GETTING EMPLOYER SUPPORT TO ATTEND THE ASET 2016 ANNUAL CONFERENCE

In the last several years travel and training budgets have been reduced and some hospitals or healthcare facilities are experiencing strict financial constraints.

Here are some additional tips on getting employer support for attending ASET’s 2016 Annual Conference:

• Focus on how your attendance at the conference will benefit the lab as a whole and the valuable information you will bring back.
• Explain what you will get from attending, such as continuing education credits (ASET-CEUs); a full 3-day registration is worth 21.75 ASET-CEUs!
• Offer to deliver a short presentation and Q&A to your co-workers on what you learned at the conference.
• As an attendee you will be provided a flash drive with the course handouts. Offer to share this material with your colleagues.
• Review the course schedule in advance and explain what you plan to attend, and how it will help you and your facility.
• Offer to share a hotel room with another attendee in order to decrease expenses.
• Be prepared with a plan for who will cover your work while you are away.
• Plan ahead to make sure you get registered at the discounted rate. The last day for the early-bird rate is July 7.

The three days during ASET’s 2016 Annual Conference will be the most cost-effective professional development choice you can make all year.
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:15 – 9:15 a.m.</td>
<td>Platform Presentations</td>
</tr>
<tr>
<td></td>
<td>Plenary Session: Lewis Kull Memorial Keynote Address</td>
</tr>
<tr>
<td></td>
<td><em>“Alive Inside – The Story of Music and Memory”</em></td>
</tr>
<tr>
<td></td>
<td>Robin Lombardo, CTRS, CDP</td>
</tr>
<tr>
<td></td>
<td>Evoked Potentials</td>
</tr>
<tr>
<td></td>
<td>Autonomic Mini-Course</td>
</tr>
<tr>
<td>9:15 – 9:45 a.m.</td>
<td>An Overview of the Process of Collecting Spontaneous and Evoked MEG Data</td>
</tr>
<tr>
<td></td>
<td>Shawn Walls, MA</td>
</tr>
<tr>
<td>9:45 – 10:15 a.m.</td>
<td>Multimodality Monitoring of Carotid Endarterectomies: Lots of EEG vs Sparse EEG</td>
</tr>
<tr>
<td></td>
<td>Leslie Biggie, R. EEG T., CNIM, BS</td>
</tr>
<tr>
<td>10:15 – 11:00 a.m.</td>
<td>Break in Exhibit Hall with Poster Viewing</td>
</tr>
<tr>
<td>11:00 – 11:30 a.m.</td>
<td>A Vertebral Column Resection (VCR) for Kyphoscoliosis; An Intraoperative Neurophysiological Monitoring (IONM) Alert</td>
</tr>
<tr>
<td></td>
<td>Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASNM</td>
</tr>
<tr>
<td>11:30 a.m. – Noon</td>
<td>Decision Making in Peri-Laryngeal Surgeries Based Upon Intraoperative Mapping of the Vagus Nerve</td>
</tr>
<tr>
<td></td>
<td>Jeremy Barnford, PhD, CNIM</td>
</tr>
<tr>
<td>Noon – 1:30 p.m.</td>
<td>Annual Business Meeting Luncheon</td>
</tr>
<tr>
<td>1:30 – 2:00 p.m.</td>
<td>Use and Placement of Iso-Ground in Modern Neurodiagnostic Equipment</td>
</tr>
<tr>
<td></td>
<td>Brett Netherton, CNIM, FASNM, FASET, MS</td>
</tr>
<tr>
<td>2:00 – 2:30 p.m.</td>
<td>Pharmacodynamic Assessment of Inhalation Agents Used with Intravenous Anesthetics While Monitoring Transcranial Motor Evoked Potentials</td>
</tr>
<tr>
<td></td>
<td>Brian Aunkst, CNIM, BS</td>
</tr>
<tr>
<td>2:30 – 3:00 p.m.</td>
<td>Will the Real Brain Waves Please Stand Up?</td>
</tr>
<tr>
<td></td>
<td>Jodie Lisauckis, BS; Marisha Hamid, R. EEG T.</td>
</tr>
<tr>
<td>3:00 – 3:45 p.m.</td>
<td>Break in Exhibit Hall with Poster Viewing</td>
</tr>
<tr>
<td>3:45 – 4:15 p.m.</td>
<td>Case Report: Epilepsy Network Coverage in Intracranial EEG</td>
</tr>
<tr>
<td></td>
<td>Jennifer Vierkant, R. EEG/EP T., CLTM, RPSGT, AAS</td>
</tr>
<tr>
<td>4:15 – 4:45 p.m.</td>
<td>Defining Properties of Vagal Nerve Electrical Stimulation</td>
</tr>
<tr>
<td></td>
<td>Zachary Mace, CNIM, MA</td>
</tr>
<tr>
<td>4:45 – 5:15 p.m.</td>
<td>Linked Quadri-Polar MEP Stimulation for Minimizing Body Movement</td>
</tr>
<tr>
<td></td>
<td>Ernesto Lima, MD, D.ABNM</td>
</tr>
<tr>
<td>6:00 – 7:00 p.m.</td>
<td>Exhibit Hall Welcome Reception</td>
</tr>
</tbody>
</table>
# Schedule of Events

## Friday, August 19

### Program Committee
- Brian Adkins, R. EEG T., CNIM, BS
- Linda Kelly, R. EEG/EP T., R.NCS.T., CNCT

### Course Directors
- **Joshua Sunderlin**, CNIM, MS
- **Pamela Fuchs**, R. EP T., R.NCS.T., CNCT
- **Connie Kubiak**, R. EEG/EP T., CNIM, CLTM, FASET

## Platform Presentations

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 – 9:00 a.m.</td>
<td><strong>IONM Fundamentals &amp; Current Topics</strong></td>
</tr>
<tr>
<td>9:00 – 9:30 a.m.</td>
<td><strong>Developments in Credentialing and Accreditation</strong></td>
</tr>
<tr>
<td>9:30 – 10:00 a.m.</td>
<td><strong>Supporting Neurodiagnostic Employees in Developing and Pursuing a Career Path</strong></td>
</tr>
<tr>
<td>10:00 – 10:45 a.m.</td>
<td><strong>Break in Exhibit Hall with Poster Viewing</strong></td>
</tr>
<tr>
<td>10:45 – 11:15 a.m.</td>
<td><strong>My Mother Told Me There Would Be Days Like This! The Challenges of Managing Neurodiagnostics in Three Diverse Facilities</strong></td>
</tr>
<tr>
<td>11:15 – 11:45 a.m.</td>
<td><strong>HIPPA Compliance for Equipment: What Does This Mean for You?</strong></td>
</tr>
<tr>
<td>11:45 a.m. – 1:00 p.m.</td>
<td><strong>Awards Ceremony Luncheon</strong></td>
</tr>
<tr>
<td>1:00 – 1:30 p.m.</td>
<td><strong>Zero to 60 in 3 Years Flat! An Approach for Building a Neurodiagnostic Department in the Face of National Technologist Shortages</strong></td>
</tr>
<tr>
<td>1:30 – 2:00 p.m.</td>
<td><strong>Normal Variants</strong></td>
</tr>
<tr>
<td>2:00 – 2:30 p.m.</td>
<td><strong>Sensory Overload: Why Your Patients Don’t Want You Near Them</strong></td>
</tr>
<tr>
<td>2:30 – 3:15 p.m.</td>
<td><strong>Variables in Pedicle Screw Monitoring</strong></td>
</tr>
<tr>
<td>3:15 – 3:45 p.m.</td>
<td><strong>Improvement on EEG Using the Ketogenic Diet in Pediatric Patients</strong></td>
</tr>
<tr>
<td>3:45 – 4:15 p.m.</td>
<td><strong>The Changing Face of the Neurodiagnostic Patient</strong></td>
</tr>
<tr>
<td>4:15 – 4:45 p.m.</td>
<td><strong>Standards &amp; Practices Committee Updates: Promoting the Value of Neurodiagnostic Technologists</strong></td>
</tr>
<tr>
<td>5:00 – 6:30 p.m.</td>
<td><strong>Break in the Exhibit Hall with Poster Viewing/Silent Auction Close-out</strong></td>
</tr>
<tr>
<td>8:00 – 10:00 p.m.</td>
<td><strong>Sundown Seminars</strong> (ticketed event) - $30**</td>
</tr>
</tbody>
</table>

## Plenary Session: Ellen Grass Lecture
- "It’s Never Too Late to Make a Difference with Neurodiagnostics"
- Nikesh I. Ardeshna, MD, MS

