37th Annual Meeting

JANUARY 16–19, 2014

HYATT REGENCY | SARASOTA, FLORIDA

ONSITE PROGRAM

WELCOME TO THE 37th ANNUAL MEETING OF THE AMERICAN SOCIETY OF NEUROIMAGING

ASN Mission Statement

The American Society of Neuroimaging (ASN) is an international, professional organization of clinicians, technologists and research scientists who are dedicated to education, advocacy and research to promote neuroimaging as a crucial to the treatment and investigation of disorders of the nervous system. The ASN supports the right of qualified physicians to utilize neuroimaging modalities for the evaluation and management of their patients, and the right of patients with neurological disorders to have access to appropriate neuroimaging modalities and to physicians qualified in their use and interpretation. The ASN supports clinical and basic science research by neuroimagers through educational programs, an annual meeting and a scientific journal.

The goal of the ASN is to promote the highest standards of neuroimaging in clinical practice, thereby improving the quality of medical care for patients with diseases of the nervous system. This goal is accomplished through:

- Presenting scientific and educational programs at an annual meeting and through the promotion of fellowships, preceptorships, tutorials and seminars related to neuroimaging;
- Publishing a scientific journal;
- Formulating and promoting high standards of practice and setting training guidelines;
- Evaluation of physician competency through examinations.

The ASN's education activities are detailed in its CME Mission Statement. Emphasis is placed on the correlation between clinical information and neuroimaging data to provide the cost effective and efficient use of imaging modalities for the diagnosis and evaluation of diseases of the nervous system.

The ASN will continue to develop training and practice guidelines related to neuroimaging for 1) physicians in practice who currently use or wish to use neuroimaging; 2) physicians in residency or fellowship training; and 3) healthcare entities responsible for defining or allocating professional privileges and credentialing to individual physicians.

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Pre-registered attendees were sent a link to the meeting handouts prior to the meeting. The link was sent from asn@llmsi.com.

ABSTRACTS
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Full text abstracts can be found online at www.asnweb.org.

CME CREDITS
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2014 Program Outline

THURSDAY, JANUARY 16, 2014		
8:00 am – 4:00 pm	ASN Committee and Board Meetings	
3:00 pm – 7:00 pm	Registration Opens	Sarasota Ballroom Foyer
6:00 pm – 7:00 pm	Welcome/Poster Stand-by Reception	Sarasota Ballroom C & D
7:00 pm – 9:00 pm	Keynote Lecture – New Directions in the Applications of Magnetic Susceptibility in Magnetic Resonance	Sarasota Ballroom A &B
FRIDAY, JANUARY 17, 2014		
6:30 am – 5:00 pm	Registration	Sarasota Ballroom Foyer
7:00 am – 8:30 am	Breakfast Seminar: MRI Physics	Sarasota Ballroom A & B
7:00 am – 8:30 am	Breakfast Seminar: Perfusion Imaging	The Keys
8:30 am – 4:00 pm	Exhibits and Posters	Sarasota Ballroom C & D
8:30 am – 9:00 am	BREAK	Sarasota Ballroom C & D
8:30 am – 9:00 am	Meet the Professors: Incorporating Neuroimaging in your Neurological Practice	Tropics
9:00 am – 1:00 pm	Current Topics in MR/CT Imaging Part I	Sarasota Ballroom A & B
9:00 am – 1:00 pm	Current Topics in Neurosonology Part I	The Keys
10:30 am – 10:45 am	BREAK	Sarasota Ballroom C & D
1:00 pm – 2:00 pm	LUNCH with Exhibitors	Sarasota Ballroom C & D
2:00 pm – 3:00 pm	William Kinkel Keynote Lecture: Cortical Demyelination in Multiple Sclerosis New thoughts on an old observation	Sarasota Ballroom A & B
3:00 pm – 3:15 pm	BREAK	Sarasota Ballroom C & D
3:15 pm – 5:15 pm	The Technology and Business of Magnetic Resonance Imaging and Computed Tomography	Sarasota Ballroom A & B
5:15 pm – 6:15 pm	Advocacy for Neuroimaging: Urgent Issues	Sarasota Ballroom A & B
5:15 pm – 6:15 pm	Cases for Residents	The Keys
7:00 pm – 10:00 pm	MRI /CT Hands-On Workshop	Florida Room
7:00 pm – 10:00 pm	Neurosonology Hands-On Workshop	Sarasota Ballroom C & D
SATURDAY, JANUARY 18, 2014		
7:00 am – 4:00 pm	Registration	Sarasota Ballroom Foyer
7:00 am – 8:30 am	Breakfast Seminar: Pediatric Neuroimaging: Metabolic and Toxic Disorders	Sarasota Ballroom A & B
7:00 am – 8:30 am	Applied Principles of Ultrasound Physics and Fluid Dynamics	The Keys
8:30 am – 9:00 am	BREAK	Sarasota Ballroom Foyer
8:30 am – 9:00 am	Meet the Professors: Incorporating Neuroimaging in your Neurological Practice	Tropics
8:30 am – 4:30 pm	Current Topics in MR/CT Imaging Part II	Sarasota Ballroom A & B
8:30 am – 4:30 pm	Current Topics in Neurosonology Part II	The Keys
10:45 am – 11:00 am	BREAK	Sarasota Ballroom Foyer
1:15 pm – 2:45 pm	Presidential Address and Awards Luncheon	Sarasota Ballroom A & B
5:00 pm – 6:00 pm	Pool Side Reception	Pool Deck
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8:45 am – 9:30 am	Above and Beyond the Neck and Brain Ultrasound	The Keys
8:45 am – 9:45 am	Endovascular Treatment for Acute Ischemic Stroke Patients after IMS III, MR RESCUE and SYNTHESIS EXTENSION Trials	Sarasota Ballroom A & B
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9:30 am – 3:30 pm	Neurosonology Examination	Offsite

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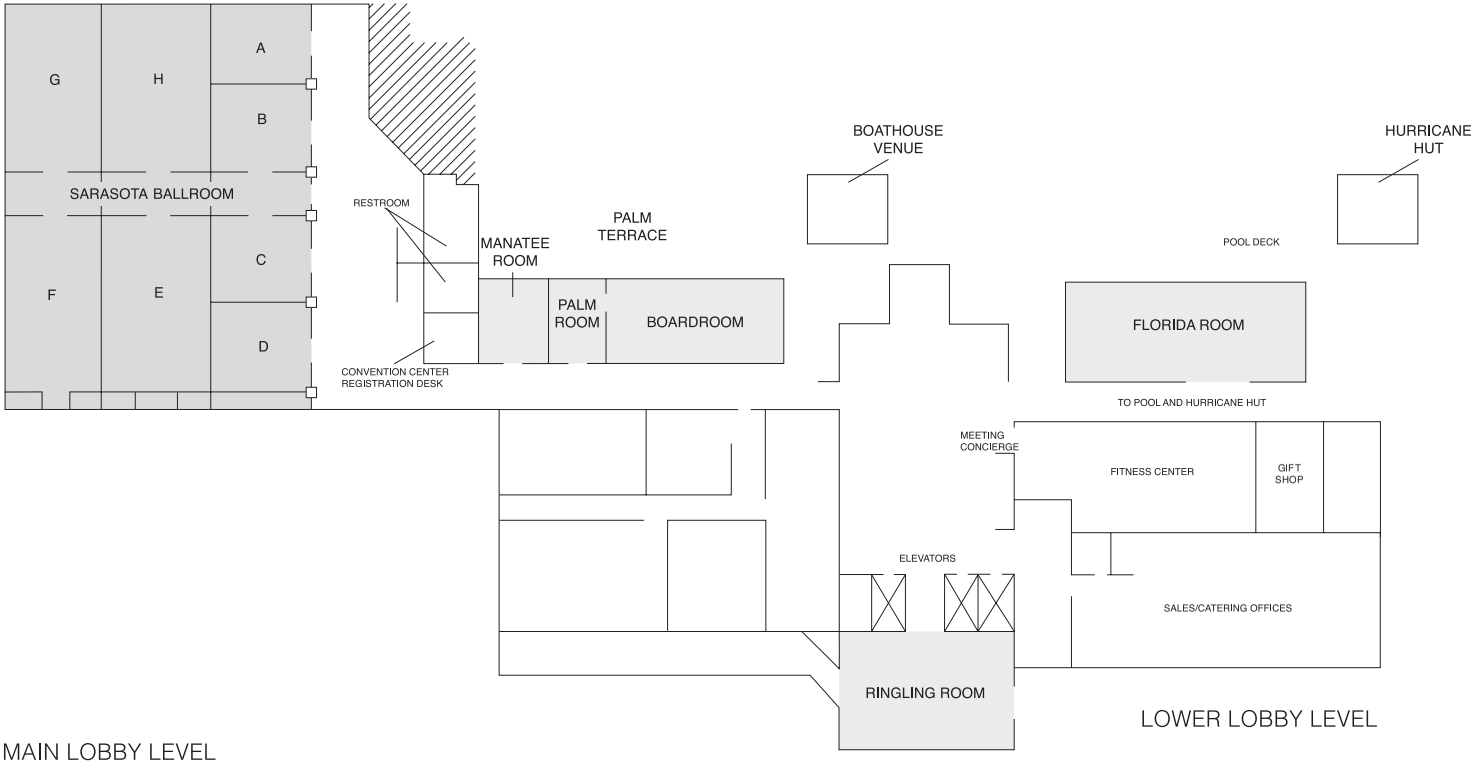

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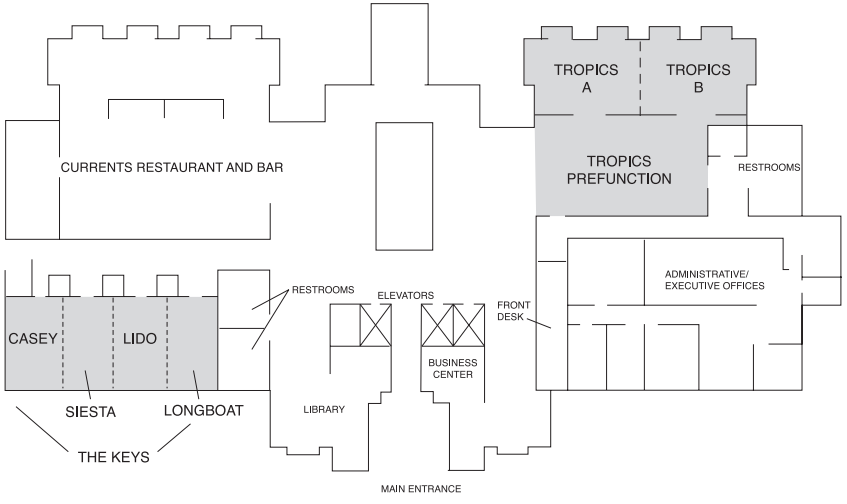

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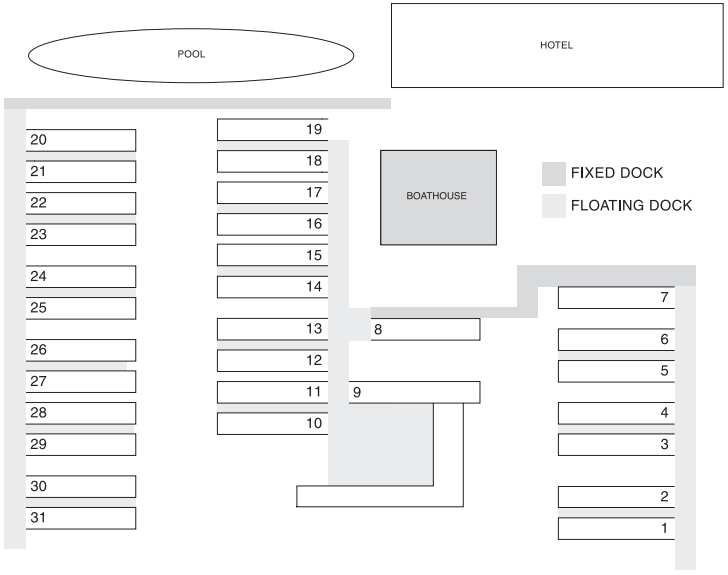

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2014 ANNUAL MEETING PROGRAM

Thursday, January 16, 2014

Keynote Lecture: New Directions in the Applications of Magnetic Susceptibility in Magnetic Resonance

7:00 - 8:00 pm ● Sarasota Ballroom A & B ● CME: 1 hour

E. Mark Haacke, PhD and Michael Moseley, PhD

The faculty will review the novel concepts behind the role of magnetic susceptibility in the form of both susceptibility weighted imaging and susceptibility mapping. The ability to differentiate paramagnetic and diamagnetic tissues will also be considered. Clinical applications for measuring iron content, oxygen saturation, the presence of microbleeds, and tissue properties will be considered. The ability to improve diagnosis of neurodegenerative diseases will also be considered.

