36th Annual Meeting

January 17-20, 2013

Caesars Palace | Las Vegas, NV

ONSITE PROGRAM

WELCOME TO THE 36th 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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HANDOUTS

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ABSTRACTS

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CME CREDITS

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PROGRAM AT A GLANCE

THURSDAY, JANUARY 17, 2013

8:00 am – 4:00 pm	ASN Committee and Board Meetings	
3:00 pm – 7:00 pm	Registration Opens	
6:00 pm – 7:00 pm	Welcome/Poster Stand-by Reception	Roman Ballroom III
7:00 pm – 8:00 pm	History of the ASN	Roman Ballroom IV
8:00 pm – 9:00 pm	Keynote Speaker: Large Scale Probabilistic Human Brain Atlases: Basic Science & Clinical Applications	Roman Ballroom IV

FRIDAY, JANUARY 18, 2013

6:30 am – 5:00 pm	Registration	
7:00 am – 8:30 am	Breakfast Seminar: Neurovascular Interventions for Cerebrovascular Emergencies: See it and Fix it	Roman Ballroom IV
7:00 am – 8:30 am	Breakfast Seminar: Perfusion Imaging	Florentine Ballroom III & IV
8:30 am – 4:00 pm	Exhibits and Posters	Roman Ballroom III
8:30 am – 9:00 am	BREAK	Roman Ballroom III
9:00 am – 1:00 pm	Current Topics in MR and CT Imaging (Part I)	Roman Ballroom IV
9:00 am – 1:00 pm	Current Topics in Neurosonology (Part I)	Florentine Ballroom III & IV
10:30 am – 10:45 am	BREAK	Roman Ballroom III
1:00 pm – 2:00 pm	LUNCH with Exhibitors	Roman Ballroom III
2:00 pm – 3:15 pm	Keynote Speaker: MRI-guided Focused Ultrasound: a new technology for clinical neurosciences	Roman Ballroom IV
3:15 pm – 3:30 pm	BREAK	Roman Ballroom III
3:30 pm – 5:00 pm	Symposium: Imaging Presymptomatic Alzheimer Disease and Other Cognitive Disorders	Messina
3:30 pm – 5:00 pm	Symposium: Intracranial Artherosclerosis: Advances in Diagnosis and Management	Roman Ballroom IV
5:15 pm – 6:45 pm	Neuroimaging Jeopardy	Florentine Ballroom III & IV
7:00 pm – 10:00 pm	MRI Hands-On Workshop	Florentine Ballroom I & II
7:00 pm – 10:00 pm	Neurosonology Hands-On Workshop	Offsite

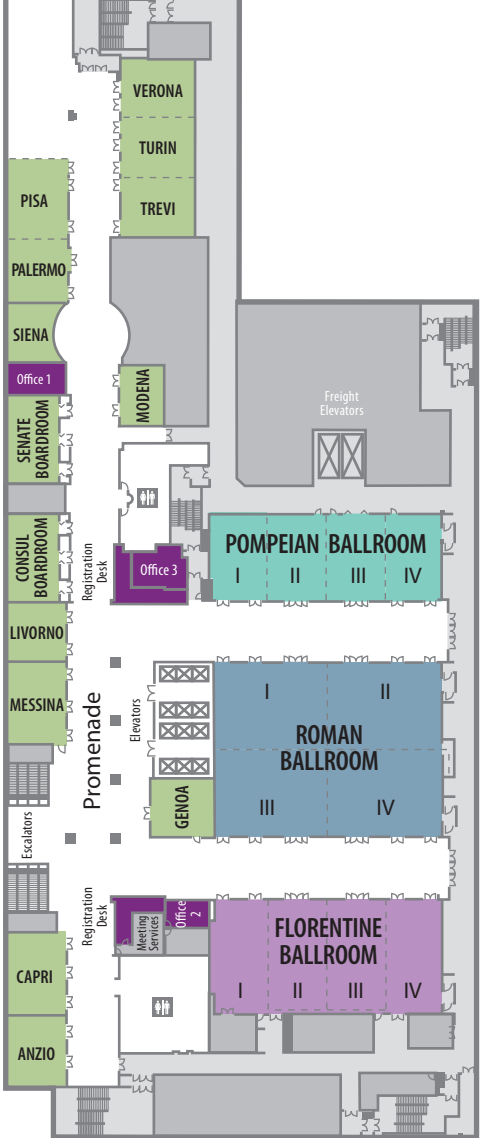
SATURDAY, JANUARY 19, 2013

7:00 am – 4:00 pm	Registration	
7:00 am – 8:30 am	Breakfast Seminar: MRI and Ultrasound Imaging of the Peripheral Nervous System	Roman Ballroom IV
7:00 am – 8:30 am	Breakfast Seminar: Pediatric Imaging	Florentine Ballroom III & IV
8:30 am – 9:00 am	BREAK	Roman/Florentine Foyer
9:00 am – 6:00 pm	Current Topics in MR and CT Imaging (Part II)	Roman Ballroom IV
9:00 am – 6:00 pm	Current Topics in Neurosonology (Part II)	Florentine Ballroom III & IV
10:45 am – 11:00 am	BREAK	Roman/Florentine Foyer
1:15 pm – 2:45 pm	Presidential Address and Awards Luncheon	Roman Ballroom IV

