

AMERICAN CLINICAL NEUROPHYSIOLOGY SOCIETY PRELIMINARY PROGRAM



2014 Annual Meeting & Courses

FEBRUARY 4-9, 2014

ATLANTA, GA

Westin Peachtree Plaza

www.acns.org





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TABLE OF CONTENTS

Message from the Course and Program Committee Co-Chairs	3
ACNS Information	4
ACNS Council	4
ACNS Course Committee	4
ACNS Program Committee	4
About ACNS	4
General Meeting Information	5-6
About the Annual Meeting & Courses	5
Important Dates	5
Atlanta Visitor Information	5
Headquarters Hotel & Housing Reservations	6
Registration Procedure	6
CME Information	7-8
Meeting Description	8
Annual Courses Learning Objectives	8
Annual Meeting Learning Objectives	8
Important Dates	8
Credit Designation	8
Call for Poster Abstracts	9
Young Investigator Travel Award	9
Program Overview	10
Program Agenda	12
Annual Courses	12
Annual Meeting	16
Annual Meeting & Courses Registration Form	21



MESSAGE FROM COURSE AND PROGRAM COMMITTEE CO-CHAIRS

Dear Colleagues,

On behalf of the American Clinical Neurophysiology Society (ACNS), we are thrilled to invite you to attend the 2014 Annual Meeting & Courses, taking place February 4-9, 2014 at the Westin Peachtree Plaza in Atlanta, Georgia.

The ACNS Annual Meeting & Courses are designed to provide a solid review of the fundamentals and the latest scientific advances in both central and peripheral clinical neurophysiology. Presentations at the Annual Meeting & Courses are given by leading experts in the field and have significant value for all health care professionals who utilize clinical neurophysiology.

The Course Committee has again placed a priority on increased audience interaction and course directors have developed creative ways to engage with attendees. One of those ways will be through the use of our new and improved Audience Response System, wherein you will have the opportunity to give us your feedback and interact with the session presentations in real-time.

This year, we are pleased to announce an addition of non-CME evening programs to the Course schedule. During the evening hours, delegates will have the opportunity to explore in depth the technologies and products available to assist them in developing state of the art neurophysiology programs. Companies will have the opportunity to extend these conversations beyond the exhibit hall and to interact with delegates in a more hands-on environment. We urge you to be a part of it.

The Program Committee received a large number of impressive session proposals and it was truly very difficult to choose among them. We're confident that those that were chosen will make up an outstanding Scientific Program so we encourage you to review the schedule of symposia, workshops, and special interest groups.

To kick-off each day, we've planned a number of plenary sessions, featuring our very own President, Frank W. Drislane, MD; David Burke, MD, Professor and Chair of Rehabilitation Medicine at Emory Clinic in Atlanta; and Rodolfo Llinas, MD, PhD, a pioneer in many aspects of neuroscience. In addition to the plenary talks, we look forward to presenting the 2014 Pierre Gloor Award to Ronald Emerson, MD and the Herbert H. Jasper Award to Ernst Rodin, MD.

Of course, no ACNS Annual Meeting would be complete without the excitement of the "Neurophys Bowl," the educational interactive-game. The Annual Neurophys Bowl is a mainstay of the Annual Meeting program, allowing members and delegates a chance to challenge their knowledge of clinical neurophysiology in a competitive format. Don't forget to sign up your team and have some fun!

We promise you, this dynamic Scientific Program has more choices than ever:

- More parallel sessions including talks on EEG, EMG and intraoperative monitoring;
- A number of opportunities for networking, including the Professional Development Mentorship Program (see page 11) and Welcome Reception.

The ACNS Annual Meeting & Courses provides an ideal opportunity to learn, network and socialize with your colleagues, while also having the chance to see the latest equipment on display in the Exhibit Hall. We are certain that these opportunities, diverse course offerings, symposia, hands-on workshops, and special interest groups will ensure that whether your focus is in central or peripheral neurophysiology you will find much of interest and utility to your practice at this year's ACNS Annual Meeting & Courses.

Join your colleagues and friends in warm, sunny Atlanta for a great educational experience and a break from the winter weather!

We hope to see you there,



Tobias Loddenkemper, MD
Course Committee Co-Chairs

and



William O. Tatum, DO



Suzette M. LaRoche, MD

and



Greg Worrell, MD

Scientific Program Committee Co-Chairs

ACNS Council

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Beth Israel Deaconess Medical Center

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Journal Editor

John Ebersole, MD
University of Chicago Medical Center

ACNS COURSE & PROGRAM COMMITTEES

2013-14 Course Committee

Co-Chairs:

Tobias Loddenkemper, MD
Children's Hospital Boston

William O. Tatum, DO
Mayo College of Medicine

Members:

Nicholas S. Abend, MD
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Yale University

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University of Michigan

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Beth Israel Deaconess Medical Center

Suzette M. LaRoche, MD
Emory University School of Medicine

Stephan U. Schuele, MD, MPH
Northwestern University

Greg Worrell, MD
Mayo Clinic Neurology

2013-14 Program Committee

Co-Chairs:

Suzette M. LaRoche, MD,
Emory University School of Medicine

Greg Worrell, MD
Mayo Clinic

Members:

Nicholas S. Abend, MD
Children's Hospital of Philadelphia

Judy Ahn-Ewing, R. EEG/EP T., CNIM,
CLTM, FASET, BA

St. John Providence Health

Anto Bagic, MD, PhD
University of Pittsburgh

Jane Boggs, MD
Wake Forest University

Jocelyn Cheng, MD
Drexel

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Jonathan C. Edwards, MD
Medical University of South Carolina

Ronald Emerson, MD
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Morris Fisher, MD
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Gloria Galloway, MD
Ohio State University

Cecil D. Hahn, MD, MPH
The Hospital for Sick Children

Mark Hallett, MD
National Institutes of Health

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Yale University

Aatif M. Husain, MD
Duke University Medical Center

Ekrem Kutluay, MD
MUSC

Jong Woo Lee, MD, PhD
Brigham & Women's Hospital

Alan D. Legatt, MD, PhD
Montefiore Medical Center

Tobias Loddenkemper, MD
Children's Hospital Boston

Jaime Lopez, MD
Stanford University

Fay McNall, MD, R. EEG T.
ASET

Suraj Muley, MD
St. Joseph's Hospital & Medical Center

Mark Ross, MD
Mayo Clinic Arizona

Mirela V. Simon, MD
Massachusetts General Hospital

Saurabh Sinha, MD, PhD
Duke University Medical Center

Cynthia V. Stack, MD
Lurie Children's Hospital

Adriana S. Tanner, MD
Mercy Health Saint Mary's

Francis O. Walker, MD
Wake Forest University

Courtney J. Wusthoff, MD
Stanford University

Ex-Officio:

Susan T. Herman, MD
Beth Israel Deaconess Medical Center

Stephan U. Schuele, MD, MPH
Northwestern University

William O. Tatum, DO
Mayo College of Medicine

About the American Clinical Neurophysiology Society (ACNS)

ACNS is a professional association dedicated to fostering excellence in clinical neurophysiology and furthering the understanding of central and peripheral nervous system function in health and disease through education, research, and the provision of a forum for discussion and interaction.

Founded in 1946 and originally named the American Electroencephalographic Society (AEEGS), ACNS is the major professional organization in the United States devoted to the establishment and maintenance of standards of professional excellence in clinical neurophysiology in the practice of neurology, neurosurgery and psychiatry. ACNS members utilize neurophysiology techniques in the diagnosis and management of patients with disorders of the nervous system and in research examining the function of the nervous system in health and disease.



GENERAL MEETING INFORMATION

About the Annual Meeting & Courses

The ACNS Annual Meeting & Courses are designed to provide a solid review of the fundamentals and the latest scientific advances in both “central” and “peripheral” clinical neurophysiology. Presentations at the Annual Meeting & Courses are given by leading experts in the field and have value for health care professionals who utilize clinical neurophysiology.

Sessions include symposia, workshops, courses and Special Interest Groups, featuring didactic lectures, expert panels, debates and interactive formats. Poster presentations at the Annual Meeting highlight the latest work conducted at clinical neurophysiology centers around the country.

The meeting also features a number of opportunities for networking, including a Professional Development Mentorship Program in which residents and fellow applicants are paired with senior ACNS members and provided dedicated time in the program to interact.

The Annual Neurophys Bowl is a mainstay of the Annual Meeting program, allowing members and delegates a chance to challenge their knowledge of clinical neurophysiology in a competitive format.

Atlanta Visitor Information

Nearest Airport:

Hartsfield Jackson International Airport (ATL)

Average February Temperatures:

High 60°, Low 38°

Atlanta is the ninth largest metropolitan area in the US and the largest city in the state of Georgia. The city played host to the 1996 summer Olympic games and is the global headquarters of corporations such as The Coca-Cola Company and Delta Air Lines.