7:00 - 7:05 pm	Introduction	Laszlo Mechtler, MD
7:05 – 7:55 pm	Recent advances in susceptibility weighted imaging and susceptibility mapping as applied to neurodegenerative diseases	E. Mark Haacke, PhD
7:55 – 8:45 pm	Quantitative Susceptibility Mapping (QSM): A Big Name with a Big Future	Michael Moseley, PhD
8:45 – 9:00 pm	Questions and Discussion	

Objectives:

1. Know the basic principles of magnetic susceptibility effects in MRI;
2. Understand the difference between diamagnetic and paramagnetic field effects on phase images and in creating T2* signal loss.
3. Achieve practical experience in acquiring SWI data and its applications in common neurological disorders such as Parkinson's disease, multiple sclerosis, stroke and traumatic brain injury.
4. Become familiar with imaging of iron in tissue and in veins.
5. Be able to compare the information content provided by SWI, QSM and perfusion imaging.

This course is intended for neurologists, neurosurgeons, radiologists, fellows and residents interested in MR Imaging.

HANDOUTS

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All attendees will be sent the link after the meeting.

Friday, January 17, 2014

Breakfast Seminar: MRI Physics

7:00 – 8:30 am ● Sarasota Ballroom A & B ● CME: 1.5 Hours
Director and Faculty: Michael Moseley, PhD

This seminar will familiarize the attendee with basic MR physics principles and concepts relating to simple concepts of MR physics and introduce new and evolving MR technologies in neuroimaging to the practicing neurologist. Topics will include simple to advanced MRI principles and practices, the rationale of MR tissue contrast, new MR techniques and evolving MR protocols. The seminar is intended for physicians interested in learning or refreshing MR physics principles and techniques.

7:00 – 7:45 am	Basic MRI Physics	Michael Moseley, PhD
7:45 – 8:30 am	Beyond the Basics of MR Neuroimaging	Michael Moseley, PhD

Upon completion of this seminar, attendees will have a firm understanding of the basic to advanced principles involved in MR physics, image acquisition, tissue contrast, and new and evolving techniques now available to the practicing neuroimaging neurologist.

Objectives:
1. Familiarize the attendee with basic MR physics principles and concepts relating to simple concepts of MR physics.
2. Introduce new and evolving MR technologies in neuroimaging to the practicing neurologist.
3. Span an understanding of the basic, simple techniques and principles to the more advanced MRI topics in clinical usage today.
4. Cover the rationale of MR tissue contrasts such as T1, T2, and T2*.
5. Explore new clinically-relevant MR techniques and evolving MR protocols.

Relevant Modality: MRI

Breakfast Seminar: Perfusion Imaging

7:00 – 8:30 am ● The Keys ● CME: 1.5 Hours
Director and Faculty: Tudor Jovin, MD

This seminar will introduce and explore the vast potential of perfusion imaging methods in current and future clinical practice scenarios ranging from stroke to neuro-oncology. The basic concepts of various perfusion modalities, including CT, MRI and angiography, will be described. The technical aspects and mathematics will be presented from the clinical perspective, exploring how these tools can be used to detail microvascular changes in the blood-brain barrier and complex hemodynamics. Practical applications in acute stroke and chronic neurovascular disorders will be outlined. The course is designed for all neuroimaging enthusiasts that encounter blood flow alterations in clinical practice.

Objectives:
1. Basic concepts involved in imaging blood flow in the brain
2. Current and evolving perfusion imaging modalities
3. How the mathematics of perfusion imaging translate into specific hemodynamic measures
4. Applications from acute stroke to prevention of hemodynamic compromise

Target Audience: The course is intended for those individuals interested in first learning about perfusion imaging to those focused on specific aspects that impact clinical practice. Discussion of innovative approaches to perfusion imaging will underscore the mounting enthusiasm for these neuroimaging modalities.

This course is designed to procure the following desirable physician attributes: Enthusiasm to expand knowledge; interest in advancing care of the stroke patient; improve problem-solving, practice-based learning and patient care.

Relevant Modality: MRI, CT, Angiography

Friday, January 17, 2014

Current Topics in MR and CT Imaging (Part I)

9:00 am - 1:00 pm ● Sarasota Ballroom A & B ● CME: 3.75 hours
Directors: John Bertelson, MD and Gabriella Szatmary, MD, PhD
Faculty: Erasmo Passaro, MD, Joe Fritz, PhD, Mark Haacke, PhD, Mike Moseley, PhD

This course will review a variety of neuroimaging topics of particular interest to the practicing neurologist. Keeping with the theme of the 2014 Annual Meeting, these topics are intended to reflect clinical subjects with the relevance today and the near future.

9:00 - 9:45 am	Gradient echo imaging and its clinical applications	Mark Haacke, PhD
9:45 - 10:30 am	Flow and its applications in neurodegenerative disease	Mark Haacke, PhD
10:30 - 10:45 am	BREAK	
10:45 - 11:45 am	Imaging structural and functional connectivity in neurological disorders	Michael Moseley, PhD
11:45 am - 12:15 pm	Imaging in Epilepsy: Update	Erasmo Passaro, MD
12:15 - 12:45 pm	Update on MR spectroscopy	Joeseph Fritz, PhD
12:45 - 1:00 pm	QUESTIONS	

Objectives:
1. Understand the imaging characteristics associated with selected neuropathologic states.
2. Appreciate the complementary roles of various imaging modalities in clinical neuroimaging.
3. Understand the clinical applications of various advanced imaging techniques.

This course is designed to procure the following desirable physician attributes: Medical knowledge, practice-based learning and improvement

Target Audience: neurologists, radiologists, neurosurgeons, other neuroscientists

Relevant Modality: MRI, fMRI, CT

ABSTRACTS

Abstract titles and authors are listed on pages 30-34.
Full text abstracts can be found online at www.asnweb.org.

Friday, January 17, 2014

Current Topics in Neurosonology (Part I)
9:00 am - 1:00 pm ● The Keys ● CME: 3.75 hours
Director: Zsolt Garami, MD
Faculty: Andrei Alexandrov, MD, RVT, Zsolt Garami, MD, Marge Hutchisson, Alan Lumsden, MD and Alexander Razumovsky, PhD, FAHA

The faculty will discuss basics of transcranial Doppler (TCD) and carotid ultrasound physics and techniques of examinations, their clinical applications and interpretations. This course is for individuals seeking basic knowledge of Neurosonology.

9:00 - 9:20 am	Waveform Recognition	Andrei Alexandrov, MD, RVT
9:20 - 9:40 am	Carotid duplex protocol	Tanya Rundek, MD, PhD
9:40 - 10:00 am	Transcranial Doppler Protocol	Zsolt Garami, MD
10:00 - 10:20 am	PFO protocol	Zsolt Garami, MD
10:20 - 10:40 am	Subclavian vs Vertebral Steal	Zsolt Garami, MD
10:40 - 11:00 am	TCD IN NICU	Alex Razumovsky, PhD, FAHA
11:00 - 11:15 am	Q&A	
11:15 -11:30 am	BREAK	
11:30 - 11:45 am	Embolus Detection and Monitoring	Zsolt Garami, MD
11:45 am - 12:00 pm	Plaque Characterization	Alan Lumsden, MD
12:00 - 12:15 pm	Grading carotid stenosis	Andrei Alexandrov, MD, RVT
12:15 - 12:30 pm	Neurosonology from a Surgeons Prospective (CEA and CAS monitoring)	Alan Lumsden, MD
12:30 - 12:45 pm	Neurosonology Value in Acute Stroke Therapy	Andrei Alexandrov, MD, RVT
12:45 - 1:00 pm	Accreditation - IAC	Marge Hutchisson, RVT, RDCS

Objectives:
1. Demonstrate a basic knowledge of the extra- and intracranial arterial vascular anatomy, physiology and pathophysiology.
2. Recognize characteristic patterns of blood flow in the extra- and intracranial vessels
3. Identify proper techniques for performing comprehensive carotid and TCD studies. Relate normal and abnormal blood flow patterns to clinical presentation
4. Recognize and interpret carotid and TCD ultrasound findings. Understand clinical usefulness and limitations of the carotid and TCD ultrasound evaluations

Relevant Modality: Ultrasound

Friday, January 17, 2014

William Kinkel Keynote Lecture
Cortical Demyelination in Multiple Sclerosis New Thoughts on an Old Observation
2:00 - 3:00 pm ● Sarasota Ballroom A & B ● CME: 1 Hour
R. Philip Kinkel, MD

Multiple Sclerosis is traditionally considered an inflammatory disease primarily confined to the CNS white matter, a concept perpetuated through 30 years of low field strength diagnostic and research imaging studies. These MRI studies confirm both discrete white matter lesions (WML) and diffuse involvement of normal appearing white matter (NAWM) with progressive white matter and gray matter atrophy. For more than 15 years, PET and low field MRI studies in MS have revealed structural and metabolic alterations in the cortex and deep gray matter, but these findings have generally been interpreted as secondary to diffuse white matter injury with secondary degeneration of gray matter structures. More recent pathological and ultrahigh field imaging studies have forced us to reconsider our notion of MS as a primary white matter disease. These studies reveal significant, early pathological involvement of the cortical gray matter associated correlating with many aspects of clinical disease activity. Although too early to be considered a "paradigm shift", these studies suggest a unique pathogenic mechanism for injury in MS.

Objectives:

1. Understand the uses and limitations of standard white matter metrics in clinical practice

2. Gain an appreciation of recent pathological evidence of primary cortical demyelination in MS

3. Understand how ultrahigh resolution MRI and PET imaging is allowing us to study pathological processes involved in both white matter and cortical demyelination in vivo

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Friday, January 17, 2014

The Technology and Business of Magnetic Resonance Imaging and Computed Tomography

3:15 - 5:15 pm ● Sarasota Ballroom A & B ● CME: 2 Hours
Director: Joseph Fritz, PhD
Faculty: Joseph Fritz, PhD, Brad Montgomery, MHA, CMPE and Stephen Smith, MBA

There are quality of care and business advantages to operating advanced imaging within a clinical practice. Tomographic imaging is an important diagnostic tool that is regularly used by all neurologists. In fact, many neurologists find themselves making clinical decisions from the images rather than waiting for a report. One purpose of this course is to help practitioners understand essential technological principles of MRI and CT that will help them better understand the images they review. In addition, a growing number of neurologists are considering ways to form larger groups that can mitigate increasing overhead through economies of scale. Such groups should be able to justify operating imaging in-house. And so this course also aims to clarify the business and regulatory issues involved in operating in-house imaging services.

