Thursday May 13th

10:00 am Central time (11 am Eastern, 9 am Mountain, 8 am Pacific)
Introduction to the Physical and Psychological Environment of the Operating Room - This lecture will introduce the new IONM tech to the rules of conduct, and procedure in the OR, as well as the power structure and the specific challenges of becoming part of the team, and speaking truth to power, when necessary. Cathy Boldery, R. EEG/EP T., CNIM, RPSGT

11:00 am Central time (12 noon Eastern, 10 Mountain, 9 am Pacific)
IONM Team and Communications – What is the Technologist’s role and responsibilities, the supervising physician’s role and responsibilities, documenting communications appropriately, and working well as a team. What policies should be established about role, responsibilities and documentation? Marc Nuwer, M.D., Ph.D.

12:30 am Central time (1:30 Eastern, 11:30 Mountain, 10:30 Pacific)
Collateral Perfusion During Carotid Endarterectomy: This lecture shall outline the patient preparation details, equipment setup, data recording goals and data analysis during carotid endarterectomy surgery. Rebecca Clark-Bash, R. EEG/EP T., CNIM, CLTM, F. ASNM

1:30 pm Central time (2:20 Eastern, 12:30 Mountain, 11:30 Pacific)
Electrical Safety In and Out of the OR: Patient Injury in Neurophysiological Testing - Brett is known for his understanding of electrical concepts and electrode properties, and mechanisms for electrode injury in neurodiagnostics. This is a very important lecture for all those working with electrodes in the operating room. Brett Netherton, MS, CNIM

3:00 pm Central time, (4 pm Eastern, 2 pm Mountain, 1 pm Pacific)
IONM Instrumentation Basic Concepts- Things you must know before you get behind the wheel: A/D conversion, differential amplification, sampling rate, averaging, sweep time/analysis time/time base, filters, stimulator parameters, duration, voltage (constant current vs constant voltage). Jay Shils, Ph.D.

4:00 pm Central time (5 pm Eastern, 3 pm Mountain, 2 pm Pacific)
Basic Overview of Neuroanatomy, and the Pathways of Sensory and Motor Signals - Neuroanatomy cannot be covered adequately in a single lecture because it is far too complex but this lecture will jump-start your understanding of the basics and the origins of the signals monitored in IONM. Dr Happel is a particularly gifted lecturer and has a wonderful way of injecting fun and interesting stories into neuroanatomy lectures. Leo Happel Ph.D.
Friday May 14th

10:00 am Central time (11 am Eastern, 9 am Mountain, 8 am Pacific)
IONM Instrumentation Advanced Concepts - How to make the instrument sing: Many IONM professionals do not fully understand the functionality of their instrument. This lecture will begin with more advanced instrumentation and then progress to the bells and whistles type features rarely used by the average IONM staff. Stimulating Pedicle Screws (technical challenges), using multiple screens and multi-modality monitoring, FFT, CSA, CDSA, spectral edge, stacking waveforms and trending data (frequencies and power). Stimulus parameters for transcranial stimulation, peripheral nerves, cranial nerves, exposed nerves and nerve roots. Jay Shils, Ph.D.

11:00 am Central time (12 noon Eastern, 10 Mountain, 9 am Pacific)
The Dance of Anesthesia and IONM: Dr Sloan, an anesthesiologist and monitorist combined, is author of the very popular online course in IONM and Anesthesia. He has been involved in IONM since the early days and fully understands not only IONM concerns but also concerns of anesthesiology. When it all comes together it is poetry in motion but what are the challenges? How do we coordinate our moves so that we work in harmony and do not collide on the dance floor? Tod Sloan M.D., Ph.D.

12:30 pm Central time (1:30 Eastern, 11:30 Mountain, 10:30 Pacific)
Monitoring Spine Surgery: SSEP, TCEMEP, Instrumentation, Free Run and Stimulated EMG, Testing Pedicle Screws and H-Reflex - Procedures, and the origin of the signals being monitored. What are the advantages and disadvantages of each modality and what do we learn when we monitor each modality. Case presentations with samples of changes, resolving and not resolving. Clare Gale, R. EEG T., CNIM.