SUNDAY, JANUARY 20, 2013

7:00 am – 11:00 am	Registration	
7:00 am– 8:30 am	Breakfast Seminar: The Neonatal Brain in the 21st Century: MRI and Ultrasound	Roman Ballroom IV
7:00 am - 8:30 am	Breakfast Seminar: Applied Principles of Ultrasound Physics and Fluid Dynamics	Anzio
7:00 am – 8:30 am	MRI Self-Assessment Exam	Messina
8:45 am – 9:00 am	BREAK	Roman/Florentine Foyer
9:00 am – 10:40 am	MRI Physics and Artifacts	Roman Ballroom II & IV
10:40 am – 11:30am	How to Prevent Medical Malpractice	Roman Ballroom II & IV
9:30 am – 3:30 pm	Neurosonology Examination (offsite)	

SPEAKER READY ROOM: Genoa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UCLA Brain Mapping Center
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Thursday, January 17, 2013

History of the ASN

7:00 - 8:00 pm ● Roman Ballroom IV ● CME: 1 hour
Directors: Jack Greenberg, MD and William Kinkel, MD

In 1978, Dr. William Oldendorf delivered the Wartenburg Lecture at the AAN in which he traced the history of neuroimaging beginning with Roentgen's 1895 radiograph up to the Nobel Prize winning Magnetic Resonant Imaging Scan. Oldendorf won the Lasker Award for developing the prototype CT scan which was mentioned by Hounsfield in his Noble acceptance speech.

Bill Kinkle brought the fourth CT scan into the United States and with the help of Jim Toole at Bowman Grey, gave us our start with the first special course in neuroimaging at the AAN meeting. From these beginnings, the ASN was born and the history of this event is presented.

Keynote Lecture
Large Scale Probabilistic Human Brain Atlases: Basic Science & Clinical Applications

8:00 - 9:00 pm ● Roman Ballroom IV ● CME: 1 hour
Director: John Mazziotta, MD, PhD

The human brain varies greatly among individuals in both structure and function. This is true across the lifespan and across populations that differ by gender, race, handedness and other variables. By amassing large sets of neuroimaging data in well-characterized, normal, individuals, this variance has been quantified and can be used to better understand the organization of the human brain. A multi-university program entitled the International Consortium for Brain Mapping (ICBM) has assembled just such a large data set associated with detailed demographic information on normal subjects ranging in age from 18 to 82. These data have been assembled into population atlases but serve many purposes. They can act as a template to label and identify structures from newly acquired imaging studies on normal subjects or patients for research or diagnostic purposes. A companion program to examine post-mortem tissue also allows for an understanding of the variance of cytoarchitecture and chemoarchitecture to be overlaid on gross brain anatomy. These cyto- and chemoarchitecture maps can also be used to label newly acquired imaging studies of normal subjects or patients. In the clinical domain, such databases can be used as an effective biomarker in clinical trials to examine experimental therapies as well as objective filters for assessing subtle neuropathology in individual patients.

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Breakfast Seminar: Perfusion Imaging

7:00 – 8:30 am ● Florentine Ballroom III & IV ● CME: 1.5 Hours
Director: David Liebeskind, MD
Faculty: David Liebeskind, MD and 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.

7:00 am – 7:35 am	Principles and Potential of Perfusion Imaging: Realizing Cerebral Blood Flow from Hemodynamics to Permeability	David Liebeskind, MD
7:35 am – 7:45 am	Discussion	Faculty
7:45 am – 8:20 am	Use of CT and MRI Perfusion from Acute to Chronic Ischemia	Tudor Jovin, MD
8:20 am – 8:30 am	Discussion	Faculty

Upon completion of this seminar, attendees will have a firm understanding of:
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

Breakfast Seminar: Neurovascular Interventions for Cerebrovascular Emergencies: See it and Fix it

7:00 – 8:30 am ● Roman Ballroom IV ● CME: 1.5 Hours
Director: Steven Cordina, MD
Faculty: Steven Cordina, MD and Rakesh Khatri, MD

The faculty will review the neuroimaging of vascular neurological emergencies and urgencies such as stroke, extracranial and intracranial arterial stenoses and occlusion, aneurysms, arteriovenous malformations and fistulae, as well as venous sinus thrombosis. Current techniques in conventional angiographic therapeutics will be reviewed.

7:00 - 7:10 am	Introduction	Steve Cordina, MD
7:10 - 7:25 am	Acute Stroke Intervention	Steve Cordina, MD
7:25 - 7:40 am	Intracranial Vascular Disease	Rakesh Khatri, MD
7:40 - 7:55 am	Extracranial Vascular Disease	Rakesh Khatri, MD
7:55 - 8:10 am	Aneurysm Treatment	Steve Cordina, MD
8:10 – 8:20 am	Other vascular diseases	Steve Cordina, MD
8:20 – 8:30 am	Q&A	Faculty

Upon completion of the course, attendees will:
1) Know the basic principles of conventional cerebral angiography
2) Achieve practical experience when to order cerebral angiograms in common vascular neurological disorders.
3) Become familiar with imaging of arterial and venous diseases of the brain, and
4) Become familiar with indications of endovascular treatment of neurovascular emergencies and urgencies.