## Break in Exhibit Hall with Poster Viewing

### Awards Ceremony Luncheon

- **#1 Strategies for Neuromonitoring**
  - **Jeff Balzer**, PhD, D.ABNM, FASNM

### Peripheral Nerve Physiology and Monitoring
- **Jay Shils**, PhD, D.ABNM, FASNM, FACNS

### Advanced Nerve Conduction Procedures
- **Brian Markley**, R. EEG/EP T., R.NCS.T., CNCT, FASET, BS

### Functional Cortical Mapping Workshop
- **Stephen Schuele, MD, MPH**

## Break in the Exhibit Hall with Poster Viewing/Silent Auction Close-out

### Sundown Seminars (ticketed event) - $30
- "Last Call" with the Dendrites

---

**ASET 2016 Annual Conference**
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Course Director</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00–9:00 a.m.</td>
<td>Trends in Neurodiagnostics</td>
<td>Pamela Fuchs, R. EP T., R.NCS.T., CNCT</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Plenary Session: Kathleen Mears Memorial Lecture</strong></td>
<td></td>
<td>“Go for the Gold: Essential Skills for Neurodiagnostic Practitioners”</td>
</tr>
<tr>
<td></td>
<td>Jerry Morris, R.NCS.T., CNCT, FASET, MS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:00–10:00 a.m.</td>
<td>The Lyme Disease Epidemic &amp; the Impact on the Brain</td>
<td>Joshua Sunderlin, CNIM, MS</td>
<td>Physiology and Evoked Potentials</td>
</tr>
<tr>
<td></td>
<td>Joseph A. Annibali, MD</td>
<td></td>
<td>Brian Gierl, MD</td>
</tr>
<tr>
<td>10:00–10:20 a.m.</td>
<td>Break</td>
<td>Pat Lordeon, R. EEG T.</td>
<td>Epileptic Syndromes, Autism and the Developing Brain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Miya Asato, MD</td>
</tr>
<tr>
<td>10:20–11:15 a.m.</td>
<td>Sports-Related Concussions: Update on Assessment and Treatment</td>
<td>Vickie Sexton, R. EEG/EP T., R.NCS.T., CNCT, CLTM, BS</td>
<td>IONM for Cardiovascular Procedures</td>
</tr>
<tr>
<td></td>
<td>Erin Reynolds, Psy.D.</td>
<td></td>
<td>Jeff Balzer, PhD, D.ABNM, FASNM</td>
</tr>
<tr>
<td></td>
<td>Do You Really Have My Back?</td>
<td>Dorothy Gaiter, R. EEG T., R.NCS.T., CNCT, CNCT, FASET, MHA, Elizabeth Mullikin, R. EEG/EP T., CNIM, CCVT, RDCS, FACHE, FASET, MA, MPA, MNM</td>
<td>The Role of Neonatal EEG</td>
</tr>
<tr>
<td></td>
<td>Dorothy Gaiter, R. EEG T., R.NCS.T., CNCT, FASET, MHA; Elizabeth Mullikin, R. EEG/EP T., CNIM, CCVT, RDCS, FACHE, FASET, MA, MPA, MNM</td>
<td></td>
<td>Monica Naik, MD</td>
</tr>
<tr>
<td>11:15 a.m.–noon</td>
<td>Pulse Train Stimulation for Thoracic Pedicle Screw Placement</td>
<td>Monica Naik, MD</td>
<td>Behind the Scenes in the NICU Brittanie Perla, RN, BSN</td>
</tr>
<tr>
<td>Noon–1:00 p.m.</td>
<td>Interest Section Lunch</td>
<td>Dorothy Gaiter, R. EEG T., R.NCS.T., CNCT, FASET, MHA; Elizabeth Mullikin, R. EEG/EP T., CNIM, CCVT, RDCS, FACHE, FASET, MA, MPA, MNM</td>
<td>Artifacts in the ICU Sarah Schmitt, MD</td>
</tr>
<tr>
<td>1:00–1:45 p.m.</td>
<td>Peripheral Neurostimulation (Vagal Nerve Stimulator): An Opportunity for the Technologist</td>
<td>Michael Bell, MD</td>
<td>Traumatic Brain Injury in Young Patients Michael Bell, MD</td>
</tr>
<tr>
<td></td>
<td>Anto Bagic, MD, PhD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:45–2:30 p.m.</td>
<td>Responsive Neuro-Stimulation (RNS): Overview &amp; the Role of the Technologist</td>
<td>Sherry Nehamkin, R. EEG/EP T., CNIM, CLTM, FASET</td>
<td>ICU Monitoring: Alarm Criteria, Clipping and Editing</td>
</tr>
<tr>
<td></td>
<td>Janet Greenwood, PA</td>
<td></td>
<td>Sherry Nehamkin, R. EEG/EP T., CNIM, CLTM, FASET</td>
</tr>
<tr>
<td>2:35–4:05 p.m.</td>
<td>Skull-based Procedures and Neuromonitoring – Part II</td>
<td>Paul A. Gardner, MD</td>
<td>EEG Findings in Critically Ill Children Luis Fernandez, MD</td>
</tr>
<tr>
<td></td>
<td>Gregory Adams, CNIM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:05–4:15 p.m.</td>
<td>Plenary Session: 2016 ASET Symposium</td>
<td>Christine Patterson, MD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>“Urgent! Licensure Lifeboat to Protect Neurodiagnostic Technology Scope of Practice!” Panel Discussion</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Closing Ceremony</td>
<td>DOTIAD Consulting LLC</td>
<td></td>
</tr>
</tbody>
</table>
Pre-Conference Session

Educator’s Workshop: Forms, Tools, and the Standards

Wednesday, August 17, 2016
2:00 - 5:00 p.m.

Hosted by the Committee on Accreditation for Education in Neurodiagnostic Technology (CoA-NDT)

The educator’s workshop is focused on activities related to student, graduate program, and resource evaluation. Participants will explore the meaning of validity and reliability and apply those concepts to evaluation tools. Program faculty will demonstrate how to collaborate with colleagues when sharing programmatic tools and to contextualize shared tools for your program.

Objectives: Upon completion of this workshop, participants will:
1. Evaluate sample program evaluation tools for validity and reliability
2. Collaborate with other educators to develop new or revise existing clinical evaluation tools
3. Apply evaluation results to the NDT and/or IONM Standards.

Please visit the CoA-NDT website to register for this FREE workshop: www.coa-ndt.org

Presenters:
Kellee Trice, R. EEG/EP T., RPSGT, BA and Jackie L. Long-Goding, PhD, RRT-NPS, FAARC

Plenary Sessions

Thursday, August 18, 2016

Lewis Kull Memorial Keynote Address
“Alive Inside – The Story of Music & Memory”
Robin Lombardo, CTRS, CDP

Based on the 2014 Sundance Film Festival’s award-winning documentary, “Alive Inside,” this inspirational presentation reveals the amazing improvement in Alzheimer’s patients when they are able to listen to music that has meaning for them. Music & MemorySM is a non-profit organization that was created to enable as many patients as possible to have access to an iPod and recorded music. Robin will discuss the neurophysiology of music in the brain, and the many areas of the brain that are involved in processing music and the relationship to memory. She will demonstrate the remarkable change in the patients listening to music with video clips and stories. Many neurodiagnostic technologists perform tests on dementia patients and may benefit from incorporating this technique in the lab environment. Even if you work in another area of neurodiagnostics, it is likely that you know a person suffering from Alzheimer’s, or will in the future. Statistics reveal that 1 in 9 Americans over 65 have been diagnosed with this disease. This keynote address may change your life or the life of a loved one.

Biographical Sketch
Robin is a Regional Director of Music & MemorySM and a Certified Therapeutic Recreation Specialist and Certified Dementia Practitioner. She has forty years’ experience in dementia care and did extensive research on brain function for her Master’s Degree.

The Keynote Address is sponsored in perpetuity by ABRET in memory of Lewis Kull.

Friday, August 19, 2016

Ellen Grass Lecture
“It’s Never Too Late to Make a Difference with Neurodiagnostics”
Nikesh I. Ardeshna, MD, MS

Despite many recent improvements in medicine and access to health care in the US, many individuals with seizures or epilepsy have not been to see an epileptologist or even a neurologist. In addition to the proper care they need, they may have been having “episodes” for years, which have not been accurately diagnosed. Furthermore, some of these individuals are on anti-epileptic medications for events that resemble seizures, but they may not be actually having them. All of these factors increase visits to physicians and hospitals because the patient may not be receiving the proper care if they are not under the care of a physician and neurodiagnostic team that specializes in these conditions.

As a team, neurodiagnostic technologists, epileptologists and neurologists play a pivotal role in the diagnosis and management of these patients. In addition to providing high quality care, implicit in all of our work is to increase the awareness of the availability of specialized diagnostic modalities, including but not limited to EEG, critical care/long-term EEG, and epilepsy monitoring for the diagnosis and management of seizures and epilepsy.

Dr. Ardeshna has collected and will share some of the most dramatic case studies of his career. These cases further demonstrate how our work can make a positive difference in an individual’s life when an accurate diagnosis is made based on EEG findings, which can in turn lead to proper and timely treatment, long term health care management, and in some cases, surgical resection. This presentation will reaffirm the value of neurodiagnostics and the role we play in improving the quality of life for our patients.

Biographical Sketch
Dr. Ardeshna is a fellowship-trained epileptologist and currently serves as the Medical Director of adult epilepsy at Beaumont Health System, Royal Oak, Michigan. His work focuses on diagnoses and management of adult patients with seizures. His expertise includes reading EEGs, working in the epilepsy monitoring unit, and long-term critical care/ICU EEG monitoring. In addition, his special clinical interest is seniors and epilepsy. Dr. Ardeshna currently serves on the national professional advisory board of the Epilepsy Foundation. He has worked since residency to advocate for the needs of epilepsy patients at various levels of government. He has supported the education of neurodiagnostic technologists by giving lectures both locally and nationally.
We live in a world that has changed dramatically during the last half of the 20th century and the first part of the 21st century. The economy, politics and government, religion, health care, science, sports, entertainment, and global affairs are just a few of the groups that have altered their ideas and values as the world has changed. We now are ingrained, maybe even to the point obsessed, with winning and striving to do and be our best much more so than our ancestors were. Obsession sometimes denotes a bad trait but it can be a good thing when taken in the correct and positive perspective. As neurodiagnostic professionals we should embrace the idea of becoming our best, not only in our profession, but also in our family and social life as well. We owe this not only to ourselves but also to the patients and families we see and the physicians and allied health personnel that we interact with each day. Striving to become the best is not easy. The way is fraught with hardships and innate fears that, if succumbed to, will hinder and limit us as we move forward to being and doing our best. Overcoming those fears, and perhaps using them to our advantage, is essential to our journey.

