Neurology Reviews is proud to announce the publication of its fifth annual Rare Neurological Disease Special Report. Articles include:

- How Far Has Genetic Testing in Neurology Come? Where Is It Headed?
- Are State-by-State Differences in Newborn Screening an Impediment or Asset?
- The Promise and Setback of Gene Therapy with CRISPR/Cas9 Technology
- Cell and Gene Therapy: Awaiting the Arrival of Transformative Medicine
- Report: What's Promising in the Drug Pipeline for Rare Neuromuscular Diseases?
- Anticipating Gene Therapies: A Rare Disease Database Is Racing to Close the Diagnostic Gap in Neuromuscular Diseases
- Gene-Based Therapy for Rare Pediatric Neuromuscular Disorders Puts Transition-of-Care Issues in the Spotlight
- Brief Report: Cannabidiol Approved for Treating Rare Epilepsies
- Rare Epileptic Encephalopathies: Update on Directions in Treatment
- Progress in Management of Lysosomal Storage Diseases
- What Are the Practical and Financial Aspects of Transitioning Patients From Pediatric to Adult Neurologic Care?
- Fundamental Advances in Understanding Tourette Syndrome and How It Is Managed
- Rare Diseases Aren't as Rare as You Might Think: Look to the NIH's Many Resources for Help
- NORD Offers Resources to Benefit Health Care Providers, Patients, and Caregivers
- An Introduction to the New York Genome Center and a Look at Its Pioneering Work in ALS
- PKAN Overview and Disease Awareness
- Rare Diseases Pose a Pressing Challenge: Get the Diagnostic Work Done Swiftly
- An Overview of Moebius Syndrome: Diagnosis, Supportive Treatment, and Valuable Community Resources
- Update: The Search for Therapies for Succinic Semialdehyde Dehydrogenase Deficiency

FOR MORE INFORMATION, CONTACT:
Elizabeth Katz,
Publisher, Neurology Reviews
ekatz@mdedge.com
973-224-7951

www.mdedge.com/neurology
As President, I look forward to building on the successes of the AANEM in the areas of research, quality education, and advocacy. Out of all the initiatives driven by the AANEM, I am a firm believer in AANEM’s commitment to research in the field of NM and EDX medicine. New knowledge is the lifeblood of our work and being part of that research drive makes us a more important and vital organization.

Because of my involvement in AANEM, I have developed several relationships with physicians around the country and have met many great friends. These personal relationships are very important to me. I enjoy all my interactions with the many physicians, researchers, and technologists at AANEM. We all bring something different to the organization and, at the end of the day, it makes the organization better. I learn and gain so much from our interactions together. Being a part of AANEM has also provided me with excellent leadership opportunities.

The AANEM Annual Meeting is a great learning meeting and the camaraderie is tremendous! Our annual meeting attendees come from all over, so it is really an eclectic group with many different perspectives. We have a number of excellent speakers lined up for 2019. Areas of interest will include: brain computer interface, robotics, and telemedicine. I know many people are planning to join us in Austin for a great meeting!

My plenary topic for 2019 focuses on the present and future role of technology in the lives of patients with NM diseases. Technological advances are happening very quickly and quite impressively in areas such as robotics, computerization, and mobility aids. We, as NM physicians and professionals, need to know what tools we can use to benefit our patients. I believe that by covering this important topic at our 2019 meeting, we will be able to serve our patients better because we will be able to educate them about these technologies and advocate for them to receive these technologies when needed.
AANEM’s Annual Meeting is a platform that allows neurologists and physiatrists to come together to learn and discuss research, clinical care, and educational aspects of NM diseases. In addition, the meeting remains the most comprehensive opportunity to learn EDX and the new advancements in procedural technology for professionals at all stages of their career.

~ Aiesha Ahmed, MD
Table of Contents

1 President’s Message
4 Plenary Speakers
6 Registration Options
8 Plan Your Stay
10 Session Schedule Overview
11 Social Events
12 Obtain CME/CEU Credits
14 Save on Meeting Materials
16 Customize Your Experience
17 Wednesday Schedule
24 Thursday Schedule
30 Friday Schedule
36 Saturday Schedule
39 Abbreviations
40 Meeting Objectives & Policies
Plenary Speakers

This year’s plenaries focus on the present & future role of technology in the lives of patients with NM diseases. Experts have been chosen with deep experience in topics that relate to the impact of technology in the care of people with NMDs. Technology is deeply embedded in our lives. These sessions will explore ways that technology affects our care of patients and how it will do more in the future. It is about something that will definitely influence the way we manage the care of our patients. Join us for a look into the future of care for NM patients.

Wednesday Plenary Session | 4:00 pm - 5:45 pm

The Use of Telemedicine to Enhance Care in ALS and Other NMDs
Olney Lecture

Zachary Simmons, MD
Professor of Neurology and Humanities, Penn State University
Director, ALS Center, Penn State Hershey Medical Center
Editor-in-Chief, Muscle & Nerve

Thursday Plenary Session | 10:00 am - 12:00 pm

Key Considerations for Upper Extremity Exoskeleton Technology Development for Individuals With DMD and the Importance of User-Centered Design

Madeline Corrigan, PhD
Former Assistant Research Professor, Rehabilitation Engineering Research Center on Wearable Robotics at New Jersey Institute of Technology (research focused on medical device development, translational research and biomechanics)

Brain-Computer Interface Applications for Individuals With NMDs

Dennis J. McFarland, PhD
Research Scientist, National Center for Adaptive Neurotechnologies, Albany, NY
Editor’s Award in Hearing, American Speech-Language-Hearing Association
Pangborn Award, Wadsworth Center, New York State Department of Health
Altran Foundation Innovation Award (member of winning group)
Pirelli INTERNETional Award (member of winning group)
Commissioner’s Recognition Award, NYSDOH (member of winning group)
Friday Plenary Session | 10:00 am - 12:00 pm

Use of Regenerative Peripheral Nerve Interfaces for Control of Neuroprosthetic Devices
Reiner Lecture

Paul S. Cederna, MD, FACS
Chief, Section of Plastic Surgery
Robert Oneal Professor of Plastic Surgery
Professor, Department of Biomedical Engineering University of Michigan
Chairman, American Board of Plastic Surgery
Past-President, Plastic Surgery Foundation
Past-President, Plastic Surgery Research Council
Past-President, American Society for Peripheral Nerve

Future of Rehabilitation Robotics Research and Practice

Arun Jayaraman, PT, PhD
Director Max Nader Center for Rehabilitation Technologies & Outcomes Research
Director & Business Development Officer, Office of Translational Research, Shirley Ryan AbilityLab
Associate Professor, Department of Physical Medicine & Rehabilitation
Department of Physical Therapy & Human Movement Sciences, Northwestern University

Saturday Plenary Session | 10:00 am - 12:00 pm

Emerging Technologies in NM US
Lambert Lecture

Lisa D. Hobson-Webb, MD
Associate Professor of Neurology/NM Division
Director, Duke MDA Care Center
Director, NM US Program, Duke University
Registration Options

Online

Online registration is preferred and allows you to view real-time session and workshop availability. Register at www.aanem.org/meeting.

Online registration deadline: September 30, 2019.

Fax

Fax the enclosed insert to 507.288.1225

We will send a confirmation notice after checking availability and processing your registration.

Mail

Send the enclosed insert to
AANEM
2621 Superior Drive NW
Rochester, MN 55901

We will send a confirmation notice after checking availability and processing your registration.

On-site

Tues.  6:00 pm – 9:00 pm
Wed.  6:30 am – 6:00 pm
Thurs. 7:00 am – 6:00 pm
Fri.  7:00 am – 4:00 pm
Sat.  7:00 am – 10:00 am
## Save $75 - Register by August 8, 2019

### Full Attendance (Oct.16-19)

<table>
<thead>
<tr>
<th></th>
<th>MEMBER</th>
<th>Early Bird</th>
<th>Regular</th>
<th>On-site</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physicians</strong></td>
<td></td>
<td>6/27 - 8/8</td>
<td>8/9 - 9/30</td>
<td>10/15 - 10/19</td>
</tr>
<tr>
<td></td>
<td>$350</td>
<td>$625</td>
<td>$700</td>
<td>$775</td>
</tr>
<tr>
<td><strong>Residents &amp; Fellows</strong></td>
<td></td>
<td></td>
<td>$425</td>
<td>$500</td>
</tr>
<tr>
<td></td>
<td>$350</td>
<td>$425</td>
<td></td>
<td>$500</td>
</tr>
<tr>
<td><strong>Technologists, Collaborators, Researchers</strong></td>
<td></td>
<td>$350</td>
<td>$625</td>
<td>$700</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>NONMEMBER</th>
<th>6/27 - 8/8</th>
<th>8/9 - 9/30</th>
<th>10/15 - 10/19</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physicians</strong></td>
<td></td>
<td></td>
<td>$950</td>
<td>$1,025</td>
</tr>
<tr>
<td></td>
<td>$875</td>
<td>$875</td>
<td>$950</td>
<td>$1,025</td>
</tr>
<tr>
<td><strong>Residents &amp; Fellows</strong></td>
<td></td>
<td></td>
<td>$575</td>
<td>$650</td>
</tr>
<tr>
<td></td>
<td>$500</td>
<td>$500</td>
<td>$575</td>
<td>$650</td>
</tr>
<tr>
<td><strong>Technologists, Collaborators, Researchers</strong></td>
<td></td>
<td>$500</td>
<td>$350</td>
<td>$650</td>
</tr>
</tbody>
</table>

<p>| | | | | |
|                          |                   |            |            |            |</p>
<table>
<thead>
<tr>
<th>Friday-Saturday Attendance (Oct.18-19)</th>
<th></th>
<th>6/27 - 8/8</th>
<th>8/9 - 9/30</th>
<th>10/15 - 10/19</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MEMBER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Physicians</strong></td>
<td></td>
<td>6/27 - 8/8</td>
<td>8/9 - 9/30</td>
<td>10/15 - 10/19</td>
</tr>
<tr>
<td></td>
<td>$275</td>
<td>$300</td>
<td>$375</td>
<td>$450</td>
</tr>
<tr>
<td><strong>Residents &amp; Fellows</strong></td>
<td></td>
<td>6/27 - 8/8</td>
<td>8/9 - 9/30</td>
<td>10/15 - 10/19</td>
</tr>
<tr>
<td></td>
<td>$275</td>
<td>$200</td>
<td>$275</td>
<td>$350</td>
</tr>
<tr>
<td><strong>Technologists, Collaborators, Researchers</strong></td>
<td></td>
<td>$275</td>
<td>$200</td>
<td>$350</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>NONMEMBER</th>
<th>6/27 - 8/8</th>
<th>8/9 - 9/30</th>
<th>10/15 - 10/19</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physicians</strong></td>
<td></td>
<td></td>
<td>$500</td>
<td>$575</td>
</tr>
<tr>
<td></td>
<td>$425</td>
<td>$425</td>
<td>$500</td>
<td>$575</td>
</tr>
<tr>
<td><strong>Residents &amp; Fellows</strong></td>
<td></td>
<td></td>
<td>$375</td>
<td>$450</td>
</tr>
<tr>
<td></td>
<td>$300</td>
<td>$300</td>
<td>$375</td>
<td>$450</td>
</tr>
<tr>
<td><strong>Technologists, Collaborators, Researchers</strong></td>
<td></td>
<td>$300</td>
<td>$300</td>
<td>$375</td>
</tr>
</tbody>
</table>

Guest registration is available for $25.

Join AANEM to receive discounted registration fees & many other benefits!
For membership information, visit aanem.org/membership.
Plan Your Stay

Where is the meeting?
Austin, Texas at the JW Marriott, Austin’s premier urban resort. JW Marriott Austin is a 2018 TripAdvisor Certificate of Excellence Award winner and only a 15-minute drive from Austin International Airport and just steps from the best attractions and entertainment options Austin has to offer.