This course is designed to procure the following desirable physician attributes: Patient care, Medical knowledge, Practice-based learning and improvement, Provide patient centered care
Target Audience: neurologists, neurosurgeons, radiologists, fellows and residents interested in cerebral angiography
Relevant Modality: Angiography

Current Topics in MR and CT Imaging (Part I)

9:00 am - 1:00 pm ● Roman Ballroom IV ● CME: 3.75 hours
Directors: Gabriella Szatmary, MD, PhD and John Bertelson, MD
Faculty: Joseph Fritz, PhD, David Liebeskind, MD, Joseph Masdeu, MD, PhD and Laszlo Mechtler, MD

Presentations will include basic but will focus on advanced MR and CT imaging techniques, including state-of-the-art techniques such as diffusion tensor imaging, fMRI, PWI, cine CSF flow study and MRS. In addition to the technical aspects of imaging we will focus on differential diagnostic dilemmas on imaging modalities. Also, lectures will be focused on the usefulness of different imaging modalities in various clinical settings and if relevant practice-related issues (billing and coding), including MRS, DTI, PWI, CT perfusion, CTA/MRA, CTV/MRV.

9:00 am - 9:45 am	Advanced MRI and CT Physics	Joseph Fritz, PhD
9:45 am - 10:30 am	Advanced Cerebrovascular Imaging	David Liebeskind, MD
10:30 am - 10:45 am	BREAK	Roman Ballroom III
10:45 am - 11:30 am	Advanced Imaging of Brain Tumors	Laszlo Mechtler, MD
11:30 am - 12:15 pm	Advanced imaging modalities in neurodegenerative disorders	Joseph Masdeu, MD, PhD
12:15 pm - 12:45pm	Imaging of Head Injury	Joseph Fritz, PhD
12:45 pm - 1:00 pm	Discussion	Faculty

Upon completion of the course, attendees will:
1) Become familiar with the characteristic MR and CT imaging findings in specific neurologic disease states
2) Become familiar with the appropriate and optimal MR sequences and CT techniques used in imaging specific disease states
3) Become familiar with the clinical differential diagnoses associated with specific MR and CT imaging findings

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 27-30.
Full text abstracts can be found online at asn@llmsi.com.

Current Topics in Neurosonology (Part I)

9:00 am - 1:00 pm ● Florentine Ballroom ● CME: 3.75 hours
Director: Zsolt Garami, MD
Faculty: Andrei Alexandrov, MD, RVT, Zsolt Garami, MD, Leo Germin, MD,
Alan Lumsden, MD, Branko Malojcic, MD, PhD and Tatjana Rundek, MD, PhD

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 am - 9:15 am	Waveform Recognition	Andrei Alexandrov, MD, RVT
9:15 am - 9:30 am	Carotid Duplex Protocol	Tanja Rundek, MD
9:30 am - 9:45 am	Transcranial Doppler Protocol	Zsolt Garami, MD
9:45 am - 10:00 am	Transcranial Duplex Protocol	Branko Malojcic, MD
10:00 am - 10:15 am	TCD Bubble Test Protocol	Leo Germin, MD
10:15 am -10:30 am	Q & A	Faculty
10:30 am - 10:45 am	BREAK	Roman/Florentine Foyer
10:45 am - 11:00 am	Subclavian and Vertebral Steal	Zsolt Garami, MD
11:00 am - 11:15 am	TCCD in NICU	Branko Malojcic, MD, PhD
11:30 am - 11:45 am	Grading Carotid Stenosis	Andrei Alexandrov, MD, RVT
11:45 am - 12:00 pm	Embolus Detection	Branko Malojcic, MD
12:00 pm - 12:15 pm	Interventional TCD	Alan Lumsden, MD, RVT
12:15 pm - 12:30 pm	Fusion Imaging	Zsolt Garami, MD
12:30 pm - 12:45 pm	IAC Accreditation: Issues and Answers	Marge Hutchisson, RVT, RDCS
12:45 pm -1:00 pm	Q & A	Faculty

Upon completion of the course, attendees will:
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

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

Target Audience: neurologists, radiologists, neurosurgeons, other neuroscientists

Relevant Modality: Ultrasound

Symposium: Imaging Presymptomatic Alzheimer Disease and Other Cognitive Disorders

3:30 - 5:00 pm ● Messina Ballroom ● CME: 1.5 Hour

Director: Joseph Masdeu, MD, PhD

Faculty: Charles Bernick, MD, Eduardo Gonzalez-Toledo, MD, PhD and Joseph Masdeu, MD, PhD

This course will review some of the most important neuroimaging findings in dementia and other cognitive disorders. 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 course will be introduced by a lecture on neuroimaging of brain networks that are critical to understand the topography of brain changes in Alzheimer's disease and the frontotemporal dementias. After an introductory talk on the state of the art in the imaging of dementia disorders, the 2012 approval of an amyloid imaging tool for clinical use will be discussed.

3:30 pm - 4:00 pm	Brain connectivity methods in cognitive disorders	Eduardo Gonzalez-Toledo, MD, PhD
4:00 pm - 4:30 pm	Neuroimaging of Dementia	Joseph Masdeu, MD, PhD
4:30 pm - 4:50 pm	Amyloid Imaging in Alzheimer Disease	Charles Bernick, MD
4:50 pm - 5:00 pm	General Discussion	Faculty

Upon completion of the course, attendees will be able to:

1) List the imaging modalities most helpful for the evaluation of patients with cognitive disturbances or dementia.
2) Indicate the role of amyloid imaging in the evaluation of dementia and presymptomatic Alzheimer disease stages
3) Describe the most common findings in the neuroimaging evaluation of cognitive impairment.