As of 2010, Atlanta is the seventh-most visited city in the United States, with over 35 million visitors per year. Although the most popular attraction among visitors to Atlanta is the Georgia Aquarium, the world’s largest indoor aquarium, other attractions include the city’s history museums and outdoor attractions. Atlanta contains a notable number of historical museums and sites, including the Martin Luther King, Jr. National Historic Site, which includes the preserved boyhood home of Dr. Martin Luther King, Jr., as well as his final resting place; the World of Coca-Cola, featuring the history of the world famous soft drink brand and its well-known advertising; the Carter Center and Presidential Library, housing U.S. President Jimmy Carter’s papers and other material relating to the Carter administration and the Carter family’s life; and the Margaret Mitchell House and Museum, site of the writing of the best-selling novel *Gone With the Wind*.

Atlanta also contains various outdoor attractions. The Atlanta Botanical Garden, adjacent to Piedmont Park, is home to the Kendeda Canopy Walk, a skywalk that allows visitors to tour one of the city’s last remaining urban forests. The Canopy Walk is considered the only canopy-level pathway of its kind in the United States. Zoo Atlanta, located in Grant Park, accommodates over 1,300 animals representing more than 220 species. Home to the nation’s largest collections of gorillas and orangutans, the Zoo is also one of only four zoos in the U.S. to house giant pandas.

Guests to Atlanta are also drawn to the city’s culinary scene, which comprises a mix of urban establishments garnering national attention, ethnic restaurants serving cuisine from every corner of the world, and traditional eateries specializing in Southern dining.

Situated 10 miles south of downtown Atlanta, Hartsfield-Jackson Atlanta International Airport, the world’s busiest airport as measured by passenger traffic and aircraft traffic, offers air service to over 150 U.S. destinations and more than 80 international destinations in 52 countries. Delta Air Lines maintains its largest hubs at the airport.

The Metropolitan Atlanta Rapid Transit Authority (MARTA) provides public transportation in the form of buses and heavy rail connecting many key destinations, such as the airport, Downtown, Midtown, Buckhead, and Perimeter Center.

Important Dates

Advanced Registration Open	September 3, 2013
Housing Open	September 3, 2013
Poster Abstract Submission Open	September 3, 2013
Poster Abstract Submission Deadline	November 15, 2013
Poster Abstract Decision Notification	December 13, 2013
Housing Deadline	January 13, 2014
Advanced Registration Deadline	January 13, 2014
Registration Cancellation Deadline	January 20, 2014
Courses Handout Website Open	February 3, 2014
CME Certificate Program Opens (pre-registered delegates)	February 9, 2014
CME Certificate Program Opens (delegates registering onsite)	March 7, 2014
CME Certificate Claim Deadline	April 30, 2014
Courses Handout Website Closes	April 30, 2014

GENERAL MEETING INFORMATION — CONTINUED

Headquarters Hotel

The Westin Peachtree Plaza is the official meeting location for the 2014 Annual Meeting & Courses.

Westin Peachtree Plaza

210 Peachtree St NE

Atlanta, GA 30303

Phone: (404) 659-1400

Hotel Reservations: (888) 627-7087



Housing Reservations

A block of rooms has been reserved for ACNS Annual Meeting & Courses delegates at the Westin Peachtree Plaza. Reservations will be accepted on a space-available basis, at the standard hotel rate after the housing deadline of January 13, 2014. Please reserve your rooms before the deadline to take advantage of the group rate.

ACNS Group Rate: \$185/night; single/double occupancy

Group rate will be offered two days prior and two days following the dates of the Room Block, based on availability.

Housing Open: September 3, 2013

Housing Deadline: January 13, 2014

To make reservations online, visit the ACNS website and click the blue button: <http://www.acns.org/meetings/annual-meeting-and-courses/2014/registration> and you will automatically receive the ACNS group rate.

To make reservations by phone, call 1-888-627-7087 in the USA and Canada. If making reservations by phone, please be sure to indicate you are with the ACNS Annual Meeting to receive the group rate.

Registration Procedure

Online registration for the ACNS Annual Meeting & Courses is strongly encouraged. However, delegates may also register by completing and mailing or faxing the PDF Registration form available online, or on page 21.

To register online, visit the ACNS website and click the blue button at:

<http://www.acns.org/meetings/annual-meeting-and-courses/2014/registration>

All registrations will be confirmed via email. If you do not receive a confirmation within two weeks of submission, please contact the ACNS Executive Office at (414) 918-9803 or via email at info@acns.org.



CME INFORMATION

Educational Mission Statement

Purpose

The American Clinical Neurophysiology Society (ACNS) is a professional association dedicated to fostering excellence in clinical neurophysiology and furthering the understanding of central and peripheral nervous system function in health and disease through education, research, and the provision of a forum for discussion and interaction.

Content

ACNS is committed to providing continuing medical education to its members and others interested in clinical neurophysiology. Educational objectives include 1) Reviewing current knowledge of clinical neurophysiology including: electroencephalography, evoked potentials, electromyography, nerve conduction studies, intraoperative monitoring, polysomnography and other sleep technology, quantitative neurophysiological methods, magnetoencephalography, sleep disorders, epilepsy, neuromuscular disorders, brain stimulation, brain-computer interfacing, and related areas; and 2) Informing course and meeting attendees of recent technological developments and their implications for clinical practice.

Target Audience

The Society's educational activities are directed to clinical neurophysiologists, neurologists, psychiatrists, physiatrists, neurosurgeons, trainees in these disciplines and other physicians and researchers who utilize clinical neurophysiological techniques and knowledge in the diagnosis and management of patients with disorders of the nervous system.

Expected Result

Attendees will improve competence in clinical neurophysiology procedures and incorporate new technological advancements into their practice.

Gaps And Needs

In compliance with the Updated Accreditation Criteria of the Accreditation Council for Continuing Medical Education (ACCME), the Continuing Medical Education Committee of the ACNS has identified "professional practice gaps." Definition: A "professional practice gap" is the difference between what a health professional is doing or accomplishing compared to what is achievable on the basis of current professional knowledge.

The following professional practice gaps and educational needs were identified by a combined effort of the Program, Course and CME Committees.

Identified Gaps And Needs

Gap 1. Emerging Areas of Practice

Neurological intraoperative monitoring (NIOM) and intensive care unit EEG monitoring (ICU EEG) are new and rapidly evolving areas of clinical neurophysiology. Few practicing neurologists have adequate training in these techniques, and physicians with competence in these areas are in great demand. Educational activities should cover both basic methodologies for those practitioners new to ICU EEG and NIOM, and innovative techniques.

Gap 2. General Practice of Clinical Neurophysiology

Clinical neurophysiology procedures are performed by a large proportion of practicing US neurologists, many of whom have little or no formal training in clinical neurophysiology. Many clinical neurophysiology procedures (e.g. evoked potentials, invasive EEG) are performed at low volume at most centers, and a forum for review and hands-on interpretation are essential to maintain competence in these areas.

Several specific topics with significant gaps between current practice and ideal practice have been identified via review of the literature, review of clinical neurophysiology fellowship curricula, and surveys of ACNS members and Annual Meeting attendees.

These include:

- Peripheral neurophysiology, Pediatric EMG, critical illness related neurophysiology, and muscle ultrasound
- Basic EEG: Identification of normal variants, identification of artifacts, clinical correlation
- Pediatric EEG, especially neonatal EEG
- Digital EEG processing, e.g. quantitative EEG and trends for use in the intensive care unit, source localization, coregistration with neuroimaging, etc.
- Full band EEG, Ultrafast and ultraslow EEG
- NIOM: Motor evoked potentials, guidelines and standards of care for NIOM (e.g. indications, cost effectiveness)
- Evoked potentials: Current role of short-and long-latency EPs
- Video-EEG monitoring
- Sleep, Use of new scoring system, implications for patient care

Objectives

It is intended that, as a result of attending the meeting and/or courses, physician attendees will be able to identify changes in competence or performance that are desirable. Definitions: "Competence" is knowing how to do something. "Performance" is what the physician would do in practice, if given the opportunity.

Evaluation

The updated ACCME accreditation criteria are designed to integrate with the new requirements for maintenance of certification (for more information see www.ABPN.org). Physicians are expected to perform self assessments of their practice, but the ACNS, as an organization accredited by the ACCME, is expected to measure how its educational activities assist physicians in this activity. Thus, there are new questions in the evaluation form. These questions address your intended changes in competence or performance. In a few months, we will contact all physician meeting attendees to ask you if you actually HAVE experienced changes in competence or performance. Your responses, now and in the future, will assist us and ultimately you in determining educational activities that are most useful to you.

