

CME ACCREDITATION AND DESIGNATION

In support of improving patient care, the University of Pittsburgh is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Physician (CME)

The University of Pittsburgh designates this live activity for a maximum of 18 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

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

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.

Procirca is an ABRET-accredited Intraoperative Neuromonitoring lab.

Participation by all individuals is encouraged. Advance notification of any special needs will help us provide better service. Please notify us of your needs at least two weeks in advance of the program by calling 412-647-3450.

This program is presented by Procirca in conjunction with the University of Pittsburgh Department of Neurological Surgery and The Center for Clinical Neurophysiology.

OVERVIEW AND LEARNING OBJECTIVES

Course Dates: Nov. 3–4, 2023

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.

The course will highlight practice specifications, multimodality protocols, recent advances in the field, pre- and post-operative neurological evaluation and management, and telemedicine. Presentations will make reference to current literature, technical developments, methodologies and clinical efficacy.

COURSE DIRECTORS AND FACULTY



Katherine Anetakis, MD
*Assistant Professor,
Neurological Surgery*



Jeffrey Balzer, PhD
*Associate Professor of Neurological
Surgery; Director of Clinical Services,
Center for Clinical Neurophysiology*



Partha Thirumala, MD
*Professor of Neurological Surgery
and Neurology, Medical Director
Center for Clinical Neurophysiology*



Varun Shandal, MD
*Clinical Assistant Professor,
Neurological Surgery*



Scan the QR code to visit
our course website
[https://procirca.com/neuromonitoring/
neuromonitoring-workshop/](https://procirca.com/neuromonitoring/neuromonitoring-workshop/)



EDUCATION

Principles and Practice
of IONM Course

Hybrid, in-person and virtual
options available for 2023

Course Dates:
Nov. 3–4, 2023



FRIDAY, NOV. 3, 2023

7 — 7:15 a.m.	Welcome Address – <i>Partha Thirumala, MD;</i> <i>R. Joshua Sunderlin, MS, CNIM</i>
7:15 — 7:45 a.m.	Lecture: IONM Past, present, and future <i>Partha Thirumala, MD</i>
7:45 — 8:30 a.m.	Interactive Case Studies: SSEP and TcMEP fundamentals and troubleshooting <i>Andrew Moyer, CNIM</i>
8:30 — 9 a.m.	Technical Overview: DRG-S placements utilizing dSSEPs, MEPs, EMG and EEG <i>Jessica Barley, PhD</i>
9 — 9:15 a.m.	Break 15 min
9:15 — 9:45 a.m.	Lecture: Lateral Transpsoas Procedures <i>Vincent Miele, MD</i>
9:45 — 10:15 a.m.	Lecture: Spinal cord stimulator <i>Nestor Tomycz, MD</i>
10:15 — 11 a.m.	Interactive Case Studies: IONM for stroke detection in Cardiovascular cases <i>Ibrahim Sultan, MD and Katherine Anetakis, MD</i>
11 — 11:45 a.m.	KEYNOTE DAY 1 – ACNS Speaker – Cost effectiveness in IONM <i>John Ney, MD</i>
11:45 a.m. — 12:30 p.m.	Lunch
12:30 — 1 p.m.	Lecture: OUTSIDE THE BOX – Auditory Processing <i>Barbara Shinn-Cunningham, PhD</i>
1:30 — 2:15 p.m.	Interactive Case Studies: TcMEP cases <i>Varun Shandal, MD, and Jonathan Drumheller, CNIM</i>
2:15 — 2:30 p.m.	Workshop: Cadaver lab Safety briefing and Bloodborne Pathogen Exam <i>R. Joshua Sunderlin, MS, CNIM</i>
2:30 — 3:30 p.m.	Workshop: Cadaver lab – placing electrodes part 1 <i>Dreux Priore, MS, R.EEG T and Rachel Mihal, CNIM CNIM</i>
3:30 — 3:45 p.m.	Break 15 min
3:45 — 5:15 p.m.	Workshop: Cadaver lab – placing electrodes part 2 <i>Dreux Priore, MS, R.EEG T and Rachel Mihal, CNIM</i>
5:15 p.m.	Adjournment Day 1
5:30 — 7:30 p.m.	Meet and Greet at Hotel