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

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

Relevant Modality: MRI

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Symposium: Intracranial Artherosclerosis: Advances in Diagnosis and Management

3:30 - 5:00 pm ● Roman Ballroom ● CME: 1.5 Hour
Directors: Adnan Qureshi, MD and M. Fareed Suri, MD
Faculty: Ameer Hassan, MD, Rakesh Khatri, MD, Adnan Qureshi, MD, M. Fareed K. Suri, MD

There have been substantial advancements in detection and characterization of intracranial atherosclerosis in asymptomatic patients and those with ischemic symptoms. The ultrasound screening in adults for intracranial disease (USAID) study (Suri MF, Neuroepidemiology. 2011;37(1):64-71), concluded that based on the high prevalence of significant intracranial stenosis in the US elderly population, it is feasible and important to perform a large-scale population-based study for this disease entity. The high prevalence of intracranial atherosclerosis among elderly patients with cognitive impairment also supports a causal role for intracranial atherosclerosis. The concept of low regional perfusion state and impaired protein synthesis possibly explains the cognitive deficits in the absence any infarction. High resolution MRI and intravascular ultrasound can identify plaque characteristics in asymptomatic persons further enhancing our understanding for risk stratification and progression of disease.

The results of prematurely terminated Stenting and Aggressive Medical Management for Preventing Recurrent stroke in Intracranial Stenosis (SAMMPRIS) (Chimowitz MI, et al. N Engl J Med 2011;365:993-1003) due to excessively high rate of stroke and death in patients randomized to intracranial stent placement are expected to affect the practice of endovascular therapy for intracranial atherosclerotic disease. The study also demonstrated the value of intensive medical therapy (antithrombotics and aggressive risk factor management primarily targeting blood pressure < 130 / 80 mm Hg and low density cholesterol concentration< 70 mg / dl.) when administered early in reducing recurrent ischemic events.

3:30 pm – 3: 50 pm	Advances in imaging of intracranial atherosclerosis	Ameer Hassan, MD
3:50 pm – 4:10 pm	Intracranial atherosclerosis, Alzheimer's disease and Vascular dementia	M. Fareed Suri, MD
4:10 pm – 4:30 pm	Medical management of intracranial atherosclerosis	Adnan Qureshi, MD
4:30 pm – 4:50 pm	Endovascular treatment of intracranial atherosclerosis after SAMMPRIS	Rakesh Khatri, MD
4:50 pm – 5:00 pm	Discussion	Faculty

Given these recent findings, a major change in treatment paradigms for intracranial atherosclerotic diseases is underway. The objectives of the course are:
1) To highlight the findings of the recent randomized trials and implications for patient management and future of endovascular therapy;
2) To describe recent advances in intracranial plaque imaging, and recent recognition of the non-atherosclerotic variant;
3) To define the role of intracranial stenosis in progressive cognitive decline without infarction,
4) To understand the value of intracranial stenosis as a marker of systemic atherosclerosis and small arteriolar degenerative disease.

Target audiences:
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.
This course is designed to procure the following desirable physician attributes: Employ evidence-based practice
Relevant Modality: MRI, CT

Neuroimaging Jeopardy

5:15 - 6:45 pm ● Florentine Ballroom III & IV ● CME: 1.5 hours
Director and Faculty: Paul Maertens, MD

Experts who perform and interpret various neuroimaging modalities will be asked to interact and test their knowledge on a wide array of neurologic disorders affecting adults and children. On the basis of clinical history, findings on clinical examination and neuroimaging features, the audience will be asked to participate and create their own interpretation for selected cases as each case will follow the jeopardy template. Real cases will be presented and the final diagnosis may not always be known.

Upon completion of this course, attendees will:
1) Be able to develop a strategy in diagnosing various neurologic conditions using neuroimaging
2) Become familiar with neuroimaging tools that improve diagnostic precision
3) Become familiar with clinical applications of diverse neuroimaging modalities

Target Audience: Neurologists, neurosurgeons, radiologists, pediatricians, fellows and residents interested in neuroscience
This course is designed to procure the following desirable physician attributes: Medical knowledge, leadership
Relevant Modality: MRI

MRI Hands-On Workshop

7:00 – 10:00 pm ● Florentine Ballroom I & II ● CME: 3 Hours
Director: Geoffrey Hartwig, MD
Faculty: Geoffrey Hartwig, MD, Kaveer Nandigam, MD, Erasmo Passaro, MD, Brian Ross, MD, Kalyan Shastri, MD, and Kenneth Snyder, MD

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.

Upon completion of the workshop attendees will:
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 ● Offsite ● CME: 3 Hours
Director: Andrei Alexandrov, MD, RVT
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.

Upon completion of the workshop attendees will:
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

Transportation: The Neurosonology Hands-On Workshop will be held offsite at the Clinical Neurology Specialists Clinic. To use ASN provided transportation, Please meet at _____ no later than 6:30 pm.

Breakfast Seminar: MRI and Ultrasound Imaging of the Peripheral Nervous System

7:00 - 8:30 am ● Roman Ballroom IV ● CME: 1.5 Hours
Director: Steven Shook, MD
Faculty: Laszlo Mechtler, MD and Steven Shook, MD

This breakfast seminar will familiarize participants with the role of MRI and high-resolution ultrasound for assessment the peripheral nervous system in clinical practice. The faculty will review the benefits and limitations of these technologies, appearance of normal nerves and expected findings in various disease states, including entrapment neuropathies, peripheral nerve tumors and trauma. Issues pertaining to imaging of cranial nerves will also be discussed.