Along the way certain character traits such as self-discipline, sacrifice, integrity, confidence, loyalty, etc., will aid us in achieving our goals. Many other qualities, skills, and concepts may also help us define our goals and dreams as it applies to ourselves first and foremost and then to our career as an NDT professional. To me they go hand in hand. A better person equals a better employee equals a better technologist. Nothing less than being and doing our best should be our ultimate goal. Our profession deserves it.

Biographical Sketch
Jerry received his Master’s Degree in Science at Northwestern University in 1978, and has worked in the field of neurodiagnostics since 1977 with a special interest in Nerve Conduction Studies. Jerry is a Past-President of the American Association of Electrodiagnostic Technologists (AAET) and has served terms on the board of both ASET and AAET. He has served on the ethics committee of the American Association of Neuromuscular and Electrodiagnostic Medicine. He has been awarded an ASET Fellowship and is also the recipient of the ASET Theda Sannit Outstanding Educator Award.

2016 ASET SYMPOSIUM
“Urgent! Licensure Lifeboat to Protect Neurodiagnostic Technology Scope of Practice!”

Marie Hamid, R. EEG T.
Cathy Boldery, R. EEG/EP T., CNIM, CCT, RPSGT, FASET
Craig Schweitzer, CNIM, BA
Kathryn Hansen, R. EEG T., CPC, CPMA, BS
Scott Blodgett, R. EEG T., RPSGT, RST, FASET, MBA

Present and imminent threats to our Scope of Practice abound. Neurodiagnostic Technologists have lost their jobs to non-credentialed and inexperienced replacements as hospitals and clinics struggle to cut cost. Without a license to protect our scope of practice, others will take ownership of duties traditionally performed by Neurodiagnostic Technologists. The field is being usurped by others and we are being deemed unqualified to do what we have chosen, studied and trained to do. Having a license specific to neurodiagnostics is the only way to protect our jobs and ensure quality testing for our patients. To protect our scope of practice and the patients we serve we need to come together and support the enactment of legislation requiring a professional license to perform neurodiagnostic procedures. Come and hear from fellow neurodiagnostic technologists who have been on the front lines of this effort. They will review the progress we have made so far, and share with you their experiences and provide you with information on how you can help protect your job and patients.
There’s No Place Like Home, There’s No Place Like Home...: A Collaborative EMU Room Design Between Medical Professionals and Art & Design Students
Brian Galdis, R. EEG T., CLTM, BS

Auditory Evoked Potential Stepwise Changes: Diagnostic Accuracy for Hearing Loss
Parthasarathy D. Thirumala, MD, MS; Gregory Camovale, BS; Miguel Habeych MD, MPH, Donald Crammond PhD; Chivone Chapman, CNIM, MBA; Marcus Sherer BS; Jeffery Balzer PhD, D.ABNM, FASNM

Development of a Policy Addressing Skin Breakdown in Pediatric Patients on an Epilepsy Monitoring Unit
Dan Mosqueda, R. EEG T., and Lisa Kolodziejski, RN, BSN, CPN

Sucess is Not a Straight Line
Erica Rappard, AA, AS

High Density Electroencephalography (HD-EEG) and Desensitization Techniques Improve Compliance Without Sedation or Restraint for Children And Adults With Behavioral Challenges
Laura Szklarski, R. EEG T., BS; Mark Mintz, MD, Kimberly Catterall, R. EEG T.

FIRES and Moyamoya: Refractory Seizures Status-Post EDAS Surgery
Taylor Kaufman, R. EEG/EP T., CLTM, AS, and Andrew White MD, PhD

Reduced Neuromagnetic Resting Theta Power in Youth with Obsessive Compulsive Disorder: Preliminary Results
Nasrin Shahana, MBBS, PhD, and Elana Harris, MD, PhD

A Retrospective Analysis of Intraoperative Awake Cortical Mapping in Conjunction with High-Definition Fiber Tracking (HDFT) in Order to Further Understand Language Pathways and Improve Patient Outcomes
Kaitlyn J. Shanahan CNIM, BS; Juan C. Fernandez-Miranda, MD; Parthasarathy D. Thirumala, MD, MS

Perioperative Stroke After Cerebral Aneurysm Clipping: Incidence, Risk Factors, and Postoperative Impact
Briana Gamret, CNIM, BS; Tara Smolick, CNIM, BS; Ahmed I. Kaskhoush, BS; Chris Nguyen; Paul A. Gardner MD; Daniel A. Wecht MD, MA; Brian T. Jankowitz MD; Robert M. Friedlander MD, MA; Miguel Habeych, MD, MPH; Donald Crammond, PhD; Jeffrey Balzer PhD, D.ABNM, FASNM; Parthasarathy D. Thirumala, MD, MS

Diagnostic Accuracy of Somatosensory Evoked Potentials and Electroencephalography during Carotid Endarterectomy
Aubrey Murano, CNIM, BS; Nick Karkowsky, CNIM, BS; Parthasarathy D. Thirumala, MD, MS; Piruthivijay Natarajan, MBBS; Kirthy Thiagarajan, MBBS; Donald J. Crammond PhD; Rabih A. Chea, MD; Efthymios D. Averinos, MD; Robert Friedlander, MD; Jeffrey Balzer, PhD, D.ABNM, FASNM; Miguel E. Habeych, MD, MPH, FACONS

Skin Safety in Continuous EEG: An ASET Approved Guideline to Improving Patient Care

How to Papoose Challenging Patients
Louis Ludrose

Improvement on EEG Using the Ketogenic Diet in Pediatric Patients
Patricia Trudeau, R. EEG T., CLTM, FASET; Monica Koehn, MD; Donna Staab, RN, BS; Tammi Timmler, MS, RD; Kristin Henry, Pharm.D; Evan Sandok, MD

ABRET Recertification
Eric Padilla, R. EEG/EP T., CNIM, CLTM, MBA, and Patricia Trudeau, R. EEG T., CLTM, FASET

Reducing Skin Breakdown in Long Term Monitoring
Heather Hagedorn R. EEG T.

An Overview of the Process of Collecting Spontaneous and Evoked MEG Data Shawn Walls, MA
Magnetoencephalography (MEG) is a neurophysiological technique that visualizes the magnetic fields produced from the electrical activity of the brain. MEG is a very useful tool for both researchers and clinicians with its greatest clinical impact as a localizing tool in pre-surgical evaluation of epilepsy patients. This presentation will look at the process of collecting spontaneous and evoked data sets using MEG, including simultaneous MEG and EEG data collection.

Multimodality Monitoring of Carotid Endarterectomies: Lots of EEG vs Sparse EEG
Leslie Biggie, R. EEG T., CNIM, BS
Carotid endarterectomies (CEAs) are the standard of care for treating occlusive carotid artery disease in patients over 65 years of age in which the arteries are not 100% occluded. Intraoperative neurophysiological monitoring is utilized during CEAs to reduce morbidity associated with ischemia secondary to either cross-clamping of the carotid artery or the throwing of emboli secondary to cross-clamping. Controversy exists as to the best monitoring approach, some arguing for large numbers of EEG channels (16 or greater) and some for fewer (8). This presentation will explain an approach using median nerve Evoked Potentials and EEG.

A Vertebral Column Resection (VCR) for Kyphoscoliosis: An Intraoperative Neurophysiological Monitoring (IONM) Alert
Faisal R. Jahangiri, MD, CNIM, D.ABNM, FASNM
Vertebral Column Resection (VCR) for Kyphoscoliosis has a high risk of damaging the motor and sensory pathways due to the close proximity to the spinal cord and nerve roots. Early detection and prevention of injury can be achieved by utilizing Somatosensory Evoked Potentials (SSEP) and Transcranial electrical Motor Evoked Potentials (TcMEP) during the resection and correction. This case presentation is aimed to report the benefits of utilizing IONM during the surgical treatment of severe scoliosis and kyphoscoliosis.

Decision Making in Peri-Laryngeal Surgeries Based Upon Intraoperative Mapping of the Vagus Nerve
Jeremy Bamford, PhD, CNIM
In this presentation we emphasize the efficacy of IONM for successful identification of the anatomic variations of the peri-laryngeal vagus nerve branches and review surgical decisions we make based upon IONM data. We analyzed 715 cases involving IONM of the vagus nerve and cervical branches during peri-laryngeal resections. We identified 18 cases (2.5% rate of occurrence) of right-sided non-recurrent laryngeal nerve anatomy. The average vagus nerve latency was significantly shorter for non-recurrent nerves. We evaluated latency and amplitude of EMG responses as a criterion for staging or
SESSION DESCRIPTIONS

AUGUST 18-20, 2016 WYNDHAM GRAND DOWNTOWN PITTSBURGH, PA

continue bilateral resections. Patients with non-recurrent
nerves undergo paralysis at significantly higher rates. Rigorous mapping of the vagus nerve during peri-laryngeal
surgerys is an important adjunct to these surgeries that
preserves function and guides the surgical decision-making
process.

Use and Placement of Iso-Ground in Modern Neurodiagnostic Equipment
Brett Netherton, CNIM, FASNM, FASET, MS

The electrode position still often referred to as ground had
origins in the patient safety realm as well as electrical noise
reduction. Early neurodiagnostic equipment utilized earth
ground. Earth grounding of neurodiagnostic equipment had
advantages, including the ability to dramatically decrease
stimulus artifact from evoked response recordings. Due
to patient safety concerns, modern neurodiagnostic
equipment no longer utilizes earth ground and has layers of
electrical isolation between all patient connections and
the electrical circuitry of the electrical supply, including
earth ground. The modern electrode position still referred
to as ground or often as iso-ground is actually a signal
ground not related to patient safety. This presentation will
include a discussion on iso-ground placement and tips for
troubleshooting the placement of iso-ground.

