Breakthroughs in Neurology

January 23–25, 2015 • Phoenix, AZ
Pointe Hilton Tapatio Cliffs Resort

Translating Today’s Discoveries into Tomorrow’s Clinics

Early Conference Registration and Hotel Deadline: December 19, 2014

AAN.com/view/breakthroughs
Welcome to the AAN’s newest conference: Breakthroughs in Neurology: Translating Today’s Discoveries into Tomorrow’s Clinics.

As the name of the conference suggests, this innovative experience combines the “best of” clinical highlights, scientific breakthroughs, and other hot topics from the past year and delivers them in a concise three-day weekend. Attendees can choose from a variety of topic-intensive tracks providing the latest updates on several key areas of clinical neurology. We are also pleased to introduce a new Maintenance of Certification Exam Preparation Course, specifically designed for anyone preparing for board recertification in neurology. And with all of this comes an opportunity to earn 28.25 CME credits in only three days, making the Breakthroughs in Neurology conference a great value. I look forward to seeing you at the picturesque Pointe Hilton Tapatio Cliffs Resort in Phoenix.

Why Should You Attend the NEW Breakthroughs in Neurology Conference?

- Earn up to 28.25 CME in just one weekend!
- Choose from six topic-intensive tracks combining an education course with an Integrated Neuroscience Session to provide an in-depth look at one of the following subspecialty areas:
  - MS
  - Stroke
  - Epilepsy
  - Headache
  - Geriatric Neurology
  - Sleep Disorders
- Plenary sessions:
  - Neurology Year in Review
  - Controversies in Neurology
- New Maintenance of Certification Exam Preparation Course will help you prep for your exam and sharpen your skills on key topic areas in neurology, based on the ABPN recertification exam in neurology.
- Network with peers at the picturesque Pointe Hilton Tapatio Cliffs Resort in Phoenix, AZ.

Lisa M. DeAngelis, MD, FAAN
Chair, Science Committee
### Meeting-at-a-Glance

#### Friday, January 23

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 a.m.–11:00 a.m.</td>
<td>Education Program: Alzheimer Disease, Lewy Body Disease, and Frontotemporal Dementia: Clinical Features, Biomarkers, Neuroimaging, Genetics, and Pathology: A Multidisciplinary Approach</td>
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<tr>
<td></td>
<td>Education Program: Algorithms in the Diagnosis and Treatment of Seizures, Seizure Emergencies, and Epilepsy</td>
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<tr>
<td>11:00 a.m.–1:00 p.m.</td>
<td>Education Program: Diagnostic Dilemmas in Multiple Sclerosis</td>
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<tr>
<td>11:30 a.m.–1:00 p.m.</td>
<td>Education Program: Telemedicine: Emerging Business and Practice Models</td>
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<tr>
<td>1:00 p.m.–4:00 p.m.</td>
<td>Integrated Neuroscience Session: Proteinopathy in Neurodegenerative Diseases</td>
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<td>Integrated Neuroscience Session: Breakthroughs in Epilepsy: New Insights for Causes and Treatments</td>
</tr>
<tr>
<td>4:00 p.m.–5:30 p.m.</td>
<td>Plenary Session: Neurology Year in Review</td>
</tr>
<tr>
<td>5:30 p.m.–6:30 p.m.</td>
<td>Reception / Exhibits</td>
</tr>
</tbody>
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#### Saturday, January 24

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:00 a.m.–8:00 a.m.</td>
<td>Exhibits</td>
</tr>
<tr>
<td>8:00 a.m.–11:00 a.m.</td>
<td>Education Program: Prevention of Cardioembolic Stroke in Patients with Nonvalvular Atrial Fibrillation: Balancing the Evidence and Patient Preferences</td>
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<tr>
<td></td>
<td>Education Program: Sleep Principles Applied to Neurological Disease</td>
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<tr>
<td></td>
<td>Education Program: Hot Topics in Headache and Related Disorders</td>
</tr>
<tr>
<td>11:00 a.m.–1:00 p.m.</td>
<td>Lunch / Exhibits</td>
</tr>
<tr>
<td>11:30 a.m.–1:00 p.m.</td>
<td>Education Program: Market Considerations for a Practice in the New Health Care Environment</td>
</tr>
<tr>
<td>1:00 p.m.–4:00 p.m.</td>
<td>Integrated Neuroscience Session: New Antithrombotic Agents in Stroke Prevention</td>
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<td>Integrated Neuroscience Session: Clocks, Sleep, and Brain Disorders</td>
</tr>
<tr>
<td></td>
<td>Integrated Neuroscience Session: Emerging Therapies in Headache</td>
</tr>
<tr>
<td>4:00 p.m.–5:30 p.m.</td>
<td>Plenary Session: Controversies in Neurology</td>
</tr>
<tr>
<td>5:30 p.m.–6:30 p.m.</td>
<td>AAN/ABPN Maintenance of Certification Informational Session</td>
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#### Sunday, January 25

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>7:45 a.m.–5:30 p.m.</td>
<td>Maintenance of Certification Exam Preparation Course</td>
</tr>
</tbody>
</table>

### Visit the Exhibit Hall

Showcasing valuable products and services from the neurologic community to help you with practice management and patient care. Complimentary food service will be provided to registered attendees.

Please visit the conference website for the most up-to-date exhibit information.
Alzheimer Disease, Lewy Body Disease, and Frontotemporal Dementia: Clinical Features, Biomarkers, Neuroimaging, Genetics, and Pathology: A Multidisciplinary Approach

DIRECTOR
Neill R. Graff-Radford, MD, FAAN Jacksonville, FL

PROGRAM DESCRIPTION
This program will address three diseases from four different disciplines, taking a disease approach with four speakers for each disease. First faculty will present clinical features, including biomarkers and videos of illustrative typical and unusual cases. Then a radiologist will show structural and functional scans characterizing the disease. A geneticist will discuss genetic causes and risk factors relating these to the clinical features and proteins seen in the brains of patients afflicted with the disease. Lastly, a neuropathologist will show typical disease pathology and how this relates to clinical, radiological, and genetic features.