Objectives:
1. Understand the fundamental principles of MRI and CT systems, from the basics of image formation to recognizing and mitigating artifacts.
2. Review the equipment requirements for advanced and more recent techniques.
3. Understand the business rationale, infrastructure requirements and landscape for developing an in-office imaging operation.

Relevant Modality: MRI, CT

Neuroimaging Advocacy: Urgent Issues

5:15 - 6:15 pm ● Sarasota Ballroom A & B ● CME: 1 Hour
Director: Elizabeth Rowe, PhD, MBA
Faculty: Joe Fritz, PhD, Doron Gorschein, Michael Hutchinson, MD, PhD, William Preston, MD and Elizabeth Rowe, PhD, MBA

A presentation and panel discussion about the current issues confronting neuroimaging and neuroimagers. It is crucial for all neurologists, not just neuroimagers, to be aware and to advocate for neuroimaging, because it is under threat, not only from the perspective of adequate payment, but also from pending legislation aimed at limiting or eliminating the In Office Exception to Stark law that allows neurologists and other private physicians groups to provide imaging services in their own offices. The panel will provide the current status of these issues and discuss what role individual neurologists can play in advocating for our most important diagnostic tool.

Objectives
1. Understand the importance of neuroimaging to the practice of neurology.
2. To be aware of the threats to neuroimaging and access to imaging and its use in neurology.
3. Know how to contribute to neuroimaging advocacy.

Relevant Modality: MRI, CT

Cases for Residents

5:15 - 6:15 pm ● The Keys ● CME: 1 Hour
Director: Dara Jamieson, MD Co-Director: Ali Saad, MD
Panelists: Eric Lindzen, MD, PhD and Laszlo Mechtler, MD

Residents will present short, pithy clinical cases, with crucial neuroimaging, to a panel of senior neuroimagers in an attempt to "stump the expert." Each presentation will be 10 minutes or less in order to allow for a variety of different imaging based cases. The expert neuroimagers will explain how the imaging, previously unknown to them, correlates with the patients' clinical presentations.

Relevant Modality: MRI, CT

Friday, January 17, 2014

MRI Hands-On Workshop

7:00 – 10:00 pm ● Florida Room● CME: 3 Hours
Director: Geoffrey Hartwig, MD
Faculty: TBD

Workshop participants will rotate among reading stations supervised by the course faculty. After a brief review of the expert's approach to interpreting brain and spine MRI studies, the students will read a selection of scans brought in by the faculty. Course participants will be expected to present mock dictations of the MRI studies and will be critiqued by their peers and professors. Controversial cases will be discussed among the entire group of participating faculty and students. This workshop is designed for participants with some practical experience in interpreting brain and spine MRI scans. Those with less experience may wish to participate, although they may find the workshop to be exceptionally challenging.

Objectives:
1. Have been exposed to a representative cross-section of neurological MRI studies encountered by MRI neuroimagers in a typical work environment;
2. Have observed the experienced MRI expert's approach to scan interpretation;
3. Have acquired personal experience interpreting neurological MRI studies; and
4. Have been supervised and directed in improving their reading skills at their own workplaces.

Target Audience: All levels of reading imaging studies

This course is designed to procure the following desirable physician attributes: Medical Knowledge, Practice Based Learning

Relevant Modality: MRI, CT

Neurosonology Hands-On Workshop

7:00 – 10:00 pm ● Sarasota Ballroom C & D ● CME: 3 Hours
Director: Andrei Alexandrov, MD, RVT Co-Director: Zsolt Garami, MD
Faculty: Andrei Alexandrov, MD, RVT, Zsolt Garami, MD, Alexander Razumovsky, PhD, FAHA, Charles Tegeler, MD and Tatjana Rundek, MD, PhD

This workshop will provide structured hands-on and question and answer sessions in carotid/vertebral duplex and specific transcranial Doppler techniques complete testing, emboli detection, right-to-left shunt detection and assessment of vasomotor reactivity. Both the beginner and experienced users are encouraged to attend. The workshop will also provide an opportunity to try the latest equipment, to meet experts and to discuss various aspects of neurosonology in small groups. The workshop is designed to meet the need for basic and advanced knowledge of insonation techniques, technological advances, and practical aspects of cerebrovascular testing.

Objectives:
1. Review complete scanning protocols for diagnostic carotid/vertebral duplex and TCD examinations, vasomotor reactivity, emboli detection, right-to-left shunt testing, and monitoring procedures (thrombolysis, head-turning, peri-operative testing), and IMT measurements.
2. Review equipment and expertise requirements in performing selected tasks with faculty using hands-on, instructional video or real time case recordings.

Target Audience: All levels

This course is designed to procure the following desirable physician attributes: Medical Knowledge, Practice Based Learning

Relevant Modality: Ultrasound

Saturday, January 18, 2014

Breakfast Seminar: Pediatric Neuroimaging – Metabolic and Toxic Disorders

7:00 - 8:30 am ● Sarasota Ballroom A & B ● CME: 1.5 Hours
Director: Jennifer McVige, MD, PhD
Faculty: Bhagwan Moorjani, MD and Jennifer McVige, MD, PhD

This course will present the neuroimaging characteristics of metabolic and toxic disorders. Address presentation and progression in a pediatric population, as well as in adults. Evaluate MRI, CT, and SPECT images. At the end of the lecture there will be a didactic post-test with case presentations to review. Educational objectives include, 1.) Identify neuroimaging characteristics of toxic and metabolic disorders. 2.) Develop differential diagnoses by pattern of the white or gray matter involvement as well as infra and supratentorial abnormalities. 3.) Discuss autoimmune and infectious disorders that affect white matter as a comparison. Target Audience includes students, residents, neurologists, neuroimagers, radiologists, and pediatricians.

7:00 - 7:40 am	Intro, Toxic and metabolic white matter disorders, Comparison images of autoimmune and infectious disorders for differential diagnosis
7:40 - 8:20 am	Toxic and Metabolic gray matter disorders, Disorders involving gray and white matter, Cerebellar disorders
8:20 - 8:30 am	Review of images and didactic post-test

Objectives:
1. Identify the neuroimaging characteristics of toxic and metabolic disorders.
2. Develop differential diagnoses to identify toxic and metabolic disorders by pattern of the white or gray matter involvement.
3. Discuss autoimmune and infectious disorders that affect white matter.

Target Audience: Students, residents, neurologists, neuroimagers, radiologists, pediatricians

This course is designed to procure the following desirable physician attributes: Patient care, Medical knowledge, Practice-based learning and improvement, Employ evidence-based practice, Performance in practice

Relevant Modality: MRI, CT, SPECT

Applied Principles of Ultrasound Physics and Fluid Dynamics

7:00 – 8:30 am ● The Keys ● CME: 1.5 Hours
Director: Andrei Alexandrov, MD, RVT
Faculty: Andrei Alexandrov, MD, RVT and Zsolt Garami, MD

Course Description: This seminar is being offered to review ultrasound physics and fluid dynamics, demonstrate typical imaging artifacts and waveforms that interpreting physicians and sonographers need to identify and correct and to interact with the audience and answer questions about these typical findings. Course faculty will discuss applied principles of ultrasound physics and fluid dynamics using a set of approximately 50 typical images/waveforms. Discussion format includes brief case/symptom presentation and an ultrasound image. Faculty will ask the audience to interpret the image and engage in discussion of differential diagnosis and common pitfalls that are linked to ultra sound physics and ffluid dynamics.

Objectives:
1. Review most common ultrasound imaging artifacts and spectral waveforms
2. Learn key principles of applied ultrasound physics and fluid dynamics that are responsible for these findings.
3. Learn how to differentiate, optimize, and interpret typical ultrasound imaging artifacts and spectral waveforms.

Relevant Modality: Ultrasound

Saturday, January 18, 2014

Current Topics in MR and CT Imaging (Part II)

8:30 am - 4:30 pm ● Sarasota Ballroom A & B ● CME: 6.25 Hours
Directors: Gabriella Szatmary, MD, PhD and John Bertelson, MD
Faculty: John Bertelson, MD, Guy Buckle, MD, Joshua Klein, MD, PhD, Laszlo Mechtler, MD, Jefferson Miley, MD, Thomas Pfiffner, MD, Ronak Jani, MD and Adnan Qureshi, MD

This course will review a variety of neuroimaging topics of particular interest to the practicing neurologist. Keeping with the theme of the 2014 Annual Meeting, these topics are intended to reflect clinical subjects with the relevance today and the near future.

8:30 - 9:30 am	What's New in Neuro-oncology: Spine and Brain	Laszlo Mechtler, MD
9:30 - 10:15 am	Review of Skull-based and Cranial Nerve Imaging	Joshua Klein, MD, PhD
10:15 - 10:45 am	Vascular Anatomy and Variants	John Bertelson, MD
10:45 - 11:00 am	BREAK	
11:00 - 11:45 am	Venous Disorders of the CNS	Adnan Qureshi, MD
11:45 am - 12:30 pm	Multimodal Imaging Using CT, MRI, and Angiography	Jefferson Miley, MD
12:30 - 1:00 pm	Interesting Cases Presentation	Thomas Pfiffner, MD & Ronak Jani, MD
1:00 - 1:15 pm	QUESTIONS	
1:15 - 2:45 pm	Presidential Address & Awards Luncheon	
2:45 - 3:30 pm	Imaging in Pregnancy	Joshua Klein, MD, PhD
3:30 - 4:15 pm	Update on Imaging in Multiple Sclerosis	Guy Buckle, MD
4:15 - 4:30	QUESTIONS	

Objectives:
1. Understand the imaging characteristics associated with selected neuropathologic states.
2. Appreciate the complementary roles of various imaging modalities in clinical neuroimaging.
3. Understand the clinical applications of various advanced imaging techniques.

This course is designed to procure the following desirable physician attributes: Medical knowledge, practice-based learning and improvement

Target Audience: neurologists, radiologists, neurosurgeons, other neuroscientists

Relevant Modality: MRI, fMRI, CT

HANDOUTS

Pre-registered attendees were sent a link to the meeting handouts prior to the meeting. The link was sent from asn@llmsi.com.
All attendees will be sent the link after the meeting.

Saturday, January 18, 2014

Current Topics in Neurosonology (Part II)

8:30 am - 4:30 pm ● The Keys ● CME: 6.25 Hours
Director: Alexander Razumovsky, PhD, FAHA
Faculty: Andrei Alexandrov, MD, RVT, Zsolt Garami, MD, Alexander Razumovsky, PhD, FAHA, Tanya Rundek, MD and Charles Tegeler, MD

This course is for individuals interested in performing and interpreting advanced carotid duplex studies for assessment of carotid intima-media thickness, carotid atherosclerosis and risk evaluation for cerebrovascular disease. Transcranial doppler (TCD) ultrasound studies for specific applications, like for patients after ischemic stroke and cryptogenic stroke, role of sonothrombolysis, application and interpretation of TCD for patients after SAH due to the aneurysm rupture or due to the traumatic brain injury will be discussed. TCD monitoring during cardiovascular surgeries and interventions will be offered. Ample time will be left for questions and discussion. Upon completion of this course, participants will be able to identify interpretation and clinical applications of abovementioned specific neurosonology applications. The course material is designed for participants seeking advanced knowledge of neurosonology and its clinical applications.