Policy On Financial Disclosures

It is the policy of ACNS to ensure balance, independence, objectivity and scientific rigor in all its individually sponsored or jointly sponsored educational programs. In order to comply with the ACCME's Updated Standards for Commercial Support, ACNS requires that anyone who is in a position to control the content of an educational activity discloses all relevant financial relationships with any commercial interest pertaining to the content of the presentation. Should it be determined that a conflict of interest exists as a result of a financial relationship of a planner of the CME activity, the planner must recuse himself or herself from the planning for that activity or relevant portion of that activity. All presentations for which the presenter disclosed a potential conflict of interest are peer reviewed by two members of the ACNS CME Committee with no relationships. If bias is found, the presenter is asked to make changes to the presentation and it is re-reviewed for bias before final approval. Refusal to disclose a conflict or the inability to resolve an identified conflict precludes participation in the CME activity. **Complete conflict of interest disclosure information is printed in the final program for the activity.**

CME INFORMATION — CONTINUED

Meeting Description

This year's scientific program will feature the latest scientific advances in clinical neurophysiology presented by leading national and international experts in the field. Increased audience interactivity will be a theme throughout all the programs, and session chairs are developing creative ways to engage with the audience. This dynamic program has more choices than ever. The parallel sessions will usually provide simultaneous sessions for interests in EEG, electrodiagnosis and monitoring. There will also be workshops and Special Interest Groups.

Annual Courses Learning Objectives

At the end of the Annual Courses, the learner should be able to:

1. Describe the indications for use of clinical neurophysiology techniques in diagnosis of disorders of the nervous system;
2. Incorporate new neurophysiology procedures and technological advances into his/her own clinical practice; and
3. Perform and interpret a broad range of clinical neurophysiology procedures, and integrate the results of these tests into comprehensive patient management plans.

Annual Meeting Learning Objectives

At the end of the Annual Meeting, the learner should be able to:

1. Discuss recent advances in electroencephalography, evoked potentials, ALS, magnetoencephalography, practice technologies, nerve conduction studies and other clinical neurophysiology techniques; and
2. Apply advances in clinical neurophysiology techniques to improve the diagnosis of neurologic disorders.

Specific objectives related to each session will be provided in the Final Program available in January 2014.

Target Audience

The Society's educational activities are directed to clinical neurophysiologists, neurologists, psychiatrists, physiatrists, neurosurgeons, trainees in these disciplines, other physicians and researchers, and neurophysiology technologists who specialize in the utilization of clinical neurophysiological techniques that advance the knowledge in the diagnosis and management of patients with disorders of the peripheral and central nervous system.

Accreditation Statement

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the sponsorship of ACNS. ACNS is accredited by ACCME to provide continuing medical education for physicians.

Important Dates

CME Certificate Program Opens (pre-registered delegates)
February 9, 2014

CME Certificate Program Opens (delegates registering onsite)
March 7, 2014

CME Certificate Claim Deadline
April 30, 2014

Credit Designation

ACNS designates the Annual Meeting for a maximum of 20 *AMA PRA Category 1 Credit(s)*[™]. Physicians should claim only credit commensurate with the extent of their participation in the activity.

ACNS designates the Annual Courses for the maximum number of *AMA PRA Category 1 Credit(s)*[™] indicated below:

Intraoperative Monitoring Part I

6.5 *AMA PRA Category 1 Credit(s)*[™]

EP Reading Session

1.5 *AMA PRA Category 1 Credit(s)*[™]

Neonatal EEG

1.5 *AMA PRA Category 1 Credit(s)*[™]

Intracranial EEG

6.5 *AMA PRA Category 1 Credit(s)*[™]

Intraoperative Monitoring Part II

6.5 *AMA PRA Category 1 Credit(s)*[™]

EMG and EEG Technology

1.5 *AMA PRA Category 1 Credit(s)*[™]

Updates in the Business of Neurophysiology: From Washington to Your Office

1.5 *AMA PRA Category 1 Credit(s)*[™]

ICU EEG

6.5 *AMA PRA Category 1 Credit(s)*[™]

EMG

3 *AMA PRA Category 1 Credit(s)*[™]

Video-EEG

3 *AMA PRA Category 1 Credit(s)*[™]

Applied Autonomic Neurophysiology

1.5 *AMA PRA Category 1 Credit(s)*[™]

Case Studies in Peripheral Neurophysiology

2.5 *AMA PRA Category 1 Credit(s)*[™]

Physicians should claim only credit commensurate with the extent of their participation in the activity.



CALL FOR POSTER ABSTRACTS

Online Abstract Submission

Poster abstracts must be submitted through the online abstract submission site. Complete instructions for submission are available online. Abstracts that have been mailed, emailed or faxed will not be accepted. Anyone may submit a poster abstract to ACNS. Membership in ACNS is not required for poster abstract submission.

Submission Deadline

All abstracts must be submitted online by Friday, November 15, 2013. No exceptions will be made.

Abstract Review

All abstracts submitted will be reviewed, evaluated for scholarly and relevant content, and graded in blinded fashion by the ACNS Program Committee. The review process takes approximately four weeks, and acceptance notification will be made by email no later than December 13, 2013.

Abstract Categories

Abstracts submitted to the ACNS 2014 Annual Meeting must fit into one of the following categories to be considered for presentation:

- Autonomic Function and its Disorders
- Basic Neurophysiology
- Critical Care Monitoring
- Deep Brain and Cortical Stimulation
- Digital/Quantitative EEG and Topography
- EEG
- EMG/NCV Testing
- Epilepsy: Clinical
- Epilepsy: Pathophysiology
- Evoked Potentials
- Functional Imaging
- Intraoperative Monitoring
- Magnetoencephalography
- Peripheral Neuropathy
- Sensory/Motor Physiology
- Sleep
- Video-EEG Monitoring for Epilepsy

Abstract Length

Submission length is limited to 60 characters for the abstract title and 200 words for the abstract body. Abstract submissions should also include self-explanatory photos, drawings, graphs and brief written texts as appropriate. There is no limit on graphs, figures or tables. Any text included in graphs, figures, or tables will not be counted towards the 200 word minimum.

Previous Publication or Presentation

Abstracts which have been published in journals, meeting proceedings, or other publication, as well as those presented at meetings prior to the ACNS meeting to which you wish to submit are eligible and welcome for submission. All poster abstracts presented at the Annual Meeting will be published in the Journal of Clinical Neurophysiology.

Poster Cancellation Policy

At least one author or co-author on all posters is expected to register to attend the meeting for which they are accepted by the deadlines set forth in their acceptance notification. If this author cancels their registration prior to the meeting, the poster may be withdrawn from the program.

Author Attendance Requirement

By submitting an abstract to ACNS 2014 Annual Meeting, abstract authors are agreeing that at least one author will attend the meeting and will be available to present on the date and at the time assigned by the Program Committee. Authors will be notified of presentation dates and times at the time of notification of acceptance and are expected to make appropriate travel arrangements to ensure that at least one of the abstract's authors will be in attendance. In addition, presenting authors are expected to register to attend the meeting by the deadline set forth in their acceptance notification. Abstracts for which an author is not pre-registered by the dates set forth will automatically be withdrawn from the program. Poster setup is tentatively scheduled for Thursday, February 6 and displayed Friday, February 7 — Saturday, February 8, 2014.

Young Investigator Travel Award

Several young physician investigators will be awarded travel fellowships of \$1,000 each. These fellowships are determined based upon the ranking of the applicant's abstract by the Program Committee.

Eligibility Criteria

Applicant must be: (1) a current ACNS member or apply for membership concurrent with application for Travel Award; (2) a resident, fellow, or junior faculty within two years of completion of fellowship training; and (3) be the first author of an abstract submitted to the Annual Meeting. Applicant must meet the entire aforementioned criteria in order to be considered for the Young Investigator Travel Award. Prior recipients of Travel Fellowships are not eligible for additional Travel Fellowship awards.

Selection

Awardees will be chosen based on the quality of submitted abstracts, as ranked by the ACNS Program Committee. A total of six travel fellowships will be awarded for the ACNS 2014 Annual Meeting. Additional travel awards may be awarded if funding is available.

Award

Awardees will receive complimentary registration for the meeting and reimbursement of travel expenses up to \$1,000, upon provision of an expense voucher, and original receipts. Awardees will be recognized at an award ceremony during the Annual Meeting. Awards are one-time only.

Procedures

Upon close of abstract submission, the ACNS Program Committee will review, evaluate, and rank abstracts, including all candidates for consideration to receive a travel award. The Program Committee Co-Chairs will select the final six awardees based on the collective rankings from the Program Committee. ACNS will notify awardees of decision no later than December 13, 2013. Awardees will then be expected to accept invitation by the deadlines set forth in their acceptance notifications, as well as register for the Annual Meeting, and secure travel arrangements. Upon provision of an expense voucher, including original receipts, reimbursement will be provided to award recipients, no later than 30 days after the Annual Meeting.

Cancellation Policy

Award recipients are expected to register to attend the Annual Meeting by the deadlines set forth in their acceptance notification. If an award recipient cancels their registration prior to the meeting, the Travel Award may be withdrawn from the individual and designated to another candidate.