LEARNING OBJECTIVES
Upon completion, participants should recognize the clinical features of typical and atypical presentations of the three most common degenerative dementias; will relate blood, CSF, and radiological biomarkers to the different diseases, and be able to use them in the differential diagnosis; will differentiate causative and risk genes in these three diseases; and will relate the proteins seen on the pathology to the causative genes of the disease.

RECOMMENDED AUDIENCE
Neurologists, Residents, Students, and Neuroscientists

CORE COMPETENCIES
Practice-based Learning and Improvement

SCHEDULE
8:00 Clinical/Biomarkers, Radiology, Genetics, and Neuropathology of Alzheimer’s Disease
Neill R. Graff-Radford, MD, FAAN Jacksonville, FL
Kejal Kantarci, MD Rochester, MN
Nilufer Taner, MD, PhD Jacksonville, FL
Ian R.A. Mackenzie, MD, FRCP Vancouver, BC, Canada

8:50 Questions
Faculty

9:00 Clinical/Biomarkers, Radiology, Genetics, and Neuropathology of Lewy Body Disease
Neill R. Graff-Radford, MD, FAAN Jacksonville, FL
Kejal Kantarci, MD Rochester, MN
Nilufer Taner, MD, PhD Jacksonville, FL
Ian R.A. Mackenzie, MD, FRCP Vancouver, BC, Canada

9:50 Questions
Faculty

10:00 Clinical/Biomarkers, Radiology, Genetics, and Neuropathology of Frontotemporal Dementia
Neill R. Graff-Radford, MD, FAAN Jacksonville, FL
Kejal Kantarci, MD Rochester, MN
Nilufer Taner, MD, PhD Jacksonville, FL
Ian R.A. Mackenzie, MD, FRCP Vancouver, BC, Canada

10:50 Questions
Faculty

3 CME
Friday, January 23
8:00 a.m.–11:00 a.m.

RECOMMENDED COMPANION COURSE – Page 8
Integrated Neuroscience Session: Proteinopathy in Neurodegenerative Diseases
Algorithms in the Diagnosis and Treatment of Seizures, Seizure Emergencies, and Epilepsy

DIRECTOR
Joseph I. Sirven, MD, FAAN  Scottsdale, AZ

PROGRAM DESCRIPTION
With a large armamentarium of diagnostic tools and therapeutic options that span 28 drugs, multiple surgeries, diet, devices, and psychosocial treatments, the diagnosis and management of seizures and epilepsy has evolved to a complex set of clinical decisions. These choices hold important ramifications for the patient with seizures, epilepsy, or a seizure emergency.

This course helps to distill the essence of the fundamental clinical decisions that are made with patients with acute seizures and epilepsy. Through a series of case presentations, the faculty will present and show the latest clinical algorithms pertaining to important clinical consultations in the field including: diagnosis of seizures and epilepsy; when to start an antiseizure drug and how to choose among several different compounds; when to diagnose a patient as drug resistant with consideration for surgical management or devices and/or diet; and how to best handle seizure emergencies and status epilepticus.

LEARNING OBJECTIVES
Upon completion, participants should be able to present algorithms on the best approach to manage the following common yet vexing clinical seizure and epilepsy problems:

- Diagnosing a seizure and epilepsy
- Choosing the best seizure drug and how to titrate and monitor therapy for best results
- Diagnosing and treating drug resistant epilepsy—what to do
- Diagnosing and treating seizure emergencies

RECOMMENDED AUDIENCE
Neurologists, Epileptologists

CORE COMPETENCIES
Practice-based Learning and Improvement

SCHEDULE
8:00 Introduction
   Joseph I. Sirven, MD, FAAN  Scottsdale, AZ

8:05 Algorithms in Diagnosing Spells as Seizures and Epilepsy
   Amy Z. Crepeau, MD  Scottsdale, AZ

8:50 Algorithms in Managing Epilepsy: AEDs: Choosing, Titrating, Monitoring, and Withdrawal
   R. Edward Hogan, MD  St. Louis, MO

9:30 Break

9:40 Algorithm in Treating Patients with Drug Resistant Epilepsy: Lesional and Nonlesional
   John M. Stern, MD, FAAN  Los Angeles, CA

   Joseph I. Sirven, MD, FAAN  Scottsdale, AZ

RECOMMENDED COMPANION COURSE
Integrated Neuroscience Session: Breakthroughs in Epilepsy: New Insights for Causes and Treatments
DIRECTOR
Bruce A. C. Cree, MD, PhD, MCR  San Francisco, CA

PROGRAM DESCRIPTION
Idiopathic inflammatory demyelinating diseases of the CNS and acute and chronic myelopathies present both diagnostic and therapeutic challenges. This course will present the spectrum of CNS inflammatory diseases, and focus on clinical presentations, imaging, and investigations that assist in diagnosing and treating these cases.

LEARNING OBJECTIVES
Upon completion, participants should be familiar with the broad spectrum of CNS inflammatory diseases, acute and chronic myelopathies, and the differential diagnosis of these conditions.

RECOMMENDED AUDIENCE
General Neurologists, Multiple Sclerosis Specialists

CORE COMPETENCIES
Patient Care; Medical Knowledge

SCHEDULE
8:00  Inflammatory CNS Disorders
     Bruce A. C. Cree, MD, PhD, MCR  San Francisco, CA
8:40  Inherited White Matter Disease
     Adeline Vanderver, MD  Washington, DC
9:20  Break
9:35  Encephalitis and Neurosarcoidosis
     Jeffrey M. Gelfand, MD, MAS  San Francisco, CA
10:15 Approach to Myelitis
      Dean M. Wingerchuk, MD, FAAN  Scottsdale, AZ
10:55 Questions and Answers
      Faculty
Directors
Heidi B. Schwarz, MD, FAAN Canandaigua, NY

Program Description
This program will explore different models of teleneurology from the perspective of business structure, patient selection, staffing, and information technology.