Pharmacodynamic Assessment of Inhalation Agents Used with Intravenous Anesthetics While Monitoring Transcranial Motor Evoked Potentials
Brian Ankst, CNIM, BS

It is generally agreed that Transcranial Motor Evoked Potentials (TcMEPs) are best obtained with an intravenous anesthesia consisting of a continuous infusion of
propofol and remifentenil, which may be augmented with
an inhalational agent, such as sevoflurance. The pharamcokinetic properties of these agents provide for rapid
anesthetic modulation. However, as a measure of interest,
their pharmacodynamic properties are quite different when
using evoked motor potentials of the lower extremities. The
monitoring literature suggests that an inhalation agent at <
0.5 MAC is appropriate. We, however, argue that TcMEPs
themselves provide a better pharmacodynamic measure of
the appropriate inhalational agent concentration.

Will the Real Brain Waves Please Stand Up?
Jodie Lisauckis, BS; Marisha Hamid, R. EEG T.

Artifacts are a common occurrence in the EEG of many
patients. Physiological and extraphysiological artifacts
can resemble epileptiform or suspicious rhythmic activity
that looks like a seizure. Throughout this interactive
presentation, examples of different types of artifacts will be
shown for the audience to deduce: What is the artifact, or
is it an artifact?

Case Report: Epilepsy Network Coverage in Intracranial EEG
Jennifer Vierkant, R. EEG/EP T., CLTM, RPSGT, AAS

On scalp EEG it is difficult to detect a seizure focus in the
mesial temporal region. Often scalp EEG demonstrates the
propagation epilepsy network. We are presenting a case
with “frontal epilepsy” originating from the right mesial
temporal lobe. This epilepsy network should be covered
during indwell recording, especially for the mesial temporal
structures.

Defining Properties of Vagal Nerve Electrical Stimulation
Zachary Mace, CNIM, MA

Neural tissue, whether peripheral or central, is excited
by charge, which is the product of pulse amplitude and
width. This is an important concept, since many assume
that only stimulus amplitude is of concern. It is well known
that nerve excitability is captured by strength-duration
curves and that excessive charge may over-stimulate the
nerve producing a volley of action potentials. In the case
of stimulation of the vagus nerve, this volley may result in
the release of acetylcholine which would bind to muscarinic
receptors of the sinoatrial (SA) node. This binding would
inhibit the activity of the SA node, causing bradycardia and,
possibly, asystole. A third defining parameter characterizing
stimulation properties is stimulus frequency. Too high a
stimulus frequency may lead to summation of the inhibitory
postsynaptic potentials produced in the region of the
cardiac sinus pacemaker and could lead to asystole.
Monitorists must be aware of all three parameters to avoid
the occurrence of this phenomenon.

Linked Quadri-Polar MEP Stimulation for Minimizing Body Movement
Emesto Lima, MD, D.ABNM

TcMEPs are often used for monitoring spinal surgery.
During the testing process, it is often necessary to
increase stimulus intensity to obtain consistent muscle
responses, which may cause significant patient movement.
We employ a method termed Linked Quadri-Polar (LQP)
TcMEP, which links together electrodes on each side of
the scalp to get a more generalized current spread and
results in significantly less stimulus intensity. Stimulation
intensity was decreased by an average of 51 volts for LQP
stimulation in a consecutive series of fifty cases.

EEG & CLINICAL CORRELATIONS

The EEG and Clinical Correlations: Geriatrics and Dementia
Gena Ghearing, MD

Following the inspirational Keynote address about
Alzheimer’s patients, it is very appropriate to review the
EEG findings in the elderly patient and understand how
the EEG can be used to aid in the diagnosis of cognitive
impairment and memory loss. With an aging patient
population and new statistics on the onset of seizures in the
elderly, we can anticipate an increase in EEG referrals for
the geriatric patient population.

Is It a Seizure?
Christina Patterson, MD

Clinical events can be puzzling and the EEG plays a key
role in determining whether or not a particular symptom or
event is a seizure or a non-epileptic event. This will be a
fascinating discussion of seizures and seizure-like episodes
with a range of video and EEG examples to illustrate the
wide range of possible diagnoses.

Practical Approach to EEG through Case Studies
Mark Libenson, MD

Dr. Mark Libenson is the author of one of the most popular
EEG textbooks in print today, and one that ASET has
designated as the companion textbook for our online EEG
courses. Dr. Libenson is the Medical Director of the EEG
lab and Neurodiagnostic Training Program at Children’s
Hospital in Boston. This presentation will include case
studies to illustrate a variety of EEG findings and clinical
correlations as featured in his book. Don’t miss the
opportunity to meet the author and purchase a signed book
at a discount from the publishers list price! (Book signing
to follow in Exhibit Hall at 3:00)

Drug Effects on the EEG
Patricia Cummie, MD

Many of the patients referred for an EEG are on multiple
medications, including anticonvulsants, antidepressants and
others that affect the central nervous system. It can
be difficult to determine how these medications may alter
the EEG. This lecture will include examples of EEGs from
patients on a variety of medications known to have an effect
on EEG findings.

Lights, Music, Chess: Reflex Epilepsies, Old and New
Petra Davidson, R. EEG/EP T., BS

One of the most fascinating seizure disorders is Reflex
Epilepsy. In Reflex Epilepsy, seizures are provoked by a
specific stimulus, from reading, to eating, to specific sounds
or music. Did you know that an episode of the television
comedy, “Seinfeld,” was inspired by a real case of reflex
epilepsy? Petra will tell you about this case and share her
noteworthy collection of reflex epilepsy cases.

A Tour of the Brain with Brodmann’s
John-Paul Samaquero, R. EEG/EP T., CNIM

This will be an interactive session, perfect for the end of
the day! You will go on a tour of the cerebral cortex and
learn the Broadman’s system of identification for areas
of the brain along with clinical correlations for functions
and symptoms that occur with disorders of each area of
the brain. This is a numbered system that was created in
1909 and which still remains the most widely known tool for
functional neuroanatomy identification.

EVOKE POTENTIALS

Visual Evoked Potentials
Larry Head, R. EEG/EP T., CNIM, RPSGT, RST, FASET

Larry is the VIP of the VEP! The ASET Evoked Potential
course would not be complete without this lecture! He will
go over the visual pathway anatomy, stimulator settings,
recording techniques and the calculation of the visual angle
and he will make it all fun and informative!

Somatosensory Evoked Potentials

Denise Bates, R. EP T., CNIM, MBAHM

Denise is the author of ASET’s comprehensive Evoked
Potentials online course. She will provide an overview of
SSEPs, including anatomy of the pathways, instrumentation
and location of stim sites, and typical waveforms and
latency ranges. She will add some trouble-shooting tips as
well. This will be very helpful for both clinical and
intraoperative applications.

Brainstem Auditory Evoked Potentials

Mark Ryland, R. EP T., RPSGT, R.N.C.S.T., CNCT, FASET,
AuD

Once again we have the guru of BAEPs on hand to talk
about the anatomy and structure of the hearing pathway,
the generators of BAEP waveforms and recording
techniques and parameters! Mark has a doctorate in audiology as
well as the R. EP T credential, and he is a full time educator
at Cuyahoga Community College. Dr. Ryland is a very
talented and dynamic teacher!

Evoked Potentials Jeopardy

Larry Head, R. EEG/EP T., CNIM, RPSGT, RST, FASET

This is a new event for the ASET Evoked Potentials Course.
Can you think of a more “stimulating” way to review all three
evoked potential modalities? Larry Head will serve as the
M.C. for this interactive session to give everyone an option
to answer some questions about anatomy and recording
techniques.

Hands on EP Workshop: VEPs, BAEPs & SSEPs

All EP Faculty

There will be three hands-on work stations, one for each
modality. Participants are free to move about between the
stations that interest them the most, to get an opportunity to
practice hands-on techniques for evoked potentials.
AUTONOMIC MINI-COURSE

The Principles of MEG: A Unique Look into Brain Function
Susan Bower, PhD
MEG is emerging as a valuable component of the comprehensive epilepsy work-up. MEG provides accurate functional neuro-imaging. Dr. Bower will explain how the MEG system works and how it can be used as part of the pre-surgical evaluation of epilepsy patients.

Meet MEG: How to Run a MEG Study
Karen Mason, R. EEG T.
Karen is one of the most experienced MEG technologists in the country, doing MEG studies at Henry Ford Hospital in Detroit. She will discuss the technologist’s role in the recording of the MEG study.

It’s Your MEG Lab: Run It Efficiently
Renee Krebs, R. EEG T.
Renee will provide insight and helpful tips for the management of the MEG lab, sure to be very helpful for those who are just opening a MEG lab service or plan to expand skills into this specialty.

The Magic of MEG
Anto Bagic, MD, PhD
Dr. Bagic will explain how the MEG test results are used in the clinical setting and will share some case studies to illustrate the usefulness of this specialized imaging process. Dr. Bagic is among the most active members in the American Clinical MEG Society (ACMEGS) community where he was one of five founders of this society. He started one of the first and busiest MEG centers in the country at the University of Pennsylvania Medical Center.

FRIDAY, AUGUST 19, 2016
PLENARY SESSION & PLATFORM PRESENTATIONS

ELLEN GRASS LECTURE
“It’s Never Too Late to Make a Difference with Neurodiagnostics”
Nikesh I. Ardesna, MD, MS
As a team, neurodiagnostic technologists, epidemiologists and neurologists play a pivotal role in the diagnosis and management of these patients. In addition to providing high quality care, implicit in all of our work is to increase the awareness of the availability of specialized diagnostic modalities, including but not limited to EEG, critical care/long-term EEG and epilepsy monitoring for the diagnosis and management of seizures and epilepsy. Dr. Ardesna will share some of the most dramatic case studies of his career to demonstrate how our work can make a positive difference in an individual’s life when an accurate diagnosis is made based on EEG findings, which can in turn lead to proper and timely treatment, long term health care management, and in some cases, surgical resection.