JW Marriott Austin has the largest guest rooms in Austin, TX with floor to ceiling windows, 7 bars, 3 restaurants, Starbucks, the posh Spa by JW, the brand new Edge Pool Bar & Cabanas, and the ever-popular Burger Bar.

Can I make hotel reservations now?
Yes. The AANEM room block is open now, and the block does fill up fast. Book early!

How do I access the great AANEM rate?
Use the special link found on our website to book online and receive the reduced rate. Booking through our website helps give AANEM credit for your stay and will save you up to $213 per night!

 Reserve online by following the link on our website at www.aanem.org/meeting.

Can I book a room somewhere else?
You can stay off-site, but we highly recommend staying at the JW Marriot. In order to offer our attendees a great nightly rate and to provide affordable meeting room space, AANEM guarantees a certain number of rooms will be booked. You will be helping AANEM and yourself by staying at the JW Marriott.

Do I need to book my own airfare?
Yes. The airport of choice for Austin and central Texas is Austin-Bergstrom International Airport.

Are there babysitting services available?
Yes, we have identified these two agencies to assist you:
Fairy Godsitters
• Go to http://fairygodsitters.com/request-austin-babysitter.
In-Room Childcare
• Email laura.patterson@collegenannies.com to discuss availability and find out more information.

We recommend that you book sitters as soon as possible to ensure there are sitters available for everyone who needs them.
Is smoking allowed at the hotel?
No. The JW Marriott is smoke-free.

Does the hotel provide a shuttle service?
No. You will need to arrange transportation. If you prefer an alternative to a rental car, taxi, or ride service, consider Super Shuttle from the Austin-Bergstrom International Airport (800-258-4826).

Are discounted rates available on rental cars?
Yes. Hertz is offering discounted rates for AANEM meeting attendees. Provide the convention number when booking a reservation. Convention Number: CV022Q9322
- 1-800-654-2240
- 1-405-749-4434
- www.hertz.com

Is parking available at the hotel?
Yes. There is a daily fee of $35 plus tax for self-parking or $49 plus tax for valet parking at the JW Marriott.

Outside of the AANEM Annual Meeting, what else can I do in the Austin, Texas area?
The possibilities are endless. There are numerous local attractions to enjoy:
- Bob Bullock State Museum | 1 mile
- Downtown Business District | 0.5 miles
- Lake Travis | 12 miles
- State Capitol Building | 1.2 miles
- Paramount Theatre | 0.4 miles
- South Congress Ave Shopping | 1.2 miles
- Austin Zoo | 14.5 miles
- Blanton Museum of Art | 1.5 miles

Visit austintexas.org for more attractions.
## Session Overview

### Wednesday | October 16
- Hot Topics in NM Literature - Part 1
- EDX NM Challenging Cases - Part 1
- Cutting Edge US
- MGFA Session
- Hot Topics in NM Literature - Part 2
- EDX NM Challenging Cases - Part 2
- Effective Strategy in a Multidiscipline Clinic
- Respiratory Management of the NM Patient - Part 1
- History of EDX and NM Diseases
- Women in NM Medicine
- Respiratory Management of the NM Patient - Part 2
- Dysautonomia International
- Plenary 1: The Present & Future Role of Technology in the Lives of Patients With NM Diseases

### Thursday | October 17
- EDX Evaluation of CIDP and MMN
- Small Fiber Neuropathy
- Diabetic Neuropathy
- Chemodenervation
- Radiculopathy
- Botulinum Toxin for Pain
- How to Incorporate Genetic Testing
- Writing a Journal Article: A Discussion With the Editor of Muscle & Nerve
- Autonomic Disorders in Your Practice
- EMG Reports
- NM Video Cases
- US Guided Procedures
- New NM Therapies: Integrative Medicine
- Plenary 2: The Present & Future Role of Technology in the Lives of Patients With NM Diseases
- Combined Use of EDX & US for Evaluation of the Brachial Plexus & Upper Limb Nerves - Part 1
- Updates of Demyelinating Neuropathies: Jointly Provided by AANEM & PNS
- Autonomic Disorders in Your NM Practice: How to Identify and Treat Them - Part 1
- Emerging Therapies and Controversies
- Axonal Peripheral Neuropathy (Toxic and Metabolic)
- Neuromuscular Pathology
- NM Complications of Cancer Treatment With Checkpoint Inhibitors and Chemotherapy
- Combined Use of EDX & US for Evaluation of the Brachial Plexus & Upper Limb Nerves - Part 2
- Diagnosis and Treatment Breakthroughs in Genetic Testing
- Autonomic Disorders in Your NM Practice: How to Identify and Treat Them - Part 2
- Neuroprosthetics
- Traumatic Brachial Plexopathy
- MUP Recruitment Analysis Made Simple
- Member Practice Issues Open Forum

### Friday | October 18
- N of 1 Trials to Personalize Treatment
- Peripheral Neuropathy
- NMJ Techniques
- Brachial Plexopathies
- What Reference Values and NCS Techniques Should I Use in My Practice
- EDX Evaluation of the Foot
- Cranial Nerve Testing
- Ethical Issues in NM Disease
- Entrapment Neuropathies
- Basic With the Experts
- Fascicular Anatomy of the Nerve and Nerve Injuries
- Updated with Ultrahigh Frequency MSK US
- Setting Up an US Lab
- The Use of Multiple Testing Modalities in Challenging NM Cases
- Exercise for NM Disease
- Plenary 3: The Present & Future Role of Technology in the Lives of Patients With NM Diseases
- Horses, Zebras, & Unicorns: Interactive Case Based Update Common/Not So Common NMDs-Pt 1
- Peripheral Anatomy: From Root to Muscle
- ALS
- US Assessment of MSK Mimics
- NMJ Disorders - Part 1
- Albers Symposium
- ROUNDTABLE: Case Discussions
- Upper Extremity NCS: Lesion Localization and Severity Assessment
- Horses, Zebras, & Unicorns: Interactive Case Based Update Common/Not So Common NMDs-Pt 2
- NMJ Disorders - Part 2
- Single Fiber EMG Course
- Assistive Technology for Gait Disorder
- Channelopathies in NMDs
- Practical Approach to EDX in the Pediatric Population

### Saturday | October 19
- Demyelinating Neuropathies
- NM Sports Medicine Case Based Presentations: A Mechanisms Approach
- Utilizing the Principles of Lifestyle Medicine for the Treatment of NM Disease
- Molecular Therapy for SMA in Clinical Practice
- Antibody Testing and NMDs
- Neurodiagnostic Jeopardy: Let Us Get on Your Nerves!
- Plenary 4: The Present & Future Role of Technology in the Lives of Patients With NM Diseases
Social Events

Speed Networking
Are you looking for a fun, easy way to network at the AANEM Annual Meeting? Do you want to build connections with peers, leaders, and other professionals in NM and EDX medicine? Register to attend our speed networking event (space is limited). Speed networkers will make approximately 10 connections during the session, so don’t forget your business cards!

President’s Reception
The President’s Reception is the official kickoff event of the meeting each year. Socialize with attendees and exhibitors while enjoying snacks, wine, and refreshments.

Abstract Poster Viewing and Presentations
Abstract research posters will be on display in the abstract poster hall on Thursday from 7:30 am to 9:00 pm and Friday from 7:30 am to 4:00 pm. Authors will be available to meet and discuss their research during specific times. Check the calendar and the meeting program for Thursday and Friday presentation times.

Abstract Award Reception
Enjoy an evening celebrating research! Socialize with abstract authors while enjoying snacks, wine, and refreshments. Best Abstract and President’s Research award-winning and runner-up authors will be available to discuss their research.

EMG Talk
Spike and Wave are BACK! Join Drs. Bill Litchy and Larry Robinson for a return performance of the long standing EMG Talk! Enjoy a good laugh while learning too. Audience participation is key and prizes will be awarded. Alcoholic and nonalcoholic beverages will be served.

Happy Hour
Enjoy live music, refreshments, and socializing with friends and colleagues. Attend the last social event of this year’s annual meeting to celebrate another successful meeting and say farewell until next year!

Exhibit Hall
Do you want to learn more about the latest medical advancements and products available in the industry? Take the opportunity to stop by Exhibit Hall during the 2019 AANEM Annual Meeting. Check out the latest innovations in our industry and learn more about solutions to help treat your patients. Exhibit Hall is a great place to meet and network with all types of industry professionals including representatives from equipment, technology, and pharmaceutical companies as well as other industry service providers.

Calendar

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed Networking</td>
<td>Wednesday</td>
<td>3:00 pm – 3:45 pm</td>
</tr>
<tr>
<td>President’s Reception</td>
<td>Wednesday</td>
<td>5:45 pm – 7:15 pm</td>
</tr>
<tr>
<td>Abstract Poster Presentations</td>
<td>Thursday</td>
<td>1:00 pm – 1:30 pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3:30 pm – 4:00 pm</td>
</tr>
<tr>
<td></td>
<td>Friday</td>
<td>1:00 pm – 1:30 pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3:30 pm – 4:00 pm</td>
</tr>
<tr>
<td>Abstract Award Reception</td>
<td>Thursday</td>
<td>5:45 pm – 6:45 pm</td>
</tr>
<tr>
<td>EMG Talk</td>
<td>Thursday</td>
<td>7:00 pm – 9:00 pm</td>
</tr>
<tr>
<td>Happy Hour</td>
<td>Friday</td>
<td>5:30 pm – 6:30 pm</td>
</tr>
<tr>
<td>Exhibit Hall</td>
<td>Wednesday</td>
<td>5:45 pm – 7:15 pm</td>
</tr>
<tr>
<td></td>
<td>Thursday</td>
<td>9:00 am – 4:00 pm</td>
</tr>
<tr>
<td></td>
<td>Friday</td>
<td>9:00 am – 4:00 pm</td>
</tr>
</tbody>
</table>
A Great Way to Obtain CME/CEUs!

The 2019 AANEM Annual Meeting is an excellent venue for physicians to earn AMA PRA Category 1 Credits™ CME and technologists to earn checkpoints and CEUs! A wide selection of free sessions are available and most offer CME/CEU. Almost all of our workshops also offer CME and some offer CEUs.

CME for physicians: 22 (there is also an opportunity to earn 27 Self-Assessment CME)
CEUs for technologists/nonphysicians: 22 (there is also an opportunity to earn 5 CNCT Checkpoints)

Self-Assessment CME for Physicians
In addition to AMA PRA Category 1 Credits™, member physicians can earn up to 27 FREE* Self-Assessment (SA) CME at the 2019 AANEM Annual Meeting! The following sessions have been designated for Part II SA credit toward maintenance of certification. Of the 10 available sessions, attendees must attend 2 for every 9 SA CMEs they would like to earn. Due to ABPN & ABPMR guidelines, SA CME will only be given for every combination of 2 sessions you attend. AANEM will report completion of each SA activity to ABPN and ABPMR. Since some of the 10 sessions are scheduled at the same time, the maximum available SA CMEs for Physicians is 27.

Wednesday
Hot Topics in NM Literature - Part 1
Hot Topics in NM Literature - Part 2

Thursday
Combined Use of EDX and US for Evaluation of the Brachial Plexus and Upper Limb Nerves – Part 1
Combined Use of EDX and US for Evaluation of the Brachial Plexus and Upper Limb Nerves – Part 2
Updates of Demyelinating Neuropathies/ Jointly provided by the AANEM & the PNS
Diagnosis and Treatment Breakthroughs in Genetic Testing
MUP Recruitment Analysis Made Simple

Friday
NMJ Disorders Part 1
NMJ Disorders Part 2
ALS

*Free to AANEM members. Nonmember price is $50.