7:00 am – 7:05 am	Introduction	Steven Shook, MD
7:05 am – 7:35 am	MRI of Peripheral Nerve	Laszlo Mechtler, MD
7:35 am - 7:45 am	MRI of Cranial Nerve	Laszlo Mechtler, MD
7:45 am – 8:15 am	Ultrasound of Peripheral Nerve	Steven Shook, MD
8:15 am - 8:30 am	Questions & Discussion	Faculty

Upon completion of the seminar, attendees will be able to:
1) Understand benefits and limitations of US and MRI for diagnosis of disorders affecting peripheral nerve.
2) Appreciate the normal appearance of nerve by MRI and ultrasound.
3) Identify specific indications for which US and MRI are proven useful in clinical practice, based on the most up-to-date literature.

Target Audience: This course is intended for neurologists, neurosurgeons, physiatrists, radiologists, fellows and residents interested the role of MRI and US in the diagnosis of disorders affecting the peripheral nervous system.

This course is designed to procure the following desirable physician attributes: Patient care, Medical knowledge, Commitment to lifelong learning, Cognitive expertise

Relevant Modality: Ultrasound, MRI

Breakfast Seminar: Pediatric Imaging

7:00 – 8:30 am ● Florentine Ballroom III & IV ● CME: 1.5 Hours
Director: Jennifer McVige, MD
Faculty: Bhagwan Moorjani, MD, Jennifer McVige, MD and Eugene Wang, MD

The faculty will review common spinal abnormalities seen in pediatric neuroimaging. The pathophysiology of common spinal congenital anomalies will be explained. For example, disruptions of neurulation (myeloceles, syringohydromyelia), caudal dysgenesis (tethered cord), notocord anomalies (enteric cysts), and congenital tumors. The neuroimaging of extramedullary tumors will be reviewed (intramedullary tumors will be covered in the general MRI review). The review will discuss vertebral and meningeal tumors, as well as extraspinal tumors that invade the intraspinal space.

These abnormalities are frequently found on adult imaging but an understanding of the developmental process is important for diagnosis and prognosis.

Upon completion of this course, attendees will:
1) Participants will be able to discuss the pathophysiology of common spinal congenital anomalies.
2) Identify and localize common spinal congenital anomalies.
3) Understand the MRI and CT imaging characteristics of the anomalies presented.
4) Identify and localize extramedullary tumors of the spine.
5) Understand the MRI and CT imaging characteristics of the extramedullary tumors.

Target Audience: This is intended for neurologists, neurosurgeons, radiologists and residents/fellows.

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

Relevant Modality: MRI, CT scan, fMRI, SPECT

Current Topics in MR and CT Imaging (Part II)

9:00 am - 6:00 pm ● Roman Ballroom IV ● CME: 7.5 Hours

Directors: Gabriella Szatmary, MD, PhD and John Bertelson, MD

Faculty: John Bertelson, MD, Joshua Klein, MD, PhD, Jennifer McVige, MD, Laszlo Mechtler, MD, Kaveer Nandigam, MD, Erasmo Passaro, MD, Brian Ross, MD, Kalyan Shastri, MD, Kenneth Snyder, MD, Gabriella Szatmary, MD, PhD and Mark Winkler, MD

Presentations will include basic but will focus on advanced MR and CT imaging techniques, including state-of-the-art techniques such as diffusion tensor imaging, fMRI, PWI, cine CSF flow study and MRS. In addition to the technical aspects of imaging we will focus on differential diagnostic dilemmas on imaging modalities. Also, lectures will be focused on the usefulness of different imaging modalities in various clinical settings and if relevant practice-related issues (billing and coding), including MRS, DTI, PWI, CT perfusion, CTA/MRA, CTV/MRV.

9:00 am - 9:50 am	Imaging of spinal cord lesions	Laszlo Mechtler, MD
9:50 am - 10:40 am	Advanced MRI Techniques in epilepsy with surgical planning	Erasmo Passaro, MD
10:40 am - 10:45 am	Discussion	Faculty
10:45 am - 11:00 am	BREAK	Roman/Florentine Foyer
11:00 am - 11:45 am	Imaging of vascular malformations and aneurysms of the brain and spine	Kenneth Snyder, MD
11:45 am - 12:30 pm	Differential diagnostic evaluation of white matter disorders	Joshua Klein, MD, PhD
12:30 pm - 1:00 pm	Advanced MRI techniques	Mark Winkler, MD
1:00 pm - 1:15 pm	Discussion	Faculty
1:15 pm – 2:45 pm	Presidential Address and Awards Luncheon	Roman Ballroom IV
2:50 pm - 3:30 pm	Update on pediatric neuroimaging	Jennifer McVige, MD
3:30 pm - 4:15 pm	Update on pituitary and orbital imaging	Gabriella Szatmary, MD, PhD
4:15 pm - 5:00 pm	Update on MRS	Brian Ross, MD
5:00 pm - 5:45 pm	Challenging case presentations	John Bertelson, MD Kaveer Nandigam, MD Kalyan Shastri, MD
5:45 pm - 6:00 pm	Discussion	Faculty

Upon completion of the course, attendees will:

1) Become familiar with the characteristic MR and CT imaging findings in specific neurologic disease states
2) Become familiar with the appropriate and optimal MR sequences and CT techniques used in imaging specific disease states
3) Become familiar with the clinical differential diagnoses associated with specific MR and CT imaging findings