Developments in Credentialing and Accreditation
Erik Padilla, R. EEG/EP T., CNIM, CLTM, MBA
ABRET Neurodiagnostic Credentialing & Accreditation has a 50-year history of credentialing in neurodiagnostics. This presentation will highlight recent developments and announce some future projects. ABRET continues to seek ways to improve the credentialing process and to encourage excellence in neurodiagnostics. ABRET offers five credentials, R. EEG T; R. EP T; CNIM®, CLTM®, CAP®; as well as three laboratory accreditation programs, LAB-EEG, LAB-NIOM, and LAB-LTM. This presentation will cover the new CME certificate program, ABRET’s Self-Assessment Program (ASAP), the ongoing evaluation process with regard to changes in the field and advances in technology, eligibility requirements, updates in laboratory accreditation, recertification and digital badges.

HIPPAA Compliance for Equipment: What Does This Mean for You?
Simon Griffin, BSc
The Health Insurance Portability and Accountability Act of 1996, or HIPAA for short, is a far-reaching law that has implications for how we run our EEG systems. So often you will read or hear the term, “HIPAA compliant”, with regards to EEG equipment. What does this actually mean? And what does it mean to be a “Covered Entity”? This talk will explore specific terms of the HIPAA law and discuss your responsibilities as a covered entity. The talk will provide insight into what you can do to ensure that your equipment is being used in a HIPAA compliant way.

Sensory Overload: Why Your Patients Don’t Want You Near Them
Anna Beck, R. EEG T., MOL
Have you ever been overstimulated (being in a situation where you cannot control lights, noise, etc.), but you must remain present? Have you gotten to the point of a meltdown? Many of our pediatric, and sometimes adult, patients experience this. Drawing from the experience of those present we will discuss ideas about what it is like for our patients. With the help of volunteers, we will recreate stimuli using a sensory box, bright light and a radio with headphones.

Improvement on EEG Using the Ketogenic Diet in Pediatric Patients
Patricia Trudeau, R. EEG T., CLTM, FASET
We will discuss a group of patients with intractable epilepsy whose EEGs improved during treatment with the ketogenic diet. The diagnoses of these patients range from structural abnormalities such as cortical malformations to Lennox Gastaut Syndrome with normal MRI findings. All patients treated with the ketogenic diet demonstrated improvement in seizure frequency and intensity, including those whose EEG did not improve.

In 2011, our medical director took over operations of the healthcare system to provide a more encompassing service to the community and a desire to be a national leader within the field. Our neurodiagnostic department staffing model could not accommodate this envisioned growth, and a plan could not be put into action without addressing this issue emergently. The significant nation-wide shortage of Neurodiagnostic Technologists led to the development of an extensive training program incorporating a hands-on fundamentals course, online CAAHEP education, and preceptor-led on-the-job training. As a result, we have increased our staff from 13 to 59 employees in less than three years. Our process has proven to be an innovative and successful approach to building a neurodiagnostic program to facilitate the growth of local departments and address national shortage needs.
The Changing Face of the Neurodiagnostic Patient
Kathy Johnson, R. EEG/EP T., RPSGT, FASET
In the past, typical EEG patients included those with seizures or headaches, TIAs or CVAs, brain tumors and occasionally those to be cleared for electro-shock therapy. Today’s patients have changed immeasurably. We now see more patients with psychogenic seizures, drug overdose, and some requiring isolation precautions. How do we respond to these patients? How can we give them the best care possible and respect them no matter what the circumstances?

Standards & Practices Committee Updates: Promoting the Value of Neurodiagnostic Technologists
Denise Bates, R. EP T., CNIM, MBA/DHac
The ASET Standards & Practices Committee has been industrious in 2016 and will share their important updates for the year. The goals set for this committee include: 1) To promote the value of neurodiagnostic technologists and credentialing in improved patient care and outcomes, 2) To promote the growth of the neurodiagnostic profession through the establishment of job descriptions for advanced-level positions in neurodiagnostic technology, and the importance of establishing a clinical ladder for professional advancement.

IONM FUNDAMENTALS & CURRENT TOPICS
Evoked Electrical Potentials: From a Neuron to LFPs to EEG and EPs: What it Means to You and Me
Bryan Wilent PhD, D.ABNM
It is all too easy to let the fundamentals of electrical physiology become something we learn to pass the boards and then forget shortly thereafter. Dr. Wilent will help us strengthen our understanding for the foundational processes that underlie the different modalities we use in Neuromonitoring and how it all builds up to the IONM data we collect in every procedure.

#1 Strategies for Neuromonitoring
Jeff Balzer, PhD, D.ABNM, FASN
It is not uncommon for surgeons to request guidance from Neuromonitoring practitioners about what they should be monitoring for particular procedures. Drawing upon his considerable expertise on the subject, Dr. Balzer will guide us through this planning phase and give some helpful pointers for how we can help our part to ensure the right Neuromonitoring is being used for every case. Audience participation will be encouraged!

Peripheral Nerve Physiology and Monitoring
Jay Shils, PhD, D.ABNM, FASN, FACNS
Many of us who work in Neuromonitoring do not routinely see peripheral nerve related procedures. Dr. Shils will provide us with very valuable information for how to effectively monitor peripheral nerves, which will make all of us much more comfortable when we are inevitably tasked with providing IONM for such procedures.

Variables in Pedicle Screw Monitoring
Lawrence Wierzbowski, AuD, D.ABNM, FASN, BCS-IOM
One of the most common services we provide in Neuromonitoring is pedicle screw stimulation. But in the modern age of proprietary spinal instrumentation crafted from exotic alloy metals, how can we really be sure that the stimulation is going to be effective? Dr. Wierzbowski will provide explanations of how screw variability can affect the accuracy of the monitoring and what you (and the surgeons you work with) need to know.

Intraoperative Neuromonitoring for the Direct Lateral Transspsoas Approach in the Lumbar Spine
Richard Vogel PhD, D.ABNM
Lateral access lumbar procedures have become increasingly popular among spine surgeons. Dr. Vogel will give us a valuable education on what makes these procedures unique, and ways to protect our patients from injury.

Land Mines & Missiles: Compliance, Ethics & Practice Management in IONM
Rebecca Clark-Bash, R. EEG/EP T., CNIM, CLTM, FASNT, FASET
Neuromonitoring providers, like us, can be so absorbed in just making sure our patients are getting quality monitoring that we are often blind to the whole other medical-legal component to the jobs we do. Rebecca will help us navigate the “land mines and missiles” by explaining what we need to know to protect ourselves in the medical-legal world we live in.

NERVE CONDUCTION STUDIES
Repetitive Nerve Stimulation in Neuromuscular Junction Disorders
David Lacomis, MD
Dr. Lacomis will explain repetitive nerve stimulation techniques and the clinical correlation with various neuromuscular diseases. Dr. Lacomis specializes in the clinical, electrophysiologic, and pathologic aspects of neuromuscular diseases at the University of Pennsylvania Medical Center. His particular interests include amyotrophic lateral sclerosis, myasthenia gravis, inflammatory and critical illness myopathies, and neuromuscular pathology.

NCS in Guillain-Barre’ Syndrome & Other Infectious Diseases
Jerry Morris, R.NCS.T., CNCT, FASET, MS
Jerry will explain how the nerve conduction study is used in the diagnosis of Guillain-Barre’ Syndrome and other infections that affect the peripheral nervous system. We may see more patients with Guillain-Barre’ since it has been identified as a complication of the Zika virus. Jerry always delivers a dynamic and interesting presentation, and he is a past recipient of the ASET Theda Sannit Outstanding Educator Award.

Advanced Nerve Conduction Procedures
Brian Markley, R. EEG/EP T., R.NCS.T., CNCT, FASET, MS
The more advanced nerve conduction studies are not done very often, but you have to know how to do these studies when the need arises! This lecture will cover the more difficult studies, such as the blink reflex, H-Reflex, and uncommonly tested nerves such as the lateral femoral cutaneous nerve.

Anomalous Innervations & Pitfalls
Jennifer Shen, MD
The most challenging nerve conduction studies involve testing nerves that have abnormal structure. Dr. Shen will provide an overview of these abnormal structures and how to do the detective work to obtain the desired results when stimulating these nerves.

Hands on NCS Workshop
Jerry Morris, R.NCS.T., CNCT, FASET, MS; Brian Markley, R. EEG/EP T., R.NCS.T., FASET, BS; Jim Lewis, R.NCS.T., CNCT
Three workstations will be provided, with expert instructors serving as your guides and facilitators. You will have the opportunity to watch demonstrations, practice skills and ask for technical tips during the hands-on NCS workshop. Bring all your questions and problem cases!

SPECT. Paul will explain how the SPECT scan works and what the images mean. His presentation promises to be witty and very interesting.

Functional Cortical Mapping Workshop
Stephen Schuele, MD, MPH
Dr. Schuele is an attending epileptologist at Northwestern University in Chicago, and he is also the Vice President of the American Clinical Neurophysiology Society (ACNS). He is an excellent teacher and a nationally respected expert on epilepsy, so this is a not-to-be-missed opportunity to participate in an interactive workshop with Dr. Schuele to fine tune your skills in all aspects of functional cortical mapping.

Alternatives to Hospital-based LTM
Donna Bray, R. EEG/EP T., CLTM
There are newly emerging models for conducting continuous EEG monitoring. When circumstances dictate that a hospital admission is not feasible, what are the alternatives? Donna will explain the technology used, recording methods, and pros and cons of this type of EEG monitoring.

