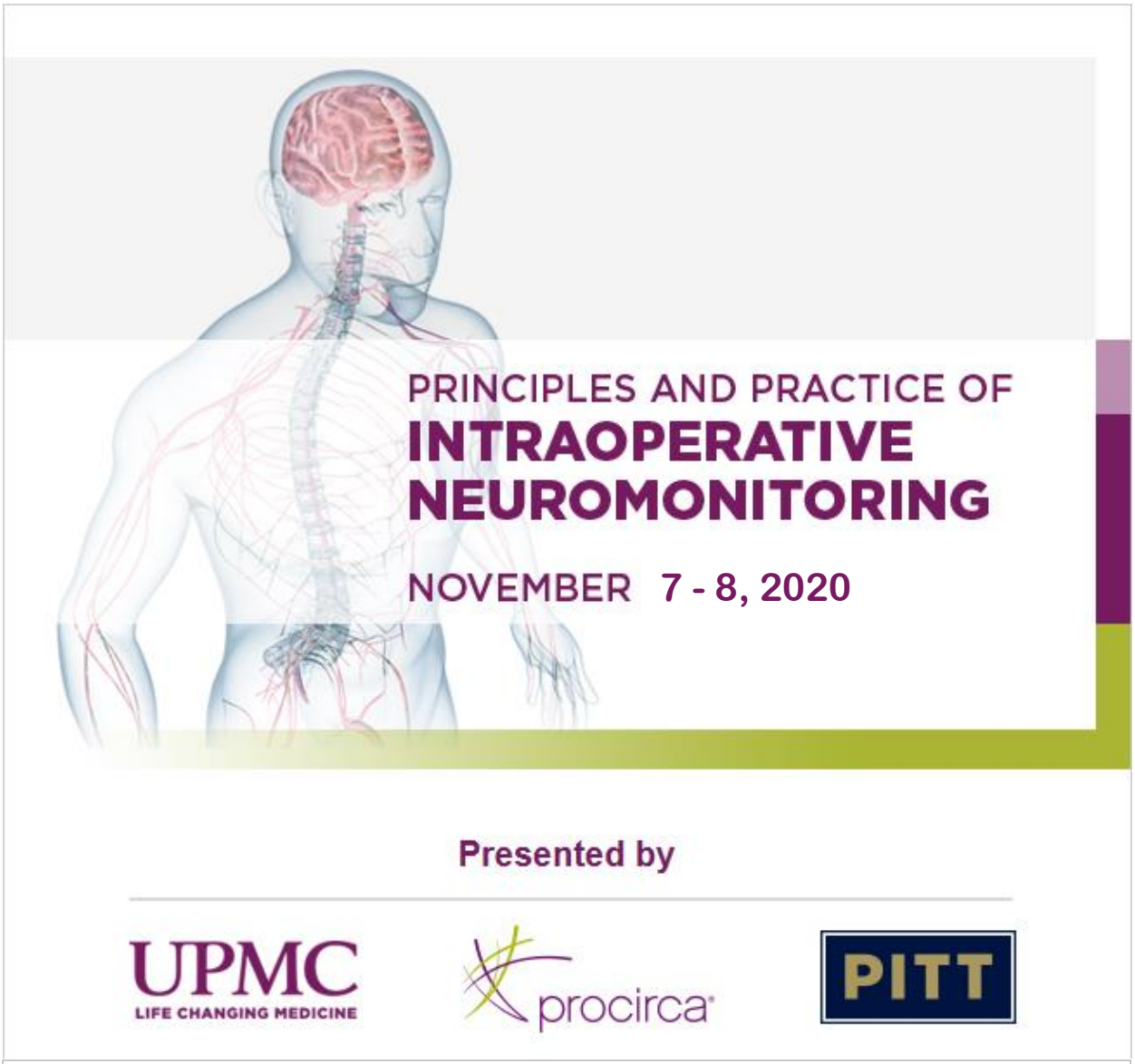

Hosted Online Via "Zoom"

EVENT: Principles and Practice of Intraoperative Neuromonitoring Course
Date: Nov. 7 & 8, 0800 AM EST

https://us02web.zoom.us/j/81562460571?pwd=bTdLaWQ2K2JRbW1SdUJjdFlQMks0dz09

Meeting ID: 815 6246 0571
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LEARNING OBJECTIVES

The course will highlight practice specifications, multimodality protocols, recent advances in the field, pre-/post-operative neurological evaluation and management, and telemedicine. Presentations will make reference to current literature, technical developments, methodologies and clinical efficacy. The faculty includes University of Pittsburgh Medical Center physicians and neurophysiologists with extensive clinical and academic expertise in IONM. The course is designed to expose the participants to material that will allow them to acquire a comprehensive understanding of IONM and how it relates to a wide variety of relevant topics such as:

- Advanced principles for neurophysiological monitoring, including instrumentation, neuromonitoring protocols, alarm criteria and clinical efficacy.

