNIM)
330P – 345P	Break 15 min
345P – 515P	Workshop: Cadaver lab – placing electrodes part 2 (Dreux Priore, MHA, R.EEG T; Rachel Mihal, CNIM)
515P	Adjournment Day 1
530P – 730P	Meet and Greet at Hotel

DAY 2: Saturday Nov 4

700A – 715A	Welcome Address Day 2 – Jeffrey Balzer, PhD; R. Joshua Sunderlin, MS, CNIM
715A – 800A	Lecture: Anesthesia, Physiology, and IONM Cases (Greg Adams, CNIM)
800A – 845A	Interactive Case Studies: IONM for spine trauma (Jeremy Shaw, MD; Anthony Gossett, CNIM)
845A – 915A	Lecture: Alarm Criteria in IONM (Partha Thirumala, MD)
915A – 930A	Break 15 min
930A – 1000A	Lecture: Case Presentation – John Lee, MD, PhD
1000A – 1100A	Interactive Case Studies: Neuroendovascular Procedures (Michael Lang, MD; Jeffrey Balzer, PhD)
1100A – 1200P	KEYNOTE DAY 2 – ASNM Speaker: Quality Control in IONM (Michelle Mora, DO)
1200P – 1245P	Lunch
1245P – 130P	Lecture: Skull Base Surgery & IONM (Georgios Zenonos, MD)
130P – 230P	Interactive Case Studies: Neuro-oncological procedures (Pascal Zinn, MD; Shane Gordon, CNIM)
230P – 300P	Lecture: IONM for Selective Dorsal Rhizotomy (R. Joshua Sunderlin, MS, CNIM)
300P – 330P	Lecture: Role of Clinical Neurophysiology in the ICU (Patrick Coppler, PA-C)
330P – 345P	Break 15 min
345P – 445P	Interactive Case Studies: Skull base procedures (Partha Thirumala, MD; R. Joshua Sunderlin, MS, CNIM)
445P – 515P	Lecture: Medicolegal must-knows for IONM providers (Jeffrey Balzer, PhD)
5:15P	Adjournment Day 2 (Course adjournment)

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All of the relevant financial relationships for the individuals listed below have been mitigated:

Nittin Agarwal, MD: Other: Royalties – Thieme Medical Publishers; Springer International Publishing

Jessica Barley, PhD: Other: Royalties – Rhythmlink International

Nestor Tomycz, MD: Consultant – Abbott Medical; SI Bone; Other: Surgeon Advisory Board – Boston Scientific

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Accreditation and Designation

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Physician (CME)

The University of Pittsburgh designates this live activity for a maximum of 17.75 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Other Healthcare Professionals:

Other health care professionals will receive a certificate of attendance confirming the number of contact hours commensurate with the extent of participation in this activity.

ASET CEUs

ASET – The Neurodiagnostic Society has granted 17.5 Continuing Education Units [ASET-CEUs] for this program. Such crediting, however, should not be construed by program participants as an endorsement of any type of instruments or supplies mentioned or involved in these presentations.

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