8:30 am – 12:00 pm	TCD and Carotid duplex studies interpretations	Charles Tegeler, MD & faculty members
10:45 – 11:00 am	BREAK	
11:00 am – 12:00 pm	TCD and Carotid interpretations continued	Charles Tegeler, MD & faculty members
12:00 – 1:00 pm	Intima-media thickness: methodology and its clinical value	Tanya Rundek, MD, PhD
1:15 – 2:45 pm	Presidential Address and Awards Luncheon	
2:45 – 3:30 pm	Specific TCD applications for patients with CVD, including acute stroke	Andrei Alexandrov, MD, RVT
3:30 – 4:00 pm	TCD Monitoring of critically ill patients	Alexander Razumovsky, PhD, FAHA
4:00 – 4:30 pm	TCD monitoring during invasive cardiovascular procedures and surgeries	Zsolt Garami, MD

Objectives:
1. Identify techniques and protocols for performing advanced cerebrovascular studies using duplex scans, real-time spectral Doppler analysis and understand the clinical usefulness and limitations of the carotid duplex and TCD evaluations. Achieve experience in acquiring and interpreting advanced carotid duplex and TCD testing in common neurolovascular disorders, i.e., stroke, TIA, extra- and intracranial stenosis.
2. Recognize characteristic patterns of blood flow in the cerebrovascular vessels and relate normal and abnormal cerebrovascular blood flow changes to clinical presentations, thus improving quality of diagnostic testing and patients outcome. Special TCD patter changes in patients after subarachnoid hemorrhage and traumatic brain injury in Neuro-Critical Care settings will be addressed.
3. Identify characteristic changes of the TCD variables monitored during the surgeries or endovascular treatment and relate these changes to the possible interventions that will reduce rate of postoperative complications

This course is designed to procure the following desirable physician attributes: Patient-centered care, Quality Improvement and Evidence based practice

Target Audience: Neurologists, neurosurgeons, vascular surgeons, neurointensivists, neuroradiologists, cardiologists, anesthesiologists and vascular technologists.

Relevant Modality: Ultrasound

Sunday, January 19, 2014

Breakfast Seminar: Redefining Vasospasm after Subarachnoid Hemorrhage with Modern Neuroimaging

7:00 – 8:30 am ● Sarasota Ballroom A & B ● CME: 1.5 Hours

Director and Faculty: Gregory Kapinos, MD

The faculty and course director, Gregory Kapinos, MD, MS, will review the recent data revealing that multimodal neuroimaging car help redefine what constitutes delayed cerebral ischemia (DCI) and vasospasm after subarachnoid hemorrhage (SAH).
New techniques in diffusion, perfusion, permeability, flow heterogeneity, susceptibility and spectroscopic imaging as well as CT/MR angiography and vasoreativity-testing by transcranial dopplers will be reviewed.
The faculty will cover in 80 minutes current literature and ongoing research addressing the need to better delineate subcategories for DCI/vasospasm and propose a novel classification of secondary injury after SAH, based mainly on advanced neuroimaging. The remaining 10 minutes will be used for 1 break and discussions on clinical cases and research projects suggested by the audience.

7:00 - 7:15 am Terminological variance for delayed cerebral ischemia (DCI) and vasospasm after subarachnoid hemorrhage (SAH)

7:15 - 7:30 am Input of advanced multimodal neuroimaging in redefining DCI

7:30 - 8:00 am Prediction and early detection of DCI by CT perfusion

8:05 - 8:25 am Beyond perfusion deficits, measuring oxidative disarray by neuroimaging and intracranial monitoring

8:25 - 8:30 am Questions

Objectives:

1. Know the broad categories and subcategories of DCI and cerebral inflammatory insults after SAH;
2. Become familiar with interpreting MR and CT imaging in SAH with its specific values in terms of
   a- diagnostics (defining DCI and other insults like cerebral edema and other inflammatory insults),
   b- early prediction of vasospasm/DCI (based on CT, TCDs with and without vasoreactivity testing and perfusion studies),
   c- implications in terms of adjusting our daily monitoring for DCI/vasospasm (when to increase frequency of neurological examinations and TCDs, when to order a CTP or MRI or conventional cerebral angiography),
   d- nosology for vasospasm/DCI (understanding DCI to tailor treatment and monitoring and to better categorize patients in clinical trials and registries),
   e- prognostication for DCI/vasospasm, as well as for functional outcome/survival (based on clinical, imaging, sonographic as well as intracranial and electroencephalographic daily monitoring in the ICU),
   f- implications in terms of DCI treatment modalities (how to treat delayed neurological deterioration vs pressure-dependent neurological signs vs sonographic vasospasm vs angiographic vasospasm vs ischemic lesions on DWI vs hypoperfusion on CTP);

Target Audience: This course is intended for all providers caring for SAH patients including: Neurologists consulting in ERs and ICUs for the care of SAH patients, neurosurgeons, intensivists and urgentists, neuroradiologists and neuroimagers, residents and fellows in neurology, neurosurgery, anesthesia, emergency medicine, critical care nurses, physician-assistants and nurse practitioners in neurosciences and critical care.

This course is designed to procure the following desirable physician attributes: Patient care, Medical knowledge, Work in interdisciplinary teams, Commitment to lifelong learning

Relevant Modality: MRI, CT, PET, SPECT, Ultrasound, Angiography

Sunday, January 19, 2014

Breakfast Seminar: Power Doppler Neurosonography Pediatric Potpourri
7:00 - 8:30 am ● The Keys ● CME: 1.5 Hours
Director and Faculty: Paul Maertens, MD

Power Doppler sonography, a technique encoding the power in the Doppler signal, allows visualization of vessels that are poorly imaged with conventional color Doppler. The advantages of Power Doppler are higher sensitivity to low flow, better edge definition and improved depiction of the course of tortuous and irregular vessels. Both the beginners and experienced users are encouraged to attend. The Potpourri will illustrate various uses of Power Doppler neurosonography including detection of vascular anomalies, evaluation of sinus thrombosis, monitoring of sickle cell patients at risk for stroke, monitoring serial blood flow changes during transarterial embolization of vein of galen malformation, evaluation of brain death, evaluation of flow in the aqueduct of sylvius, evaluation of extra-axial masses.

Objectives:
1. Understand the basic advantages of Power Doppler Neurosonography
2. Understand criteria used in the stroke prevention trial (STOP) also permitted to monitor serial blood flow changes after therapy
3. Be alert in recognizing anomalies of power Doppler signal prompting further evaluation with conventional Doppler technology and other neuroimaging techniques such as conventional angiography, MRA, MRV

Target Audience: Clinicians and practioners

This course is designed to procure the following desirable physician attributes: Patient care

Relevant Modality: Ultrasound

ABSTRACTS

Abstract titles and authors are listed on pages 30-34.
Full text abstracts can be found online at www.asnweb.org.

Sunday, January 19, 2014

Neuroimaging Self-Assessment Examination
7:00 - 8:30 am ● Tropics ● CME: 1.5 Hours
Director: Eric Lindzen, MD, PhD
Faculty: Patrick Capone, MD, PhD, Dara Jamieson, MD and Eric Lindzen, MD, PhD

The Neuroimaging Self-Assessment Examination (SAE) is intended to be a Neuroimaging self-assessment tool, providing participants with a structured opportunity to gain insight into their own personal strengths and weaknesses relative to their peers in the provision and clinical evaluation of Neuroimaging studies. Knowledge and skills to be assessed in this setting will include identification of normal anatomical structures, accuracy in the identification of specific pathologies on MRI and CT studies, formulation of Neuroimaging differential diagnoses, basic MRI and CT physics knowledge, and the ability to correlate imaging findings with clinical history. Subject matter covered by the SAE will include diagnostic neuroimaging of common neurological disorders such as cerebrovascular disease, multiple sclerosis, CNS trauma, tumors and cysts, infections, toxic/metabolic disorders and diseases of the spinal cord and surrounding tissues. Knowledge of basic MRI and CT physics principles essential for protocol design, safety, recognition of artifact and differentiation of tissue types based upon CT density and MRI signal characteristics will also be assessed.

The target audience includes residents, fellows and attending physicians in the fields of neurology, neurosurgery and radiology who wish to address potential gaps between their own performance levels and commonly accepted standards of care in the provision of Neuroimaging interpretations.

The SAE will be presented in a multiple choice PowerPoint format projected on a screen to the audience with 1.5 minutes allotted per question. The subject matter will span 35 clinical neuroimaging cases and 15 questions related to imaging physics and technology. Each question will consist of a short text passage describing a clinical vignette or set of specific imaging-related parameters, accompanied by images or diagrams, followed by five answer options in multiple-choice format. Attendees will mark the single best answer to each question on a provided answer sheet, which will be passed in for grading at the end of the 90-minute course period. Clinical cases will incorporate detailed, high-resolution MRI and CT images of the brain and spine (including MR and CT angiography).

Exam scores will be kept confidential. Each examinee will be able to access a personal score report online or via email within 6 weeks of the exam. Anonymized scores will be statistically analyzed by the course directors for validation and exam improvement purposes. None of the material to be used in this self-assessment exercise shall have been previously copyrighted.

Objectives:
1) Become more familiar with personal strengths and weaknesses in the identification of normal versus abnormal imaging findings.
2) Become more familiar with personal strengths and weaknesses in formulating a differential diagnosis pertaining to specific imaging presentations.
3) Achieve greater levels of confidence in acquiring and interpreting MRI and CT studies in the assessment of common neurological disorders such as MS, stroke, tumor and trauma.
4) Be able to identify areas of future study to increase levels of competence in the interpretation of diagnostic Neuroimaging cases.
5) Be able to identify areas of future study to increase levels of competence in MRI and CT physics.

Disclaimer: *This course is a self-assessment exercise and is not intended to be used as a review for any specific board examination.*

This course is designed to procure the following desirable physician attributes: Patient care, Medical knowledge, Practice-based learning and improvement, Commitment to lifelong learning, Cognitive expertise, Performance in practice

Target Audience: Neurologists and Neurosurgeons

Relevant Modality: MRI, fMRI, CT, Angiography

Sunday, January 19, 2014

Above and Beyond the Neck and Brain Ultrasound Symposium

8:45 - 9:30 am ● The Keys ● CME: 1.5 Hours
Director: Zsolt Garami, MD
Faculty: Andrei Alexandrov, MD, RVT and Zsolt Garami, MD

The faculty will discuss Advanced level of transcranial Doppler (TCD) and carotid ultrasound examinations and interpretations. This course is for individuals seeking advanced knowledge of Neurosonology.

8:30 - 8:55 am	Interesting Cases	Andrei Alexandrov, MD, RVT
8:55 - 9:15 am	Hard Rock Cases	Zsolt Garami, MD
9:15 - 9:30 am	Questions and Discussion	

Objectives:
1. The speaker will discuss the imaging modalities used to diagnoses conditions/diseases. Cases that are extremely difficult to interpret will be explored with interactive case discussions.
2. The speaker will outline the disadvantages/limitations and advantages of each modalities.
3. Learn to identify the best imaging modalities to diagnose neurovascular conditions/diseases.