Roundtable Discussion: Electrode Application Methods, Alternatives
This is a hot topic! Whenever technologists get together we can’t resist comparing notes on application methods! What works best? Collodion or paste? Is head-wrapping harmful or helpful? How do you prevent skin breakdown? Three technologists with diverse experience will conduct this lively discussion. Audience participation is encouraged!

SATURDAY, AUGUST 20, 2016
PLENARY SESSION
KATHERINE MEARS MEMORIAL LECTURE: “Go for the Gold: Essential Skills for Neurodiagnostic Practitioners”
Jerry Morris, R.NCS.T., CNCT, FASET, MS
As neurodiagnostic technology (NDT) professionals we should embrace the idea of becoming our best, not only for our profession, but also for our family and social life. We owe this not only to ourselves but to the patients and families we see and the physicians and allied health personnel that we interact with each day. Jerry Morris will discuss character traits such as self-discipline, sacrifice, integrity, confidence, loyalty, etc., to help us define and achieve our goals, and to apply them to our career as NDT professionals. Striving to become the best is not easy, but nothing less than being and doing our best should be our ultimate goal. Our profession deserves it. Overcoming fears and using them to our advantage is essential to our journey.
Peripheral Neurostimulation (Vagal Nerve Stimulator): An Opportunity for the Technologist
Anto Bagic, MD, PhD
The two afternoon sessions in this course will highlight new opportunities for neurodiagnostic technologists to work with new implantable devices. The Vagal Nerve Stimulator has been a viable alternative treatment for seizure disorders. Newer VNS devices can also monitor the heart rate. Since over 80% of patients with seizures experience a rapid heart rate during a seizure, a system that recognizes the change in heart rate can also deliver an automatically triggered stimulation to prevent a seizure from occurring. Patients undergo an implant procedure, followed by programing and occasional alternative treatment for seizure disorders. Technologists can play a valuable role in this process, as part of the team that takes care of epilepsy patients.

Responsive Neuro-Stimulation (RNS): Overview & the Role of the Technologist
Janet Greenwood, PA
The RNS device, once implanted in the brain of a patient with seizures, monitors the brain activity, and can detect the onset of seizure activity and responds to that activity by generating electrical pulses to abort a clinical seizure. The technologist can play a role in this advanced treatment, from implantation to follow-up visits. Janet Greenwood is a Physician’s Assistant and is the Senior Manager of Medical Affairs at Neuropace, one of the manufacturers of this device, and she will explain how technologists can expand their practice to assist with this process.

ADVANCED IONM

Physiology and Evoked Potentials
Brian Gierl, MD
We all know that when Anesthesia turns up the inhalational agent we see changes in our patients. How much do we really know about what Anesthesiologists are doing to keep the patient in a balanced state during the procedures we are monitoring? Dr. Gierl will explain how things like hemodynamics, blood loss, and brain/spinal cord oxygenation affect the monitoring we do.

IONM for Cardiovascular Procedures
Jeff Balzer, PhD, D.ABNM, FASNM
Monitoring for cardiovascular procedures has been steadily increasing in popularity as Cardiac surgeons have looked for ways to protect against intraoperative stroke. Dr. Balzer will give incredibly valuable insights into these often very complicated procedures that will help us make sense of what is happening and the ways IONM changes can manifest.

Pulse Train Stimulation for Thoracic Pedicle Screw Placement
Miriam Donohue, PhD
Stimulating lumbar pedicle screws has been a time tested method for determining if breaches in the pedicle occurred, but stimulation of thoracic pedicle screws has never gained much traction. Dr. Donohue will explain this exciting new technique for ensuring safe placement of thoracic pedicle screws that can be a real game changer. Dr. Donohue is an Assistant Professor of Anatomy and Cell Biology at Burrell College of Osteopathic Medicine at New Mexico State University.

Skull-base Procedures and Neuromonitoring
Paul A Gardner, MD; Gregory Adams, CNIM
Dr. Gardner is one of the foremost experts in the world of skull base Neurosurgery. He and his team have developed the expanded endonasal approach (EEA) for reaching skull base tumors that most Neurosurgeons around the world are incapable of treating. The success of the EEA is often heavily dependent upon effective Neuromonitoring of cerebral vasculature, the brainstem, and cranial nerves. This will be a two-part talk with Dr. Gardner explaining the procedure and relevant anatomy, and Greg Adams explaining the unique ways the Neuromonitoring has evolved with the procedure.

PEDIATRIC NEURODIAGNOSTICS

Epileptic Syndromes, Autism, and the Developing Brain
Miya Asato, MD
Dr. Asato is a pediatric neurologist at the Children’s Hospital of Pittsburgh and the Neurodevelopmental Disabilities Program. Epilepsy and autism are linked and many pediatric patients require treatment for both seizures and the behavioral aspects of autism. This presentation will help to sort out epileptic syndromes and developmental factors that contribute to both clinical conditions.

The Role of Neonatal EEG
Monica Naik, MD
The neonatal EEG is very unique, and patterns change rapidly as the brain matures. Clinical signs of seizures and EEG findings in neonatal seizures are also very different, and it takes time and close observation as well as a great deal of experience to recognize and understand neonatal EEG patterns. EEG plays a crucial role in the assessment of neonatal seizures, predictable outcome and treatment plan. This presentation will provide an overview of various EEG patterns from prematurity through term, and the importance of the EEG in the treatment of our tiniest patients.

Behind the Scenes in the NICU
Brittanie Perla, RN, BSN
The Neonatal Intensive Care Unit is a very special place, but one that we often find intimidating. Brittanie is a nurse who works in the NICU at the Children’s Hospital of Pittsburgh and she will help us take the mystery out of all of those unfamiliar devices and procedures. When preparing newborns for EEG recordings we rely on the help of nursing staff and we must all work on the same team. By demonstrating an understanding of the NICU environment, we build a culture of trust and do a better job of handling the smallest patients to minimize causing stress for the infants and their caregivers.

EEG Findings in Critically Ill Children
Luis Fernandez, MD
Critically ill children treated in the pediatric intensive care unit often suffer neurological complications from a variety of illnesses and injuries. The EEG has been proven to be a valuable tool in the assessment of many conditions, from anoxic trauma to the brain, to CNS infections, to traumatic brain injury. Dr. Fernandez specializes in the acute care of pediatric patients and he will provide an overview of the range of EEG patterns seen in this setting, and the importance of the EEG for assessment and treatment.

UPDATES IN ICU MONITORING

ICU Snapshots
Nikesh I. Ardesna, MD, MS
Dr. Ardesna is always a crowd-pleasing speaker. He engages the entire audience in an interactive discussion. He will share his collection of EEG samples from the ICU setting that will be one of the best recorded review sessions you will ever attend! The case studies will be both helpful for new techs preparing for the Boards and interesting for techs who have been doing EEGs for years.

ICU Monitoring for Ischemia
Susan Herman, MD
The use of continuous EEG to assess patients with ischemia of the brain is widely accepted. Dr. Herman will discuss the importance of the EEG and the range of patterns seen in ischemia. This presentation will illustrate the importance of rapid assessment and interpretation of the EEG to help the ICU team make minute to minute changes in the treatment of these critically ill patients.

The Neonatal Intensive Care Unit is a very special place, but one that we often find intimidating. Brittanie is a nurse who works in the NICU at the Children’s Hospital of Pittsburgh and she will help us take the mystery out of all of those unfamiliar devices and procedures. When preparing newborns for EEG recordings we rely on the help of nursing staff and we must all work on the same team. By demonstrating an understanding of the NICU environment, we build a culture of trust and do a better job of handling the smallest patients to minimize causing stress for the infants and their caregivers.

Neoimaging and EEG Correlates in Pediatric Patients
Christina Patterson, MD
What structural changes are seen in conjunction with those pediatric EEG abnormalities? We’ll get a better understanding of the whole picture for a wide array of childhood neurological disorders by comparing EEG findings with imaging studies. This will be helpful information that we can use when taking a patient history and making correlations between EEG patterns and structural changes.

Back by popular demand, Dorothy Gaither and Elizabeth Mullikin, a Baldrige Executive Fellow, bring experience with industry partnerships and teams in high school sports programs, as well as college and professional athletes, can have long-term effects on the brain. Chronic Traumatic Encephalopathy is the result of repetitive mild head trauma, and causes a severe degenerative impairment of neurological function. What is being done to prevent this type of injury? How can sports instructors be trained to assess brain injury on the field? What new technologies are available for monitoring and prevention of concussion in sports? What are the latest treatment protocols for concussions? Dr. Erin Reynolds is part of the Sports Concussion team at the University of Pittsburgh Medical Center and she will share her expertise on this pertinent topic.

Do You Really Have My Back?
Dorothy Gaither, R. EEG T., R.NCS.T., CNCT, FASET, MHA; Elizabeth Mullikin, R. EEG/EI T., CNIM, CCVT, RDCS, FACHE, FASET, MA, MPA, MNM
Back by popular demand, Dorothy Gaither and Elizabeth Mullikin will present “what it takes to be a successful leader” and “the awesome power of partnerships and teams.” Published author, Dorothy Gaither, has contributed to the education of graduate and doctoral learners nationally through her ASET journal article “Facets of Leadership.” Elizabeth Mullikin, a Baldwin Executive Fellow, brings experience with industry partnerships and teams in high performing organizations. Dorothy and Elizabeth are known for their energetic, interactive, amusing, as well as inspiring ASET presentations.

What structural changes are seen in conjunction with those pediatric EEG abnormalities? We’ll get a better understanding of the whole picture for a wide array of childhood neurological disorders by comparing EEG findings with imaging studies. This will be helpful information that we can use when taking a patient history and making correlations between EEG patterns and structural changes.