Learning Objectives
Upon completion, participants should be able to:
– Define the role of teleneurology for patient care
– Compare business models for teleneurology
– Identify opportunities for implementation of teleneurology

Recommended Audience
Neurologists, Advanced Practice Providers, Practice Managers, Residents, and Fellows

Core Competencies
Patient Care; Interpersonal and Communication Skills; Practice-based Learning and Improvement; Professionalism; Systems-based Practice

Schedule
11:30 The Case for Teleneurology/Private Teleneurology Model
Heidi B. Schwartz, MD, FAAN Canandaigua, NY

12:15 Telestroke Networks: The Hub and Spoke Model
Lawrence R. Wechsler, MD, FAAN Pittsburgh, PA

1.5 CME
Friday, January 23
11:30 a.m.–1:00 p.m.
**DIRECTOR**
Mark Tuszynski, MD, PhD  San Diego, CA

**PROGRAM DESCRIPTION**
Proteinopathies are diseases that result from disorders of protein synthesis, trafficking, folding, processing, or degradation in cells. An exciting new body of research suggests that proteinopathies may constitute prime mechanisms for neurodegeneration of neurons in Parkinson’s disease, Alzheimer’s disease, ALS, Huntington’s, and other disorders. Moreover, proteinopathies may provide mechanisms for spread of these diseases through the brain. This session will review work in proteinopathies and how this knowledge is leading to new therapies.

**LEARNING OBJECTIVES**
Upon completion, participants should be able to understand what proteinopathies are, how they relate to neurological disorders, and how they are being targeted in the development of new therapeutics.

**RECOMMENDED AUDIENCE**
Clinicians and Researchers Interested in Basic Disease Mechanism and Therapeutic Development

**SCHEDULE**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
<th>Location</th>
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<tbody>
<tr>
<td>1:00</td>
<td>Introduction</td>
<td>Mark Tuszynski, MD, PhD</td>
<td>San Diego, CA</td>
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<tr>
<td>1:05</td>
<td>Proteinopathy Mechanisms in Models in ALS</td>
<td>Aaron Gitler, PhD</td>
<td>Stanford, CA</td>
</tr>
<tr>
<td>1:55</td>
<td>Proteinopathy Mechanisms in Models in Parkinson’s Disease</td>
<td>Eliezer Masliah, MD</td>
<td>San Diego, CA</td>
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<tr>
<td>2:45</td>
<td>Break</td>
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<tr>
<td>3:00</td>
<td>Proteinopathy Mechanisms in Models in Tauopathies</td>
<td>Marc Diamond, MD</td>
<td>St. Louis, MO</td>
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<tr>
<td>3:50</td>
<td>Panel Discussion</td>
<td>Faculty</td>
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**RECOMMENDED COMPANION COURSE**
Alzheimer Disease, Lewy Body Disease, and Frontotemporal Dementia: Clinical Features, Biomarkers, Neuroimaging, Genetics, and Pathology: A Multidisciplinary Approach
Integrated Neuroscience Session: Breakthroughs in Epilepsy: New Insights for Causes and Treatments

DIRECTOR
Edward H. Bertram, MD  Charlottesville, VA

PROGRAM DESCRIPTION
There have been a number of scientific and technical advances in the last decades that have altered our understanding of the causes of epilepsy and, as a result, our diagnostic and therapeutic approaches. In this session, faculty will examine three areas in which breakthroughs have had clear impact on diagnosing the epilepsies and developing more specific and effective therapy. These three areas are 1) the recognition of the role that autoimmunity plays in a number of types of epilepsy as well as in some cases of status epilepticus, 2) the revolution in neuroimaging that has revealed many unrecognized causes of intractable epilepsy and has made surgery possible for many more people with intractable epilepsy, and 3) the introduction of the different forms of brain stimulation that may provide new therapeutic options for people with intractable epilepsy. Faculty also will review the key laboratory discoveries that made these breakthroughs possible.

LEARNING OBJECTIVES
Upon completion, participants should be able to learn to recognize and diagnose when seizures result from autoimmunity and how to direct therapy; understand how new imaging technologies alter the approach to treating patients with epilepsy; determine if and when brain stimulation is appropriate for a patient with epilepsy; and understand key scientific breakthroughs that led to these advances.

RECOMMENDED AUDIENCE
Neurologists, Neurosurgeons, Trainees, and General Practitioners with an Interest in Epilepsy

SCHEDULE

1:00  Autoimmunity in Epilepsy and Status Epilepticus
Jeffrey W. Britton, MD  Rochester, MN

1:55  Epilepsy in the New World of Neuroimaging
William D. Gaillard, MD  Washington, DC

2:50  Break

3:05  Brain Stimulation: The New Frontier in Epilepsy Treatment
Andrew J. Cole, MD, FRCP(C)  Boston, MA

Algorithms in the Diagnosis and Treatment of Seizures, Seizure Emergencies, and Epilepsy

RECOMMENDED COMPANION COURSE  – Page 5

3 CME
Friday, January 23
1:00 p.m.–4:00 p.m.
DIRECTOR
Eric Klawiter, MD  Boston, MA

PROGRAM DESCRIPTION
In recent years, the FDA has approved three new oral therapies for relapsing-remitting multiple sclerosis. There are several other treatments for MS that are in the midst of or have completed phase III clinical trials. Additional emerging therapeutics are currently at varying stages of the drug development pipeline. Faculty will discuss the current treatment options, focusing on clinical trial efficacy, side effect profiles, and risk stratification and monitoring. In a case-based interactive format, faculty will discuss how treatment selection is made in individual patients. Additionally, the session will cover treatment of progressive MS.