Relevant Modality: Ultrasound

Endovascular Treatment for Acute Ischemic Stroke Patients after IMS III, MR RESCUE and SYNTHESIS EXTENSION Trials

8:45 - 9:45 am ● Sarasota A & B ● CME: 1 Hour
Director: Adnan Qureshi, MD
Faculty: Ameer Hassan, MD, Rakesh Khatri, MD and Adnan Qureshi, MD

The results of IMS III, MR RESCUE, and SYNTHESIS EXTENSION are expected to affect the practice of endovascular treatment for acute ischemic stroke. The purpose of this course is to review the components of the designs and methods these trial and to describe the influence of those components on the interpretation of trial results. The need for developing new and effective treatments for patients with acute ischemic stroke cannot be undermined. A system wide effort to implement “parameter optimized endovascular treatment” is required prior to defining role of endovascular treatment in patients with ischemic stroke who are candidates for IV thrombolytics.

8:45 - 9:00 am	Putting IMS III, SYNTHESIS EXPANSION, and MR-RESCUE into perspective	Adnan Qureshi, MD
9:00 - 9:15 am	Is advanced imaging for selection of acute ischemic stroke patients for endovascular treatment necessary?	Ameer Hassan, MD
9:15 - 9:30 am	Endovascular treatment of acute ischemic stroke after recent clinical trials and regulatory approvals	Rakesh Khatri, MD
9:30 - 9:45 am	Discussion	

Given these recent findings, a major change in treatment paradigms for acute ischemic stroke is underway.

Objectives:
1. To highlight the findings of the recent randomized trials and implications for patient management and future of endovascular therapy;
2. To summarize recent advances in endovascular devices such as SOLITAIRE or TREVO stent retrievers;
3. To understand the recent guidelines for endovascular treatment of acute ischemic stroke and expected changes in these guidelines.

This course is designed to procure the following desirable physician attributes: Medical knowledge

Target audience:
1. Neurologists and neurosurgeons who are faced with deciding the best treatment option for their patients; 2. Trainees with an interest in cerebrovascular diseases and neuroimaging; 3. Neurosurgeons, cardiologist, neurologists, and radiologist who are involved with performing these procedures; 4. Neuroimagers involved in interpretation and research related to cerebrovascular imaging.

Relevant Modality: Angiography

Sunday, January 19, 2014

Neurodegeneration Symposium

9:45 - 11:30 am ● Sarasota Ballroom A & B ● CME: 1.75 Hours
Director: Joseph Masdeu, MD, PhD
Faculty: Eduardo Gonzalez-Toledo, MD, Claire Henchcliffe, MD, DPhil,
Michael Hutchinson, MD, PhD and Joseph Masdeu, MD, PhD

This course will review some of the most important neuroimaging findings in neurodegenerative disorders, including the degenerative dementias and Parkinson's disease. In particular, the availability in the clinical setting of amyloid imaging will make an impact in the usefulness of neuroimaging in dementia prognosis in the short term and may help accelerate the discovery of new therapies. The role of dopamine transporter imaging in the study of Parkinson's disease and some new MRI findings in this disease will be highlighted.

9:45 - 10:10 am	Brain Connectivity Methods in Cognitive Disorders	Eduardo Gonzalez-Toledo, MD, PhD
10:15 - 10:40 am	Neuroimaging of Dementia	Joseph C. Masdeu, MD, PhD
10:45 - 11:05 am	Dopamine Transporter Imaging in Neurodegeneration	Claire Henchcliffe, MD, DPhil
11:10 - 11:30 am	MR imaging in Parkinson's disease	Michael Hutchinson, MD, PhD

Objectives:
1. List the imaging modalities most helpful for the evaluation of patients with neurodegenerative disorders.
2. Indicate the role of amyloid imaging in the evaluation of dementia and mild cognitive impairment
3. Describe the most common findings in the neuroimaging evaluation of other neurodegenerative disorders.

Target Audience: This course is intended for neurologists, radiologists, fellows and residents interested in brain imaging.

CME CREDITS

Attendees will be sent a link to the online evaluation form after the meeting. The email will come from asn@llmsi.com. The CME form can be downloaded from the last page of the overall meeting evaluation. Please save your CME form for your records; ASN does not track attendee CME hours.

2014 FACULTY AND PROGRAM COMMITTEE DISCLOSURES

In accordance with the guidelines of the Accreditation Council for Continuing Medical Education (ACCME), ASN requires disclosure of any interests or affiliations with corporate organizations of Faculty (indicated below with F), Program Committee Members (indicated below with PC), and ASN staff members (indicated below with S).

Andrei Alexandrov, MD, RVT	(PC, F) Cerevast Therapeutics: Consultant
Robert Bermel, MD	(PC) Novartis: Advisory Committee; Biogen Idec: CME Course; Genzyme: Advisory Committee
John Bertelson, MD	(F) No relationships
Guy Buckle, MD	(F) Biogen Idec: Consulting/Advisory; EMD Serono: Consulting/Advisory; Genzyme Sanofi: Consulting/Advisory; Novartis Pharmaceuticals: Consulting/Advisory; Questcor Pharmaceuticals: Consulting/Advisory; Teva Neuroscience: Consulting/Advisory
Allan Burke, MD	(PC) No relationships
Patrick Capone, MD, PhD	(F) No relationships
Joseph Fritz, PhD	(F) No relationships
Zsolt Garami, MD	(F) No relationships
Eduardo Gonzalez-Toledo MD, PhD	(F) No relationships
E. Mark Haacke, PhD	(F) MR Innovations: President
Ryan Hakimi, DO	(PC) No relationships
Geoffrey Hartwig, MD	(F) No relationships
Ameer Hassan, MD	(F) Covidien: Speaker, Consultant; Microvention: Speaker, Consultant; GE Healthcare: Consultant
Claire Henchcliffe, MD, DPhil	(F) Allergan: Speakers bureau, Advisory Boards; GE: Speakers bureau, Advisory Boards; MedIQ: CME course development; Neuroalert: editorial contribution; Teva: Speakers bureau, Advisory Boards; UCB: Speakers bureau; USWorldMeds: Advisory Boards
Michael Hutchinson, MD, PhD	(PC, F) No relationships
Marge Hutchisson, RVT, RDCS	(F) No relationships
Dara Jamieson, MD	(PC, F) No relationships
Rank Jani, MD	(F) No relationships
Tudor Jovin, MD	(F) Silk Road Medical: Consultant
Gregory Kapinos, MD, MS	(F) No relationships
Tisha Kehn	(S) No relationships
Rakesh Khatri, MD	(F) Boehringer –Ingelheim: Speaker
R. Philip Kinkel, MD	(F) Biogen Idec: Scientific Consultant; Genzyme: Scientific Consultant
Joshua Klein, MD, PhD	(F) No relationships
David Liebeskind, MD	(PC) Covidien: Consultant; Stryker: Consultant
Eric Lindzen, MD, PhD	(F) No relationships
Alan Lumsden, MD	(F) WL Gore/ BSCI/ Hansen: Investigator; BSCI/WL GORE/Siemens/Medtronic: Speaker Bureau/Consultation; BSCI/Hansen: Advisor
Paul Maertens, MD	(PC, F) UCB: Speaker; GSK: Speaker
Marc Malkoff, MD	(PC) Rio Grande Neurosciences: Contracted research
Joseph Masdeu, MD, PhD	(F) American Society of Neuroimaging: Editor-in-Chief, *Journal of Neuroimaging*
Jennifer McVige, MD, PhD	(F) Cambia – Nautalis: Speaker/Educator
Laszlo Mechtler, MD	(PC, F) Zogenix: Speaker; Allergan: Speaker; Teva: Speaker; Nautilus: Speaker
Jefferson Miley, MD	(F) Penumbra: Speaking and Teaching
Brad Montgomery, MHA, CMPE	(F) No relationships
Bhagwan Moorjani, MD	(F) No relationships
Michael Moseley, PhD	(F) No relationships
Leslie Orvedahl	(S) No relationships
Erasmo Passaro, MD	(PC, F) UCB: Speaker; GSK: Speaker
Thomas Pfiffner, MD	(F) No relationships
William Preston, MD	(F) No relationships
Adnan Qureshi, MD	(PC, F) No relationships
Alexander Razumovsky, PhD, FAHA	(PC, F) FTE/Salary: Sentient NeuroCare Services, Inc.
Elizabeth Rowe, MBA, PhD	(F) No relationships
Tatjana Rundek, MD, PhD	(F) No relationships
Ali Saad, MD	(F) No relationships
Stephen Smith, MBA	(F) No relationships
Gabriella Szatmary, MD, PhD	(F) No relationships

Charles Tegeler, MD	(PC, F)
Lawrence Wechsler, MD	(PC) Lundbeck: Consultant; Abbott Vascular: Consultant; Neuro Interventional Theapeutic: Ownership Interest; Silk Road: Ownership Interest
Shannon Wild	(S) No relationships

AMERICAN SOCIETY OF NEUROIMAGING CME MISSION STATEMENT
The American Society of Neuroimaging (ASN) is an international professional organization of clinicians, technologists and research scientists who are dedicated to the advancement and advocacy of neuroimaging as a crucial to the treatment and investigation of disorders of the nervous system. The purpose of the ASN is to promote the integration of neuroimaging into the care of patients with neurological disorders through education, advocacy, accreditation and research.

The ASN's Annual Meeting educational activities meet the educational needs of physicians in practice and in training who use imaging techniques to investigate and treat disorders of the nervous system. Neuroimaging techniques that are included the ASN educational activities include x-ray, angiography and computed tomography, magnetic resonance, ultrasound, positron emission tomography and single photon emission computed tomography and near infra-red spectroscopy. Emphasis is placed on the correlation of the clinical data with information derived from the various methods used to image the nervous system and related structures (integrated neuroimaging) and on the updating of algorithms leading to a cost effective and efficient use of imaging modalities for the different disorders of the nervous system.

The Society further supports and promotes Fellowships, Preceptorships, Tutorials, and Seminars, related to neuroimaging held throughout the country. These courses address advances in the role of MRI, CT and Neurosonology in Neurology and are designed to help practitioners and trainees improve their interpretation skills. The ASN supports certification and self-assessment examinations in neuroimaging modalities to recognize the ability of neuroimagers to interpret studies.

TARGET AUDIENCE
The material presented at the 37th Annual Meeting is appropriate for neurologists, radiologists, and other physicians and health care professionals involved in the diagnosis and treatment of patients with neurologic disease.

ACCREDITATION
The American Society of Neuroimaging is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

CREDIT DESIGNATION
The American Society of Neuroimaging designates this live activity for a maximum of 25.5 *AMA PRA Category 1 Credit™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

CME CERTIFICATES AND EVALUATIONS
CME certificates will be issued after the conclusion of the 2014 Annual Meeting. In order to receive your CME certificate you will need to submit an evaluation form for each course attended. In an ongoing effort to move to paperless format, evaluations will only be available online. All meeting attendees will receive an email after the meeting with a link to the evaluation.

Please note: You will only receive CME credits for the courses for which you have registered.