CNCT Checkpoints for Technologists
Technologists have the opportunity to receive 5 CNCT Checkpoints at the 2019 AANEM Annual Meeting! Technologists can attend the following sessions to earn up to 4 Checkpoints toward CNCT maintenance of certification through the American Board of Electrodiagnostic Medicine (ABEM). AANEM will report completion to ABEM. One free checkpoint, for members and nonmembers, is added for attending the entire annual meeting.

Friday
Upper Extremity NCS: Lesion Localization and Severity Assessment
Peripheral Anatomy: From Root to Muscle

Saturday
Demyelinating Neuropathies
Neurodiagnostic Jeopardy: Let Us Get on Your Nerves!
A Great Way to Obtain CME/CEUs!

Make Training Your Residents & Fellows Easier

Join AANEM’s Training Program Partnership for Just $253!

What is AANEM’s Training Program Partnership (TPP)?

If your training program could benefit from resources that will help residents and/or fellows reach EMG/NCS or NM milestones, then the Training Program Partnership (TPP) is perfect for you!

The TPP provides training program participants with access to hundreds of learning materials from the American Association of Neuromuscular & Electrophysiological Medicine (AANEM).

In addition to exclusive educational content, residents and fellows participating in the TPP receive FREE AANEM membership as well as other valuable member benefits such as significant discounts on AANEM Annual Meeting registration and educational products.

What AANEM Annual Meeting benefits are included with TPP enrollment?

A huge benefit of joining the TPP is the discounted rate to attend the AANEM Annual Meeting.

• Residents/Fellows: The early bird registration fee for each resident/fellow is only $85 (AANEM applies a $265 credit)
• Program Directors: The early bird registration fee for one program director is only $170 (AANEM applies a $455 credit)

What is the price to join the TPP?

Join the TPP today for just $253. This will cover all residents and fellows in the neurology or PMR department.

What exclusive AANEM educational content is included with the TPP?

- 400+ materials in AANEM’s Online Resource Library
- 400 knowledge assessment questions
- 10 case studies
- 9 oral cases
- Muscle & Nerve journal content
  - 22 Editor’s Choice articles
  - Dozens of Noteworthy Cases
- Self-study curriculum (addresses the ACGME milestones)
- Presentation: Value-based Genetic Testing in Muscle and Nerve Disease
- AANEM’s suggested reference list

www.aanem.org/TPP membership@aanem.org 507.288.0100
$ave on Session Materials
Pre-order when you register!

2019 Annual Meeting Collection
With so many great sessions offered at the 2019 AANEM Annual Meeting, it would be impossible to attend every session in person. However, AANEM has a solution - the 2019 Annual Meeting Collection, a digital download of session presentations. The download includes the presentation slides and the presenter’s audio commentary for most sessions at the meeting*.

Purchasers of the 2019 Annual Meeting Collection can receive CME/CEUs for sessions in which CME/CEUs were offered at the meeting. The link to the digital download will be available approximately 2 weeks after the annual meeting.

*The 2019 Annual Meeting Collection contains most of the session presentations; however, it does not include Ask the Experts sessions, sessions that experience technical difficulty during recording, and workshop materials. Workshop materials are available in the Workshop E-bundle. See the next page for more information on workshop materials.

$200
PRE-ORDER PRICE WITH MEETING REGISTRATION BEFORE 9/30/19

Save by pre-ordering when you submit your online meeting registration before 9/30/19. The 2019 Annual Meeting Collection is also available for purchase after 9/30/19. The price after 9/30/19 is $300 through 10/19/19 and $450 for members after 10/19/19 or $780 for nonmembers after 10/19/19.
$ave on Workshop Materials
Pre-order when you register!

2019 Workshop E-Bundle
AANEM is offering a variety of workshops at the 2019 Annual Meeting, including several that have never been offered before! Due to the nature of the workshop setting (e.g. hands-on demonstrations), AANEM encourages in-person attendance. However, if in-person attendance is not possible for all of the workshops you are interested in, AANEM offers the 2019 Annual Meeting Workshop E-Bundle.

Purchasers of this bundle will receive handouts from all workshops that utilize handouts (35 or more) via a single, downloadable PDF. These handouts contain the teaching points of the workshops; however, the workshops are not recorded and audio/video is not available.

Workshop CME/CEUs are only available for in-person attendance. Workshop CME/CEUs cannot be obtained by purchasing the 2019 Workshop E-Bundle.

$50
PRE-ORDER PRICE WITH MEETING REGISTRATION BEFORE 9/30/19

Save by pre-ordering when you submit your online meeting registration before 9/30/19. The 2019 Workshop E-Bundle is also available for purchase after 9/30/19. The price after 9/30/19 is $75 through 10/19/19 and $100 for members after 10/19/19 or $250 for nonmembers after 10/19/19.
Sessions are included with your AANEM Annual Meeting registration.

Your registration gives you access to a wide variety of educational sessions related to NM, MSK, and EDX medicine. We have a diverse group of meeting attendees each year whose learning needs are different. To cover the spectrum, we have sessions on the basics for those in the early stages of their career (or those who just need a refresher) as well as advanced sessions for seasoned professionals. There is something for everyone! Each attendee can tailor their learning by choosing the offerings most applicable to their practice. Most sessions offer CME and CEUs.

NOTE: The session ROUNDTABLE: Case Discussions has limited seating and requires advance registration. If you wish to attend this session, be sure to include it when you complete your registration. Industry Forums also have limited seating; however, no advance registration is required. If interested in attending an industry forum, arrive early to secure a spot!

Enhance your learning experience by adding workshops to your registration.

To customize your meeting experience, you may choose to add workshops to your registration. Workshops focus on teaching a technique or a concept. Most workshops involve learning in small groups, led by experts in the field. Some workshops offer room for larger groups and provide information through demonstrations by experts in the field. Almost all of our workshops offer CME and some offer CEUs.

To help keep general registration costs lower, workshops are not included with the general registration fee. Check out the great lineup of available workshops and review the insert for pricing information.

NOTE: A majority of workshops are scheduled throughout the day on Wednesday and Saturday morning. They have limited seating and require advance registration. All workshops are open to physicians. Technologists may attend workshops designated as offering CEUs (check the schedule pages for CEU designation).

Social events are included with your AANEM Annual Meeting registration.

All registered attendees are invited to attend the meeting’s social events, which include Speed Networking, the President’s Reception, Exhibit Hall, Abstract Poster Presentations, Abstract Award Winners’ Reception, EMG Talk, and Friday’s Happy Hour. These events do not offer CME/CEUs. Registered guests are welcomed at all social events (except Speed Networking).
<table>
<thead>
<tr>
<th>Time</th>
<th>Session/Workshop</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 am - 9:30 am</td>
<td><strong>Session</strong></td>
<td><strong>Hot Topics in NM Literature - Part 1</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Appraise several impactful findings in NM literature over the past year; recognize the clinical value of these studies and their impact to NM patients (EDX and sonographic methods, hereditary and acquired myopathy evaluation, peripheral neuropathy testing and treatment, motor neuron disease understanding and NMJ disorder advancements); describe hot topics and groundbreaking work in these areas of NM medicine; and integrate emerging knowledge into clinical practice.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This is a Self-Assessment (SA) CME session. To receive the SA CME credit, a post-test must be completed with a 70% passing rate. Post-tests are free to members and $50 for nonmembers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vern C. Juel, MD</td>
</tr>
<tr>
<td>8:00 am - 9:30 am</td>
<td><strong>Session</strong></td>
<td><strong>EDX NM Challenging Cases - Part 1</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Apply and refine the process of diagnostic formulation in NM medicine and clinical EMG and improve patient care. This session relies on attendees to provide challenging cases.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bashar Katirji, MD</td>
</tr>
<tr>
<td>8:00 am - 9:30 am</td>
<td><strong>Session</strong></td>
<td><strong>Cutting Edge US</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Illustrate the role of NM US in an EDX laboratory with particular attention to how it changes the diagnostic process and patient care; demonstrate the role of muscle US in diagnosing DMD and monitoring its progression; and critically evaluate the latest developments in NM US and how they relate to current clinical and research practices.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lisa D. Hobson-Webb, MD</td>
</tr>
<tr>
<td>8:00 am - 9:30 am</td>
<td><strong>Workshop</strong></td>
<td><strong>W11A EMG and US Respiratory</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perform phrenic NCSs; utilize techniques for safe needle EMG of the diaphragm (including US assisted); localize and perform needle EMG of chest wall muscles, which are helpful in the diagnosis of respiratory failure; and utilize US for evaluating thickness and contractility of the diaphragm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>William J. Litchy, MD</td>
</tr>
<tr>
<td>8:00 am - 9:30 am</td>
<td><strong>Workshop</strong></td>
<td><strong>W18A NM US</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Obtain images with transverse and longitudinal transducer positions; describe how to manipulate basic US instrumentation to include focal depth, Doppler flow, and transducer frequency; describe how muscle, nerve, and tendon appear with US; and discuss the principle of anisotropy.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Michael S. Cartwright, MD</td>
</tr>
<tr>
<td>8:00 am - 9:30 am</td>
<td><strong>Workshop</strong></td>
<td><strong>W21A NCS Pitfalls</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identify common instrumentation, physiologic, and operator errors; alter recording electrode montages and use the instrument's filters to help optimize the recording of motor and sensory potentials; and minimize stimulus artifact interference with waveform recording.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bassam A. Bassam, MD</td>
</tr>
<tr>
<td>8:00 am - 9:30 am</td>
<td><strong>Workshop</strong></td>
<td><strong>W22A Skin Biopsy Technique &amp; Applications</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Discuss the development of skin biopsy as a clinical technique; describe its current applications and limitations in clinical practice; and discuss the technique involved in obtaining skin specimens to increase providers’ comfort level in performing this billable procedure in their own office.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>David W. Polston, MD</td>
</tr>
<tr>
<td>8:00 am - 9:30 am</td>
<td><strong>Workshop</strong></td>
<td><strong>W31A SFEMG Basic/Advanced</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acquire skills in SFEMG recordings using volitional and axonal microstimulation techniques, using a SFEMG needle.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>James M. Gilchrist, MD</td>
</tr>
</tbody>
</table>
W67A US-Guided Treatment of Peripheral Mononeuropathies

Describe the technical aspects of US-guided needle placement; utilize US-guided procedures to treat common peripheral neuropathies; and demonstrate the ability to track a needle under real-time US guidance in order to quickly and accurately target a structure through a hands-on approach.

John W. Norbury, MD

1.5 CME/CEU

W70A Expert US

Demonstrate advanced US practices involving challenging and complicated nerves and measurement techniques of the peripheral nerve in the upper and lower limbs.

Jeffrey A. Strakowski, MD

1.5 CME/CEU

W72A Blink Reflex

Discuss the principles and practice of eliciting the blink reflex with electric stimulation or by mechanical taps; and identify the clinical values and limitations of the blink reflex as an EDX study.

Jun Kimura, MD

1.5 CME/CEU

AANEM Annual Business Meeting

The AANEM Business Meeting will be held on Wednesday, October 16, 2019, at the beginning of Plenary 1.