LEARNING OBJECTIVES
Upon completion, participants should be familiar with new and emerging therapeutics for MS. They should be equipped to improve their management of patients with MS.

RECOMMENDED AUDIENCE
Neurologists and Other Health Care Professionals responsible for the Diagnosis, Treatment, or Management of Patients with Multiple Sclerosis

SCHEDULE

1:00  Treating Relapsing MS: Choosing Among the Options  
Myla Goldman, MD  Charlottesville, VA

1:45  Treating Relapsing MS: Risk Stratification and Mitigation  
Bruce A. C. Cree, MD, PhD, MCR  San Francisco, CA

2:30  Break

2:45  Is No Evidence of MS Disease Activity an Achievable Goal?  
Robert A. Bermel, MD  Cleveland, OH

3:15  Advances in Understanding and Treating of Progressive MS  
Robert J. Fox, MD, FAAN  Cleveland, OH

Integrated Neuroscience Session: Emerging Therapeutic Advances in Multiple Sclerosis

3 CME
Friday, January 23
1:00 p.m.–4:00 p.m.
Plenary Session: Neurology Year in Review

PROGRAM DESCRIPTION
This plenary session will feature five speakers, each focusing on the latest research that has happened in the last year within a specific subspecialty topic.

MODERATOR
Natalia Sana Rost, MD, FAAN
Massachusetts General Hospital
Boston, MA
Vice Chair, Science Committee

SPEAKERS

Multiple Sclerosis
Anne H. Cross, MD
Washington University School of Medicine
St. Louis, MO

Neuromuscular
Robert C. Griggs, MD, FAAN
University of Rochester
Rochester, NY

Movement Disorders
Kathleen M. Shannon, MD
Rush University Medical Center
Chicago, IL

Neurocritical Care
David M. Greer, MD
Yale University School of Medicine
New Haven, CT

Alzheimer’s Disease
Todd E. Golde, MD, PhD
University of Florida College of Medicine
Gainesville, FL

1.25 CME
Friday, January 23
4:00 p.m.–5:30 p.m.
Prevention of Cardioembolic Stroke in Patients with Nonvalvular Atrial Fibrillation: Balancing the Evidence and Patient Preferences

DIRECTOR
Jose G. Merino, MD, MPhil
Bethesda, MD

PROGRAM DESCRIPTION
This program will provide a review of strategies to diagnose NVAF in patients with stroke and therapeutic alternatives for stroke prevention. Emphasis will be placed on strategies to identify patients at high risk of recurrent stroke and of complications from treatment, and ways to engage patients in shared decision-making. Faculty will review the evidence for long-term cardiac monitoring and the use of warfarin and new oral anticoagulants in stroke patients.

LEARNING OBJECTIVES
Upon completion, participants should be able to:

– Understand the clinical situations that warrant long-term cardiac monitoring
– Identify the different options for long-term outpatient cardiac monitoring
– Describe the evidence that supports the use of warfarin and other oral anticoagulants to prevent recurrent stroke
– Use risk scores to identify patients most and least likely to benefit or be harmed from anticoagulation for stroke prevention
– Engage patients in the decision of which prophylactic agent to use based on their preferences

RECOMMENDED AUDIENCE
Practitioners, Academicians, Residents, and Fellows

CORE COMPETENCIES
Patient Care; Medical Knowledge; Interpersonal and Communication Skills; Practice-based Learning and Improvement; Professionalism; Systems-based Practice

SCHEDULE

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>8:00</td>
<td>Diagnosing NVAF for Stroke Prevention</td>
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<tr>
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<td>Richard A. Bernstein, MD, PhD Chicago, IL</td>
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<tr>
<td>8:40</td>
<td>Using Risk Scores to Identify Patients for Treatment and Use of Anticoagulants in Special Populations</td>
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<td>Oscar R. Benavente, MD, FRCP(C) Vancouver, BC, Canada</td>
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<tr>
<td>9:20</td>
<td>Break</td>
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<tr>
<td>9:40</td>
<td>Anticoagulants in the Prevention of Stroke in Patients With NVAF</td>
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<td>Mitchell S. V. Elkind, MD, MS, FAAN New York, NY</td>
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<tr>
<td>10:20</td>
<td>Engaging Patients in Shared Decision-making About Stroke Prevention</td>
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<td></td>
<td>Jose G. Merino, MD, MPhil Bethesda, MD</td>
</tr>
</tbody>
</table>

3 CME
Saturday, January 24
8:00 a.m.–11:00 a.m.

RECOMMENDED COMPANION COURSE
Integrated Neuroscience Session: New Antithrombotic Agents in Stroke Prevention
PROGRAM DESCRIPTION
This program will focus on clinically important sleep disorders related to circadian rhythm disturbances. The educational program will include a review of current knowledge about sleep/wake regulation followed by discussions of three common sleep disorder types in which this regulation is disrupted. Each topic will include up-to-date reviews that are relevant to practicing neurologists, as well as to scientists who want to integrate the clinical disorders with the underlying pathophysiology. Case studies will be presented.

LEARNING OBJECTIVES
Upon completion, participants should be able to:

- Explain the anatomy and mechanisms of sleep/wake regulation
- Describe common circadian rhythm disturbances including delayed and advanced sleep phase disorders, shift work type sleep disorders, jet lag, and circadian disorders due to drugs and medical conditions
- List the features of narcolepsy and explain diagnosis and treatment approaches
- Discuss the clinical evaluation and differential diagnosis of sleep apnea

RECOMMENDED AUDIENCE
Academic and Practicing Neurologists, Clinical Researchers, Basic Science Researchers with an Interest in the Field

CORE COMPETENCIES
Patient Care; Medical Knowledge; Practice-based Learning and Improvement
**Directors**

David W. Dodick, MD  Phoenix, AZ

**Program Description**

This program is intended for practitioners who evaluate and manage patients with headache in clinical practice. The program will translate today’s discoveries into today’s and tomorrow’s clinics by providing an update on new treatment targets and modalities which are emerging or have recently become available for therapeutic use. The program will also bring together the most authoritative experts to discuss the management of some of the most challenging primary and secondary headache disorders that clinicians face in practice. A multidimensional education platform including didactic lectures, case presentations, panel discussions, and audience interaction will be used to enhance the educational experience, achieve the educational objectives, and maximize the learner’s ability to translate the acquired knowledge into clinical practice to improve patient outcomes.