- Minimally invasive spine surgery, including transpsoas approaches.

- Pre-, peri- and post-operative evaluation of neurological complications including stroke, cognitive deficits, seizure and spinal cord injury.

- Multimodality monitoring techniques for a broad array of procedures including spine and vascular.

- Cranial nerve monitoring during skull base procedures.

- Interpretation and communication with surgical team.
- Development of a Policy & Procedure manual; documentation and communication with the technologist; development of quality assurance metrics; and staff training.

- Problem based learning with real-time data analysis and formulation of differential diagnoses.

TARGET AUDIENCE

- Neurologists
- Surgical Neurophysiologists
- PM&R physicians
- Neurological Surgeons
- Anesthesiologists
- Orthopedic Surgeons
- Board Certified Neurophysiologists
- Vascular Surgeons
- Senior Neurophysiology Technologists
- ENT Surgeons
- Cardiac surgeons

Faculty

Gregory 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

James Castellano, MD, PhD - University of Pittsburgh Department of Neurological Surgery

Rabih Chaer, MD - University of Pittsburgh Department of Vascular Surgery

Mindy Corridoni, CNIM – Procirca Center for Clinical Neurophysiology

Donald Crammond, PhD - University of Pittsburgh Department of Neurological Surgery

Ryan Dzadony, M.Ed., CCP, LP – Procirca School of Perfusion

Stephen Esper, MD - University of Pittsburgh Department of Anesthesiology

Bradley Gross, MD - University of Pittsburgh Department of Neurological Surgery

Adam Kanter, MD - University of Pittsburgh Department of Neurological Surgery

Carly Kleynen, CNIM – Procirca Center for Clinical Neurophysiology

Jaime López, MD – Stanford University School of Medicine

Andrew Moyer, CNIM – Procirca Center for Clinical Neurophysiology

Ryan Quallich, CNIM – Procirca Center for Clinical Neurophysiology

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

Shyam Visweswaran, MD, PhD - University of Pittsburgh

Rich Vogel, PhD – Former President of American Society of Neurophysiological Monitoring (ASNM)

George Zenonos, MD - University of Pittsburgh Department of Neurological Surgery

Pascal Zinn, MD, PhD - University of Pittsburgh Department of Neurological Surgery

KEYNOTE SPEAKERS:

Kathleen Seidel, MD, PhD - Department of Neurosurgery, Inselspital Bern University Hospital, Bern Switzerland

Joseph Maroon, MD - University of Pittsburgh Department of Neurological Surgery

Saturday November 7:

8:00A – 8:15A	Welcome address, explanation of format (Jeff Balzer PhD/ Josh Sunderlin MS, CNIM)
Principles of Intraoperative Neuromonitoring:	
8:15A – 8:45A	IONM: The History and Physiological Basis – Partha Thirumala, MD
8:45A – 9:15A	Principles of EEG Monitoring During Surgery – Katherine Anetakis, MD
9:15A – 9:45A	Principles of SSEP Monitoring During Surgery – Donald Crammond, PhD
9:45A –10:00A	BREAK – 15 min
10:00A – 10:30A	Principles of TcMEP Monitoring During Surgery – Jeffrey Balzer, PhD
10:30A – 11:00A	Principles of BAER Monitoring During Surgery – James Castellano, MD, PhD
IONM For Awake Craniotomy:	
11:00A – 11:30P	Awake craniotomy procedures with language mapping – Pascal Zinn, MD
Saturday Keynote Speech:	
11:30P – 12:15P	"Cortical and Subcortical Motor Mapping in Neurooncological Surgery" – Kathleen Seidel, MD, Ph.D
12:15P – 12:45P	LUNCH BREAK – 30min
IONM For Spinal Surgery:	
12:45A – 1:15P	Spinal fusion Procedures – Jeremy Shaw, MD
1:15P – 1:45P	Minimally Invasive Spine Procedures – Adam Kanter, MD
Controversies in IONM	
1:45P – 2:15P	Defining Significance in IONM Alerts – Partha Thirumala, MD
Improving IONM Practice:	
2:15P – 2:45P	Managing IONM practice – Ryan Quallich, CNIM
2:45P – 3:15P	Quality Assurance –Katherine Anetakis, MD, & Mindy Corridoni, CNIM
3:15P – 3:30P	BREAK –15min
3:30P – 4:00P	Communication and Documentation (Medico-legal implications) – Jeffrey Balzer, PhD
INTERACTIVE SESSION #1	
4:00P – 5:00P	Troubleshooting Technical Problems with IONM Equipment – Katherine Anetakis, MD / Andrew Moyer, CNIM
INTERACTIVE SESSION #2	
5:00P – 6:00P	Case Studies in IONM – Partha Thirumala, MD / Josh Sunderlin, MS CNIM
6:00P	ADJOURNMENT – DAY 1