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

Current Topics in Neurosonology (Part II)

9:00 am - 1:00 pm ● Florentine Ballroom III & IV ● CME: 3.75 Hours
Director: Alexander Razumovsky, PhD, FAHA
Faculty: Andrei Alexandrov, MD, RVT, Alexander Razumovsky, PhD, FAHA, Tatjana Rundek, MD, PhD and Charles Tegeler, MD

9:00 am – 12:00 pm	TCD and Carotid duplex studies Interpretations	Charles Tegeler, MD/Faculty
10:45 am – 11:00 am	BREAK	Roman/Florentine Foyer
12:00 pm – 12:45 pm	TCD and its role in the management of intracranial atherosclerotic disease	Andrei Alexandrov, MD, RVT
12:45 pm - 1:15 pm	Carotid disease, common carotid intima-media thickness and risk of stroke	Tatjana Rundek, MD, PhD
1:15 pm – 2:45 pm	Presidential Address and Awards Luncheon	Roman Ballroom IV
2:45 pm – 3:15 pm	Carotid disease, common carotid intima-media thickness and risk of stroke *(Continued)*	Tatjana Rundek, MD, PhD
3:15 pm – 4:15 pm	Up-date on specific TCD applications for patients after ischemic stroke	Andrei Alexandrov, MD, RVT
4:15 pm – 5:15 pm	TCD and its clinical utilization for patients after aneurysmal SAH and traumatic brain injuries	Alexander Razumovsky, PhD, FAHA

Upon completion of the course, attendees will:
1) Identify proper techniques and protocols for performing advanced TCD studies
2) Relate normal and abnormal blood flow patterns to clinical presentation
3) Understand clinical usefulness and limitations of the advanced TCD ultrasound evaluations and learn how to write preliminary and final reports

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, cariologists, anesthesiologists and technologists.

Relevant Modality: Ultrasound

Breakfast Seminar: The Neonatal Brain in the 21st Century: MRI and Ultrasound

7:00 - 8:30 am ● Roman Ballroom IV ● CME: 1.5 Hours
Director and Faculty: Paul Maertens, MD

Neonates differ significantly from adults. To improve the recognition of neonatal brain lesions, the faculty will present in the first portion of the course normal brain anatomic features using neurosonography at various gestational ages and the microstructural MRI development of the normal fetal brain. Neurosonography when associated with vascular imaging allows assessment of vascular integrity. Proton MRS allows measurement of brain metabolism. In second half of the course, abnormal studies will be presented and special attention will be paid to clinical outcome, stressing the importance of the knowledge of benign and serious pathologies.

Upon completion of this course attendees will:
1) Be able to recognize brain pathology in neonates using ultrasound and MRI.
2) Be able to understand limitations and advantages of neuroimaging techniques commonly used in neonates.
3) Be familiar with imaging features and outcome of the common pathologies.

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

Target Audience: Neurologists, pediatricians and radiologists

Relevant Modality: MRI, Ultrasound

Breakfast Seminar: Applied Principles of Ultrasound Physics and Fluid Dynamics

7:00 – 8:30 am ● Anzio Ballroom ● CME: 1.5 Hours
Director and Faculty: Andrei Alexandrov, MD, RVT

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 ultrasound physics and fluid dynamics.

Upon completion of this activity, attendees will be able to:
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.

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, cariologists, anesthesiologists and technologists.

Relevant Modality: Ultrasound

Neuroimaging Self-Assessment Examination

7:00 - 8:30 am ● Messina Ballroom ● 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 4 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.

Upon completion of the course, attendees will:
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, Provide patient centered care, Employ evidence-based practice, Apply quality improvement, Utilize informatics, Professional standing, Commitment to lifelong learning, Cognitive expertise, Performance in practice

Target Audience: Neurologists and Neurosurgeons

Relevant Modality: MRI, CT

Symposium: MRI Physics & Artifacts

9:00 - 10:40 am ● Roman Ballroom II & IV ● CME: 1.5 Hours
Director and Faculty: Joseph Fritz, PhD

The purpose of this course is to provide a foundation for how MRI images are created, and extend on basic principles to describe the manipulations that are used to create the extensive variety of available sequences. The course will be divided into two one-hour sessions.

9:00 am – 9:50 am

- Part one will review acquisition protocols and applications for standard and advanced brain and spine MRI protocols (T1, T2, IR/FLAIR/STIR, SE vs FE vs SWI, EPI, DWI, MRA, Perfusion, fMRI, Spectroscopy and DTI.) Generic and vendor acronyms will be noted for each technique.

9:50 am - 10:40 am

- Part two will extend the discussion of pulse sequences to a review of artifacts. The cause of artifacts will be reviewed and techniques that mitigate them will be presented. Cases will be presented and audience participation invited to help distinguish artifact from pathology and suggest alternative sequences that can help clarify.

Upon completion of the course, attendees will:
1) Understand the underlying physics of MRI
2) Understand the different pulse sequences used in everyday MRI, including functional imaging techniques such as MRS, DTI, and fMRI
3) Be able to anticipate and correct for artifacts in MRI that may confound clinical interpretation.