**Poster Abstract Submission Deadline:
November 15, 2013**

PROGRAM OVERVIEW

Annual Courses

Tuesday, February 4, 2014

9:00AM – 5:00PM Intraoperative Monitoring Part I

Wednesday, February 5, 2014

7:00 – 8:30AM EP Reading Session

Neonatal EEG

9:00AM – 5:00PM Intracranial EEG

Intraoperative Monitoring Part II

Thursday, February 6, 2014

7:00 – 8:30AM EMG and EEG Technology

Updates in the Business of Neurophysiology: From Washington to Your Office

9:00AM – 5:00PM ICU EEG

9:00AM – 12:00PM EMG

VIDEO - EEG

1:00 – 2:30PM Applied Autonomic Neurophysiology

2:30 – 5:00PM Case Studies in Peripheral Neurophysiology

Annual Meeting

Friday, February 7, 2014

7:00 – 8:00AM Poster Viewing & Continental Breakfast

7:55 – 8:00AM Opening Ceremony and Welcome

8:00 – 8:45AM Presidential Lecture

8:45 – 9:20AM 2014 Robert S. Schwab Award & Lecture

9:20 – 10:00AM 2013 Pierre Gloor Award & Lecture

10:00 – 10:30AM Coffee Break - Visit Exhibits and Posters

10:30AM – 12:30PM Wide Bandwidth Electrophysiology and Epilepsy Biomarkers

Pediatric EMG in the Molecular Era

Intraoperative Neurophysiological Monitoring during Skull Base Surgeries

12:30 – 1:30PM Lunch - Visit Exhibits and Posters - Poster Tour

1:30 – 3:30PM Ischemia Monitoring in Critical Care: EEG Trend Analysis to Detect Development of and Recovery From Cerebral Ischemia

Botulinum Toxin: Mechanism of Action and Ultrasound versus EMG Guidance

The Creation of Evidence Based Medicine in Intraoperative Monitoring

3:30 – 4:00PM Coffee Break - Visit Exhibits and Posters

4:00 – 5:30PM Spikes and Cognition: To Treat or Not to Treat?

Spasticity - What is it and What is the Electrophysiology?

Advanced Practice Technologists in the New World of Continuous Neurophysiological Monitoring

5:30 – 6:45PM Neurophys Bowl

6:45 – 8:00PM Welcome Reception



PROGRAM OVERVIEW — CONTINUED

Saturday, February 8, 2014

7:00 — 8:00AM	Poster Viewing & Continental Breakfast
8:00 — 8:30AM	2014 Gloor Award and Lecture
8:30 — 8:50AM	2014 Herbert H. Jasper Award and Travel Fellows' Recognition Ceremony
8:50 — 10:10AM	Seizures, SUDEP and Autonomic Nervous System
10:00 — 10:30AM	Coffee Break - Visit Exhibits and Posters
10:30AM — 12:30PM	EEG as a Basic Neuroscience and Psychology Research Tool Intraoperative Neurophysiologic Monitoring During Functional Neurosurgery Amplitude-Integrated EEG in Neonates: When is it Used and When is it Useful?
12:30 — 2:00PM	Lunch - Visit Exhibits and Poster Tour Professional Development Mentoring Program
12:50 — 1:50PM	Extending Critical Care EEG Monitoring to Community-Based Practice Interesting Spinal Cord Tumor Cases: A Discussion by Some Experts
2:00 — 4:00PM	Electrophysiological Approach to Neuromuscular Disorders Intraoperative Neuromonitoring Below the Belt Descriptive Terminology of Status Epilepticus in Adults
4:00 — 4:30PM	Coffee Break - Visit Posters
4:30 — 6:00PM	EMG Critical Care EEG Monitoring and Outcomes: Do We Have Enough Data? Intraoperative Neurophysiologic Monitoring
6:00 — 6:30PM	Annual Business Meeting

Sunday, February 9, 2014

7:15 — 8:00AM	Continental Breakfast
8:00 — 10:00AM	Stereo Electroencephalography Fast-Train Cortical and Sub-Cortical Stimulation for Motor Mapping and Monitoring Diagnostic Advances in ALS
10:00 — 10:15AM	Coffee Break
10:15AM — 12:15PM	Neonatal and Pediatric EEG: Patterns of Epileptic Encephalopathies across the Age Range Crashing the Cultures of the Sole MEG or EEG Source Modeling: Inseparable, Not Only Complementary Clinical Neurophysiology Trials in the Neurointensive Care Unit: Focus on Trends

ACNS PROFESSIONAL DEVELOPMENT MENTORING PROGRAM

Saturday, February 8, 2014 (*subject to change*)

12:30 — 2:00PM

Once again this year the Annual Meeting will include a professional development session for clinical neurophysiologists. The program is targeted to neurology residents, clinical neurophysiology fellows, and junior faculty at the instructor or assistant professor level. Attendees will be matched with a clinical or research mentor in clinical neurophysiology for a one-on-one mentoring event during the lunch break on Saturday, February 8. The goals of the program are to foster career development in clinical neurophysiology, encourage active participation in the many activities of ACNS, and facilitate networking.

Please sign up on the registration form to be matched with a mentor, or to volunteer to serve as a mentor.

PROGRAM AGENDA | ANNUAL COURSES

Tuesday, February 4, 2014

Intraoperative Monitoring Course, Part I

9:00AM – 5:00PM

Course Co-Directors: *Jaime R. Lopez, MD and Michael L. McGarvey, MD*

Objectives:

At the completion of this activity, participants will be able to:

1. Employ a thorough understanding of neuroanatomy and neurophysiology to identify risks for injury to the brain, spine, and cranial and peripheral nerves during surgical and other invasive procedures, and to select appropriate monitoring techniques to minimize these risks.
2. Design a comprehensive monitoring plan for individual patients, including multimodality intraoperative monitoring techniques (e.g. recordings of sensory and motor evoked potentials, EEG, EMG, and spinal reflex activity) to monitor segments of the nervous system at risk during surgery.
3. Recognize changes in intraoperative neurophysiologic tests which indicate damage to neural structures, and distinguish these from common technical artifacts.
4. Communicate normal and abnormal results to the surgical team, and incorporate results into clinical recommendations that may alter the surgical technique to avoid, limit or reverse injury to neural structures.
5. Identify the effects of anesthetic drugs on neurophysiology and employ methods to limit the adverse impact of anesthetics on intraoperative monitoring techniques.

Presentations and Faculty

TBD

Wednesday, February 5, 2014

EP Reading Session

7:00 – 8:30AM

Course Director: *Alan D. Legatt, MD, PhD*

Objectives:

At the completion of this activity, participants will be able to:

1. Select appropriate evoked potential techniques (visual, brainstem auditory, and somatosensory) based on a thorough understanding of neuroanatomy and neurophysiology.
2. Accurately interpret visual, brainstem auditory, and somatosensory evoked potentials to localize dysfunction of the nervous system.
3. Integrate the results of evoked potentials with clinical history and other diagnostic techniques to improve accuracy of neurologic diagnosis.

Presentations and Faculty

Brainstem Auditory Evoked Potentials (BAEPs)

Alan D. Legatt, MD, PhD

Visual Evoked Potentials (VEPs)

Elayna Rubens, MD

Somatosensory Evoked Potentials (SEPs)

Ronald Emerson, MD

Neonatal EEG

7:00 – 8:30AM

Course Director: *Nicholas S. Abend, MD*

Objectives:

At the completion of this activity, participants will be able to:

1. Identify neonatal electrographic seizures using scalp EEG and differentiate seizures from non-ictal EEG patterns.
2. Incorporate neonatal EEG findings into prognostic models to predict outcome in high risk neonates.
3. Select appropriate evidence-based treatment for neonatal seizures.

Presentations and Faculty

EEG Background and Prognosis

Courtney J. Wusthoff, MD

Sleep Assessment and Implications

Mark Scher, MD

Neonatal EEG Background - Overview and ACNS Terminology

Dennis Dlugos, MD



PROGRAM AGENDA | ANNUAL COURSES

Wednesday, February 5, 2014

Intracranial EEG

9:00AM — 5:00PM

Course Co-Directors: *Greg Worrell, MD and Donald L. Schomer, MD*

Objectives:

At the completion of this activity, participants will be able to:

1. Discuss the appropriate indications for and limitations of intracranial EEG in patients with drug resistant epilepsy and recurrent focal seizures.
2. Design a comprehensive plan for invasive EEG monitoring, including electrode type, electrode placement, minimization of risks, and discussion of risks and potential benefits with patients.
3. Evaluate the results of intracranial EEG monitoring, including identification of the epileptogenic zone and of nearby eloquent cortex, to develop a surgical plan most likely to result in seizure freedom and minimize surgical risks.
4. Incorporate new EEG analysis techniques into presurgical evaluations, such as analysis of infra-slow and high frequency EEG activity, to improve identification of the epileptogenic zone and to gain new research insights into normal and pathological brain function.