SATURDAY, NOV. 4, 2023

7 — 7:15 a.m.	Welcome Address Day 2 – <i>Katherine Anetakis;</i> <i>R. Joshua Sunderlin, MS, CNIM</i>
7:15 — 8 a.m.	Lecture: Anesthesia, Physiology, and IONM Cases <i>Brian Gierl, MD and Greg Adams, CNIM</i>
8 — 8:45 a.m.	Interactive Case Studies: IONM for spine trauma <i>Jeremy Shaw, MD and Anthony Gossett, CNIM</i>
8:45 — 9:15 a.m.	Lecture: IONM in Thailand <i>Titima Itthimathin, MD</i>
9:15 — 9:30 a.m.	Break 15 min
9:30 — 10 a.m.	Technical Overview: Radical Prostatectomy – Procedure overview and how to monitor <i>Justin Morris, CNIM</i>
10 — 11 a.m.	Interactive Case Studies: Neuroendovascular Procedures <i>Michael Lang, MD and Jeffrey Balzer, PhD</i>
11 a.m. — 12 p.m.	KEYNOTE DAY 2 – ASN M Speaker – Quality Control in IONM <i>Michelle Mora, DO</i>
12 — 12:45 p.m.	Lunch
12:45 — 1:30 p.m.	Lecture: Skull Base Surgery & IONM <i>Georgios Zenonos, MD</i>
1:30 — 2:30 p.m.	Interactive Case Studies: Neuro-oncological procedures <i>Pascal Zinn, MD, and Shane Gordon, CNIM</i>
2:30 — 3 p.m.	Lecture: Neuromonitoring in India <i>Parthiban Velayutham, PhD</i>
3 — 3:30 p.m.	Lecture: Role of Clinical Neurophysiology in the ICU <i>Patrick Coppler, PA-C</i>
3:30 — 3:45 p.m.	Break 15 min
3:45 — 4:45 p.m.	Interactive Case Studies: Skull base procedures <i>Partha Thirumala, MD, and R. Joshua Sunderlin, MS, CNIM</i>
4:45 — 5:15 p.m.	Lecture: Medicolegal must knows for IONM providers <i>Jeffrey Balzer, PhD</i>
5:15 p.m.	Adjournment Day 2 Course adjournment

FACULTY

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
Brian Gierl, MD – University of Pittsburgh Department of Anesthesia
Shane Gordon, CNIM – Procirca Center for Clinical Neurophysiology
Anthony Gossett, CNIM – Procirca Center for Clinical Neurophysiology
Titima Itthimathin, MD – Bangkok Hospital Department of Neurological Surgery, Thailand
Michael Lang, MD – University of Pittsburgh Department of Neurological Surgery
Vincent Miele, MD – University of Pittsburgh Department of Neurological Surgery
Rachel Mihal, CNIM – Procirca Center for Clinical Neurophysiology
Michelle Mora, DO – Private Practice Neurologist
Justin Morris, CNIM – The Neuromonitoring Group
Andrew Moyer, CNIM – Director, Neurological Services for Procirca Center for Clinical Neurophysiology
John Ney, MD – Boston University Department of Neurology and Veterans Affairs VISN 1
Dreux Priore, MHA, R. EEG T., R. NCS T. – Procirca Center for Clinical Neurophysiology
Varun Shandal, MD – University of Pittsburgh Department of Neurological Surgery
Jeremy Shaw, MD – University of Pittsburgh Department of Orthopedic Surgery
Barbara Shinn-Cunningham, PhD – Carnegie Mellon University Department of Biomedical Engineering
Ibrahim Sultan, MD – University of Pittsburgh Department of Cardiovascular Surgery
R. Joshua Sunderlin, MS, CNIM – Director of Education for Procirca Center for Clinical Neurophysiology
Partha Thirumala, MD – University of Pittsburgh Department of Neurological Surgery
Nestor Tomycz, MD – Allegheny General Hospital Neurosurgery & Drexel University
Parthiban Velayutham, PhD – TATA Memorial Hospital, Tamil Nadu, India
Georgios Zenonos, MD – University of Pittsburgh Department of Neurological Surgery
Pascal Zinn, MD – University of Pittsburgh Department of Neurological Surgery

COURSE LOCATION

UPMC Presbyterian Hospital
Biomedical Science Tower S120
200 Lothrop Street
Pittsburgh, PA 15213

TUITION

\$400 for physicians (CME credits)

\$300 for non-physicians (CEU or other credits)

\$150 for UPMC employees

This course is offered as a hybrid model, with online (Zoom) and in-person options available. Tuition is the same for both.

All course lectures will be recorded and made available for all attendees to view via Google Drive for one year after the course.

QUESTIONS?

Contact Josh Sunderlin

Course Coordinator

Center for Clinical Neurophysiology

Phone: 412-647-3450

E-mail: sunderlinj@procirca.com

CANCELLATION POLICY

- Registration fee is 100% refundable up until October 5, 2023.
- Registration fee is 50% refundable up to 15 days prior to the start date of the course.
- If you cancel within 15 days of the start of the course, NO REFUNDS will be granted.

A Block of rooms is reserved at **The Hilton Garden Inn**

Pittsburgh University Place

454 Forbes Avenue

Pittsburgh, PA 15213

Phone: 412-683-2040

Distance from campus is 0.3 miles; travel time on foot is five minutes.

Special rate of \$159/Night

Link: shorturl.at/CQTV6