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 – 815A	Lecture: IONM Checklists (R. Joshua Sunderlin, MS, CNIM)
815A – 915A	Interactive Case Studies: SSEP and TcMEP fundamentals and troubleshooting (Andrew Moyer, CNIM)
915A – 930A	Break 15 min
930A – 1000A	Technical Overview: DRG-S placements utilizing dSSEPs, MEPs, EMG and EEG (Jessica Barley, PhD)
1000A – 1030A	Lecture: Lateral Transpsoas Procedures (Vincent Miele, MD)
1030A – 1100A	Lecture: Spinal cord stimulator (Nestor Tomycz, MD)
1100A – 1145A	Interactive Case Studies: IONM for stroke detection in Cardiovascular cases (Ibrahim Sultan, MD and Katherine Anetakis, MD)
1045A – 1145A	KEYNOTE DAY 1 – ACNS Speaker – Cost effectiveness in IONM (John Ney, MD)
1145A – 1230P	Lunch
1230P – 100P	Lecture: OUTSIDE THE BOX – Auditory Processing – (Barbara Shinn-Cunningham, PhD)
130P – 230P	Interactive Case Studies: TcMEP cases (Varun Shandal, MD, and Jonathan Drumheller, CNIM)
230P – 330P	Workshop: Cadaver lab – placing electrodes part 1 (Dreux Priore, MS, R.EEG T and Rachel Mihal, CNIM)
330P – 345P	Break 15min
345P – 515P	Workshop: Cadaver lab – placing electrodes part 2 (Dreux Priore, MS, R.EEG T and 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 – Katherine Anetakis; R. Joshua Sunderlin, MS, CNIM
715A – 800A	Lecture: Anesthesia, Physiology, and IONM Cases (Brian Gierl, MD and Greg Adams, CNIM)
800A – 845A	Interactive Case Studies: IONM for spine trauma (Jeremy Shaw, MD and Anthony Gossett, CNIM)
845A – 915A	Lecture: IONM in Thailand (Titima Itthimathin, MD)
915A – 930A	Break 15min
930A – 1000A	Technical Overview: Radical Prostatectomy – Procedure overview and how to monitor (Justin Morris, CNIM?)
1000A – 1100A	Interactive Case Studies: Neuroendovascular Procedures (Michael Lang, MD and 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, and Shane Gordon, CNIM)
230P – 300P	Lecture: Neuromonitoring in India (Parthiban Velayutham, PhD)
300P – 330P	Lecture: Role of Clinical Neurophysiology in the ICU (Jonathan Elmer, MD)
330P – 345P	Break 15min
345P – 445P	Interactive Case Studies: Skull base procedures (Partha Thirumala, MD, and R. Joshua Sunderlin, MS, CNIM)
445P – 515P	Lecture: Medicolegal must-knows for IONM providers (Jeffrey Balzer, PhD)
5:15P	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

Jonathan Elmer, MD – 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 – Real Time Neuromonitoring Associates

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, MS, R.EEG 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