**Learning Objectives**

Upon completion, participants should be able to describe the preclinical evidence and recent clinical trial outcomes which support calcitonin gene-related peptide and its receptor as a high value treatment target for migraine treatment; discuss the evidence from preclinical, recent clinical trial, and post-approval studies that supports the utility of peripheral neurostimulation modalities for the treatment of migraine and other primary headache disorders; and manage patients with idiopathic intracranial hypertension, intracranial hypotension from CSF leaks, and chronic headache disorders, including chronic migraine and chronic trigeminal autonomic cephalalgias.

**Recommended Audience**

Neurologists, Neuroscientists

**Schedule**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</table>
| 8:00  | Near Horizon: A New Era in Migraine Treatment: CGRP as a Disease-specific Target  
        David W. Dodick, MD  Phoenix, AZ |
| 8:40  | Intracranial Hypotension and Hypertension: Clinical Pearls on Diagnosis and Management  
        Deborah I. Friedman, MD, FAAN  Dallas, TX  
        Bahram Mokri, MD, FAAN  Rochester, MN |
| 9:30  | Break                                                                |
| 9:45  | Chronic Headache: State-of-the-art and Challenging Cases             |
|       | Stewart J. Tepper, MD  Cleveland, OH                                  |
| 10:30 | Roundtable: Ask the Expert Panel                                    |
|       | Faculty                                                              |

**Core Competencies**

Patient Care; Medical Knowledge; Interpersonal and Communication Skills; Practice-based Learning and Improvement; Professionalism; Systems-based Practice

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**Recommended Companion Course**

Integrated Neuroscience Session: Emerging Therapies in Headache

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3 CME

Saturday, January 24

8:00 a.m.–11:00 a.m.
DIRECTOR
Joseph V. Fritz, PhD  Amherst, NY

PROGRAM DESCRIPTION
Surveys are consistently demonstrating that neurologists are among the least satisfied and most poorly compensated physicians. The percentage of independent group practice neurologists has been steadily declining, and more than half the available neurology residency slots are unfilled. Despite exciting breakthroughs in medicine that will require the neurologist’s skill, there is expected to be a significant shortfall in the number of physicians available to address the nation’s need.

The purpose of this course is to review essential business methodologies that help to minimize the impact of nonmedical overload that has become a root cause for physicians’ dissatisfaction, while maximizing the neurologist’s opportunity for a productive clinical schedule and appropriate compensation.

Marketing (outreach) strategies, business operations that include efficient workflow and billing concepts, the use of nonphysician providers, comprehensive programs that integrate relevant ancillary services, and legal considerations will be discussed.

LEARNING OBJECTIVES
Upon completion, participants should understand:

– Effective patient recruitment strategies, payer and referring provider relationships, and patient access
– Benefits and best-practice implementation of non-physician providers
– What, when, and how to implement ancillary services
– Legal issues and how to implement an effective compliance program

RECOMMENDED AUDIENCE
Providers and Managers Responsible for Operating a Neurology Practice

CORE COMPETENCIES
Practice-based Learning and Improvement; Systems-based Practice
DIRECTOR
Natalia Sana Rost, MD, FAAN  Boston, MA

PROGRAM DESCRIPTION
Despite advances in management of acute stroke, prevention of ischemic and hemorrhagic cerebrovascular disease remains a challenge. Novel oral anticoagulants (NOACs), a new class of drugs recently approved for prevention of strokes in atrial fibrillation, hold promise of an effective and safe therapy. This didactic interactive program will dissect the biological rationale and clinical evidence for use of NOACs in stroke prevention. Practical use of NOACs in real-life case scenarios and managing associated challenges will be discussed by the experts. Clinical science for future use and research ideas will be presented, and the participants will engage actively in testing their knowledge of NOAC’s use.

LEARNING OBJECTIVES
Upon completion, participants should:

– Understand the biological, pharmacological, and clinical rationale for the NOAC’s use in stroke prevention
– Review the opportunities and challenges of NOAC’s use for stroke prevention
– Understand the principles of management of thrombotic and hemorrhagic complications in patients using NOACs
– Review the potential future use of NOACs in stroke treatment and prevention

RECOMMENDED AUDIENCE
General Neurologists, Vascular Neurologists, Trainees, Acute Stroke Program Directors, Stroke Nurses

SCHEDULE

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
</tr>
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<tbody>
<tr>
<td>1:00</td>
<td>Introduction &amp; Challenging Cases</td>
<td>Natalia Sana Rost, MD, FAAN  Boston, MA</td>
</tr>
<tr>
<td>1:15</td>
<td>NOACs: Biology, Pharmacology, and Evidence for Clinical Use</td>
<td>Natalia Sana Rost, MD, FAAN  Boston, MA</td>
</tr>
<tr>
<td>1:45</td>
<td>Challenges and Opportunities in Clinical Use of NOACs</td>
<td>David M. Greer, MD  New Haven, CT</td>
</tr>
<tr>
<td>2:15</td>
<td>Management of Thrombotic and Bleeding Complications</td>
<td>Jose Biller, MD, FAAN, FACP, FAHA   Chicago, IL</td>
</tr>
<tr>
<td>2:45</td>
<td>Future of NOACs: Potential Clinical and Research Use</td>
<td>Mitchell S. V. Elkind, MD, MS, FAAN  New York, NY</td>
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<tr>
<td>3:15</td>
<td>Challenging Cases</td>
<td>Natalia Sana Rost, MD, FAAN  Boston, MA</td>
</tr>
<tr>
<td>3:25</td>
<td>Moderated Expert Panel Questions and Answers</td>
<td>Faculty</td>
</tr>
</tbody>
</table>
DIRECTOR
Morris Levin, MD, FAAN  San Francisco, CA