EEG Findings in Critically Ill Children
Luis Fernandez, MD
Critically ill children treated in the pediatric intensive care unit often suffer neurological complications from a variety of illnesses and injuries. The EEG has been proven to be a valuable tool in the assessment of many conditions, from anoxic trauma to the brain, to CNS infections, to traumatic brain injury. Dr. Fernandez specializes in the acute care of pediatric patients and he will provide an overview of the range of EEG patterns seen in this setting, and the importance of the EEG for assessment and treatment.
Artifacts in the ICU
Sarah Schmitt, MD
The ICU environment can be very hostile when recording EEG. Ancillary equipment used around the patient’s bedside can contribute to a variety of artifacts. It takes detective work to discover which piece of equipment is causing an artifact, and come up with an effective way to monitor or resolve the artifact. Dr. Schmitt is part of the neuro team at the Medical University of South Carolina and she will share her fascinating collection of ICU artifacts. This presentation is of great value for your daily work and will also be an excellent choice for techs preparing for the Board exam.

Traumatic Brain Injury in Young Patients
Michael Bell, MD
Have you heard about “storming”? This is a set of clinical symptoms seen in cases of acute multiple trauma, and affects both adults and young patients who are typically in a compromised cognitive state with minimal awareness. The episodes include sudden changes in consciousness, apparent agitation with posturing, dystonia, increased blood pressure, temperature, heart rate and excessive sweating. This phenomenon is attributed to the hypothalamic stimulation of the sympathetic nervous system. Dr. Bell is a neuro-intensiveist who has studied many cases of this condition and he will explain the clinical symptoms seen, rather than the EEG findings, since these are not seizures, although they may initially be misdiagnosed as such.

ICU Monitoring: Alarm Criteria, Clipping, and Editing
Sherry Nehamkin, R. EEG/EP T., CNIM, CLTM, FASET
There is so much more to think about when managing continuous bedside EEGs in the ICU! How do you manage the tasks related to reviewing the files and editing them for interpretation? Who looks at the “live data” to determine if there is a significant change in the EEG? What determines when a tech or bedside care-giver should alert physicians that a significant change in pattern has occurred? Frequent review of the EEG is essential, as well as accurate recognition of waveforms, in order to ensure that changes in treatment occur rapidly when seizure activity is present. Sherry has managed many patients on continuous EEG at the University Hospital and Cleveland Clinic. She will share examples of protocols she uses as well as advice on how to manage a busy ICU service.

PLENARY SESSIONS

2016 ASET SYMPOSIUM: “Urgent! Licensure Lifeboat to Protect Neurodiagnostic Technology Scope of Practice!”
Panelists: Marie Hamid, R. EEG T.; Cathy Boldery, R. EEG/EP T., CNIM, CCT, RPSGT, FASET; Craig Schweitzer, CNIM, BA; Kathryn Hansen, R. EEG T., CPC, CPMA, BS; Scott Blodgett, R. EEG T., RPSGT, RST, FASET, MBA
Present and imminent threats to our Scope of Practice abound. Neurodiagnostic Technology (NDT) professionals have lost jobs to non-credentialed and inexperienced replacements as hospitals and clinics struggle to cut cost. Without a license to protect our scope of practice others will take ownership of duties traditionally performed by NDT professionals. Having a license specific to NDT is the only way to protect our jobs and ensure quality testing for our patients. To protect our scope of practice and the patients we serve we need to come together to support legislation requiring a professional license to perform NDT procedures.

EEG Instrumentation Workshop
Pat Lordeon, R. EEG T.
This workshop is ideal for anyone planning to take the EEG Registry exam! This interactive workshop will help participants understand the basic properties of the differential amplifier and identify the polarity of waveforms, how to measure waveforms, calculate amplitude and duration, and how filters are used to enhance and modify EEG waveforms.

IONM: Minimally Invasive Spine Surgery Workshop
TBA
We are working with Medtronic to provide funding for an incredible workshop that will take place in a virtual OR setting. Simulation technology will allow workshop participants to see the spine as it looks in the surgical field. The full complement of the surgeon’s instruments will be in place and you can touch the instruments and place them on the spine as the surgeon would do. This workshop will help you understand what is going on during monitoring sessions and help you identify instruments used at different stages, including distraction of the spine.

ICU & LTM Trending Workshop
Mark Schuer, MD
(Bring your laptop or tablet with USB port!)
There is no better way to learn than by doing! Dr. Schuer is the Chief Medical Officer at Persyst. He will provide hands-on instruction on how to use trending software for analysis of EEG. Participants will receive a flash drive that will allow them to use the software to go through a live demonstration of trending options. If you have a device that includes a USB port, you will optimize your experience in this workshop.

Educator’s Open Forum - Free Event for Educators
Facilitated by Mayrjie Tucker, R. EEG/EP T., CNIM, R.NCS.T., CLTM, Chair of the Program Directors’ Council
There is no set agenda for this session. Participants will select topics of importance for them and network with other educators to work on common issues and problems and come up with helpful advice and solutions. Representatives from the CoA-NDT and ABRET will participate as well.

ABRET Lab Accreditation Workshop
TBA
ABRET will provide information about the various types of lab accreditation they offer for the EEG Lab, LTM lab and IONM program. This expert team will answer your questions about what is involved in accreditation and will encourage you to complete the accreditation process.

EXHIBIT HALL HOURS

THURSDAY, AUGUST 18
10:00 a.m. - noon
1:30 - 4:00 p.m.
6:00 - 7:00 p.m. (reception)
FRIDAY, AUGUST 19
10:00 - 11:45 a.m.
1:00 - 3:15 p.m.

PARTIAL LIST OF COMPANIES THAT WILL BE EXHIBITING:
(as of 5/19/2016)

ABRET
Ad-Tech Medical Instrument Corporation
ASET Foundation
Aureus Medical Group
Blackrock NeuroMed, LLC
Cadwell Laboratories, Inc
Compumedics
Computational Diagnostics, Inc.
Consolidated Neuro Supply, Inc.
CortiCare, Inc
Cyberonics, Inc.
Global Neuro-Diagnostics Services
Institute of Health Sciences
Knowledge Plus
Lifelines Neurodiagnostic Systems, Inc
Natus Neurology
Nihon Kohden
Palmetto Health
Persyst
Physicians Ancillary Services, LLC
Procirca
RhythmLink International, LLC
Rochester Electro-Medical, Inc
Signal Gear
SOMNOmedics GmbH
Taylor & Francis
TCD Education
UCSF Health
Weaver and Company
WR Medical Electronics Co.
CONFERENCE MOBILE APP
To enhance your conference experience we are again providing a mobile conference app which you can download to your smartphone or mobile device. The conference app will give you the freedom to engage with other attendees, provide immediate feedback to speakers, view the agenda at a glance, and find your vendor representatives in the exhibit hall. ASET App Champions will periodically ping attendees through the mobile app to keep you engaged in all of the conference events. Exhibitors will be able to use the app for lead retrieval purposes to streamline your exhibit hall experience. Additional information and download instructions on the conference mobile app will be distributed to pre-registered attendees closer to the event. Stay tuned! Complimentary wireless internet will be available in guest and meeting rooms. **Available for iPhone, iPad, Android, and HTML5 for Blackberry.

ASET FOUNDATION SILENT AUCTION
Preparations are now underway for the Silent Auction to be held at the ASET 2016 Annual Conference. Items for the silent auction will be on display in the exhibit hall. Bidding will open at the Exhibit Hall Opening on Thursday morning and continue during all exhibit hall hours. The silent auction will be closed-out – and funds collected – during the final 20-minutes of the Friday afternoon break in the exhibit hall.

The Foundation’s silent auction is its largest annual fundraising event. Now more than ever we need your help and generosity to make this event successful. Please consider donating one or more items for the auction. Past popular items have included electronics (iPods, digital cameras, pocket camcorders, wireless reading devices), jewelry, and gift baskets. To make a donation, download the donation form (www.asetfoundation.org/downloads) and return to the Foundation no later than July 15, 2016.

In an effort to raise even more funds to support the Foundation’s many initiatives, we are suggesting all items donated have a minimum retail value of $25. Smaller items can be bundled!

ANNUAL BUSINESS MEETING LUNCHEON
Thursday, August 18
Noon - 1:30 p.m.

The Annual Business Meeting Luncheon is an important event not to be missed. This is your opportunity to hear about the state of affairs of ASET and bring up any new business before the Society. Hear the annual reports of the ASET President, Secretary-Treasurer, and ASET Foundation Chair, and witness the installation of the newly elected trustees to the ASET board. All conferees are invited to attend and the event is included in the full and Thursday-only conference registration fees. Only ASET members in good standing with the Society who attend the meeting, however, will constitute the voting body.

EXHIBIT HALL WELCOME RECEPTION
Thursday, August 18
6:00 – 7:00 p.m.

This reception offers attendees an opportunity to meet new friends, renew old acquaintances, and explore the exhibit hall in a relaxed and casual atmosphere. Leading companies providing services, equipment, and supplies to the Neurodiagnostic profession will be on hand to answer your questions and show you what’s new in the industry! Light hors d’oeuvres will be served and a cash bar will be available. The Exhibit Hall Reception is included with a Full 3-day registration and Guest Passes.

Avast there, matey! Calling all pirates! Since we are in the home city of the Pittsburgh Pirates, please join us for the Pirate Party and Treasure Hunt. Wear your favorite pirate gear and have a swashbuckling good time! Get your share of grog and grub and make a bid for your share of the silent auction treasure. If’n you don’t join us, you might be forced to “walk the plank” Arrgh!