Presentations and Faculty

Wideband Intracranial EEG and Localization

Greg Worrell, MD

Phase 1 Evaluations that Lead to Phase 2 Testing

Donald L. Schomer, MD

Lessons regarding Normal Physiology and Physiology of Epilepsy through IEEG

Sydney Cash, MD, PhD

Quick Presentation of the Phase I Evaluation in 3 Cases

Michael R. Sperling, MD

Choosing Phase 2 Electrodes

Stephan U. Schuele, MD, MPH

The Use on Invasive Electrodes to Map Function

Tobias Loddenkemper, MD

The Use on Invasive Electrodes to Map “Epileptic Zones”

William C. Stacey, MD, PhD

Discussion and Demonstrations of Patterns of Seizure Onsets & Spread, Underlying Pathological Substrates, Surgical Outcomes in Adults and Children

Michael R. Sperling, MD and Tobias Loddenkemper, MD

Intraoperative Monitoring Part II

9:00AM — 5:00PM

Course Co-Directors: *Jamie R. Lopez, MD and Michael L. McGarvey, MD*

Objectives:

At the completion of this activity, participants will be able to:

1. Employ a thorough understanding of neuroanatomy and neurophysiology to identify risks for injury to the brain, spine, and cranial and peripheral nerves during surgical and other invasive procedures, and to select appropriate monitoring techniques to minimize these risks.
2. Design a comprehensive monitoring plan for individual patients, including multimodality intraoperative monitoring techniques (e.g. recordings of sensory and motor evoked potentials, EEG, EMG, and spinal reflex activity) to monitor segments of the nervous system at risk during surgery.
3. Recognize changes in intraoperative neurophysiologic tests which indicate damage to neural structures, and distinguish these from common technical artifacts.
4. Communicate normal and abnormal results to the surgical team, and incorporate results into clinical recommendations that may alter the surgical technique to avoid, limit or reverse injury to neural structures.
5. Identify the effects of anesthetic drugs on neurophysiology and employ methods to limit the adverse impact of anesthetics on intraoperative monitoring techniques.

Presentations and Faculty

TBD

PROGRAM AGENDA | ANNUAL COURSES

Thursday, February 6, 2014

EMG and EEG Technology

7:00 – 8:30AM

Course Co-Directors: Charles Epstein, MD and Susan T. Herman, MD

Objectives:

At the completion of this activity, participants will be able to:

1. Describe the fundamental operation of neurophysiologic recording equipment, including differential amplifiers, common-mode noise rejection, grounds, and filters.
2. Explain the concepts of analog-to-digital conversion, aliasing and general frequency analysis.
3. Evaluate and select neurophysiologic equipment based on knowledge of appropriate technical specifications for clinical or research use.

Faculty

Charles Epstein, MD

Susan T. Herman, MD

Updates in the Business of Neurophysiology: From Washington to Your Office

7:00 – 8:30AM

Course Co-Directors: Yafa Minazad, DO and Deborah Briggs, MD

Objectives:

At the completion of this activity, participants will be able to:

1. Plan and develop an interdisciplinary team for neurophysiological practice in the neurophysiology laboratory, video-EEG monitoring unit, intensive care unit and operating room.
2. Apply business principles, quality assurance, and efficiency guidelines to neurophysiologic practice to improve clinical effectiveness and cost effectiveness of patient care.
3. Incorporate risk minimization strategies into neurophysiology practice, particularly in regards to invasive and remote monitoring.

Presentations and Faculty

Innovation and Integration: Neurophysiologist - Hospitalist

Yafa Minazad, DO

Working with Your Local Hospital in Becoming a Designated Epilepsy Center

Deborah Briggs, MD

Medicare Hospital Outpatient PPS Proposed Rule for 2014 Update

Marc R. Nuwer, MD, PhD

ObamaCare and it's Impact on Neurophysiology

Lynn Elizabeth Mullikin, MPA

ICU EEG

9:00AM – 5:00PM

Course Co-Directors: Lawrence J. Hirsch, MD and Cecil D. Hahn, MD, MPH

Objectives:

At the completion of this activity, participants will be able to:

1. Discuss current guidelines and evaluate various practice models for ICU EEG monitoring to improve patient care.
2. Apply the revised ACNS nomenclature to ICU EEG recordings, to improve standardization of ICU EEG reports and communication between providers.
3. Recognize controversial EEG patterns in ICU patients with altered mental status, and formulate a rational plan for treatment based on these EEG patterns.
4. Develop a comprehensive ICU EEG monitoring program, including equipment selection, training of interdisciplinary staff, quality improvement, and risk management.

Presentations and Faculty

Guidelines and Nomenclature for ICU EEG Monitoring

Lawrence J. Hirsch, MD

Quantitative EEG for Seizure Identification

Cecil D. Hahn, MD, MPH

Overview of ICU EEG Monitoring in Neonates, Children, and Adults

Nicholas S. Abend, MD

The Ictal-interictal Continuum: Case Studies

Suzette M. LaRoche, MD

EEG Monitoring in the Medical and Surgical ICUs

Emily J. Gilmore, MD

Case Presentation

Nicolas Gaspard, MD, PhD

Treatment of Nonconvulsive Seizures and Status Epilepticus

Aatif M. Husain, MD

The Business of ICU EEG Monitoring

Stephen Hantus, MD

Ischemia Detection

M. Brandon Westover, MD, PhD

Case Presentation

Sarah Schmitt, MD

ICU EEG Reading Session: Neonatal, Pediatric, and Adult Cases

Courtney J. Wusthoff, MD

William Gallentine, MD

Jong Woo Lee, MD, PhD



PROGRAM AGENDA | ANNUAL COURSES

Thursday, February 6, 2014

EMG

9:00AM — 12:00PM

Course Co-Directors: *Devon Rubin, MD and Francis O. Walker, MD*

Objectives:

At the completion of this activity, participants will be able to:

1. Apply basic and advanced EMG techniques to diagnose common entrapment neuropathies.
2. Incorporate advances in electrodiagnostic techniques and avoid technical pitfalls in evaluation of radiculopathies and plexopathies.
3. Recognize characteristic EMG patterns of neuropathic and myopathic disorders and interpret the clinical significance to improve neurologic diagnosis.

Presentations and Faculty

Improving EMG Waveform Recognition Skills — Identifying Unknown Waveforms
Devon Rubin, MD

Assessment of Common Entrapment Neuropathies with EMG and Ultrasound
Francis O. Walker, MD

Assessment of Radiculopathies and Plexopathies - EDX Approaches and Limitations
Daniel L. Menkes, MD

Applied Autonomic Neurophysiology

1:00 — 2:30PM

Course Director: *A. Arturo Leis, MD*

Objectives:

At the completion of this activity, participants will be able to:

1. Discuss the anatomy and physiology of the autonomic nervous system.
2. Explain the strengths and weaknesses of neurophysiologic tests used in assessment of the autonomic nervous system.
3. Develop a rational treatment plan for patients with autonomic disorders based on the results of specific autonomic tests, including skin biopsy.

Presentations and Faculty

Applied Autonomic Neurophysiology
A. Arturo Leis, MD

Central Nervous System Spells of Dysautonomia
Vettaikorumakav V. Vedanarayanan, MD

VIDEO-EEG

9:00AM — 12:00PM

Course Co-Directors: *William O. Tatum, DO and Tobias Loddenkemper, MD*

Objectives:

At the completion of this activity, participants will be able to:

1. Describe the technical requirements for optimal video-EEG monitoring in inpatient and outpatient settings.
2. Recognize the electroencephalographic and clinical features of seizures and nonepileptic events in adults and children commonly encountered in the video-EEG monitoring unit.
3. Translate EEG and video interpretations into clinical reports which accurately describe diagnosis, seizure localization, and implications for patient management, including candidacy for epilepsy surgery.
4. Determine the localization of seizure onsets based on combined video and intracranial EEG recordings.

Presentations and Faculty

Video - EEG Pearls - A Case-Based Approach (Focus on Adults)
William O. Tatum, DO

Applying Video - EEG in Practice (Focus on Pediatric Patients)
Tobias Loddenkemper, MD

The Essentials of Video-EEG
Michael R. Sperling, MD

Relevance of Patient Monitoring - Sudden Unexpected Death in Epilepsy
Stephan U. Schuele, MD, MPH

Video - EEG Monitoring in the Home and Beyond — New Approaches
Steven Schachter, MD

Case Studies in Peripheral Neurophysiology

2:30 — 5:00PM

Course Director: *Elliot Dimberg, MD*

Objectives:

At the completion of this activity, participants will be able to:

1. Interpret patterns of clinical neurophysiological findings in peripheral nervous system disease; and
2. Appropriately localize neuromuscular abnormalities according to the neurophysiological findings.