AMERICAN SOCIETY OF NEUROIMAGING

PRESIDENTIAL ADDRESS & AWARDS LUNCHEON
ASN Business Meeting AGENDA ■ Hyatt Regency – Sarasota, FL
Saturday, January18, 2014 ■ 1:15-2:45 pm

1. Call to Order

2. Approval of Minutes – January 19, 2013, Business Meeting

3. President's Report – *Laszlo Mechtler, MD*
   a) Recognition of Dr. Preston's service as Treasurer
   b) Recognition of Dr. Jovin's service as Board Member
   c) Slate of Candidates: Neeraj Dubey, MD – Treasurer
   John Choi, MD – Board Position (2nd term)
   Eric Lindzen, MD, PhD – Board Position (2nd term)
   Erasmo Passaro, MD, FAAN – Board Position (2nd term)
   Joshua Klein, MD, PhD – Board Position

4. Program Committee Report – *Michael Hutchinson, MD, PhD*
   2015 Annual Meeting: Carefree Resort, Scottsdale, AZ - January 15-18, 2015

5. Treasurer's Report – *William Preston, MD, FAAN*

6. Practice Issues Committee Report –*Elizabeth Rowe, PhD*

7. Journal of Neuroimaging Report – *Joseph Masdeu, MD, PhD*

8. Fellowship/Training Committee Report – *Laszlo Mechtler, MD*

9. Presentation of the Qureshi Award – *Adnan Qureshi, MD*
   Presented to: Sonal Mehta, MD
   Single Balloon Microcatheter technique for coiling wide necked aneurysms: A Case Series

10. Presentation of Oldendorf Award – *Laszlo Mechtler, MD*
    Presented to: Mahesh Kate, MD
    Baseline Diffusion Weighted Imaging Lesion Volume Predicts Disappearance of Infarct on Fluid Attenuated Inverse Recovery Sequences Within 30 Days of TIA/Minor Stroke

11. Presentation of McKinney Award – *Laszlo Mechtler, MD*
Presented to: Lijuan Wang, PhD
Lower ultrasonographic cut-off point of optic nerve sheath diameter for raised intracranial cerebral pressure in Chinese Population

12. Presentation of Trainee Travel Awards – *Laszlo Mechtler, MD*
Presented to: Yazan Suradi, MD and Reuben Valenzuela, MD

13. New Business

14. Adjourn

AMERICAN SOCIETY OF NEUROIMAGING

ASN Business Meeting
Caesars Palace – Las Vegas, NV
Saturday, January 19, 2013
1:15-2:45 pm
MINUTES

On a motion seconded and carried, the minutes from the January 2012 Business Meeting were approved as submitted.

President's Report

Advocacy update
Dr. Jamieson reported that ASN is collaborating with the American Academy of Neurology (AAN) with regard to advocacy efforts. She encouraged members to contribute to the AAN's BrainPac which is the political action committee dedicated to neurology issues. She asked that anyone making a donation request that the funds go specifically towards neuroimaging advocacy efforts. Dr. Jamieson recognized the efforts of Dr. Mike Hutchinson, Dr. Vernon Rowe, Elizabeth Rowe, Dr. Mike Kushner and Dr. Bill Preston with regard to this collaboration.

Neuroimaging Fellowships
Dr. Jamieson reported that ASN will be working with the United Council for Neurologic Subspecialties (UCNS) to determine if ASN could be the sponsoring institution for neuroimaging fellowships. She noted that this would circumvent the issues facing academic institutions in terms of their hindered ability to get their fellowships approved by UCNS.

Neuroimaging Guidelines
Dr. Jamieson reported that the Neuroimaging Guidelines for residency training have been completed and are ready to submit to the Residency Review Committee (RRC). She noted that Dr. Masdeu put together guidelines for establishing neuroimaging fellowships that will be available on the ASN website at some point in the future.

Neuroimaging Webinars
Dr. Jamieson thanked Dr. Lindzen for organizing the Neuroimaging webinars that are offered every other Friday and encouraged ASN members to participate.

Neuroimaging Self-Assessment Examination
Dr. Jamieson reported that she, Dr. Pat Capone and Dr. Eric Lindzen will offer the Neuroimaging Self-Assessment Examination again this year and noted that the exam consists of 150 questions. She encouraged ASN members to attend.

Image Gallery
Dr. Jamieson noted that a Neuroimaging Image Gallery will be available on the ASN website and encouraged members to submit cases for inclusion. The goal is to have 500 images available for review in the gallery.

Dr. Jamieson recognized Dr. Mechtler's service as Vice President and Program Chair, Dr. Malkoff"'s service as a Secretary, Dr. Liebeskind's service as Board Member and Dr. Crutchfield's service as Board Member.

Dr. Jamieson then asked the membership for approval of the slate of candidates as follows:

Laszlo Mechtler, MD – President
Michael Hutchinson, MD, PhD – Vice President
David Liebeskind, MD – Secretary
Vernice Bates, MD – Board Position (2nd term)
John Bertelson, MD – Board Position
Joseph Fritz, PhD – Board Position
Amir Mazhari, MD – Board Position

On a motion seconded and carried, the ASN membership approved the slate of candidates as submitted.

Dr. Jamieson thanked Dr. Larry Wechsler, Immediate Past President and Dr. Laszlo Mechtler, incoming President as well as the Executive staff for their efforts during the past year.

Report from the Program Committee
Dr. Mechtler reported that the annual meeting program has been a success. He noted that this year's program featured two keynote speakers and a presentation on the history of the ASN. The MRI Course was coordinated by the two new co-directors, Drs. Gabriella Szatmary and John Bertelson, and the Neurosonology Course Part I was coordinated by Dr. Zsolt Garami. He reported that there were 171 registered attendees at the time of the Business Meeting.

Dr. Mechtler reported that the 2014 annual meeting will be held at the Hyatt Regency in Sarasota, FL on January 16-19, 2014. The Program Committee will be working to bring in attendees from other subspecialties.

Report from the Fellowship Committee
Dr. Mechtler reported that there are still only four (UCNS) approved fellowships in neuroimaging and emphasized the need for additional fellowships. He noted that he is currently serving on the UCNS Board of Directors and is collaborating with UCNS on a Neuroimaging Task Force that will address questions and issues specific to neuroimaging, especially the turf battle issues with radiologists.

Dr. Mechtler reported that the next UCNS exam will be held in February of 2013 and that the Practice Track will end after the 2015 exam. He noted that there are a number of other subspecialties under the UCNS umbrella each with their own certification exam, and the American Headache Society has requested an extension of the Practice Track. If UCNS allows this extension, ASN may request an extension as well. Dr. Mechtler further explained that there is now a new third track to become UCNS certified; the Faculty Track. The Faculty Track allows qualifying physicians who are employed at a UCNS accredited location to sit for the exam and become certified. However, their certification automatically terminates if they are no longer employed at the accredited institution.

Dr. Mechtler explained that since he will be taking over as President, there will need to be a new ASN Fellowship Committee chair and asked the membership to contact him if they are interested in this position.

Dr. Mechtler explained that he is working with UCNS to determine if ASN could be a sponsoring institution for Neuroimaging Fellowships. The current UCNS fellowship guidelines make it difficult for universities/academic centers to implement UCNS approved fellowships and this could circumvent that issue. He will continue this discussion at the March 2013 UCNS Board Meeting.

Treasurer's report
Dr. William Preston reported that the assets for the end of fiscal year 2011-2012 were $380,000 which is down from fiscal year 2010-2011 when the year-end assets were $410,000. He explained that the main factors for the decrease in assets are the revised contract with Wiley-Blackwell, continued reduction in membership dues revenue and the 2012 Annual Meeting in Miami being slightly over budget.

He reported that at the end of the 2011-2012 fiscal year, ASN has a total of 407 paid members that brought in a revenue of $113,000.

Practice Issues Committee Report
Dr. Hutchison explained that there are three major issues currently facing neuroimagers: the lack of neuroimaging fellowships, reluctance for those in private practice to purchase neuroimaging equipment, and the reduction in reimbursement for reading images, although he noted that the reimbursement for the technical component has increased and equipment has become less expensive. Self-referral continues to be an issue as evidenced by the 2012 report from the Government Accountability Office (GAO). Dr. Hutchinson reported that a response was written and published asserting that their conclusions were erroneous and that in fact self-referral is saving Medicare millions of dollars.

Certification Committee Report
Dr. Masdeu reported that the *Journal of Neuroimaging* (*JON*) has been receiving a record number of papers and the acceptance rate is around 30%. He explained that a poll was sent to ASN members asking if they would approve of having the *JON* as an online only publication, to which most responded favorably. The Board agreed and beginning January 2014 the *JON* will cease to provide hard copy journal subscriptions. Dr. Masdeu noted that images are much clearer in the online version and can support moving images which will be especially valuable for papers pertaining to ultrasound. He noted that there will be no charge for color images in the online version where there was a charge for this in the printed version.

Awards
Dr. Jamieson presented the John and Sophie Prockop Memorial Lectureship to Christopher Holland, MD, PhD and the Qureshi Award to Syeda Alqadri, MD. Dr. Jamieson announced the Oldendorf Award recipient as Dolora Wisco, MD, and the McKinney Award recipient as Mohammed Almekhlafi, MD, MSc. The Trainee Travel Awards were announced as Seby John, MD, and Eric Grover, MD.

Dr. Jamieson thanked Dr. Kinkel who announced earlier in the meeting that he will be providing a fund to support travel expenses for future ASN keynote speakers.

Dr. Mechtler thanked Dr. Jamieson and recognized her service as ASN President.

There being no further business, the meeting was adjourned.

Respectfully submitted,

Shannon Wild
Executive Director

SLW:lao

2014 AWARD WINNERS

Awards will be presented Saturday, January 18, 2014 during the Presidential Address and Awards Luncheon.

Qureshi Award
The Qureshi Award is for the best abstract based on research in diagnostic angiography or endovascular procedures.

2014 Qureshi Award Recipient
Sonal Mehta, MD
St. Louis University - St. Louis, MO
Single Balloon Microcatheter technique for coiling wide necked aneurysms: A Case Series

Oldendorf Award
The Oldendorf Award is for the best abstract based on research in CT, MRI, SPECT or PET.

2014 Oldendorf Award Recipient
Mahesh Kate, MD
University of Alberta, Edmonton - Alberta, Canada
Baseline Diffusion Weighted Imaging Lesion Volume Predicts Disappearance of Infarct on Fluid Attenuated Inverse Recovery Sequences Within 30 Days of TIA/Minor Stroke

McKinney Award
The McKinney Award is for the best abstract based on research in neurosonology.

2014 McKinney Award Recipient
Lijuan Wang, PhD
Prince of Wales Hospital, Hong Kong
Lower ultrasonographic cut-off point of optic nerve sheath diameter for raised intracranial cerebral pressure in Chinese Population

Trainee Travel Awards
The Trainee Travel awards are presented to the two top-ranked abstracts submitted by a resident/fellow for poster presentations.