PROGRAM DESCRIPTION
Headache—migraine in particular—is the single most common neurological condition in the world, responsible for a huge degree of suffering and disability. A number of treatment options for migraine and its subtypes have emerged but, sadly, numerous patients continue to be therapeutic challenges. Reasons for this include incorrect or partial diagnosis and failure to consider and treat important comorbid medical and psychiatric conditions. This program will provide participants information about current effective treatment options as well as newer proposed treatments.

LEARNING OBJECTIVES
Upon completion, participants should:

– Be able to review headache classification and diagnostic pitfalls to avoid
– Be able to discuss common psychiatric and other headache and migraine comorbidities, as well as their treatment implications
– Be conversant with new pharmacological developments in headache medicine
– Have a better understanding of the use and benefits of anesthetic and toxin injections in headache medicine, as well as proposed surgical interventions for headache
– Be able to describe the various neuromodulation techniques that have been shown to be effective in headache disorders as well as some others that are being studied

RECOMMENDED AUDIENCE
Practicing Neurologists, Neurology Residents, Pain Medicine Specialists

SCHEDULE
1:00 Introduction and Overview of Challenges in HA Classification and Diagnosis
Morris Levin, MD, FAAN  San Francisco, CA

1:15 Comorbidities as Treatment Guides
Steven Baskin, PhD  Greenwich, CT

1:55 Pipeline Pharmacological Treatment for HA
Alan M. Rapoport, MD, FAAN  Woodside, CA

2:25 Injections and Surgical Options for HA
Carol Bernstein, MD  Brookline, MA

3:05 Neuromodulation for HA
Morris Levin, MD, FAAN  San Francisco, CA

3:45 Questions and Answers
Faculty

Integrated Neuroscience Session: Emerging Therapies in Headache

3 CME
Saturday, January 24
1:00 p.m.–4:00 p.m.
PROGRAM DESCRIPTION
The regulation of sleep and wake states is a major function of the nervous system and has a profound influence on its activity in health and in disease. The propensity for sleep and wake are regulated by a complex interaction of the sleep homeostatic and circadian clock systems. Sleep and circadian timing are essential in modulating neural function. Recent landmark advances in our understanding of the neurocircuitry and molecular mechanisms underlying the generation of sleep and circadian rhythms have led to improved understanding of their role in the expression and treatment of neurological disorders. This program will focus on the bidirectional relationship between circadian and sleep dysregulation and neurological disorders. Presentations will feature recent exciting findings of the role of sleep and circadian timing in neurodegenerative disorders (Alzheimer’s disease, Parkinson’s disease, Huntington’s disease), restless legs syndrome, and epilepsy.

LEARNING OBJECTIVES
Upon completion, participants should be able to:

- Understand the role of sleep and circadian rhythmicity in Alzheimer’s disease
- Discuss how circadian dysregulation and impaired sleep-wake cycle impact Parkinson’s and Huntington’s disease
- Identify circadian rhythms disturbances in Restless Legs Syndrome
- Understand the role of sleep and circadian rhythmicity in epilepsy
- Discuss strategies to improve circadian function in neurological disorders

RECOMMENDED AUDIENCE
Academic and Practicing Neurologists, Clinical Researchers, Basic Science Researchers with an Interest in the Field

SCHEDULE

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:00</td>
<td>Introduction</td>
<td>Aleksandar Videnovic, MD, MSc</td>
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<tr>
<td>1:15</td>
<td>Circadian Misalignment and Sleep Disruption in Dementia</td>
<td>Yo-El Ju, MD</td>
</tr>
<tr>
<td>1:50</td>
<td>Circadian and Sleep Dysregulation in Movement Disorders</td>
<td>Aleksandar Videnovic, MD, MSc</td>
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<tr>
<td>2:25</td>
<td>Break</td>
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<tr>
<td>2:35</td>
<td>Restless Legs Syndrome as a Circadian Disorder</td>
<td>William G. Ondo, MD, Houston, TX</td>
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<tr>
<td>3:10</td>
<td>Circadian Rhythms and Sleep in Epilepsy</td>
<td>Mark S. Quigg, MD, Charlottesville, VA</td>
</tr>
<tr>
<td>3:45</td>
<td>Panel Discussion</td>
<td>Faculty</td>
</tr>
</tbody>
</table>

CORE COMPETENCIES
Patient Care; Medical Knowledge; Practice-based Learning and Improvement

RECOMMENDED COMPANION COURSE
Sleep Principles Applied to Neurological Disease
Plenary Session: Controversies in Neurology

PROGRAM DESCRIPTION
The program features experts discussing the most current and controversial issues in neurology. It is set up as a debate format in which two speakers argue one side of a single topic, followed by a rebuttal. Each round concludes with a 5-minute question and answer period.

MODERATORS
Mark Tuszynski, MD, PhD
University of California - San Diego
San Diego, CA
Member, Science Committee

Walter A. Rocca, MD, MPH
Mayo Clinic
Rochester, MN
Member, Science Committee
Chair, Clinical Research Subcommittee

TOPICS

Does Preventing Relapses Protect Against Progressive MS?

Pro
Michael Hutchinson, MD, FRCP
University College
Dublin, Ireland

Con
Helen Tremlett, PhD, BPharm
University of British Columbia,
Vancouver, BC, Canada

Is Intervention for Asymptomatic AVM Useful?