Presentations and Faculty

Case Studies in Peripheral Neurophysiology
Elliot Dimberg, MD

Christopher S. Nance, MD
Randa Jarrar, MD

PROGRAM AGENDA | ANNUAL MEETING

Friday, February 7, 2014



Poster Viewing & Continental Breakfast
7:00 – 8:00AM

Opening Ceremony and Welcome from the Program Committee Co-Chairs

7:55 – 8:00AM

Suzette M. LaRoche, MD and Greg Worrell, MD

Presidential Lecture

8:00 – 8:45AM

Frank W. Drislane, MD

2014 Robert S. Schwab Award & Lecture

8:45 – 9:20AM

David Burke, MD

2013 Pierre Gloor Award & Lecture

9:20 – 10:00AM

Rodolfo Llinas, MD, PhD



Coffee Break - Visit Exhibits and Posters
10:00 – 10:30AM

Pediatric EMG in the Molecular Era

10:30AM – 12:30PM

Chair: Ioannis Karakis, MD, MSc

Presentations and Faculty

Current Practice and Temporal Trends of Pediatric EMG in the New Millennium
Ioannis Karakis, MD, MSc

Myotonia in Childhood

Peter Kang, MD

Pediatric Neuromuscular Junction Disorders and the Use of Stimulated SFEMG

Matthew Pitt, MD

Chronic Inflammatory Demyelinating Polyneuropathies in Childhood

Hugh J. McMillan, MD, MSc

Intraoperative Neurophysiological Monitoring During Skull Base Surgeries

10:30AM – 12:30PM

Chair: Parthasarathy Thirumala, MD

Presentations and Faculty

Intraoperative Monitoring During Endoscopic Endonasal Procedures

Parthasarathy Thirumala, MD

Brainstem Auditory Evoked Potentials during Microvascular Decompression

Parthasarathy Thirumala, MD

Somatosensory Evoked Potentials and Arm Positioning Related Changes during Skull Base Surgeries

Ronald Emerson, MD

Facial Nerve and Auditory Nerve Monitoring during CP Angle Tumor Removal

Atif M. Husain, MD

Wide Bandwidth Electrophysiology and Epilepsy Biomarkers

10:30AM – 12:30PM

Chair: Greg Worrell, MD

Presentations and Faculty

Review Concept of Electrophysiological Biomarkers

Greg Worrell, MD

Origin of Pathological and Physiological Oscillations

William Stacey, MD, PhD

International Electrophysiology Database and Collaborative Research

Brian Litt, MD



Lunch - Visit Exhibits and Posters - Poster Tour
12:30 – 1:30PM

The Creation of Evidence Based Medicine in Intraoperative Monitoring

1:30 – 3:30PM

Chair: David Gloss, MD

Presentations and Faculty

The Level of Evidence in Intraoperative Monitoring

Jay K. Varma, MD

Creation of Intraoperative Monitoring Guidelines

Marc R. Nuwer, MD, PhD

Grading of Evidence and the Creation of Trials

David Gloss, MD



PROGRAM AGENDA | ANNUAL MEETING

Friday, February 7, 2014

Ischemia Monitoring in Critical Care: EEG Trend Analysis to Detect Development of and Recovery from Cerebral Ischemia

1:30 – 3:30PM

Chair: *M. Brandon Westover, MD, PhD*

Presentations and Faculty

cEEG Monitoring in Subarachnoid Hemorrhage: Current Practices and Limitations
Nicolas Gaspard, MD, PhD

The EEG of Cerebral Ischemia
Jan Claassen, MD, PhD

Evolution of EEG Patterns after Global Cerebral Ischemia
Michel Van Putten, MD

Emerging Methods for cEEG Ischemia Detection in Subarachnoid Hemorrhage
Eric Rosenthal, MD

The EEG of Cerebral Ischemia
Brandon P. Foreman, MD and Jan Claassen, MD, PhD

Botulinum Toxin: Mechanism of Action and Ultrasound Versus EMG Guidance

1:30 – 3:30PM

Chair: *Francis O. Walker, MD*

Presentations and Faculty

The Clinical Neuropharmacology and Neurophysiology of Botulinum Toxin
TBD

Ultrasound Guidance of Botulinum Toxin Therapy
Katharine Alter, MD

EMG and Electrical Stimulation Guidance for Botulinum Toxin
Jaime R. Lopez, MD

Spikes and Cognition: To Treat or Not to Treat?

4:00 – 5:30PM

Chair: *Tobias Loddenkemper, MD*

Presentations and Faculty

Relationship between Spiking and Cognition
David Loring, MD, PhD

Should We Treat Spikes?
Kevin Chapman, MD

Electrophysiological Assessment of Frequent Spiking and Non-Convulsive SE Syndromes
Iván Sánchez Fernández, MD

Pathophysiology and Mechanisms of Frequent Spiking, Sleep, Memory, and Cognition
Tobias Loddenkemper, MD

Advanced Practice Technologists in the New World of Continuous Neurophysiological Monitoring

4:00 – 5:30PM

Co-Chairs: *Joshua Ehrenberg, BS, R. EEG T., CNIM and Suzette M. LaRoche, MD*

Presentations and Faculty

Education, Knowledge, and Credentials for Advanced Practice Technologists
Joshua Ehrenberg, BS, R. EEG T., CNIM

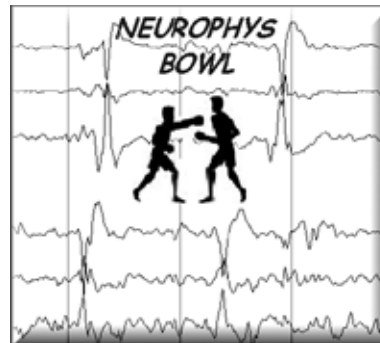
Utilization of Advanced Practice in EEG Monitoring
Sherry Nehamkin, R. EEG/EP T., CNIM, CLTM

Advanced Practice in the OR
Brett Netherton, MS, CNIM

Round Table Discussion
Stephen Hantus, MD

Neurophys Bowl

5:30 – 6:45PM



Welcome Reception
6:45 – 8:00PM



Coffee Break - Visit Exhibits and Posters

3:30 – 4:00PM

Spasticity - What is it and What is the Electrophysiology?

4:00 – 5:30PM

Chair: *Morris Fisher, MD*

Presentations and Faculty

Investigative Approaches to Characterizing Spasticity
W. Zev Rymer, MD

Ion Channel and F-Wave Findings in Patients with Strokes
Cliff Klein, MD, PhD

Spasticity - A Historical and Clinical Conundrum
Morris Fisher, MD

PROGRAM AGENDA | ANNUAL MEETING

Saturday, February 8, 2014



Poster Viewing & Continental Breakfast
7:00 – 8:00AM

2014 Pierre Gloor Award and Lecture

8:00 – 8:30AM
Ronald Emerson, MD

2014 Herbert H. Jasper Award and Travel Fellows' Recognition Ceremony

8:30 – 8:50PM
Ernst Rodin, MD

Seizures, SUDEP and Autonomic Nervous System

8:50 – 10:10AM
Chair: Ekrem Kutluay, MD

Presentations and Faculty

Role of Autonomic Dysfunction in SUDEP
Lawrence J. Hirsch, MD

Neurophysiological Testing of Autonomous Nervous System
Safwan Jaradeh, MD

Epilepsy and Autonomous Nervous System
Ekrem Kutluay, MD



Coffee Break - Visit Exhibits and Posters
10:10 – 10:30AM

EEG as a Basic Neuroscience and Psychology Research Tool

10:30AM – 12:30PM
Chair: Joshua Ewen, MD

Presentations and Faculty

ERPs from Basic to Clinical Research: Toward Biomarkers
Greg Hajcak Proudfit, PhD

Use of EEG and MEG in Studying Oscillatory in Normal and Pathological Brain States
Michael Gandal, MD

Development of Biomarkers and Clinical Tests from Basic EEG Research
Joshua Ewen, MD

Intraoperative Neurophysiologic Monitoring During Functional Neurosurgery

10:30AM – 12:30PM
Chair: Jay L. Shils, MD, PhD

Presentations and Faculty

Post-Operative Management of the Neuromodulation Patient
Mark Stecker, MD, PhD

Neurosurgical Decisions during Placement of Neuromodulation Devices
Jeff Arle, MD, PhD, FAANS

Amplitude-Integrated EEG in Neonates: When is it Used and When is it Useful?