2014 Resident Travel Award Recipients
Yazan Suradi, MD
University of South Florida, Tampa, FL
Poster #45
Cerebral Vasospasm Following Transsphenoidal Pituitary Macroadenoma Resection. Case Report

Reuben Valenzuela, MD
University of Illinois College of Medicine, Peoria, IL
Poster #46
Utility of brain MRI in the diagnosis of Vogt–Koyanagi–Harada syndrome

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(Full abstracts can be found online at asnweb.org)

1. Feasibility and validation of spinal cord vasculature imaging using high resolution ultrasound
Foad Abd-Allah[1], Shahram Majidi[2], Masaki Watanabe[2], Saqib A Chaudhry[2], Adnan I Qureshi[2]
[1]Neurology Department Cairo University Hosoitals Cairo, Egypt, [2]Zeenat Qureshi Stroke Research Center, University of Minnesota Minneapolis, MN, USA

2. Not All "Successful" Angiographic Reperfusion Patients Are Equal: Validation of a modified TICI scoring system
Mohammed A Almekhlafi[1,2], Sachin Mishra[1], Jamsheed A Desai[1], Vivek Nambiar[1], Ondrej Volny[1, 6], Ankur Goel[1], Muneer Eesa[1, 3], Andrew M Demchuk[1, 3, 4], Bijoy K Menon [1, 3, 4, 5], Mayank Goyal[1, 3, 4]
[1]Calgary Stroke Program, Department of Clinical Neurosciences, University of Calgary Calgary, AB, Canada, [2]Department of Internal Medicine, King Abdulaziz University Jeddah, Saudi Arabia, [3]Department of Radiology, University of Calgary Calgary, AB, Canada, [4]Hotchkiss Brain Institute Calgary, AB, Canada, [5]Department of Community Health Sciences, University of Calgary Calgary, AB, Canada, [6]1st Neurological Clinic & International Clinical Research Centre, Brno, Czech Republic

3. WITHDRAWN

4. Unraveling the Brain Resting State in the Contexts of Gender, Education and Profession
Rose Dawn Bharath[1], Rajanikant Panda[1], Rajakumari P. Reddy[2], Neeraj Upadhya[1], Lija George[1], Thamodharan Arumugam[1], Silpa Kanungo[1], Shobini L. Rao[2], Jamuna Rajeswaran[2], Arun Kumar Gupta[1]
[1]Dept. of Neuroimaging & Interventional Radiology, National Institute of Mental Health and Neuro Science Bangalore, India, [2]Dept. of Clinical Psychology, National Institute of Mental Health and Neuro Science Bangalore, India

5. Case of Occipital Epilepsia Partialis Continua Presenting As Status Migrainosus: Clinical, EEG, and MRI Findings
Weiwei Dai, Madeleine Grigg-Damberger
University of New Mexico School of Medicine, Department of Neurology Albuquerque, NM, USA

6. Severe Intracranial Hypotension in a Post-Partum Women Status-Post Epidural Anesthesia, who was Misdiagnosed With Superior Sagittal Sinus Thrombosis. Case Report.
Crystal Dixon, Yazan Suradi, Ali Bozorg
University of South Florida Tampa, FL, USA

7. WITHDRAWN

8. Cerebral Amyloid Angiopathy: One Disease, Three Different Presentations
Pravin George, Ken Uchino
Cleveland Clinic Cerebrovascular Center Cleveland, OH, USA

9. cervico-cephalic arterial dissection (CCAD) diagnosis and management: 8 year experience at Loyola University Medical Center
Esteban E Golombievski, Miguel Situ, Sarkis Morales-Vidal, Michael Schneck
LUMC Maywood, IL, USA

10. Spontaneous Dissection of Bilateral Carotid and Vertebral Arteries with Successful Endovascular Treatment
Nitin Goyal[1], Shailesh Male[1], Vinodh T Doss[3], Lucas Elijovich[1,2,3]
[1]University of Tennessee Health Science Center, Department of Neurology Memphis, TN, USA, [2]University of Tennessee Health Science Center, Department of Neurosurgery Memphis, TN, USA, [3]Semmes-Murphey Neurologic and Spine Institute Memphis, TN, USA

11. A rare case of giant AVM and pineal germinoma
Ronak Jani, Thomas Pfiffner, Laszlo Metchler
DENT Neurologic Institute Amherst, NY, USA

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(Full abstracts can be found online at asnweb.org)

12. Spectrum of Magnetic Resonance Imaging Findings in Sneddon's Syndrome
Seby John[1], Shumei Man[1], Rula Hajj-ali[2], Ken Uchino[1]
[1]Cerebrovascular Center, Cleveland Clinic Cleveland, OH, USA, [2]Rheumatology, Cleveland Clinic Cleveland, OH, USA

13. A Case of Bickerstaff's Encephalitis Treated with IVIG
Haris Kamal[1], M Khaliq Ahmed[1], Nicholas Silvestri[1], Bijal K Mehta[2]
[1]SUNY Buffalo/ Department of Neurology Buffalo, NY, USA, [2]UCLA/Department of Neurology, Harbor-UCLA Medical Center Torrance, CA, USA

14. Baseline Diffusion Weighted Imaging Lesion Volume Predicts Disappearance of Infarct on Fluid Attenuated Inverse Recovery Sequences Within 30 Days of TIA/Minor Stroke
Mahesh P Kate, Parnian Riaz, Leka Sivakumar, Ashfaq Shuaib, Thomas Jeerakathil, Derek Emery, Kenneth Butcher
University of Alberta Edmonton, AB, Canada

15. Uncommon radiological findings of CNS diseases in HIV patients
Sakshi Kaul[1], Ajani Mason[1], Mohan Kurukumbi[2], Kamyar Sartip[3], Annapurni Jayam-Trouth[2]
[1]Howard University College of Medicine Washington, DC, USA, [2]Department of Neurology, Howard University Hospital Washington, DC, USA, [3]Department of Radiology, Howard University Hospital Washington, DC, USA

16. Locked- in Syndrome Secondary to Post- Infectious Encephalomyelitis
Mohankumar Kurukumbi[1], Suzanne Al- Hamad[1], Kim Han[2], Annapurni Jayam-Trouth[1]
[1]Howard University Hospital Department of Neurology Washington, DC, USA, [2]Howard University Hospital Department of Radiology Washington, DC, USA

17. WITHDRAWN

18. The difference of carotid duplex and neuroimaging between vertebral artery hypoplasia and vertebral artery stenosis/occlusion.
Ran Liu, Hai-ying Xing, Qing Peng, YU-hui Yin, Wei Sun
department of neurology, peking university first hospital beijing, China

19. Serial Power Doppler Neurosonography during Transarterial Embolization of Vein of Galen
Paul Maertens, Maude Crepault, Daniel Peterson, Steve Cordina
university of South Alabama/ department of Neurology Mobile, AL, USA

20. Corpus Callosum lesion: stroke or glioblastoma?
Konark Malhotra, Ramnath Santosh Ramanathan, Zain Gudduru, Nawal Shaikh, Sandeep Rana
Neurology, Allegeheny General Hospital, Drexel university College of Medicine, Allegheny Health Network Pittsburgh, PA, USA

21. The Association between Hyperdense Middle Cerebral Artery Sign and the Location of Vessel Occlusion
Shumei Man, Shazam M. Hussain, Dolora Wisco, Esteban Cheng-ching, Ken Uchino
Cerebrovascular Center/Neurological Institute, Cleveland Clinic Cleveland, OH, USA

22. The location of Vessel Occlusion Predicts the Outcome of Intra-arterial Thrombectomy for Acute Stroke
Shumei Man, Shazam M. Hussain, Dolora Wisco, Esteban Cheng-ching, Ken Uchino
Cerebrovascular Center/Neurolgical Institute, Cleveland Clinic Cleveland , OH, USA

23. The Bishop's Crook Sign: A New MRI and Neurosonography Pareidolia in Joubert Syndrome
Andrew T Manley, Paul M Maertens
University of South Alabama Mobile, AL, USA

24. Identifying spinal intradural arachnoid cysts on MR and CT imaging as a cause of progressive myelopathy and radiculopathy: A case series.
Belinda O Marquis, Patrick Capone
Winchester Neurological Consultants Winchester, VA, USA

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25. Activation by working memory in Parkinson's disease: Relationship to caudate dopamine levels
Joseph C Masdeu, Daniel P Eisenberg, Catherine E Hegarty, Brett Cropp, Philip Kohn, Karen F Berman
National Institutes of Health Bethesda, MD, USA

26. Long term course of relapsing Reversible Cerebral Vasoconstriction Syndrome
Hesham Masoud[1], Thanh Nguyen[1], Alexander Norbash[1], Meg Babikian[1], Ashkan Shoamanesh[2], Viken Babikian[1]
[1]Boston Medical Center Boston, MA, USA, [2]Massachusetts General Hospital Boston, MA, USA

27. Neuroimaging Detected Neurocysticercosis and Neuropsychiatric Symptoms in Refractory Epilepsy
Aaron McMurtray[1,2,3], Erin Saito[3], Amanda Leon[4], Karandev Rai[1,2], Julia Morrow[1,2], Natalie Diaz[1,2,3], Bijal Mehta[1,2,3], David Naylor[1,2,3]
[1]Harbor-UCLA Medical Center/Neurology Department Torrance, CA, USA, [2]David Geffen School of Medicine at UCLA/Neurology Department Los Angeles, CA, USA, [3]Los Angeles Biomedical Research Institute/Neurology Department Torrance, CA, USA, [4]Pitzer College Claremont, CA, USA

28. Case Report and Literature Review of Intramedullary Melanotic Schwannoma of the Thoracic Spinal Cord
Laszlo L. Mechtler[1,2], Natalie M. Chapman[1,2]
[1]Roswell Park Cancer Institute Buffalo, NY, USA, [2]DENT Institute Buffalo, NY, USA

29. Single Balloon Microcatheter technique for coiling wide necked aneurysms: A Case Series
Sonal Mehta, Connor J Einertson , Randall Edgell
St Louis University Hospital St Louis, MO, USA

30. Status Epilepticus Associated with Osmotic Myelinolysis and Steroid Responsive Pituitary Germinoma
Sonia Nayyar[1], Rahul Nayyar[2], Michael Mendoza[1], Rajbeer Sangha[1], Robert Beach[1]
[1]SUNY Upstate Neurology Syracuse, NY, USA, [2]SUNY Upstate Radiology Syracuse, NY, USA

31. MRI Findings and Clinical Presentation of Acute Hypoglycemia and Non-ketotic Hyperglycemia
Sonia Nayyar[1], Michael Mendoza[1], Rahul Nayyar[2], Krishna Das[2], Rashi Mehta[2]
[1]SUNY Upstate Neurology Syracuse, NY, USA, [2]SUNY Upstate Radiology Syracuse, NY, USA

32. Effect of Rajyoga Meditation: A Resting State Simultaneous EEG-fMRI Study
Rajanikant Panda[1], Rose Dawn Bharath[1], Mangalore Sandhya[1], Neeraj Upadhyay[1], Silpa Kanungo[1], Arumugam Thamodharan[1], Shobini L Rao[2], Arun Kumar Gupta[1]
[1]Dept. of Neuroimaging & Interventional Radiology, National Institute of Mental Health and Neuro Science Bangalore, India, [2]Clinical Psychology, National Institute of Mental Health and Neuro Science Bangalore, India

33. Brain Functional Connectivity of Learning Memory: An fMRI Study
Rajanikant Panda[1], Rajakumari P Reddy[2], Neeraj Upadhya[1], Thamodharan Arumugam[1], Silpa Kanungo[1], Shobini L Rao[2], Jamuna Rajeswaran[2], Arun Kumar Gupta[1], Rose Dawn Bharath[1]
[1]Dept. of Neuroimaging & Interventional Radiology, National Institute of Mental Health and Neuro Science (NIMHANS) Bangalore, India, [2]Dept. Clinical Psychology, National Institute of Mental Health and Neuro Science (NIMHANS) Bangalore, India

34. A Case of Assimilation of the Atlas
Thomas J Pfiffner, Ronak Jani, Laszlo Mechtler
DENT Neurologic Institute Amherst, NY, USA