Sunday November 8:

8:00A – 8:15A	Morning Announcement (Jeff Balzer PhD/ Josh Sunderlin MS, CNIM)

Advanced Spinal IONM

8:15A – 8:45A	Spinal Cord Stimulator – Jeff Balzer, Ph.D
8:45A – 9:15A	Lumbar Nerve Root Monitoring – Rich Vogel, Ph.D

Advanced Craniotomy Procedures:

9:15A – 9:45A	Microelectrode Recording for DBS – Donald Crammond, PhD
9:45A – 10:00A	BREAK – 15 min
10:00A – 10:30A	IONM for Epilepsy Surgery – James Castellano, MD, Ph.D
10:30A – 11:00A	Skull base procedures – George Zenonos, MD

DEMONSTRATIVE SESSION:

11:00A – 12:00P	Cranial nerve EMG electrode placement and data recording – Donald Crammond, PhD / Gregory Adams CNIM

AI in Clinical Neurophysiology

12:00P – 12:30P	Artificial Intelligence in IONM – Shyam Visweswaran, MD, PhD
12:30P – 1:00P	LUNCH BREAK –30min

IOM For Stroke Prevention:

1:00P – 1:30P	IONM and Stroke Prevention/Management – Partha Thirumala, MD
1:30P –2:00P	Neurointerventional Procedures - Bradley Gross MD
2:00P – 2:30P	Carotid Endarterectomy & TCAR - Rabih Chaer, MD
2:30P – 3:00P	Cardiopulmonary Bypass Aortic Arch Repair – Ryan Dzadony, M.Ed, CCP, LP
3:00P - 3:15P	BREAK –15min
3:15P – 3:45P	Preoperative Screening for Stroke: Who gets IONM? – Stephen Esper, MD
3:45P – 4:15P	Advanced IONM for Open Cerebrovascular Procedures - Jaime Lopez, MD

INTERACTIVE SESSION #1:

4:15P – 5:15P	Cerebrovascular Anatomy and Interactive Case Studies – Jeffrey Balzer, PhD / Carly Brog, CNIM

Sunday Keynote Speech:

5:15P – 6:00P	“From Icarus to Aequanimitas - Overcoming Adversity and Acquiring Resilience" Joseph Maroon, MD
6:00P	COURSE ADJOURNMENT

Faculty Disclosure

All individuals in a position to control the content of this education activity including members of the planning committee, speakers, presenters, authors, and/or content reviewers have disclosed all relevant financial relationships with any proprietary entity producing, marketing, re-selling, or distributing health care goods or services, used on, or consumed by, patients.

The following relevant financial relationships were disclosed:

Bradley Gross, MD: Consultant - Medtronic

Adam Kanter, MD: Consultant/Royalties – Nuvasive & Zimmer Biomet

Joseph Maroon, MD: Other (Author) Square One – A Simple Guide to a Balanced Life

Kathleen Seidel, MD: Royalties paid to employer - Inomed

Jeremy Shaw, MD: Grant/Research Support – LSRS; AO Spine; Stryker Spine

No other planners, members of the planning committee, speakers, presenters, authors, content reviewers and/or anyone else in a position to control the content of this education activity have relevant financial relationships to disclose.

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The University of Pittsburgh designates this live activity for a maximum of 18.0 *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 18 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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Educational Grant:

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Principles and Practice of Intraoperative Neuromonitoring 2020
November 7 - 8, 2020
Live Virtual Conference

This is not your official certificate.

How to receive your continuing education credit?

https://cce.upmc.com/neuromonitoring-2020

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To receive credit, you will be required to login, complete the course evaluation and claim credit within 14 days of the activity. If you are a new user, click "Register" to create a new account. The activity will be added to your Pending Activities and accessible on the first day of the activity. Upon completion, certificates will be available to download and stored for future reference in your Completed Activities.

How to receive your official certificate?

To receive credit, login to the UPMC Center for Continuing Education in the Health Sciences (CCEHS) continuing education learning portal, http://cce.upmc.com. If you are a new user, choose "Register" to create an account. Note, records are matched to users by email address.

- Go to My Account, My Courses
- Choose Pending Activities
- Click on the course title to complete the course evaluation and claim credit