10:30AM – 12:30PM
Chair: Courtney J. Wusthoff, MD

Presentations and Faculty

Current Applications of aEEG in the NICU
Tammy Tsuchida, MD, PhD

Interpretation of aEEG
Courtney J. Wusthoff, MD

Principles of aEEG
James John Riviello, MD

Impact of aEEG Use in the NICU
Cecil D. Hahn, MD, MPH



Lunch - Visit Exhibits and Poster Tour
Professional Development Mentoring Program
12:30 – 2:00PM

Interesting Spinal Cord Tumor Cases: A Discussion by Some Experts

12:50 – 1:50PM
Co-Chairs: David Gloss, MD and Francesco Sala, MD, PhD

Presentations and Faculty

Discussions about Interesting Spinal Cord Tumor Cases
David Gloss, MD

Mirela V. Simon, MD

Eva K. Ritzl, MD

Francesco Sala, MD, PhD

Extending Critical Care EEG Monitoring to Community-Based Practice (SIG)

12:50 – 1:50PM
Chair: Evan Fertig, MD

Presentations and Faculty

Mixing General Neurology and ICU Monitoring
Jennifer Jones, DO

Starting an ICU Monitoring Program in a Community Hospital
Evan Fertig, MD

Business Aspects of ICU Monitoring
Yafa Minazad, DO

*SIG=Special Interest Group



PROGRAM AGENDA | ANNUAL MEETING

Saturday, February 8, 2014

Descriptive Terminology of Status Epilepticus in Adults

2:00 – 4:00PM

Chair: Jeffrey Kennedy, MD

Presentations and Faculty

Standardized Terminology for Status Epilepticus

Stephan U. Schuele, MD, MPH

Semiology of Status Epilepticus in the Responsive Patient

Frank W. Drislane, MD

Correlation of Semiology and EEG Pattern in Comatose Patients

Peter W. Kaplan, MD, FRCP

Impact of Semiology on the Risk for Status Epilepticus and Long-Term Clinical Outcome

Stephen Hantus, MD

Intraoperative Neuromonitoring Below the Belt

2:00 – 4:00PM

Chair: Stanley Skinner, MD

Presentations and Faculty

Bulbocavernosus Reflex; Anal Sphincter and Cremaster Electromyography; Pelvic Autonomic Monitoring

Stanley Skinner, MD

Pudendal Nerve and Sacral Root Evoked Potentials

Matthew Eccher, MD

Neurophysiology of Complex Spinal Cord Untethering

Francesco Sala, MD, PhD

Q&A: Discussion Panel

Francesco Sala, MD, PhD

Stanley Skinner, MD

Matthew Eccher, MD

Electrophysiological Approach to Neuromuscular Disorders

2:00 – 4:00PM

Chair: Suraj Muley, MD

Presentations and Faculty

Segmental Amplitude Change

Mark Ross, MD

Fibrillations, PSWs, Myokymia and CRDs

Brent Goodman, MD

Small and Large Motor Units

Brent Goodman, MD

Myotonia

Shafeeq Ladha, MD

Conduction Slowing

Erik Ortega, MD



Coffee Break - Visit Posters

4:00 – 4:30PM

Critical Care EEG Monitoring and Outcomes: Do We Have Enough Data? (SIG)

4:30 – 6:00PM

Co-Chairs: Nicholas S. Abend, MD and Elizabeth Gerard, MD

Presentations and Faculty

cEEG in the Adult ICU (Seizure Indications)

Jeffrey Kennedy, MD

Update of Current Practices

Jay Gavvala, MD

cEEG in the Adult ICU (Non-Seizure Indications)

Jan Claassen, MD, PhD

cEEG in the Neonatal ICU

Courtney J. Wisthoff, MD

cEEG in the Pediatric ICU

Nicholas S. Abend, MD

Intraoperative Neurophysiologic Monitoring (SIG)

4:30 – 6:00PM

Chair: Jaime R. Lopez, MD

Presentations and Faculty

TBD

EMG (SIG)

4:30 – 6:00PM

Chair: Suraj Muley, MD

Presentations and Faculty

Conduction Block is Essential for Diagnosis of MMN

Michael Cartwright, MD

Changes of Axonal Degeneration Imply a Poor Prognosis of Guillain Barre Syndrome

Mark Ross, MD

Skin Biopsy is the Best Diagnostic Test for Assessment of Small Fiber Neuropathy

Morris Fisher, MD

Ultrasound Improves Sensitivity in the Diagnosis of Entrapment Neuropathy

Francis O. Walker, MD



Annual Business Meeting

6:00 – 6:30PM

*SIG=Special Interest Group

PROGRAM AGENDA | ANNUAL MEETING

Sunday, February 9, 2014



Continental Breakfast
7:15 – 8:00AM

Fast-Train Cortical and Sub-Cortical Stimulation for Motor Mapping and Monitoring

8:00 – 10:00AM

Chair: *Matthew Eccher, MD*

Presentations and Faculty

Intracranial MEP Stimulation and Recording - Practical Setup, Pearls and Pitfalls

Tyson Hale, MD

Cortical and Sub-Cortical MEP Stimulation

Stuart Hoffman, DO

DCS-MEP and CST Motor Threshold: Utility for Cerebral Hemispheric Lesion Surgery

Kathleen Seidel, MD

DCS-MEP for Epilepsy Surgery: Current Evidence and Questions

Matthew Eccher, MD

Diagnostic Advances in ALS

8:00 – 10:00AM

Chair: *Francis O. Walker, MD*

Presentations and Faculty

Ultrasound in ALS

Michael Cartwright, MD

Overview of the Genetics and Clinical Features of ALS

Shafeeq Ladha, MD

Electrodiagnosis in ALS

Devon Rubin, MD

Stereo Electroencephalography

8:00 – 10:00AM

Chair: *Stephan U. Schuele, MD, MPH*

Presentations and Faculty

Why Stereo Electroencephalography?

Samden Lhatoo, MD

Surgical Approach: Concept and Technique

Jorge Alvaro Gonzalez-Martinez, MD

Outcome: Early Experience in Over 200 Patients

Juan Bulacio, MD

Pediatric Stereo EEG: Challenges and Opportunities

Jonathan Miller, MD

Neonatal and Pediatric EEG: Patterns of Epileptic Encephalopathies Across the Age Range (SIG)

10:15AM – 12:15PM

Co-Chairs: *Heather Olson, MD and Tobias Loddenkemper, MD*

Presentations and Faculty

Evolution Over Time in Neonatal Epileptic Encephalopathies

Courtney J. Wusthoff, MD

Infantile EEG Patterns in Relationship to Genetic or Structural Etiologies

Tammy Tsuchida, MD, PhD

EEG in ESES and CSWS

Iván Sánchez Fernández, MD

Clinical Neurophysiology Trials in the Neurointensive Care Unit: Focus on Trends

10:15AM – 12:15PM

Chair: *Jong Woo Lee, MD, PhD*

Presentations and Faculty

Steps to Successful Trial Execution

M. Brandon Westover, MD, PhD

Participating in a Clinical Trial

Jong Woo Lee, MD, PhD

Next Steps in Clinical Neurophysiology Trials

Suzette M. LaRoche, MD

Trends: From Conception to Implementation

Aatif M. Husain, MD

Crashing the Cultures of the Sole MEG or EEG Source Modeling: Inseparable, Not Only Complementary (SIG)

10:15AM – 12:15PM

Chair: *Anto Bagic, MD, PhD*

Presentations and Faculty

Combined MEG and EEG Source Modeling is Clearly Advantageous

John Ebersole, MD

MSI is Simply Superior and ESI Gives Me Nothing More

Richard Burgess, MD

Lost Clinician: Experts Disagree, What do I do?

Anto Bagic, MD, PhD



Coffee Break
10:00 – 10:15AM

*SIG=Special Interest Group



ANNUAL MEETING & COURSES REGISTRATION FORM

AMERICAN CLINICAL NEUROPHYSIOLOGY SOCIETY
2014 Annual Meeting & Courses
 FEBRUARY 4-9, 2014 | ATLANTA, GA
Westin Peachtree Plaza





To register for the meeting online, go to our website: www.ACNS.org

(Please type or print clearly.)

ACNS ID# (optional) _____

Last (Family) Name _____ First (Given) Name _____ Middle Initial _____

Designation (MD, PhD, DO, etc.) _____ Institution _____

Mailing Address _____

City _____ State/Province _____ Zip/Postal Code _____

Phone _____ Fax _____

Email _____ Specialty _____

Special Needs

I have a need for special assistance (physical or dietary). Please explain below:

How did you hear about this meeting?

- I'm an ACNS Member
- ACNS Website
- ACNS Emails
- ACNS Postcard
- Colleague/Word of Mouth - Please specify: _____
- Through another organization/meeting - Please specify: _____
- Other - Please specify: _____

ANNUAL COURSES - Tuesday, February 4 through Thursday, February 6, 2014
 Please note that the scheduled times of some Courses listed below may conflict. Please refer to the Preliminary Program for complete Course scheduling information to make your selections.