At this meeting, Fellow and Active members will have the opportunity to vote and hear about recent activities of importance to membership including a report on AANEM’s finances. Nominations for the Board will be presented. All AANEM Fellow and Active members are especially encouraged to attend.
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00 am -</td>
<td><strong>Hot Topics in NM Literature - Part 2</strong></td>
</tr>
<tr>
<td>11:30 am</td>
<td>Appraise several impactful findings in NM literature over the past year; recognize the clinical value of these studies and their impact to NM patients (EDX and sonographic methods, hereditary and acquired myopathy evaluation, peripheral neuropathy testing and treatment, motor neuron disease understanding and NMJ disorder advancements); describe hot topics and groundbreaking work in these areas of NM medicine; and integrate emerging knowledge into clinical practice. This is a Self-Assessment (SA) CME session. To receive the SA CME credit, a post-test must be completed with a 70% passing rate. Post-tests are free to members and $50 for nonmembers.</td>
</tr>
<tr>
<td>1.5 CME/CEU</td>
<td>Mohamed Kazamel, MD</td>
</tr>
<tr>
<td>10:00 am -</td>
<td><strong>EDX NM Challenging Cases - Part 2</strong></td>
</tr>
<tr>
<td>11:30 am</td>
<td>Apply and refine the process of diagnostic formulation in NM medicine and clinical EMG and improve patient care. This session relies on attendees to provide challenging cases.</td>
</tr>
<tr>
<td>1.5 CME/CEU</td>
<td>Bashar Katirji, MD</td>
</tr>
<tr>
<td>10:00 am -</td>
<td><strong>Effective Strategy in a Multidiscipline Clinic</strong></td>
</tr>
<tr>
<td>11:30 am</td>
<td>Identify individuals who need multidisciplinary care and how to provide information to them; identify and select appropriate health care personnel; determine the clinic’s physical location; consider clinical care, research, and data; develop skills related to billing, copays and production of pamphlets, publications and courses; determine how to assess progress and be able to describe what not to do.</td>
</tr>
<tr>
<td>1.5 CME/CEU</td>
<td>David B. Rosenfield, MD</td>
</tr>
<tr>
<td>10:00 am -</td>
<td><strong>Respiratory Management of the NM Patient - Part 1</strong></td>
</tr>
<tr>
<td>11:30 am</td>
<td>In the adult NM patient, evaluate the respiratory status, including airway clearance; identify and manage sleep related breathing disorders; and utilize devices to evaluate pulmonary function and manage airway clearance and ventilation.</td>
</tr>
<tr>
<td>1.5 CME/CEU</td>
<td>Eric M. Davis, MD</td>
</tr>
<tr>
<td>10:30 am -</td>
<td><strong>W05B Cranial NCS and EMG Testing</strong></td>
</tr>
<tr>
<td>12:00 pm</td>
<td>Perform neurophysiological testing of the cranial nerves including blink reflexes and jaw jerk; seventh NCSs; and eleventh nerve testing; and discuss EMG of key muscles that complement the cranial NCS.</td>
</tr>
<tr>
<td>1.5 CME</td>
<td>Jun Kimura, MD</td>
</tr>
<tr>
<td>10:30 am -</td>
<td><strong>W08B EMG Laryngeal</strong></td>
</tr>
<tr>
<td>12:00 pm</td>
<td>Develop skills in the clinical and EDX evaluation of vocal cord dysfunction, including perform specific EDX testing of the larynx and discuss how to evaluate which tests to perform on patients presenting with hoarseness and laryngeal dysfunction.</td>
</tr>
<tr>
<td>1.5 CME</td>
<td>Michael C. Munin, MD</td>
</tr>
<tr>
<td>10:30 am -</td>
<td><strong>W27B Repetitive Nerve Stimulation</strong></td>
</tr>
<tr>
<td>12:00 pm</td>
<td>Perform RNS to shoulder, upper arm, hand, and facial muscles; and discuss sequential examination for detecting NM transmission defects, such as artifacts.</td>
</tr>
<tr>
<td>1.5 CME/CEU</td>
<td>Taylor B. Harrison, MD</td>
</tr>
<tr>
<td>10:30 am -</td>
<td><strong>W35B Needle EMG of the Foot</strong></td>
</tr>
<tr>
<td>12:00 pm</td>
<td>Discuss the anatomy of the tibial nerve branches in the foot (including the medial plantar nerve, lateral plantar nerve, and Baxter’s nerve) and the deep peroneal nerve branches in the foot; identify the potential entrapment sites for these nerve branches; distinguish the anatomic basis for needle placement; discuss special considerations for the technique in each muscle; and identify how to develop a meaningful interpretation of findings.</td>
</tr>
<tr>
<td>1.5 CME</td>
<td>Tracy A. Park, MD</td>
</tr>
<tr>
<td>Time</td>
<td>Event</td>
</tr>
<tr>
<td>--------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>10:30 am -</td>
<td><strong>W44B Anatomy &amp; Kinesiology of the Shoulder/Upper Limb</strong></td>
</tr>
<tr>
<td>12:00 pm</td>
<td></td>
</tr>
<tr>
<td>10:30 am -</td>
<td><strong>W60B MSK US of Upper Limb</strong></td>
</tr>
<tr>
<td>12:00 pm</td>
<td></td>
</tr>
<tr>
<td>10:30 am -</td>
<td><strong>W50B Advanced Autonomic Testing</strong></td>
</tr>
<tr>
<td>12:00 pm</td>
<td></td>
</tr>
<tr>
<td>10:30 am -</td>
<td><strong>W59B US Guidance for Neurotoxins</strong></td>
</tr>
<tr>
<td>12:00 pm</td>
<td></td>
</tr>
<tr>
<td>10:30 am -</td>
<td><strong>W76B Basic US of Upper Limb Nerves</strong></td>
</tr>
<tr>
<td>12:00 pm</td>
<td></td>
</tr>
<tr>
<td>10:30 am -</td>
<td><strong>W78B Chemodenervation for Head and Neck Conditions: Dystonia, Sialorrhea, Migraine</strong></td>
</tr>
<tr>
<td>12:00 pm</td>
<td></td>
</tr>
<tr>
<td>10:30 am -</td>
<td><strong>W84B Advanced US of Brachial Plexus</strong></td>
</tr>
<tr>
<td>12:00 pm</td>
<td></td>
</tr>
<tr>
<td>11:30 am -</td>
<td><strong>Caricature Artist in the AANEM Lounge</strong></td>
</tr>
<tr>
<td>12:30 pm</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Session/Workshop</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1:30 pm - 3:00 pm</td>
<td><strong>History of EDX and NM Diseases</strong></td>
</tr>
<tr>
<td>1:30 pm - 3:00 pm</td>
<td><strong>Women in NM Medicine</strong></td>
</tr>
<tr>
<td>1:30 pm - 3:00 pm</td>
<td><strong>Respiratory Management of the NM Patient - Part 2</strong></td>
</tr>
<tr>
<td>1:30 pm - 3:00 pm</td>
<td><strong>W10C EMG Needle Basics</strong></td>
</tr>
<tr>
<td>1:30 pm - 3:00 pm</td>
<td><strong>W20C Office-Based Injection Procedures</strong></td>
</tr>
<tr>
<td>1:30 pm - 3:00 pm</td>
<td><strong>W45C Cervical Radiculopathy/Brachial Plexopathy</strong></td>
</tr>
<tr>
<td>1:30 pm - 3:00 pm</td>
<td><strong>W55C Myopathies: EDX Approach</strong></td>
</tr>
<tr>
<td>Time</td>
<td>Workshop</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>1:30 pm -</td>
<td><strong>W57C MSK US of Lower Limb</strong></td>
</tr>
<tr>
<td>3:00 pm</td>
<td>Workshop</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1:30 pm -</td>
<td><strong>W66C Telehealth for ALS</strong></td>
</tr>
<tr>
<td>3:00 pm</td>
<td>Workshop</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1:30 pm -</td>
<td><strong>W73C Sonographic Needle Guidance for Carpal Tunnel Injections</strong></td>
</tr>
<tr>
<td>3:00 pm</td>
<td>Workshop</td>
</tr>
<tr>
<td>1:30 pm -</td>
<td><strong>W81C Basic US of Lower Limb Nerves</strong></td>
</tr>
<tr>
<td>3:00 pm</td>
<td>Workshop</td>
</tr>
<tr>
<td>1:30 pm -</td>
<td><strong>W75C Chemodenervation Guidance Techniques-EMG, Nerve Stimulation and US</strong></td>
</tr>
<tr>
<td>3:00 pm</td>
<td>Workshop</td>
</tr>
</tbody>
</table>
### W85C Advanced US of Lower Limb Nerves

Explain recommended transducer frequencies and image optimization methods for imaging of lower extremity nerves; demonstrate scanning technique and measurement of the following nerves: femoral, saphenous, obturator and LFCN; describe and demonstrate the branching pattern of fibular nerve; discuss sonographic findings of the most frequent abnormalities affecting these nerves; and list expected findings in structures other than nerve that may be significant. This workshop will focus on the femoral, saphenous, obturator, LFCN and fibular.

Steven J. Shook, MD

### Dysautonomia International

Recognize the presentation of postural orthostatic tachycardia syndrome in a clinical setting; accurately diagnose postural orthostatic tachycardia syndrome and common co-morbidities; utilize standard treatments for the condition; and know when to refer patients to specialty centers for more advanced treatments when necessary.

Kamal R. Chémali, MD | Brent P. Goodman, MD | Steven Vernino, MD, PhD

### Speed Networking

Are you looking for a fun, easy way to network at the AANEM Annual Meeting? Do you want to build connections with peers, leaders, and other professionals in NM and EDX medicine? Register to attend our speed networking event (space is limited). Speed networkers will make approximately 10 connections during the session, so don’t forget your business cards!

### Local Musical Artist in the AANEM Lounge

Relax in the AANEM Lounge while listening to the music of a local artist.

### Coffee Break

Enjoy free coffee and use break time to network and socialize with your colleagues.

### Plenary 1: The Present & Future Role of Technology in the Lives of Patients With NM Diseases

Recognize how telemedicine can enhance the care of patients with ALS and other NMDs.

Note: AANEM's Annual Business Meeting will be held at the beginning of this session. Fellow and Active members will have the opportunity to vote and are encouraged to attend.

Anthony E. Chiodo, MD, MBA | Zachary Simmons, MD | A. Gordon Smith, MD

### Exhibit Hall

Want to learn more about the products that make our industry unique? Take the opportunity to stop by and see the latest innovations in our industry.

### President’s Reception

The President’s Reception is the official kickoff event of the meeting each year. Socialize with attendees and exhibitors while enjoying appetizers, wine, and refreshments.
### Poster Hall

Take time to stroll through the Poster Hall to view research submitted for the annual meeting. Poster authors will be available at specified times to discuss their research.

### EDX Evaluation of CIDP and MMN

Articulate the algorithmic approach for the diagnosis of CIDP and MMN which includes defining the clinical phenotype in the context of the clinical history, identifying the EDX findings of acquired demyelination, and using validated EDX criteria (or supportive criteria) to determine the diagnosis.

This is an “Ask the Experts” session. There will be an interactive discussion designed around audience participation. There are no handouts nor a planned presentation and this session will not be included in the Annual Meeting Collection.

1.5 CME/CEU

**Said R. Beydoun, MD**

### Small Fiber Neuropathy

For small fiber neuropathy, identify symptoms and signs; explain the utilities of individual diagnostic tests and order appropriate diagnostic tests; perform individualized thorough small fiber neuropathy etiology evaluation; identify treatment based on underlying causes and symptoms; and discuss the prognosis with patients.

This is an “Ask the Experts” session. There will be an interactive discussion designed around audience participation. There are no handouts nor a planned presentation and this session will not be included in the Annual Meeting Collection.

1.5 CME/CEU

**Lan Zhou, MD, PhD**

### Diabetic Neuropathy

Recognize the many faces of diabetic neuropathy (diabetic small fiber and autonomic neuropathies), the NM complications that arise, and employ treatment options.

This is an “Ask the Experts” session. There will be an interactive discussion designed around audience participation. There are no handouts nor a planned presentation and this session will not be included in the Annual Meeting Collection.

1.5 CME/CEU

**Jau-Shin Lou, MD, PhD, MBA**

### Chemodenervation

Articulate the principles and practical aspects of chemodenervation with botulinum toxins in focal dystonia and spasticity; recognize the role of EMG guidance in identification of dystonic EMG patterns and choice of candidate muscles for injection; and identify dosing differences/relationships among available toxins.

This is an “Ask the Experts” session. There will be an interactive discussion designed around audience participation. There are no handouts nor a planned presentation and this session will not be included in the Annual Meeting Collection.