Pro
Robert M. Friedlander, MD
UPMC Presbyterian,
Pittsburgh, PA

Con
J. P. Mohr, MD, FAAN
Columbia University, New York, NY

Should Neurologists Prescribe Marijuana for Neurological Disorders?

Pro
Barbara S. Koppel, MD, FAAN
Metropolitan Hospital, Rye, NY

Con
John C. M. Brust, MD, FAAN
Columbia University, New York, NY
DIRECTOR
Ericka P. Simpson, MD, Houston, TX

PROGRAM DESCRIPTION
This is a one day program within the Breakthroughs in Neurology Conference. The agenda for the program includes eight 45 minute presentations given by invited speakers with expertise or specialization in the topics presented. The majority of speakers have taken and passed the recertification examination. The areas of neurology that will be covered include those that are both heavily weighted on the ABPN examination and those areas that have recently been added to the examination, including interpersonal and communication issues, systems-based practice issues, diagnostic procedures, and neuromuscular rehabilitation. In addition, information will be presented during a working lunch by representatives from the ABPN and AAN on the new requirements for admission to the Maintenance of Certification (MOC) examination and enrollment in the Continuous Maintenance of Certification (C-MOC) after recertification.

The program will incorporate pre-test questions for each presentation to assist attendees in identifying areas that require focused study. Presentations and syllabus materials will be provided and include resources for ongoing study and review. Attendees will also have the opportunity to take a short post-test examination based on the content of the program up to 60 days after the program.

LEARNING OBJECTIVES
Upon completion, participants should:

- Be able to identify areas of neurology that require more focused study and review in preparation for the recertification examination
- Be able to self-assess knowledge after completion of the educational program to further focus study and review
- Understand the new requirements for MOC examination admission and continuing maintenance of examination including completion of CME credits, self-assessment activities, and completion of an Improvement in Medical Practice (PIP) unit
- Demonstrate improved competency and performance in clinical practice and patient outcomes based upon application of new and reviewed information derived from the educational program in their clinical practice, as well as for successful recertification and continued maintenance

SCHEDULE
7:45 Introduction
Ericka P. Simpson, MD, Houston, TX

8:00 Movement Disorders
William G. Ondo, MD, Houston, TX

8:45 Epilepsy
Katharine H. Noe, MD, PhD, Phoenix, AZ

9:30 Aging/Dementia
John M. Ringman, MD, Los Angeles, CA

10:15 Break

10:30 CVA
David Chiu, MD, Houston, TX

11:15 Questions and Answers
Faculty

11:45 MOC Certification Resources
Faculty

12:30 Neuromuscular Junction
Vern C. Juel, MD, FAAN, Durham, NC

1:15 Demyelinating/CNS Inflammatory Disease
George J. Hutton, MD, Houston, TX

2:00 Break

2:15 Headache and Pain
Amaal J. Starling, MD, Phoenix, AZ

3:00 Critical Illness/Trauma/Neuroinfection
John J. Volpi, MD, Houston, TX

3:45 Ethics, Systems-based Practice, Interpersonal Communication, and Neuro-rehabilitation
Joseph S. Kass, MD, JD, Houston, TX

4:30 Questions and Answers
Faculty

5:00 Exam Taking Skills
Faculty

RECOMMENDED AUDIENCE
Board Certified General Neurologists and Specialist Neurologists

CORE COMPETENCIES
Patient Care; Interpersonal and Communication Skills; Medical Knowledge; Systems-based Practice; Practice-based Learning and Improvement

The AAN is not affiliated with the ABPN or the ABPN MOC Exam. The AAN makes no guarantees or warranties that participants will pass the exam by attending this course. No refunds will be issued.
Credit and Disclosures

ACCREDITATION
The American Academy of Neurology Institute (AANI) (the education subsidiary of the AAN) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

AMA CREDIT DESIGNATION
The AANI designates this live activity for a maximum of 28.25 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

CERTIFICATES FOR NON-PHYSICIANS
Non-physicians participating in the programs will receive an acknowledgement of participation indicating attendance at an activity designated for AMA PRA Category 1 Credit™.

ABPN STATEMENT
The American Board of Psychiatry and Neurology has reviewed the AAN Breakthroughs in Neurology Conference and has approved this product as a part of a comprehensive lifelong learning program which is mandated by the ABMS as a necessary component of maintenance of certification.

EDUCATION DISCLAIMER
The primary purpose of the AAN Breakthroughs in Neurology Conference is to provide educational programs. Information presented, as well as publications, technologies, products and/or services discussed, are intended to inform attendees about the knowledge, techniques, and experiences of physicians who are willing to share such information with colleagues. A diversity of opinions exists in the medical field, and the view of the program’s faculty is offered solely for educational purposes. Faculty members’ views represent neither those of the AAN/AANI nor constitute endorsement by the AAN/AANI. The AAN/AANI disclaims any and all liability for all claims which may result from the use of information, publications, products, and/or services discussed at the AAN Breakthroughs in Neurology Conference.

FACULTY’S DISCLOSURE OF COMMERCIAL RELATIONSHIPS
Consistent with the AAN/AANI and ACCME policies, faculty must disclose any significant financial or other relationship with the manufacturer(s) of any commercial product(s) or service(s) discussed in their presentation.

This policy is intended to make participants aware of all speakers’ financial or other relationship(s), so that attendees may form their own judgments about material discussed during the educational activity. Full disclosure of faculty’s commercial relationships will appear in the individual program materials. All faculty must sign an AANI letter of agreement stating explicitly that they understand and will adhere to ACCME and AANI Disclosure Statement guidelines that require full disclosure of commercial relationships, unlabeled use of products, and identification of data sources.