35. Conversion of Posterior reversible encephalopathy syndrome into irreversible cytotoxic edema and acute infarct.
Ramnath Santosh Ramanathan, Konark Malhotra, Zain Guduru, Nawal Shaikh, Sandeep Rana
Neurology, Allegheny General hospital, Drexel University College of Medicine, Allegheny Health Network. Pittsburgh, PA, USA

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36. Tumefactive Demyelination: Biopsy dilemma.
Ramnath Santosh Ramanathan, Konark Malhotra, Zain Guduru, Nawal Shaikh, Sandeep Rana
Neurology, Allegheny General hospital, Drexel University College of Medicine, Allegheny Health Network. Pittsburgh, PA, USA

37. Acute necrotizing vasculitis mimicking glioblastoma multiforme in a patient with neuromyelitis optica.
Ramnath Santosh Ramanathan, Konark Malhotra, Laxmi Shah, Edwards J Gettings, Nawal Shaikh, Sandeep Rana
Neurology, Allegheny General hospital, Drexel University College of Medicine, Allegheny Health Network. Pittsburgh, PA, USA

38. WITHDRAWN

39. WITHDRAWN

40. Unilateral Subarachnoid Hemorrhage and Ipsilateral Retinal Hemorrhage in Infants
Joseph M Scheller, Patrick Capone
Winchester Medical Center Winchester, VA, USA

41. Embolic stroke post ablation due to atrioesophageal fistula.
Nawal Shaikh, Ramnath Santosh Ramanathan, Nnamdi Dike, Konark Malhotra, Sandeep Rana
Neurology, Allegeheny General Hospital, Drexel university College of Medicine, Allegheny Health Network Pittsburgh, PA, USA

42. Rhombencephalosynopsis as an incidental finding in an adult with head trauma
Lakshmi Shankar[1,2], Hongyan Li[2]
[1]Cleveland Clinic Foundation Cleveland, OH, USA, [2]University of Toledo Toledo, OH, USA

43. Acute Paradoxical Embolic Ischemic Stroke Related to Intravenous Line Pressure Injection in a Patient with Superficial Thrombophlebitis
Lakshmi Shankar, Russell Cerejo, Mei Lu
Cleveland Clinic Foundation Cleveland, OH, USA

44. Brain Networks Underlying visual perception of ambiguous figures:A study with fMRI and dyanamic causal modelling.
Hariom Sharma[1], Rekha varrier[2], Shripad Kondra[3], Prasun K Roy[4]
[1]NIMHANS Bangalore, India, [2]NBRC Gurgaon, India, [3]Mando Softtech India Pvt. Ltd. Bangalore, India, [4]NBRC Gurgaon, India

45. ***Cerebral Vasospasm Following Transsphenoidal Pituitary Macroadenoma Resection. Case Report.***
Yazan M. Suradi[1], Crystal Dixon[2], David Rose[3]
[1]University of South Florida Tampa, FL, USA, [2]University of South Florida Tampa, FL, USA, [3]University of South Florida Tampa, FL, USA

46. Utility of brain MRI in the diagnosis of Vogt–Koyanagi–Harada syndrome
Reuben Mari Valenzuela, Jorge C Kattah
University of IL College of Medicine Peoria Peoria, IL, USA

47. Assessment of Brain Plasticity Induced by rTMS in Patient with Writer Cramp Using Resting State Connectivity
Bhaskar M Venkateshappa[1], Rose D Bharath[1], Arun K Gupta[1], Pramod K Pal[2], Rajanikanth Panda[1], Ketan jhunjhunwala[2]
[1]Department of NIIR, NIMHANS Bangalore, India, [2]Department of Neurology, NIMHANS Bangalore, India

48. Recurrent spells of unresponsiveness secondary to bilateral carotid stenosis caused by giant cell arteritis
Mervat N Wahba
Neurology Memphis, TN, USA

49. Lower ultrasonographic cut-off point of optic nerve sheath diameter for raised intracranial cerebral pressure in Chinese Population

lijuan wang[1], yingqi xing[1], yan yao[2], wenhua lin[3], jiachun feng[1]
[1]Department of neurology, First Hospital of Jilin University changchun, China, [2]Department of Epidemiology and Biostatistics, School of Public Health, Jilin Unviersity changchun, China, [3]Department of medicine and therapeutics, Prince of Wales Hospital hongkong, China

50. Pediatric Nasopharyngeal Carcinoma: Imaging, Pathological and Clinical Evaluation

Alfred Weber[1], Mary Beth Cunnane[2], Amy Juliano[3], M Larvie[4], Hugh Curtin[5]
[1]Radiology MEEI Boston, MA, USA, [2]Radiology MEEI Boston, MA, USA, [3]Radiology MEEI Boston, MA, USA, [4]Radiology MGH Boston, MA, USA, [5]Radiology MEEI Boston, MA, USA

51. A case report on primary CNS vasculitis

Xin Xin Yu [1], Cynthia Bamford[2]
[1]Department of Neurology Cleveland, OH, USA, [2]Neurological Center for Pain Cleveland, OH, USA

37th ANNUAL MEETING EXHIBITORS

Please be sure to stop by and visit our exhibitors in Sarasota Ballroom C & D

Compumedics USA

Company Representative: Dan Henry

Compumedics DW Dopplersonography devices offer you crystal clear benefits and are much more versatile than you might think! The application spectrum of DWL Doppler systems is broader than ever before.

·DWL offers diagnostic routines, digital M-Mode, advanced monitoring software, emboli detection, special function tests and a variety of transducers in powerful system configurations.

Come see the NEW state-of-the-art all-inn system Multi-Dop X digital, the most compact EZ-Dop system with high performance and learn how to escape expensive PC obsolescence with Doppler-Box.

CoreTechs Labs

Company Representatives: Shelly Adams, Kora Marinkovic and James Brewer, MD, PhD

CorTechs Labs develops and markets cutting-edge brain imaging solutions that are used by neurologist and radiologists in hundreds of clinics and research centers around the world. The CorTechs Labs team includes scientists, engineers, business professionals and clinical specialist working towards the common goal of improving the care and treatment of patients with CNS disorders.

CorTechs' flagship product, NeuroQuant®, is a breakthrough, 510(k) cleared medical device that makes quantitative analysis of MRI images of the human brain a routine part of clinical practice. As the only FDA cleared medical device capable of automatically detecting and quantifying atrophy in the human brain, NeuroQuant® brings sophisticated, accurate, and fully automated MRI post-processing capabilities to the physician's desktop or mobile device. This provides neurologists, radiologists, and clinical researchers with a convenient and cost-effective means to quantify atrophy of brain structures to help diagnose a variety of brain disorders, including conditions such as Alzheimer's disease, epilepsy and traumatic brain injury.

DENT Neurologic Institute/Dent Imaging Centers

Company Representatives: Maria Caserta and Amanda Fisher

The DENT Neurologic Institute is among the largest, most comprehensive neurology practices in the United States. For almost 50 years we have focused on providing superior clinical care, advanced diagnostic services, clinical research and education.

DENT has been a leader in diagnostic imaging for over 30 years, providing a comprehensive range of neuroimaging services using state-of-the-art equipment. Our long experience with these advanced tools, as well as specialized training and certification, uniquely qualifies our physicians and medical staff to advance the science and art of diagnostic imaging. We are home to one of nation's largest fellowship programs in neuroimaging, training physicians from around the world in the use of these groundbreaking diagnostic tools. In addition, our preceptorship program provides high-level hands-on training to put you in position for better utilization and interpretation of neuro-diagnostic reporting.

Neuroimaging Fellowship
A one-year Neuroimaging Fellowship is offered by DENT Neurologic Institute each year. This Fellowship is based in a large outpatient neurology practice and includes MRI of the head and spine and CT of the head. Training is also offered in neurosonology, including both Carotid Doppler and Transcranial Doppler. Emphasis is placed on the basic science of Neuroimaging, clinical interpretation of studies, and Neuroimaging research.

Upon completion of the program, the graduate will be eligible for clinical certification in MRI and Neurosonology by the American Society of Neuroimaging and eligible for the UCNS Neuroimaging Certification Pathway for Neurologists. Headache and Neuro-Oncology Fellowships are also available. Visit www.dentinstitute.com

GE Healthcare Systems

Company Representative: Mike Tellerin

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care.

We partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

Intersocietal Accreditation Commission (IAC)

Company Representatives: Marge Hutchisson, RVT, RDCS

The Intersocietal Accreditation Commission (IAC) provides accreditation for Vascular Testing; Echocardiography; Nuclear/PET; MRI; CT (including Dental); and Carotid Stenting. Our new program for Vein Centers launched November 4, 2013. Stop by the IAC booth or visit intersocietal.org for details highlighting IAC's new programs and services that maintain our incredibly high standards – focused on quality patient care – while improving the experience for you. It's a whole new day for accreditation and IAC is leading the way!

Pearltec AG

Company Representative: Raymond Lang

A UNIQUE PATIENT POSITIONING AND STABILIZATION SYSTEM Founded in 2008, Pearltec AG is headquartered in Schlieren/Zurich (Switzerland). Together with eTH (Federal Institute of Technology) and several renowned Swiss university hospitals, a unique patented technology was developed aimed at solving the problems associated with placement, positioning and fixation of patients in research imaging studies. It was quickly recognized that this technology had broader applications in the imaging market and could enhance the workflow of patient studies. Pearltec AG has quickly established itself in the key medical imaging markets around the world. For more information call toll free1-855-PEARLTEC

American Society of Neuroimaging (ASN)

The American Society of Neuroimaging (ASN) is an international, professional organization representing neurologists, neurosurgeons, neuroradiologists and other neuroscientists who are dedicated to the advancement of techniques used to evaluate the nervous system. www.asnweb.org

EVENTS

Thursday, January 16, 2014

Welcome Reception
6:00 pm - 7:00 pm
Sarasota Ballroom C&D
Please join us for the Welcome and Poster Stand-By Reception. The Reception is complimentary for all registered attendees; guests are welcome with a $50.00 registration fee. Please visit the Registration Desk to register your guest prior to the reception.

Friday, January 17, 2014

Meet the Professors: Incorporating Neuroimaging in Your Neurological Practice
8:30 – 9:00 am
Tropics
This is an informal event that will take place during the Friday am break and is intended for residents, fellows and physicians early in their career to meet and network with leaders in the field of neuroimaging.

Saturday, January 18, 2014

Meet the Professors: Incorporating Neuroimaging in Your Neurological Practice
8:30 – 9:00 am
Tropics
This is an informal event that will take place during the Saturday am break and is intended for residents, fellows and physicians early in their career to meet and network with leaders in the field of neuroimaging.

Saturday, January 18, 2014

Presidential Address & Awards Luncheon
1:15 pm - 2:45 pm
Sarasota Ballroom A & B
Please join us for the annual Presidential Address and Awards Luncheon, complimentary to all registered attendees. Important issues in the field of neuroimaging will be addressed. The Luncheon will also include a presentation of the 2014 awards.

Saturday, January 28, 2014

Saturday Night Poolside Reception
5:00 pm - 6:00 pm
Tickets to the Saturday Evening Pool Side Reception are included in the registration fee. Light fare is to be served.

NOTES

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NOTES


The Future of Neuroimaging
in Clinical Practice
AMERICAN SOCIETY OF NEUROIMAGING
ASN
EST. 1977
ASN
38th Annual Meeting
January 15-18, 2015
CareFree Resort
Scottsdale, AZ