1.5 CME/CEU

**Janice M. Massey, MD**

### Radiculopathy

With regard to lumbosacral and cervical radiculopathies, discuss pertinent historical features; integrate a pertinent physical and EDX examination that ensures high diagnostic accuracy; utilize other diagnostic tests and treatment options to improve your care of patients.

This is an “Ask the Experts” session. There will be an interactive discussion designed around audience participation. There are no handouts nor a planned presentation and this session will not be included in the Annual Meeting Collection.

1.5 CME/CEU

**Peter A. Grant, MD**
Botulinum Toxin for Pain

Discuss the various pain conditions that are treated with botulinum neurotoxin (BoNT); describe BoNT’s proposed mechanisms of action in painful conditions; identify various techniques used to treat pain conditions with BoNT; and summarize literature about BoNT that supports its treatment of painful conditions as well as its limitations.

This is an “Ask the Experts” session. There will be an interactive discussion designed around audience participation. There are no handouts nor a planned presentation and this session will not be included in the Annual Meeting Collection.

Atul T. Patel, MD

How to Incorporate Genetic Testing

Use an algorithmic approach to ordering genetic tests for patients with suspected hereditary NMDs.

This is an “Ask the Experts” session. There will be an interactive discussion designed around audience participation. There are no handouts nor a planned presentation and this session will not be included in the Annual Meeting Collection.

Anthony A. Amato, MD

Writing a Journal Article: A Discussion With the Editor of Muscle & Nerve

Journals such as Muscle & Nerve receive far more submissions than they publish. While the quality of the science is always paramount, other factors such as organization, clarity, brevity, and grammar impact the recommendations of reviewers and decisions of editors. Attendees will be able to immediately implement writing improvements to the research they submit for publication to maximize the probability of acceptance.

This is an “Ask the Experts” session. There will be an interactive discussion designed around audience participation. There are no handouts nor a planned presentation and this session will not be included in the Annual Meeting Collection.

Zachary Simmons, MD

Autonomic Disorders in Your Practice

For gastrointestinal and genitourinary autonomic dysfunction, orthostatic intolerance, and small fiber neuropathy describe the presentation; utilize an evaluation method; and apply the symptomatic treatment measures to your patients for each disorder.

Jasvinder P. Chawla, MBBS, MD, MBA | Julie Khoury, MD | Benn E. Smith, MD

EMG Reports

Convey important information about radiculopathies in EMG reports to referring physicians; identify information necessary for inclusion in an EMG report; and implement appropriate degree of clinical and EDX interpretation into a meaningful EMG report.

Kerry H. Levin, MD | Elizabeth A. Mauricio, MD | Devon I. Rubin, MD

NM Video Cases

Articulate significant physical signs of different NM disorders; guide laboratory investigations based on accurate identification of leading findings; use EDX tests as an extension of the clinical examination; state how to longitudinally follow disease progress; and differentiate between functional and organic NM disorders.

Aziz Shaibani, MD

US Guided Procedures

Describe the role of US in enhancing the safety and accuracy of different procedures performed in the EMG lab and MSK outpatient practice setting including facilitating needle EMG of high risk structures, near nerve needle placement for unusual NCS, interventional techniques for the treatment of peripheral nerve pain, including ulnar neuropathy, CTS, meralgia paraesthetica, occipital neuralgia, and suprascapular neuropathy, and US assisted carpal tunnel release techniques.

Andrea J. Boon, MD | Jeffrey S. Brault, DO | Peter Inkpen, MD
New NM Therapies: Integrative Medicine
Integrate nutrition, supplements and mind body therapies into treatments for peripheral neuropathy and mitochondrial myopathies; recognize various acupuncture modalities such as manual acupuncture, electroacupuncture and moxibustion; examine acupuncture equipment and needles; observe and/or experience acupuncture and identify patients that may benefit from its various modalities.
Alexandra K. Dimitrova, MD, MA | Ilene S. Ruhyo, MD, PhD | Jinny Tavee, MD

W23R Unusual NCS-Resident/Fellow
Limited to residents/fellows and medical students only. Participants will be able to identify less commonly used NCSs and discuss pitfalls associated with common NCSs. Registration for this workshop includes a lunch on Friday Oct. 18 at 12 pm.
Lawrence R. Robinson, MD

Silent Auction
All money raised from the Silent Auction goes to AANEM's foundation to provide funds for scientific research on NM diseases. Auction closes at 4:00 pm and winners will be notified.

Exhibit hall
Want to learn more about the products that make our industry unique? Take the opportunity to stop by and see the latest innovations in our industry.

Coffee Break
Enjoy free coffee and use break time to network and socialize with your colleagues.

Presentation Stage - Corinthian Reference Lab

Plenary 2: The Present & Future Role of Technology in the Lives of Patients With NM Diseases
Discuss the key considerations related to developing upper extremity exoskeleton technology and designing the technology for patients with NMDs like DMD; recognize current capabilities and future applications of these technologies; discuss the current state of integrated brain-computer applications for patients with NMDs.
Anthony E. Chiodo, MD, MBA | Madeline Corrigan, PhD | Dennis McFarland, PhD

Abstract Poster Session I
Authors from the first half of accepted posters will be available to discuss their research. Stop by to review the information from this year’s abstracts and meet the authors.

Combined Use of EDX & US for Evaluation of the Brachial Plexus & Upper Limb Nerves - Part 1
Examining the upper limbs and brachial plexus, identify how to use high frequency US to image the PNS; articulate the importance of the EDX evaluation; state the strength and weaknesses of using US and EDX; and make improved management decisions for your patients. Challenging Cases will be presented in this session.
This is a Self-Assessment (SA) CME session. To receive the SA CME credit, a post-test must be completed with a 70% passing rate. Post-tests are free to members and $50 for nonmembers.
Jun Kimura, MD | Jeffrey A. Strakowski, MD
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Description</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:30 pm -</td>
<td>Updates of Demyelinating Neuropathies: Jointly Provided by AANEM &amp; PNS</td>
<td>Related to CIDP, articulate issues with making a reliable diagnosis; implement optimal use of IVIG in patients; and appraise future immunotherapies that may be used in the management of this disease.</td>
<td>Jeffrey A. Allen, MD, Shawn J. Bird, MD, David R. Cornblath, MD, Mazen M. Dimachkie, MD</td>
</tr>
<tr>
<td>3:00 pm</td>
<td></td>
<td>This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of AANEM and the Peripheral Nerve Society. The AANEM is accredited by the ACCME to provide continuing medical education for physicians.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>This is a Self-Assessment (SA) CME session. To receive the SA CME credit, a post-test must be completed with a 70% passing rate. Post-tests are free to members and $50 for nonmembers.</td>
<td></td>
</tr>
<tr>
<td>1:30 pm -</td>
<td>Autonomic Disorders in Your NM Practice: How to Identify and Treat Them - Part 1</td>
<td>Identify peripheral autonomic disorders in a typical NM practice, encompassing diabetic, amyloid, autoimmune autonomic neuropathy, and those associated with small fiber neuropathy; correctly interpret testing; identify patterns per disease, and provide patients with available treatments including for orthostatic hypotension.</td>
<td>Jasvinder P. Chawla, MBBS, MD, MBA, Amanda C. Peltier, MD, MS, Steven Vernino, MD, PhD</td>
</tr>
<tr>
<td>3:00 pm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Emerging Therapies and Controversies</td>
<td>Articulate the emerging treatments and controversies in DMD, including exon skipping, newer generation steroids and gene replacement; appraise novel therapies and advances in CIDP therapy, nodal and paranodal antibodies therapy and complement inhibition in GBS; and recommend the most impactful therapies and mechanisms to optimize treatment for hereditary metabolic myopathies in 2019.</td>
<td>Bassam A. Bassam, MD, Mazen M. Dimachkie, MD, Margherita Milone, MD, PhD, Perry B. Shieh, MD, PhD</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Axonal Peripheral Neuropathy (Toxic and Metabolic)</td>
<td>Describe the spectrum of neuropathies seen in CIPN, inflammatory/immune diabetic neuropathies, and axonal neuropathies as well as the presentations of these diseases; be able to evaluate the patient and interpret NCSs; develop a treatment plan and management approach; and develop an approach to determine whether a diabetic has superimposed CIDP.</td>
<td>Mark B. Bromberg, MD, PhD, Richard A. Lewis, MD, Benn E. Smith, MD</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Neuromuscular Pathology</td>
<td>Identify the usefulness of nerve and muscle biopsies in era of genetics testing; integrate the findings with the clinical evaluation; and formulate the treatment based on the results in complex/unusual NM cases.</td>
<td>Suur Biliciler, MD, Justin Y. Kwan, MD, Cecile L. Phan, MD</td>
</tr>
</tbody>
</table>
NM Complications of Cancer Treatment With Checkpoint Inhibitors and Chemotherapy

Articulate the common presentations of CIPN; recognize the diagnostic conundrums that arise in the care of cancer patients with new neuropathies; apply CIPN guidelines directly to patient care; recognize when a NM complication of immune checkpoint inhibitor (ICPI) therapy should be on the differential diagnosis; conduct an appropriate work up; summarize therapeutic options; and recognize when and how to access specific expertise for challenging cases of ICPI complications.

Amanda C. Guidon, MD | Noah A. Kolb, MD | Christopher Trevino, MD

Coffee Break

Enjoy free coffee and use break time to network and socialize with your colleagues.

Presentation Stage - Alexion

Presentation Stage - Alexion

Abstract Poster Session II

Authors from the first half of accepted posters will be available to discuss their research. Stop by to review the information from this year’s abstracts and meet the authors.

Combined Use of EDX & US for Evaluation of the Brachial Plexus & Upper Limb Nerves - Part 2

Examining the upper limbs and brachial plexus, identify how to use high frequency US to image the PNS; articulate the importance of the EDX evaluation; state the strength and weaknesses of using US and EDX; and make improved management decisions for your patients. Challenging Cases will be presented in this session.

This is a Self-Assessment (SA) CME session. To receive the SA CME credit, a post-test must be completed with a 70% passing rate. Post-tests are free to members and $50 for nonmembers.

Michael S. Cartwright, MD | Jeffrey A. Strakowski, MD

Diagnosis and Treatment Breakthroughs in Genetic Testing

Integrate current testing platforms in your neuropathy practice; state technical strengths and limitations of next generation sequencing testing for various forms of neuropathy; articulate the new treatment and research approaches afforded by genetic testing; illustrate importance of correlating molecular findings with clinical and other laboratory data; convey the relevance of a genetic diagnosis for proper treatment; evaluate hereditary myopathies and neurogenic processes sharing the same defective gene; assess genetic technical analysis strategies and genetic counseling; produce comprehensive genetic testing reports by applying evidence-based gene variant classification guidelines; and articulate the latest advances in population genomic-driven drug discovery.

This is a Self-Assessment (SA) CME session. To receive the SA CME credit, a post-test must be completed with a 70% passing rate. Post-tests are free to members and $50 for nonmembers.

Christopher J. Klein, MD | Nicolas Madigan, MD | Margherita Milone, MD, PhD
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>1.5 CME/CEU</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:00 pm -  5:30 pm</td>
<td><strong>Autonomic Disorders in Your NM Practice: How to Identify and Treat Them - Part 2</strong></td>
<td></td>
<td>Javinder P. Chawla, MBBS, MD, MBA</td>
</tr>
<tr>
<td>4:00 pm -  5:30 pm</td>
<td><strong>Traumatic Brachial Plexopathy</strong></td>
<td></td>
<td>Nicholas M. Boulis, MD</td>
</tr>
<tr>
<td>4:00 pm -  5:30 pm</td>
<td><strong>MUP Recruitment Analysis Made Simple</strong></td>
<td></td>
<td>Devon I. Rubin, MD</td>
</tr>
<tr>
<td>4:45 pm -  5:30 pm</td>
<td><strong>Member Practice Issues Open Forum</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:45 pm -  6:45 pm</td>
<td><strong>Neuroprosthetics</strong></td>
<td>1.5 CME/CEU</td>
<td>Cynthia Chestek</td>
</tr>
<tr>
<td>5:45 pm -  6:45 pm</td>
<td><strong>Abstract Award Winners’ Reception</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:00 pm -  9:00 pm</td>
<td><strong>EMG Talk</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Autonomic Disorders in Your NM Practice: How to Identify and Treat Them - Part 2**

Identify peripheral autonomic disorders in a typical NM practice, encompassing diabetic, amyloid, autoimmune autonomic neuropathy, and those associated with small fiber neuropathy; correctly interpret testing; identify patterns per disease, and provide patients with available treatments including for orthostatic hypotension.