While the exhibit hall is open there will be some gamification encouraging you to visit all of the vendors. Those completing the challenge will be entered into a drawing for a chance to win full registration to ASET’s 2017 Annual Conference.

AWARDS CEREMONY LUNCHEON
Friday, August 19
11:45 - 1:00 p.m.

Join us for a seated lunch to recognize your peers for their outstanding contributions to the Neurodiagnostic community. The awards ceremony will include presentations of the prestigious Maureen Berkeley Memorial Award and Theda Sannit Outstanding Educator Award. Induction into the 2016 Class of Fellows will take place and the 2016 graduating class of the ASET/ABRET Leadership Academy will be honored. All conferees are invited to attend and the event is included in the full and Friday-only conference registration fee.

LAST CALL WITH THE DENDRITES
Friday, August 19
8:00 - 10:00 p.m.
(Free to all conferees and exhibitors)

After dinner and before you retire for the night, join us for an evening of networking and entertainment. Bring your dancing shoes as live music will be provided by ASET’s very own member band, The Dendrites.

INTEREST SECTION LUNCHEON
Saturday, August 20
12:00 – 1:00 p.m.

From Acute/Critical Care Neurodiagnostics and Computers in the Workplace to Pediatrics and Neonatology and Polysomnography/Sleep Technology, the ASET Interest Section briefings in ASET news and Interest Section forums on the ASET website are great sources for information sharing and getting answers to your questions. ASET’s Interest Sections are led by highly qualified and knowledgeable technologists who can help address your issues and questions – as well as direct you to other invaluable resources. Now you have the ability to ask questions in person at the Saturday conference luncheon. Registration is not required. All you need do is select the luncheon table representing the section in which you have an interest and then share your questions, feedback, and suggestions.

PEANUTS, POPCORN, CRACKER JACKS
Saturday, August 20

ASET has scored a block of tickets at the group rate discount of only $25 for the Pittsburgh Pirates vs. Miami Marlins baseball game at PNC Park in Pittsburgh on Saturday evening, August 20. The reserved seats are in Section 331 of the Corner Grandstand. The game starts at 7:05 p.m. Game promotions include a Pirates pregame block party. A Zambelli fireworks display ends the night. The baseball stadium is only a 10 minute walk from the Wyndham hotel. Purchase your ticket to the game by selecting the applicable box on the conference registration form and including the $25 ticket cost with your registration fee total. All tickets must be purchased by Wednesday, July 6th to guarantee the $25 discount rate. After that date, any unsold tickets must be released by ASET. In the event the game is called on account of rain, tickets are exchangeable but are not refundable.

ANNUAL CONFERENCE SHIRTS
ASET has once again teamed up with Cadwell Laboratories to provide all attendees with a complimentary 2016 Annual Conference t-shirt. Please choose your desired size when registering and remember to stop by Cadwell’s booth in the exhibit hall to show your appreciation for their continued support of ASET and the neurodiagnostic community. The t-shirts are 100% pre-shrunk cotton with the 2016 Annual Conference logo on the front. Your registration must be received by July 15 to ensure you get your preferred size.
CONFIRMATION NOTICE
Registrations are normally processed within seven business days of receipt. A confirmation letter will be emailed once the registration has been processed. Please bring a copy of your registration confirmation with you to the pre-registration booth.

REGISTRATION DESK
Pre-registration and on-site registration will be open during the following hours:
- Wednesday: August 17 6 p.m. - 8 p.m.
- Thursday: August 18 7 a.m. - 6 p.m.
- Friday: August 19 7 a.m. - 5 p.m.
- Saturday: August 20 7:30 a.m. - 2 p.m.

REGISTRATION POLICIES
- Attendees are urged to register online at www.aset.org.
- To register, payment must accompany your registration form.
- No registrations will be processed without payment.
- The full meeting registration fee includes a flash drive containing the course handouts, attendance and tickets to the plenary session lectures, course learning labs, exhibit hall reception, and food functions Thursday through Saturday.
- Registration fees for one or two-day attendance includes a flash drive containing the course handouts, admittance to plenary session lectures and courses for the day registered, and applicable food functions.
- Guest meal package includes admittance to the exhibit hall reception and lunch, Thursday through Saturday.
- Only those individuals who are registered and have an unaltered badge may attend ASET events.
- Additional fees apply for the Sundown Seminars and the Pre-Conference Event: Epilepsy 911; refer to the meeting registration form for additional details.
- Attendees who lose their badge may be subject to a replacement fee.

CANCELLATION POLICIES
- All cancellations must be made in writing and must be mailed, faxed or emailed to the ASET Executive Office.
- Written notice of cancellation received by ASET on or before July 15, 2016, will result in a refund of fees paid less a $50 processing fee. There will be no refunds for cancellations received after July 15, 2016.

RECOMMENDED ATTIRE
Business casual attire is strongly encouraged. Please dress comfortably to create the best learning environment. The August average daily high in Pittsburgh is 84 degrees. Temperatures at night average around 60 degrees. Please note, the meeting rooms may be cooler than expected. We suggest dressing in layers and bring a light jacket or sweater to keep you comfortable.

SPECIAL ASSISTANCE NEEDS
If you require special assistance or dietary consideration, please complete the applicable section on the conference registration form, or call the ASET Executive Office at 816.931.1120, ext 102 or e-mail info@aset.org.

CONTINUING EDUCATION CREDITS
ASET continuing education units will be awarded to participants. Approximately 7.5 ASET-CEUs will be awarded for Thursday, 7.5 credits for Friday and 6.5 for Saturday. The Pre-Conference Event, Epilepsy 911, will be awarded 4 ASET-CEUs and EMT CEUs. The Sundown Seminars will be awarded an additional 1.5 credits. You can earn up to 27 ASET-CEUs during this conference. Such crediting, however, should not be construed by program participants as an endorsement of any type of instruments or supplies mentioned or involved in the presentations.

HOTEL ACCOMMODATIONS AND RESERVATIONS
All events will be held at:
Wyndham Grand Pittsburgh Downtown
600 Commonwealth Pl
Pittsburgh, PA 15222
412.391.4600
www.wyndhamgrandpittsburgh.com

Located in Pittsburgh’s Central Business District, also known as the Golden Triangle, the Wyndham Grand Pittsburgh’s modern guest rooms offer stunning views of the famed three rivers and Pittsburgh’s rejuvenated downtown.

The special conference guest room rate at the Wyndham Grand Pittsburgh Downtown is $140, single or double occupancy, per night. Check-in time is 4 p.m. and checkout is 12 p.m. Complimentary wireless Internet is available in guest and meeting rooms so bring your mobile devices and plan for an engaging and interactive experience! For more information about the Wyndham experience, visit www.wyndhamgrandpittsburgh.com.

Reservations are to be made directly with the hotel before July 25, 2016, to secure the special conference rates. When making reservations by telephone, mention you are attending the “ASET 2016 Annual Conference”. You can also secure your hotel reservation directly from the ASET website by visiting, www.aset.org/acHotel and clicking on the Make My Reservation link. Reservations made after the July 25th cut-off date will be on a space-available basis and may not qualify for the conference rate.

TRANSPORTATION
The Wyndham Grand Pittsburgh Downtown is 18 miles from the Greater Pittsburgh International Airport. The following are the recommended transportation options to/from the airport:

- PORT AUTHORITY TRANSIT 28X AIRPORT FLYER: The 28X bus operates seven days a week and departs Downtown Pittsburgh approximately every 30 minutes. Travel time from Downtown Pittsburgh to the Airport is approximately 40 minutes. One-way fare to/from the airport is only $3.75; exact change is required. Passengers are responsible for handling their bags both on and off the vehicle. Tipping operators is not permitted. There is a Downtown 28X bus stop conveniently located on Liberty Avenue directly next to the Wyndham Grand Hotel. To pick up the 28X bus at the airport, go to Door #4 on the lower level. To obtain a 28X timetable visit http://www.portauthority.org/paac/SchedulesMaps/AirportService.aspx.

- SUPERSHUTTLE: One-way fare to/from the airport is $24.65 (including fuel surcharge for shared-ride service). Reservations can be made online at http://www.supershuttle.com/locations/PittsburghPIT or by phone at 800.258.3826. After claiming luggage, passengers should proceed to the SuperShuttle customer service counter located on the baggage claim level in the rental car area behind the elevators by Door #4.

- YELLOW CAB COMPANY: One-way fare is approximately $40 to/from the airport. Upon arrival at the airport, proceed to the landside terminal, lower level, exit through the “commercial” doors, and proceed to the taxi stand area on the curb where cabs will be waiting.

PARKING
The Wyndham has an arrangement with Pittsburgh Valet, a third-party valet company on-site, who leases parking spots next door to the hotel in the Gateway Garage. Overnight valet parking through Pittsburgh Valet is $30 per night. Availability is limited. If you prefer to self-park there are a number of parking facilities near the Wyndham. Visit the ASET website for the garage listing.
## Important Dates

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Registration Deadline</td>
<td>August 17</td>
</tr>
<tr>
<td>Course Handouts Available Online</td>
<td>August 1</td>
</tr>
<tr>
<td>Hotel Reservation Deadline</td>
<td>July 25</td>
</tr>
<tr>
<td>Silent Auction Donation Forms Due</td>
<td>July 15</td>
</tr>
<tr>
<td>Registration Cancellation Deadline</td>
<td>July 15</td>
</tr>
<tr>
<td>Early Bird Registration Deadline</td>
<td>July 7</td>
</tr>
</tbody>
</table>

### Pittsburgh, PA

**WYNDHAM GRAND PITTSBURGH DOWNTOWN**

**ASET 2016 Annual Conference**

August 18 - 20, 2016

Register today to attend the ASET 2016 Annual Conference.