1:30 pm Central time (2:20 Eastern, 12:30 Mountain, 11:30 Pacific)
Monitoring Cranial Nerves: This lecture will provide an overview of the latest monitoring techniques for cranial nerves, surgical cases appropriate for cranial nerve monitoring, placement of electrodes, case presentations, challenges, appropriate recording and stimulating parameters. Jaime Lopez, M.D.

3:00 pm Central time, (4 pm Eastern, 2 pm Mountain, 1 pm Pacific)
BAEP in Surgery: Technical considerations (electrode placements, keeping the inserts protected against fluid), uses (tumor, aneurysm, etc.), and challenges (drills and saws). Case presentations and samples of data when the criteria for alarm was met, and the outcome (resolved or not resolved). Rebecca Clark Bash, R. EEG/EP T., CNIM, CLTM, F. ASNM.

4:00 pm Central time (5 pm Eastern, 3 pm Mountain, 2 pm Pacific)
Troubleshooting and Artifacts in IONM: That which separates the truly awesome, from the merely great. – Clare widely regarded as an expert in Artifact and Troubleshooting in IONM, and frequently lecturer on the topic. Troubleshooting skills are often the most important skill in IONM that separates the professionals from the rest. The skilled IONM professional is a skilled troubleshooter. Clare Gale, R. EEG T., CNIM.
Information About Our Faculty:

Cathy Boldery, R. EEG/EP T., CNIM, RPSGT is owner and president of Neurodiagnostic TEX, in Tyler TX. She has been in the field for 25 years, President of Indiana Society, ABRET Assoc. Examiner, ASET Board 2000-2003, current Chair of ASET Education Committee, Course Dir. ASET IONM courses in 2000, and 2005, and recipient of the Greater Dallas Business Ethics Award in 2008.


Rebecca Clark-Bash, R. EEG/EP T., CNIM, CLTM, F.ASNM
Rebecca has 29 Years in Electroneurodiagnostics and is president of the Knowledge Plus: National & International END Training Company. She has served on ASNM Board of Trustees ASET Board of Trustees, CSET board, was CSET President 1993-1995 and Secretary 1989-1993. She has also received the Baxter Healthcare Outstanding Recognition Award 1999-Q1 and 2000-Q2 and served on the Am. Soc. of Training and Development Faculty 1992. Rebecca is the first technologist to receive the title of Fellow of ASNM.

Brett Netherton, MS, CNIM
Brett has a masters degree in physiology and a bachelor’s degree in electrical engineering. Along with his CNIM and his background as an electrode manufacturer, he is uniquely qualified to speak on matters of electrical safety, and electrode injury.

Jay Shils, Ph.D., D.ABNM, F. ASNM
Co author of Neurophysiology in Neurosurgery with Dr Deletis, Jay is an Assistant Professor and Director of Intraoperative Monitoring, Department of Neurosurgery at the Lahey Clinic in Burlington, MA

Leo Happel Ph.D.
Leo T. Happel, PhD is professor at LSU School of Medicine in Neurology, Neurosurgery, Physiology, and Neuroscience. His research interests include intraoperative neuromonitoring, electrical characteristics of regenerating nerve, peripheral nerve lesions and membrane electrophysiology.

Tod Sloan M.D., Ph.D. Tod is an anesthesiologist who specializes in anesthesia for surgery on the brain and spinal cord and has been directly involved in intraoperative monitoring since 1982. He currently provides anesthesia services and oversees monitoring with 3 other neuroanesthesiologists at the University of Colorado. His special interest is the effects of anesthesia and physiology on monitoring.

Clare Gale, R. EEG T., CNIM.
President SpineMon, Inc. (providing IONM spinal monitoring and training) IONM for almost 22 years.
ASNM Secretary/Treasurer and Regional Symposia Committee

Jaime Lopez, M.D.
Dr. Lopez completed his residency in Neurology and fellowship in Clinical Neurophysiology and Neuromuscular Diseases at Stanford. In 1994, Dr. Lopez established the Intraoperative Neurophysiologic Monitoring Program at Stanford. The program has expanded to more than 500 cases annually. Dr. Lopez continues to research the use of innovative techniques for monitoring different regions of the nervous system during a variety of neurovascular surgical procedures, endovascular embolizations, and spinal cord and orthopedic surgeries.