**Traumatic Brachial Plexopathy**

Identify the anatomy of the brachial plexus and clinical presentations of traumatic brachial plexopathies; convey how EDX studies can localize and quantify the degree of injury and prognosis; assess imaging studies including MRI neurography, CT myelogram, and US; compare the Seddon and Sunderland grading systems and how MRI neurography can help predict pre-operative injury grade; articulate intraoperative modalities (CMAP, NAP) employed for brachial plexus surgeries and how IOM helps guide surgical options; and identify cutting edge surgical options, including neurolysis, nerve grafting and transfer.

**MUP Recruitment Analysis Made Simple**

Recognize MUP firing rates with a high degree of accuracy; formulate recruitment ratios using auditory recognition skills; and assess whether recruitment is normal or abnormal in a variety of examples.

This is a Self-Assessment (SA) CME session. To receive the SA CME credit, a post-test must be completed with a 70% passing rate. Post-tests are free to members and $50 for nonmembers.

**Member Practice Issues Open Forum**

The Professional Practice Committee (PPC) will be hosting an open forum for members to discuss any current issues or trends they are seeing in their practices and that the PPC may be able address either with advice, or potentially, through the creation of a new position statement.

**Neuroprosthetics**

Identify and discuss the clinical implications of direct neural control for powered upper limb prostheses via regenerative peripheral nerve interfaces (RPNI) as well as the clinical application of RPNI in the management and prevention of limb pain in individuals with limb loss.

**Abstract Award Winners’ Reception**

Enjoy an evening celebrating research! Socialize with abstract authors while enjoying snacks, wine and refreshments. Award-winning authors will be available for discussion of their industry-leading research.

**Local Musical Artist in the AANEM Lounge**

Relax in the AANEM Lounge while listening to the music of a local artist.

**EMG Talk**

Spike and Wave are BACK! Join Drs. Bill Litchy and Larry Robinson for a return performance of the long standing EMG Talk! Enjoy a good laugh while learning too. Audience participation is key. Prizes will be awarded.

Alcoholic and nonalcoholic beverages will be served.
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 am - 4:00 pm</td>
<td><strong>Poster Hall</strong>&lt;br&gt;Take time to stroll through the Poster Hall to view research submitted for the annual meeting. Poster authors will be available at specified times to discuss their research.</td>
</tr>
<tr>
<td>8:00 am - 9:30 am</td>
<td><strong>N of 1 Trials to Personalize Treatment</strong>&lt;br&gt;Recommend when and how N-of-1 trials can be conducted to obtain a more precise and personalized treatment outcome in comparison to the standard &quot;trial of treatment&quot; used in daily clinical practice. This is an &quot;Ask the Experts&quot; session. There will be an interactive discussion designed around audience participation. There are no handouts nor a planned presentation and this session will not be included in the Annual Meeting Collection.</td>
</tr>
<tr>
<td>8:00 am - 9:30 am</td>
<td><strong>Peripheral Neuropathy</strong>&lt;br&gt;Articulate a differential diagnosis of peripheral neuropathy; arrange neuropathies into motor, sensory, and mixed types as well as into demyelinating and axon loss types; assess EDX approach to evaluating patients with diffuse polyneuropathies; and implement treatment options from immunosuppression to neuropathic pain management. This is an “Ask the Experts” session. There will be an interactive discussion designed around audience participation. There are no handouts nor a planned presentation and this session will not be included in the Annual Meeting Collection.</td>
</tr>
<tr>
<td>8:00 am - 9:30 am</td>
<td><strong>NMJ Techniques</strong>&lt;br&gt;Articulate NMJ physiology; evaluate RNS testing techniques, quality control, and findings in disease; illustrate jitter assessment with single-fiber and concentric needles; and improve EDX assessment for patients with NM transmission disorders. This is an “Ask the Experts” session. There will be an interactive discussion designed around audience participation. There are no handouts nor a planned presentation and this session will not be included in the Annual Meeting Collection.</td>
</tr>
<tr>
<td>8:00 am - 9:30 am</td>
<td><strong>Brachial Plexopathies</strong>&lt;br&gt;Articulate brachial plexus anatomy; illustrate the role of the sensory and motor NCSs to localize and characterize the lesions (pathophysiology, severity, prognosis); use needle EMG to add to the NCS findings, especially its temporal features (slowly progressive, rapidly progressive, acute, subacute, chronic). Cases will be used to demonstrate how to improve patient care. This is an “Ask the Experts” session. There will be an interactive discussion designed around audience participation. There are no handouts nor a planned presentation and this session will not be included in the Annual Meeting Collection.</td>
</tr>
<tr>
<td>8:00 am - 9:30 am</td>
<td><strong>What Reference Values and NCS Techniques Should I Use in My Practice</strong>&lt;br&gt;State how high quality normative data (reference values) is derived; for common NCSs, use techniques and reference values created by the Normative Data Task Force; and incorporate the data into your practice to improve patient care. This is an “Ask the Experts” session. There will be an interactive discussion designed around audience participation. There are no handouts nor a planned presentation and this session will not be included in the Annual Meeting Collection.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CME/CEU</th>
<th>Bas Stunnenberg, MD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>Amanda C. Guidon, MD</td>
</tr>
<tr>
<td></td>
<td>Mark A. Ferrante, MD</td>
</tr>
<tr>
<td></td>
<td>Timothy R. Dillingham, MD, MS</td>
</tr>
<tr>
<td>Time</td>
<td>Session</td>
</tr>
<tr>
<td>--------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>8:00 am -</td>
<td><strong>EDX Evaluation of the Foot</strong></td>
</tr>
<tr>
<td>9:30 am</td>
<td></td>
</tr>
<tr>
<td><strong>Session</strong></td>
<td></td>
</tr>
<tr>
<td>8:00 am -</td>
<td><strong>Cranial Nerve Testing</strong></td>
</tr>
<tr>
<td>9:30 am</td>
<td></td>
</tr>
<tr>
<td><strong>Session</strong></td>
<td></td>
</tr>
<tr>
<td>8:00 am -</td>
<td><strong>Ethical Issues in NM Disease</strong></td>
</tr>
<tr>
<td>9:30 am</td>
<td></td>
</tr>
<tr>
<td><strong>Session</strong></td>
<td></td>
</tr>
<tr>
<td>8:00 am -</td>
<td><strong>Entrapment Neuropathies</strong></td>
</tr>
<tr>
<td>9:30 am</td>
<td></td>
</tr>
<tr>
<td><strong>Session</strong></td>
<td></td>
</tr>
<tr>
<td>8:00 am -</td>
<td><strong>Basic With the Experts</strong></td>
</tr>
<tr>
<td>9:30 am</td>
<td></td>
</tr>
<tr>
<td><strong>Session</strong></td>
<td></td>
</tr>
<tr>
<td>8:00 am -</td>
<td><strong>Fascicular Anatomy of the Nerve and Nerve Injuries Updated With Ultrahigh Frequency MSK US</strong></td>
</tr>
<tr>
<td>9:30 am</td>
<td></td>
</tr>
<tr>
<td><strong>Session</strong></td>
<td></td>
</tr>
<tr>
<td>8:00 am -</td>
<td><strong>Setting Up an US Lab</strong></td>
</tr>
<tr>
<td>9:30 am</td>
<td></td>
</tr>
</tbody>
</table>
The Use of Multiple Testing Modalities in Challenging NM Cases

Identify less frequently used testing modalities to aid in the diagnosis and management of patients with NMDs; recognize the clinical significance of less commonly used blood tests; articulate basics of muscle MRI and its role in diagnostic testing and as a treatment outcome measure; appraise the clinical indication of various types of genetic testing and identify less commonly used molecular testing modalities; apply information learned to challenging cases where routine tests could not determine a diagnosis.

Peter B. Kang, MD | Rami Massie, MD, CM | Elie Naddaf, MD

Exercise for NM Disease

Appraise the acquired and hereditary disorders of muscle, specifically those associated with high CK; manage patients with regard to activity in the setting of high CK and the underlying disease; and articulate how patients can maintain maximal function in the setting of progressive muscle disease.

Anne G. Hartigan, MD | Ann T. Laidlaw, MD | Ann A. Little, MD

W33FA You Make the Call: An Interactive Approach to EMG Waveform Recognition Skills-BASIC

Identify the firing patterns of different types of EMG waveforms; identify the characteristics of a variety of normal and abnormal spontaneous waveforms; recognize normal and abnormal patterns of recruitment of MUAPs; and recognize and understand the significance of the changes in morphology of MUAPs in diseases. Includes audience participation and videos of EMG waveforms.

This is a large group workshop open to physicians only.

Devon I. Rubin, MD

W83R Intro. to NM US Anatomy- Resident/Fellow

Limited to residents/fellows and medical students only. Topics covered will include US devices and equipment, how to incorporate US into a busy EDX laboratory, how to image muscle, how to image nerve, and how to assess for the following potential conditions: CTS, ulnar neuropathy at the elbow, ulnar neuropathy at the wrist, and fibular neuropathy at the knee. As time permits, the assessment of other NM conditions will be addressed. Registration for this workshop includes a lunch on Friday Oct. 18 at 12 pm.

Michael S. Cartwright, MD | Sarada Sakamuri, MD

Exhibit Hall

Want to learn more about the products that make our industry unique? Take the opportunity to stop by and see the latest innovations in our industry.

Coffee Break

Enjoy free coffee and use break time to network and socialize with your colleagues.

Plenary 3: The Present & Future Role of Technology in the Lives of Patients With NM Diseases

Discuss the complexities of human-machine interfaces and be able to recognize the uses of regenerative peripheral nerve interfaces for control of neuroprosthetic devices and how robotics can improve the lives of patients with NMDs; recognize the complexities of the application process for emerging robotic technology for human use; and discuss the current state and future considerations for lower extremity robotics in mobility applications for patients with NMDs.

Paul Cederna, MD | Anthony E. Chiodo, MD, MBA | Timothy R. Dillingham, MD, MS | Arun Jayaraman, PT, PhD
Silent Auction Winner Pick-up

Silent Auction winners, pick-up your items at the Registration Booth.

Abstract Poster Session III

Authors from the second half of accepted posters will be available to discuss their research. Stop by to review the information from this year’s abstracts and meet the authors.

Horses, Zebras, & Unicorns: Interactive Case Based Update Common/Not So Common NMDs-Pt 1

As it relates to common and unusual nerve and muscle disorders, articulate clinical characteristics of these disorders; recognize the role of EDX testing, genetic testing, serological studies, and biopsy for diagnosing and evaluating patients; and utilize PNS anatomy to help facilitate clinical evaluation and treatment in complex patients.

Suur Biliciler, MD | Justin Y. Kwan, MD | Mithila Vullaganti, MD

Peripheral Anatomy: From Root to Muscle

List upper and lower limb anatomy beginning at the nerve root level and continuing down to the muscle and recognize the presentation of common abnormalities using NCSs.

This is a Self-Assessment (SA) CNCT Checkpoint session. To receive the SA CNCT Checkpoint credit, a post-test must be completed with a 70% passing rate. Post-tests are free to members and $50 for nonmembers.