	ACNS Members	Non-Members	ACNS Junior & Technician Members	Non-Member Residents, Fellows, Technicians
TUESDAY, FEBRUARY 4, 2014				
401: Full Day Course: Intraoperative Monitoring, Part I	<input type="checkbox"/> \$175	<input type="checkbox"/> \$230	<input type="checkbox"/> \$95	<input type="checkbox"/> \$140
WEDNESDAY, FEBRUARY 5, 2014				
501: Breakfast Course: EP Reading Session	<input type="checkbox"/> \$75	<input type="checkbox"/> \$95	<input type="checkbox"/> \$35	<input type="checkbox"/> \$65
502: Breakfast Course: Neonatal EEG	<input type="checkbox"/> \$75	<input type="checkbox"/> \$95	<input type="checkbox"/> \$35	<input type="checkbox"/> \$65
511: Full Day EEG Course: Intracranial EEG	<input type="checkbox"/> \$175	<input type="checkbox"/> \$230	<input type="checkbox"/> \$95	<input type="checkbox"/> \$140
512: Full Day Course: Intraoperative Monitoring Part II	<input type="checkbox"/> \$175	<input type="checkbox"/> \$230	<input type="checkbox"/> \$95	<input type="checkbox"/> \$140
THURSDAY, FEBRUARY 6, 2014				
601: Breakfast Course: EMG and EEG Technology	<input type="checkbox"/> \$75	<input type="checkbox"/> \$95	<input type="checkbox"/> \$35	<input type="checkbox"/> \$65
602: Breakfast Course: Business in Clinical Neurophysiology	<input type="checkbox"/> \$75	<input type="checkbox"/> \$95	<input type="checkbox"/> \$35	<input type="checkbox"/> \$65
611: Full Day ICU EEG Course	<input type="checkbox"/> \$175	<input type="checkbox"/> \$230	<input type="checkbox"/> \$95	<input type="checkbox"/> \$140
612: Half Day EMG Course	<input type="checkbox"/> \$85	<input type="checkbox"/> \$100	<input type="checkbox"/> \$45	<input type="checkbox"/> \$75
613: Half Day Video-EEG Course	<input type="checkbox"/> \$85	<input type="checkbox"/> \$100	<input type="checkbox"/> \$45	<input type="checkbox"/> \$75
621: Half Day Course: Applied Autonomic Neurophysiology	<input type="checkbox"/> \$85	<input type="checkbox"/> \$100	<input type="checkbox"/> \$45	<input type="checkbox"/> \$75
631: Half Day Course: Case Studies in Peripheral Neurophysiology	<input type="checkbox"/> \$85	<input type="checkbox"/> \$100	<input type="checkbox"/> \$45	<input type="checkbox"/> \$75

ANNUAL COURSES TOTAL (A): _____


ACMEGS COURSE & MEETING

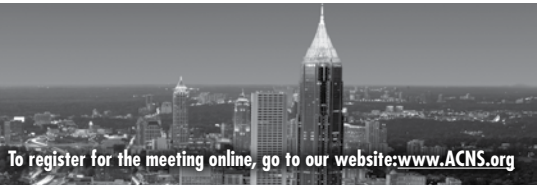
	ACMEGS Members w/ 2013 Institutional Membership	Associate Members	ACMEGS Members from all Other Sites
WEDNESDAY, FEBRUARY 5, 2014			
ACMEGS Course Part I	<input type="checkbox"/> \$75	<input type="checkbox"/> \$50	<input type="checkbox"/> \$100
ACMEGS Course Part II	<input type="checkbox"/> \$37.50	<input type="checkbox"/> \$25	<input type="checkbox"/> \$50
THURSDAY, FEBRUARY 6, 2014			
ACMEGS Meeting	<input type="checkbox"/> \$75	<input type="checkbox"/> \$75	<input type="checkbox"/> \$150 (including dinner) <input type="checkbox"/> \$75 (without dinner)

ACMEGS TOTAL (B): _____

ANNUAL MEETING & COURSES REGISTRATION FORM — CONTINUED

AMERICAN CLINICAL NEUROPHYSIOLOGY SOCIETY
2014 Annual Meeting & Courses
 FEBRUARY 4-9, 2014 | ATLANTA, GA
Westin Peachtree Plaza





To register for the meeting online, go to our website: www.ACNS.org

ANNUAL MEETING SCIENTIFIC PROGRAM -
 Friday, February 7 through Sunday, February 9, 2014

	ACNS Members	Non-Members	ACNS Junior & Technician Members	Non-Member Residents, Fellows, Technicians
Annual Meeting Scientific Program	<input type="checkbox"/> \$350	<input type="checkbox"/> \$500	<input type="checkbox"/> \$235	<input type="checkbox"/> \$330

Annual Meeting Total (C): _____

Please check below the sessions you plan to attend. Pick one from each time segment. This information will be used to assign sessions to available rooms based on anticipated attendance. You are not obligated to attend the sessions you check.

FRIDAY, FEBRUARY 7, 2014	SATURDAY, FEBRUARY 8, 2014	SUNDAY, FEBRUARY 9, 2014
10:30 am - 12:30 pm	10:30 am - 12:30 pm	8:00 - 10:00 am
<input type="checkbox"/> 741: Wide Bandwidth Electrophysiology & Epilepsy Biomarkers	<input type="checkbox"/> 841: EEG as a Basic Neuroscience Research Tool	<input type="checkbox"/> 911: Stereo EEG
<input type="checkbox"/> 742: Pediatric EMG in the Molecular Era	<input type="checkbox"/> 842: IOM During Functional Neurosurgery	<input type="checkbox"/> 912: Fast-Train Cortical & Subcortical Stimulation
<input type="checkbox"/> 743: IOM During Skull Base Surgeries	<input type="checkbox"/> 843: Amplitude Integrated EEG in Neonates	<input type="checkbox"/> 913: Diagnostic Advances in ALS
1:30 - 3:30 pm	12:50 - 1:50 pm	10:15 am - 12:15 pm
<input type="checkbox"/> 761: Ischemia Monitoring in Critical Care EEG	<input type="checkbox"/> 852: Extending ICU EEG Monitoring to Community Practice	<input type="checkbox"/> 921: Special Interest Group: Neonatal & Pediatric EEG
<input type="checkbox"/> 762: Botulinum Toxin: Mechanism of Action & Ultrasound vs EMG	<input type="checkbox"/> 853: IOM of Spinal Tumor Cases: A Discussion by Experts	<input type="checkbox"/> 922: Special Interest Group: Magnetoencephalography
<input type="checkbox"/> 763: Evidence Based Medicine in Intraoperative Monitoring	2:00 - 4:00 pm	<input type="checkbox"/> 923: Neurophysiology Clinical Trials in the ICU
4:30 - 5:30 pm	<input type="checkbox"/> 861: Special Interest Group: Myotonia	
<input type="checkbox"/> 771: Spikes and Cognition: To Treat or Not to Treat?	<input type="checkbox"/> 862: IOM Below the Belt	
<input type="checkbox"/> 772: Electrophysiology of Spasticity	<input type="checkbox"/> 863: Descriptive Semiology of Status Epilepticus	
<input type="checkbox"/> 773: Adv. Practice Techs in Continuous Neurophys. Monitoring	4:30 - 6:00 pm	
	<input type="checkbox"/> 871: Special Interest Group: EMG	
	<input type="checkbox"/> 872: Special Interest Group: ICU EEG	
	<input type="checkbox"/> 873: Special Interest Group: IOM	

Payment Information

Courses Total (A): _____

+ ACMEGS Total (B): _____

+ Annual Meeting Total (C): _____

= GRAND TOTAL: _____

Company Check — Make check payable to American Clinical Neurophysiology Society (in US Dollars, drawn on a US bank)

Credit Card (check one): VISA MasterCard

Please invoice me.

Credit Card Number _____ Expiration Date _____

Card Holder Name _____

Authorized Signature _____ Date _____

** Registrations will not be processed without payment and signature.**

Signature of Agreement: I understand that the event registration rate listed above will be charged to the credit card I have listed. I understand further that all registration charges must be paid in full upon completion of this form. If registration is not paid for in full at time of event, I may be asked to provide payment upon arrival at the meeting.

Cancellation Policy: Refund requests must be submitted in writing to ACNS prior to January 20, 2014. A \$20 processing fee will be charged for all refunds. We regret refunds will not be guaranteed for requests postmarked or received after January 20, 2014.

Waiver. Submission of this registration form and payment of associated fee serves as agreement by the delegate to release the American Clinical Neurophysiology Society, the Westin Peachtree Plaza, their respective agents, servants, employees, representatives, successors, and assigns, from any and against all claims, demands, causes of action, damages, costs, and expenses, including attorneys' fees, for injury to person or damage to property arising out of attendance at the ACNS Annual Meeting & Courses. In addition, the delegate hereby grants permission to use his/her likeness in a photograph or other digital reproduction in any and all of its publications, including website entries, without payment or any other consideration, agreeing that these materials will become the property of ACNS which has the right to edit, alter, copy, exhibit, publish or distribute this photo for purposes of publicizing its programs or for any other lawful purpose. Additionally, the delegate waives any right to royalties or other compensation arising or related to the use of the photograph.

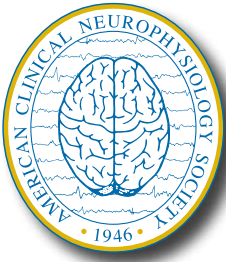
I do not wish to be included on the delegate list provided to supporters. I do not wish to be included on any published delegate list including programs, mobile apps, etc.

Please return this registration form with required payment to

American Clinical Neurophysiology Society, Attn: Meetings Department • 555 E. Wells Street, Suite 1100 • Milwaukee, WI 53202

Fax: (414) 276-3349 • E-mail: info@acns.org





American Clinical Neurophysiology Society

555 East Wells Street, Suite 1100

Milwaukee, WI 53202

ACNS13284

AMERICAN CLINICAL NEUROPHYSIOLOGY SOCIETY 2014 Annual Meeting & Courses

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www.acns.org



Questions?

Contact the ACNS Executive Office
(414) 918-9803
info@acns.org
www.acns.org

Register online today!