This course is designed to procure the following desirable physician attributes: Practice-based learning and improvement

Target audience: Neurologists interested in reading MRI studies, or simply wish to better understand the technical fundamentals of MRI

Relevant Modality: MRI, CT

Symposium: How to Prevent Medical Malpractice

10:40 - 11:30 am ● Roman Ballroom II & IV● CME: .75 hours
Director and Faculty: Nazar Haidri, MD

The lecture will review the common causes of medical malpractice including in neuro-imaging, how to avoid them and what to do if you are subject of a medical malpractice suit.

Medical malpractice can be demoralizing at times devastating to both the patient and the medical practitioner and his or her family. It can even result in the loss of medical license. It is here to stay and will not change much with legislative efforts.

Medical malpractice can affect any branch of medicine including neuro-imaging. Sometimes very simple steps inadvertently missed can result in medical malpractice. This lecture will focus on the main causes of medical malpractice including neuro-imaging and how to avoid them. It will also discuss what to do if you are subject of a medical malpractice suit. A few case histories to highlight the problem will be presented.

Upon completion of the course, attendees will:
Learn the common causes of medical malpractice, how to avoid them and what to do if you are the subject of a medical malpractice suit.

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

Target audience: Practicing physicians

Relevant Modality: MRI

2013 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) Chairman, Scientific Advisory Board/Consulting fees: Cerevast Therapeutics
Robert Bermel, MD	(PC, F) Speaker and Consultant/Honorarium: Biogen Idec, Teva Neuroscience; Consulting and research/Consulting fees and grant: Novartis
Charles Bernick, MD	(F) Speaker/Honorarium: UCB Pharmaceuticals, Teva Pharmaceuticals, Novartis Pharmaceuticals
John Bertelson, MD	(F) No relationships
Allan Burke, MD	(PC) No relationships
Patrick Capone, MD, PhD	(F) No relationships
Steven Cordina, MD	(F) No relationships
Joseph Fritz, PhD	(F) No relationships
Zsolt Garami, MD	(F) No relationships
Leo Germin, MD	(F) No relationships
Eduardo Gonzalez-Toledo MD, PhD	(F) No relationships
Jack Greenberg, MD	(F) No relationships
Nazar Haidri, MD	(F) No relationships
Ryan Hakimi, DO	(PC) No relationships
Geoffrey Hartwig, MD	(F) No relationships
Ameer Hassan, MD	(F) Speaker/Honorarium: Microvention
Dara Jamieson, MD	(PC, F) Speaker/Honorarium: Boehringer Ingelheim Pharmaceuticals; Study Adjudication Committee/Compensation: Bayer
Ferenc Jolesz, MD	(F) No relationships
Tudor Jovin, MD	(F) Consultant and Advisory Board/Honorarium: Concentric Medical Inc, Co-Axia Inc, eV3, Mircus Inc; Ownership Interest: NIT; Associate Editor Fees: Journal of Neuroimaging
Tisha Kehn	(S) No relationships
Rakesh Khatri, MD	(F) No relationships
William Kinkel, MD	(F) No relationships
Joshua Klein, MD, PhD	(F) Author for "Adams and Victor's Principles of Neurology, 10th Edition" and Editorial Board for "AccessMedicine Neurology"/Compensation and Royalties: McGraw-Hill Publishers; Author for "Neurology Test-Bank"/Compensation: Oakstone Publishers
David Liebeskind, MD	(PC, F) Consultant/Consultant Fee: CoAxia, Concentric Medical
Eric Lindzen, MD, PhD	(F) No relationships
Alan Lumsden, MD	(F) Speaker/Honorarium: BSCI, WL Gore, Medtronic; Grants/Research Support/Participating/Investigator: Nycomed, Hansen, W.L. Gore, Harvest Technology, Boston Scientific Corporation, Lomard Medical, Bolton Medical, Consultant: Boston Scientific Corporation, VNUS Medical, WL Gore, Abbott, Maquet, Siemens, Medtronic, Ethicon, Cook Medical, EV3 Covidien Stock Shareholder: Hatch Medical, Northpoint Domain, Embrella, Advanced Clinical Visualization Speakers Bureau/Honorarium BSCI, WL Gore, Medtronic Other: Medtronic (Spouse employee)
Paul Maertens, MD	(PC, F) Speaker/Honorarium: UCB, GSK
Marc Malkoff, MD	(PC) Researcher/Research Funds: Ivivi corp
Branko Malojcic, MD	(F) No relationships
Joseph Masdeu, MD, PhD	(F) No relationships
John Mazziotta, MD, PhD	(F) Independent Director/Stipend: Capital Group Companies; Author/editor/Royalties: Elsevier; Board Member/Consulting Fee: Brain Mapping Non-Profit; Speaker/Honorarium: Methodist Hospital; Science Board/Honorarium: Alzheimer's Disease Res Foundation; Speaker/Honorarium: American Academy of Neurology
Jennifer McVige, MD	(F) No relationships
Laszlo Mechtler, MD	(PC, F) Speaker/Honorarium: GSK, Nautilus, American Academy of Neurology
Bhagwan Moorjani, MD	(F) No relationships
Kaveer Nandigam, MD	(F) No relationships
Leslie Orvedahl	(S) No relationships
Erasmo Passaro, MD	(PC, F) Speaker/Honorarium: Glaxo Smith Kline, UCB
Adnan Qureshi, MD	(PC, F) No relationships
Alexander Razumovsky, PhD, FAHA	(PC, F) FTE/Salary: Sentient NeuroCare Services, Inc.
Brain Ross, MD	(F) No relationships
Tatjana Rundek, MD, PhD	(F) No relationships
Kalyan Shastri, MD	(F) No relationships
Steven Shook, MD	(F) No relationships