Tristin Allen, MD | Adam D. Comer, MD | Jerry Morris, CNCT, MS, R.NCS.T. | Loretta M. VanEvery, MD

ALS

As it relates to ALS, assess the status of biomarkers; identify the diagnostic features of EMG; and appraise the newest treatment options and developments.

This is a Self-Assessment (SA) CME session. To receive the SA CME credit, a post-test must be completed with a 70% passing rate. Post-tests are free to members and $50 for nonmembers.

Jennifer M. Martinez-Thompson, MD | Paul Mehta, MD | Bjorn E. Oskarsson, MD | Eric J. Sorenson, MD | Nathan P. Staff, MD, PhD

US Assessment of MSK Mimics

Identify common MSK conditions that could clinically mimic focal neuropathies; distinguish peripheral nerve and MSK pathology; and identify through clinical cases using US and EDX how to distinguish potential MSK abnormalities from focal neuropathies.

Jeffrey A. Strakowski, MD

NMJ Disorders - Part 1

Regarding NMJ disorders, identify the clinical manifestations of both presynaptic (Lambert-Eaton myasthenic syndrome and botulism) and postsynaptic (myasthenia gravis) disorders; articulate the diagnostic approach including laboratory and EDX testing (specifically RNS testing and single fiber EMG); and apply the treatment approach.

This is a Self-Assessment (SA) CME session. To receive the SA CME credit, a post-test must be completed with a 70% passing rate. Post-tests are free to members and $50 for nonmembers.

Kelly G. Gwathmey, MD | Hans D. Katzberg, MD
### 1:30 pm - 3:00 pm

#### Session

**Albers Symposium**

After attending the session the attendee will be able to describe different classes of neuropathy; utilize electrophysiology and skin biopsy to diagnose these diseases; and develop optimal treatment plans for their patients.

Anthony G. Alessi, MD | Mark B. Bromberg, MD, PhD | Peter D. Donofrio, MD | Eva L. Feldman, MD, PhD | Ryan D. Jacobson, MD | Safwan S. Jaradeh, MD | Amanda C. Peltier, MD, MS | Zachary Simmons, MD | John R. Singleton, MD | A. Gordon Smith, MD

No CME/CEU

#### ROUNDTABLE: Case Discussions

Confer with experts in a smaller one-on-one setting to improve your performance and interpretation of clinical studies and add clinical input. This session will improve your use of quality EDX studies in the diagnosis and treatment of patients. Participants are encouraged to bring their own cases to the session.

Limited to 60 - registration is required.

Said R. Beydoun, MD | Erik R. Ensrud, MD | Mark A. Ferrante, MD | Bashar Katirji, MD | David C. Preston, MD | Bryan E. Tsao, MD

1.5 CME/CEU

### 1:30 pm - 3:00 pm

#### Workshop

**W27R Repetitive Nerve Stimulation-Resident/Fellow**

Limited to residents/fellows and medical students only. Participants will perform RNS to shoulder, upper arm, hand, and facial muscles; and perform sequential examination for detecting NM transmission defects, such as artifacts. Registration for this workshop includes a lunch on Friday Oct. 18 at 12 pm.

Taylor B. Harrison, MD

No CME/CEU

### 1:30 pm - 3:00 pm

#### Workshop

**W33FC You Make the Call: An Interactive Approach to EMG Waveform Recognition Skills-ADVANCE**

Identify the characteristics of a variety of uncommon abnormal spontaneous waveforms; recognize normal and abnormal patterns of recruitment of MUAPs; and recognize and understand the significance of subtle or complex changes in morphology of MUAPs in diseases. The workshop includes audience participation and video examples of EMG waveforms.

Devon I. Rubin, MD

1.5 CME

### 3:00 pm - 4:00 pm

#### Social Event

**Coffee Break**

Enjoy free coffee and use break time to network and socialize with your colleagues.

### 3:30 pm - 4:00 pm

#### Social Event

**Abstract Poster Session III**

Authors from the second half of accepted posters will be available to discuss their research. Stop by to review the information from this year’s abstracts and meet the authors.

### 4:00 pm - 5:30 pm

#### Session

**Upper Extremity NCS: Lesion Localization and Severity Assessment**

List upper extremity anatomy, including the brachial plexus; recognize lesion pathophysiology (through NCS); localize lesions and through formulas make severity assessments. A case based approach will be utilized.

This is a Self-Assessment (SA) CNCT Checkpoint session. To receive the SA CNCT Checkpoint credit, a post-test must be completed with a 70% passing rate. Post-tests are free to members and $50 for nonmembers.

Mark A. Ferrante, MD

1.5 CME/CEU
**Horses, Zebras, & Unicorns: Interactive Case Based Update Common/Not So Common NMDs-Pt 2**

As it relates to common and unusual nerve and muscle disorders, articulate clinical characteristics of these disorders; recognize the role of EDX testing, genetic testing, serological studies, and biopsy for diagnosing and evaluating patients; and utilize PNS anatomy to help facilitate clinical evaluation and treatment in complex patients.

Gary W. Gallagher, MD | Ryan D. Jacobson, MD | Dustin Nowacek, MD

**NMJ Disorders - Part 2**

Regarding NMJ disorders, identify the clinical manifestations of both presynaptic (Lambert-Eaton myasthenic syndrome and botulism) and postsynaptic (MG) disorders; articulate the diagnostic approach including laboratory and EDX testing (specifically RNS testing and single fiber EMG); and apply the treatment approach.

This is a Self-Assessment (SA) CME session. To receive the SA CME credit, a post-test must be completed with a 70% passing rate. Post-tests are free to members and $50 for nonmembers.

Amanda C. Guidon, MD | Michael K. Hehir, MD

**Single Fiber EMG Course**

Compare the use of SFEMG and concentric needle electrodes (CNE) to measure jitter; recognize signals that should/should not be used to measure jitter with CNE; interpret jitter measurements in patients with suspected NMJ disorders; convey the utility and sensitivity of jitter studies in patients with suspected NMJ disorders; and recognize when abnormal jitter does not represent NMJ disease.

Janice M. Massey, MD | Donald B. Sanders, MD

**Assistive Technology for Gait Disorder**

Identify common gait deviations in NMDs and appropriate orthotic prescriptions; assess the innovative technologies available and in development, such as robotics and exoskeletons, that can be used to improve gait pathology; and recognize opportunities for research in gait assistive technology.

William Filer, MD | Arun Jayaraman, PT, PhD

**Channelopathies in NMDs**

Appraise the clinical presentations, genetics, and treatment of periodic paralysis; distinguish between sub-types of periodic paralysis on clinical grounds (history, specific triggers, etc.) and articulate prophylactic treatments and potential pitfalls; and recognize when and how to perform an ancillary examination (ictal serum potassium, EMG, genetics) when evaluating a patient with periodic paralysis.

Jau-Shin Lou, MD, PhD, MBA | Bas Stunnenberg, MD

**Practical Approach to EDX in the Pediatric Population**

Apply EDX successfully in infants and children with little or no sedation; compare how the interpretation of specific EDX findings differs in pediatric versus adult patients; and articulate how EDX can guide the diagnostic evaluation of rare genetic disorders in the pediatric population.

Peter B. Kang, MD | Tanya J. Lehky, MD | Hugh J. McMillan, MD

**Happy Hour**

Enjoy live music, refreshments, and socializing with friends and colleagues. Attend the last social event of this year’s annual meeting to celebrate another successful meeting and say farewell until next year!

**Local Musical Artist in the AANEM Lounge**

Relax in the AANEM Lounge while listening to the music of a local artist.
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Description</th>
<th>Authors</th>
</tr>
</thead>
</table>
| 8:00 am -    | **Demyelinating Neuropathies**                                         | Convey the criteria for identifying demyelination on NCS and articulate the presentation, diagnosis, and treatment of GBS and CIDP.  
This is a Self-Assessment (SA) CNCT Checkpoint session. To receive the SA CNCT Checkpoint credit, a post-test must be completed with a 70% passing rate. Post-tests are free to members and $50 for nonmembers. | Shawn J. Bird, MD | Christyn Edmundson, MD | Grace C. Kimbaris, MD |
<p>| 9:30 am      | <strong>Antibody Testing and NMDs</strong>                                           | Integrate the judicious application of antibody testing properly into NM medicine and accurately interpret results.                                                                                           | Michael K. Hehir, MD | Yuebing Li, MD, PhD | Georgios Manousakis, MD |
| 8:00 am -    | <strong>NM Sports Medicine Case Based Presentations: A Mechanisms Approach</strong>  | Using a case-based teaching approach, identify acute and chronic sports trauma injuries unique to each sport; utilize EDX and US in diagnosing these injuries; and explain current patient management. | Anthony G. Alessi, MD | Bryan X. DeSouza, MD | Francis P. Lagattuta, MD |
| 9:30 am      | <strong>W07AS SFEMG and Measuring Jitter Using Concentric Needle</strong>            | Demonstrate how jitter can be measured using CNE, and identify machine settings and limitations. Must be familiar with the basic concepts of SFEMG techniques.                                                | Janice M. Massey, MD | Donald B. Sanders, MD |
| 8:00 am -    | <strong>Utilizing the Principles of Lifestyle Medicine for the Treatment of NM Disease</strong> | Describe how a therapeutic lifestyle change can be an effective tool in the management of NM disorders; apply the principles of lifestyle medicine to foster resilience and prevent provider burnout. | Gautam Malhotra, MD | John W. Norbury, MD | Kristi Nord, MD |
| 9:30 am      | <strong>W11AS EMG and US Respiratory</strong>                                        | Perform phrenic NCSs; utilize techniques for safe needle EMG of the diaphragm (including US assisted); localize and perform needle EMG of chest wall muscles, which are helpful in the diagnosis of respiratory failure; and utilize US for evaluating thickness and contractility of the diaphragm. | Andrea J. Boon, MD |
| 8:00 am -    | <strong>Molecular Therapy for SMA in Clinical Practice</strong>                      | Identify individuals who need multidisciplinary care and how to provide information to them; identify and select appropriate health care personnel; determine the clinic’s physical location; consider clinical care, research, and data; develop skills related to billing, copays and production of pamphlets, publications and courses; determine how to assess progress and be able to describe what not to do. | Diana Castro, MD | Nanette C. Joyce, DO, M.A.S. | Julie Parsons, MD |
| 9:30 am      | <strong>W13AS Entrapment Lower Limb</strong>                                         | Familiarize participants with techniques needed to evaluate and diagnose entrapments in lower limbs. Acquire skills to perform NCSs for peroneal, tibial, medial, and lateral plantar nerves; and identify the appropriate muscles for evaluating lower limb nerve entrapments and appropriate needle placement for EMG examination. | Michael T. Andary, MD, MS |
| 8:00 am -    | <strong>W18AS NM US</strong>                                                         | Obtain images with transverse and longitudinal transducer positions; describe how to manipulate basic US instrumentation to include focal depth, Doppler flow, and transducer frequency; describe how muscle, nerve, and tendon appear with US; and discuss the principle of anisotropy. | Vanessa Baute, MD |</p>
<table>
<thead>
<tr>
<th>Time</th>
<th>Workshop</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 am -</td>
<td><strong>W21AS NCS Pitfalls</strong>&lt;br&gt;Identify common instrumentation, physiologic, and</td>
</tr>
<tr>
<td>9:30 am</td>
<td>operator errors; alter recording electrode montages and use the instrument’s filters to help optimize the recording of motor and sensory potentials; and minimize stimulus artifact interference with waveform recording.</td>
</tr>
<tr>
<td></td>
<td>Bassam A. Bassam, MD</td>
</tr>
<tr>
<td>8:00 am -</td>
<td><strong>W38AS Physical Exam of the Athlete: Cervical Spine and Upper Extremity</strong>&lt;br&gt;Examine an individual and determine if the pain is from the cervical spine, shoulder, elbow, wrist, hand or a muscle and identify the typical athletic injuries to these regions. Participants will determine which structure of the cervical spine is the pain generator, i.e., nerve root, facet joint or muscle; distinguish which shoulder structures are pain generators; determine a diagnostic and therapeutic plan; identify the key elements in a history and physical exam to make a diagnosis and discuss a proper diagnostic workup and treatment plan for the injured athlete; and discuss the differential diagnosis for cervical spine and upper extremity injuries in the athlete. Physical examination maneuvers useful in the diagnosis of radiculopathy and common nerve entrapment syndromes will be demonstrated.</td>
</tr>
<tr>
<td>9:30 am</td>
<td>Francis P. Lagattuta, MD</td>
</tr>
<tr>
<td>8:00 am -</td>
<td><strong>W45AS Cervical Radiculopathy/Brachial Plexopathy</strong>&lt;br&gt;Discuss the anatomy of the cervical roots and the brachial plexus; describe the role of the sensory NCS in the initial localization of axon loss processes to preganglionic versus ganglionic/postganglionic; illustrate the role of the sensory NCS in localizing focal lesions to specific regions of the brachial plexus (root, trunk, division, cord, terminal nerve); discuss the role of motor NCS in further localizing the lesion and in defining its severity; describe the role of the needle EMG in confirming the NCS findings and in defining the temporal features of the disorder (slowly progressive, rapidly progressive, acute, subacute, chronic); and demonstrate this information using illustrative cases.</td>
</tr>
<tr>
<td>9:30 am</td>
<td>Ghazala R. Hayat, MD</td>
</tr>
<tr>
<td></td>
<td><strong>W62AS NCS Workshop</strong>&lt;br&gt;Perform basic NCSs in the upper extremity and lower extremity as well as RNS; describe common pitfalls of NCSs; and identify the most common mononeuropathies in the upper and lower extremities.</td>
</tr>
<tr>
<td></td>
<td>Gary W. Gallagher, MD</td>
</tr>
<tr>
<td>9:30 am -</td>
<td><strong>W86AS Advanced US of Upper Limb Nerves</strong>&lt;br&gt;Explain recommended transducer frequencies and image optimization methods for imaging of upper extremity nerves; demonstrate scanning technique and measurement of the following nerves: musculocutaneous, MAC and LAC; describe and demonstrate the branching pattern of radial nerve from arm to wrist including PIN and superficial radial sensory; discuss sonographic findings of the most frequent abnormalities affecting these nerves; and list expected findings in structures other than nerve that may be significant. This workshop will focus on musculocutaneous, radial from arm to wrist including PIN and superficial radial sensory, MAC, LAC.</td>
</tr>
<tr>
<td>9:30 am</td>
<td>Monika Krzesniak-Swinarska, MD</td>
</tr>
<tr>
<td></td>
<td><strong>Coffee Break</strong>&lt;br&gt;Enjoy free coffee and use break time to network and socialize with your colleagues.</td>
</tr>
</tbody>
</table>
**Neurodiagnostic Jeopardy: Let Us Get on Your Nerves!**