UNLABELED USE DISCLOSURE
The AANI requires all faculty members to disclose if a product is not labeled for the use being discussed or that the product is still investigational. Such disclosures will appear in the individual program materials.
Hotel Information

Hotel Reservation Deadline
December 19, 2014

Reservations
(800) 947-9784

Pointe Hilton Tapatio Cliffs Resort
11111 North 7th Street
Phoenix, AZ 85020

Website
AAN.com/view/BNCHotel

• Enjoy a spectacular view of the city from one of the best fine dining restaurants in Phoenix at the resort restaurant, Different Pointe of View
• Relax at the Falls Water Village with 40-foot waterfall, two massive, free-form pools, 138-foot enclosed waterslide—and plenty of sun-drenched terraces for lounging
• Pamper yourself at Tocaloma Spa and Salon, with specialists using only the finest ingredients indigenous to the southwest
• Explore the award-winning, on-site golf course stretching along the colorful Sonoran Desert below the peaks of the Phoenix North Mountain Preserve

SPECIAL RATES AND ROOM RESERVATION DEADLINE
The AAN has negotiated a sleeping room rate of: $185.00 single/double, plus tax. There is a charge of $15.00 for any third or fourth additional adult 18 years of age or older. Maximum number of persons per room is four (4). The resort charge per room, per night has been waived for conference attendees. Conference attendees will receive the following complimentary: unlimited high speed internet access for up to two devices, unlimited local and 1-800 telephone calls, valet parking, tennis court access, driving range privileges, 10% discount on apparel in the Lobby Gift Shoppe, Golf Pro Shoppe, or the Falls Water Village Shoppe, 20% discount on select spa services at Tocaloma Spa & Salon, 50% discount at the Lookout Mountain Golf Club practice tee, and admittance into the Falls Water Village for up to four guests. Participants must identify themselves as being with the AAN Breakthroughs in Neurology Conference to receive the special rate.

ATTIRE
Dress for the Breakthroughs in Neurology Conference is casual. Since meeting room temperatures and personal comfort levels vary, a light sweater or jacket is recommended for the educational activities.

RESERVATION DEADLINE 5:00 P.M., PST, DECEMBER 19, 2014
In order to confirm a room assignment, the first night’s room and tax will be required which is refundable up to 48 hours in advance of the convention date. Checks and major credit cards are acceptable to establish prepayment. All credit cards used to prepay will be charged immediately. Check in time is 4:00 p.m. and check out time is 11:00 a.m. The Pointe Hilton Tapatio Cliffs Resort will require a credit card or cash deposit upon check-in for incidental charges.
**REGISTER AND PAY ONE OF THREE WAYS:**

**AAN.com/view/breakthroughs · aanbnreg@cmrus.com · (800) 676-4226 (US/Canada) · (415) 979-2283 (Int’l)**

**AAN/CMR Registration**
33 New Montgomery, Suite 1100
San Francisco, CA 94105

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**Early Registration Deadline: December 19**

<table>
<thead>
<tr>
<th>Registration + Exam Preparation Course (FRI–SUN)</th>
<th>12/20/14–1/21/15</th>
<th>1/22/14–1/25/15</th>
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</thead>
<tbody>
<tr>
<td><strong>Junior / Non-neurologist Member</strong></td>
<td>$698 / person</td>
<td>$1,098 / person</td>
</tr>
<tr>
<td>Includes Student, Interns, Junior, Business Administrator, Research Scientist, Research Scientist Fellow, Research Coordinators, Nurse Practitioner / Physician Assistant, and Non-neurologist Clinicians</td>
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</tr>
<tr>
<td><strong>Member Neurologist</strong></td>
<td>$1,098 / person</td>
<td>$1,498 / person</td>
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<td>Includes Honoraty, Senior, Fellow, Active, and Associate</td>
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<tr>
<td><strong>Nonmember Neurologist</strong></td>
<td>$1,698 / person</td>
<td>$2,098 / person</td>
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<tr>
<th><strong>General Registration (FRI–SAT)</strong></th>
<th>12/20/14–1/21/15</th>
<th>1/22/14–1/25/15</th>
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<tbody>
<tr>
<td><strong>Junior / Non-neurologist Member</strong></td>
<td>$399 / person</td>
<td>$699 / person</td>
</tr>
<tr>
<td>Includes Student, Interns, Junior, Business Administrator, Research Scientist, Research Scientist Fellow, Research Coordinators, Nurse Practitioner / Physician Assistant, and Non-neurologist Clinicians</td>
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<tr>
<td><strong>Member Neurologist</strong></td>
<td>$799 / person</td>
<td>$1,099 / person</td>
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<td>Includes Honoraty, Senior, Fellow, Active, and Associate</td>
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<tr>
<td><strong>Nonmember Neurologist</strong></td>
<td>$1,399 / person</td>
<td>$1,499 / person</td>
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<tr>
<th><strong>Exam Preparation Course Only (SUN)</strong></th>
<th>12/20/14–1/21/15</th>
<th>1/22/14–1/25/15</th>
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</thead>
<tbody>
<tr>
<td><strong>All Member / Nonmember Types</strong></td>
<td>$699 / person</td>
<td>$799 / person</td>
</tr>
</tbody>
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**PAY BY CREDIT CARD**

Visit AAN.com/view/breakthroughs or call (800) 676-4226.

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**PAY BY MAIL**

Full payment in US funds must accompany registration form. Enclose a check made payable to the American Academy of Neurology Institute (AANI). Registrations will be processed according to date of receipt. Registrations received after December 19, 2014, will be processed at late registration rates.

AAN ID Number ___________________________ Degree ___________________________
First Name _____________________________ Last Name __________________________
Address 1 ________________________________
Address 2 (optional) ______________________
City __________________ State ______ Zip ________ Country _______________________
Phone __________________ Fax __________________ Email __________________
Check Number __________________

FedID# 41-0726167 AANI
Register by December 19 and save with early registration discounts.

January 23–25, 2015 • Phoenix, AZ
Pointe Hilton Tapatio Cliffs Resort

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(800) 676-4226 US/Canada
(415) 979-2283 International