Identify the upper and lower limb anatomy beginning at the nerve root level and continuing down to the muscle with discussion of commonly seen abnormalities and their presentation on NCS and EMG.

This is a Self-Assessment (SA) CNCT Checkpoint session. To receive the SA CNCT Checkpoint credit, a post-test must be completed with a 70% passing rate. Post-tests are free to members and $50 for nonmembers.

Session is open to Technologists only.

Candy Dolan, CNCT, R.NCS.T, R.EEGT. | Jerry Morris, CNCT, MS, R.NCS.T. | Teresa Spiegelberg, CNCT, R.NCS.T, R.EEG.T, BS

---

**Plenary 4: The Present & Future Role of Technology in the Lives of Patients With NM Diseases**

Discuss the emerging technologies in NM US and how these changes will change the way physicians diagnosis and manage NM and MSDs.

Anthony E. Chiodo, MD, MBA | Lisa D. Hobson-Webb, MD | Yuen T. So, MD, PhD
AANEM: American Association of Neuromuscular & Electrodiagnostic Medicine
ABEM: American Board of Electrodiagnostic Medicine
ABPN: American Board of Psychiatry & Neurology
ABPMR: American Board of Physical Medicine and Rehabilitation
ACMCE: Accreditation Council for Continuing Medical Education
ALS: Amyotrophic Lateral Sclerosis
BoNT: Botulinum Neurotoxin
CEU: Continuing Education Unit
CIDP: Chronic Inflammatory Demyelinating Polyradiculoneuropathy
CIPN: Chemotherapy Induced Peripheral Neuropathy
CK: Creatine Kinase
CMAP: Compound Muscle Action Potential
CME: Continuing Medical Education
CNCT: Certified Nerve Conduction Technologist
CNE: Concentric Needle Electrodes
CT: Computed Tomography
CTS: Carpal Tunnel Syndrome
CVT: Clinical Video Telehealth
DMD: Duchenne Muscular Dystrophy
EDX: Electrodiagnostic
EMG: Electromyography
FACS: Fellow American College of Surgeons
FDA: Food & Drug Administration
GBS: Guillain-Barré Syndrome
ICIP: Immune checkpoint inhibitor
IOM: Intraoperative Monitoring
IVIG: Intravenous Immunoglobulin
LAC: Lateral Antebrachial Cutaneous Nerve
LFCN: Lateral Femoral Cutaneous Nerve
MAC: Medial Antebrachial Cutaneous Nerve
MG: Myasthenia Gravis
MGFA: Myasthenia Gravis Foundation of America
MRI: Magnetic Resonance Imaging
MSD: Musculoskeletal Disorder
MSK: Musculoskeletal
MUAP: Motor Unit Action Potential
MUP: Motor Unit Potential
NAP: Nerve action potential
NCS: Nerve Conduction Study
NM: Neuromuscular
NMDs: Neuromuscular Disorders
NMJ: Neuromuscular Junction
MMN: Multifocal Motor Neuropathy
NYSDOH: New York State Department of Health
PIN: Posterior Interosseous Nerve
PNS: Peripheral Nervous System
PNS: Peripheral Nerve Society
PPC: Professional Practice Committee
PT: Physical Therapist
RPNI: Regenerative Peripheral Nerve Interfaces
RNS: Repetitive Nerve Stimulation
SA: Self-Assessment
SFEMG: Single-fiber Electromyography
SMA: Spinal Muscular Atrophy
US: Ultrasound

FIND YOUR DREAM JOB
VISIT THE CAREER CENTER NOW!
www.aanem.org/Careers
**Meeting Objectives**
The following objectives for the 2019 meeting were developed:
The 2019 annual meeting will focus on improving patient care, medical knowledge, interpersonal communication, professionalism, and systems based practices in the following areas: updates in NM and MSK disorders; genetics and emerging gene therapies; autoimmune disorders; neuropathies; antibody testing; integrative medicine, US, EDX, respiratory, and biopsy skills.

After attending this activity, attendees will:
- Enhance their ability to obtain a comprehensive patient history and examination; improve their ability to develop a differential diagnosis and direct appropriate diagnostic work-ups; assess rehabilitation potential for patients with NM and MSK disease; treat patients with pain; recognize how emerging technologies in US, robotics, and exoskeleton technology can improve the lives of patients. (Patient care)
- Develop technical skills necessary to perform neurologic, EDX, and rehabilitative procedures; identify and describe important EDX, biopsy, genetic, and US findings; develop awareness, treatment, therapies, and side effects; and discuss the latest literature on NM disorders. (Medical knowledge, Practice-based learning)
- Improve ability to communicate with and educate patients, families, and members of the healthcare team; develop awareness of ethical and biomedical legal issues related to patient care; enhance awareness of patient confidentiality issues as they relate to patient care; demonstrate professionalism in clinical, research, and academic practice; and demonstrate skills in end-of-life care. (Interpersonal communication skills, Professionalism)
- Develop strategies for working in a multidisciplinary session, awareness of cost of emerging treatments; identify and access supportive healthcare services and mechanisms that improve patient care and patient quality of life. (Systems-based practice)

**Accreditation Statement**
The AANEM is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

**AMA Credit Designation Statement**
The AANEM designates this live activity for a maximum of 22 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

**Self-Assessment Credit**
Ten courses at the 2019 annual meeting will be designated to offer Part II MOC Self-Assessment credit for physicians. AANEM will report completion of this self-assessment activity to ABPN and ABPMR.

**Disclaimer Statement**
AANEM will disclose to learners the relevant financial relationships for those in control of CME content prior to the educational activity or disclose that there were no relevant financial relationships. Information will be provided through print and verbal disclosures.

**AANEM Annual Meeting Refund Policy**
The association dedicates a significant amount of time and expense to deliver a great annual meeting each year. While we hope everyone who registers for the annual meeting will be able to attend, we understand that circumstances may sometimes prevent this from happening. AANEM has established the following policy for those who request a refund.

Refund requests received prior to 60 days from the start of on-site registration will be refunded at 100%.

Refund requests received 60 days to 14 days from the start of on-site registration will be subject to a $100 cancellation fee and any remaining amount will be refunded.

Refund requests received from 13 days, through the start of on-site registration, will be subject to a $150 cancellation fee and any remaining amount will be credited toward future AANEM purchases (credit expires 2 years after the first day of the annual meeting). Registration fees will be subject to a $100 cancellation fee and any remaining amount will be refunded. Refund requests received 60 days to 14 days from the start of on-site registration will be refunded at 100%.

**AANEM CME Programming**
It is the policy of the AANEM to ensure balance, independence, objectivity and scientific rigor in all of its educational activities. This program is for scientific and educational purposes only and will not, directly or indirectly, promote the interests of any commercial interest. All CME sessions that are offered as part of the official AANEM Annual Meeting program are determined solely by the AANEM Annual Meeting planning committees and approved by the AANEM Board. Planning committees identify professional practice gaps, choose topics and identify session chairs for each session, and determine the educational format. Material presented at the sessions cannot contain any advertising, corporate logo, trade name, or product-group message. All scientific research referred to, reported or used in support of justification of a patient care recommendation will conform to generally accepted standards of experimental design, data collection and analysis. Speakers are requested to provide a balanced view of therapeutic options, using generic names in presentations to contribute to impartiality. If content includes trade names, speakers are instructed to incorporate the trade names from several companies.

Specific disclosure information for all speakers, planning committee members and course chairs participating in the 2019 Annual Meeting is provided in the Disclosure Index at the registration desk or online at www.aanem.org/disclosures.

**Industry Forums**
Industry Forums are commercially supported educational activities held in conjunction with the AANEM Annual Meeting. These satellite symposia sessions are not part of the AANEM’s official annual meeting program and are planned by an outside company or party. These sessions are clearly labeled as Industry Forums to allow the participant to be fully aware of any bias in the presentations. Seating at sessions is limited, and food is provided by the AANEM to Industry Forum attendees on a first come, first-served basis.
A community dedicated to improving the lives of patients with neuromuscular diseases.

Join AANEM Today!

The premier association in neuromuscular & electrodiagnostic medicine.

- More than 5,000 members strong
- An exceptional annual scientific meeting
- Free and discounted educational products
- Collaboration and leadership opportunities
- The prestigious Muscle & Nerve journal
- Advocates working on your behalf
- Funding for research
- So much more!

Visit www.aanem.org/Value-of-Membership

"One of the unique aspects of AANEM is the opportunity for collaboration between neuromuscular neurology and physical medicine and rehabilitation."

~ Aiesha Ahmed, MD

Eleven years ago, as a neuromuscular fellow, Aiesha Ahmed, MD, was encouraged by her mentors to attend the AANEM Annual Meeting. It was an educational experience Dr. Ahmed will never forget and she’s been a member of AANEM ever since!