Kenneth Snyder, MD, PhD	(F) Speaker/Honorarium: Toshiba, Codman, EV3
M. Fareed Suri	(F) No relationships
Gabriella Szatmary, MD, PhD	(F) No relationships
Charles Tegeler, MD	(PC, F) Speaker/Honorarium: Genentech; PI for a research project/Research Grant: Brain State Technologies, Inc.
Eugene Wang, MD	(F) No relationships
LawrenceWechsler, MD	(PC) Ownership/Stock: Neuro Interventional Therapeutic; Consultant/Consultant Fee: Lundbeck; DSMB/None: DIAS 3 / 4; Steering Committee/None: ACT I
Shannon Wild	(S) No relationships
Mark Winkler, MD	(F) Medical Advisory Board/Honorarium: Toshiba

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 36th 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 27.25 *AMA PRA Category 1 Credit(s)*™. 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 2013 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 ■ Caesars Palace – Las Vegas, NV
Saturday, January 19, 2013 ■ 1:15-2:45 pm
All ASN Members are encouraged to attend

1. Call to Order

2. Approval of Minutes – January 28, 2012 Business Meeting

3. President's Report – *Dara Jamieson, MD*
   a) Recognition of Dr. Mechtler's service as Vice President
   b) Recognition of Dr. Malkoff's's service as a Secretary
   c) Recognition of Dr. Liebeskind's service as Board Member
   d) Recognition of Dr. Crutchfield's service as Board Member
   e) Slate of Candidates: 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

4. Program Committee Report – *Laszlo Mechtler, MD*
   2014 Annual Meeting: Hyatt Regency, Sarasota, FL - January 16-19, 2014

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

6. Practice Issues Committee Report –*Michael Hutchinson., MD, PhD*

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

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

9. John and Sophie Prockop Memorial Lectureship - *Leon Prockop, MD*
   Presented to: Christopher Holland, MD, PhD

The Relationship between Normal Cerebral Perfusion Patterns and White Matter Lesion Distribution in 1,249 Patients with Multiple Sclerosis

10. Presentation of the Qureshi Award – *Adnan Qureshi, MD*
    Presented to: Syeda Laila Alqadri, MD
    Patterns of Collateral Formation in Basilar Artery Steno-Occlusive Diseases

11. Presentation of Oldendorf Award – *Dara Jamieson, MD*
    Presented to: Dolora Wisco, MD
    Correlation between pre-treatment CTA collaterals and MRI DWI Lesion Volumes in Endovascular Treatment of Acute Ischemic Stroke

12. Presentation of McKinney Award – *Dara Jamieson, MD*
    Presented to: Mohammed Almekhlafi, MD, MSc
    Malignant emboli on Trans cranial Doppler during carotid stenting predict post procedural DWI lesions and are most common during stent and distal protection device deployment

13. Presentation of Trainee Travel Awards – *Dara Jamieson, MD*
    Presented to: Seby John, MD, and Eric Grover, MD

14. Recognition of Dr. Jamieson's Service as President – *Laszlo Mechtler, MD*

15. Passing of Gavel – *Dara Jamieson, MD*

16. New Business

17. Adjourn

AMERICAN SOCIETY OF NEUROIMAGING

PRESIDENTIAL ADDRESS & AWARDS LUNCHEON
ASN Business Meeting ■ Marriott Biscayne Bay – Miami, FL
Saturday, January 28, 2012 ■ 1:15-2:45 pm
MINUTES

On a motion seconded and carried, the minutes from the January 2011 Business Meeting were approved as submitted.

President's Report
Dr. Jamieson thanked Drs. Dubey, Greenberg, and Preston for their service on the Board of Directors and Dr. Feldmann for his service as Treasurer. She also expressed her gratitude for Dr. Sloan's service to the Board of Directors and to ASN.

On motion, seconded and carried, the membership approved the appointment of Drs. Patrick Capone, Zsolt Garami, Vernon Rowe, and Gabriella Szatmary as new ASN Board members, Dr. Michael Hutchinson's second term on the Board of Directors, and Dr. William Preston's nomination to Treasurer.

Dr. Jamieson reported the ASN Mission Statement was recently revised to be more inclusive and to encompass a wider range of neuroimaging professionals and a broader scope of goals. The revised ASN Mission Statement includes education, advocacy and research as the main goals of the organization. Dr. Jamieson reported that Dr. Wechsler continues to lead an ad-hoc committee to revise the Neuroimaging Training Guidelines and has received a number of completed sections.

Practice Issues Committee Report
Dr. Hutchinson reviewed the key activity events of 2011 which were the sustainable growth rate formula issue, meetings with MEDPAC and GAO, Accountable Care Act Alternative Location Rule, and the objective Study of Self-Referral (Hogan Study). There are continued concerns with reimbursements and legislation which negatively affect Neuroimagers. The importance of inter-societal relationships was emphasized as an effective method to combat attacks on the ability for specialists to continue read images.

The focus for 2012 will be to continue to reach out to policy makers and legislators to refute radiology claims regarding self-referral and increased utilization for imaging services. Dr. Hutchinson noted that all studies that indicate self-referral leads to over utilization are flawed in some way and noted that Elizabeth Rowe wrote an article critiquing the flawed studies.

Dr. Hutchinson discussed a letter sent to Congress from the Alliance for Integrity in Medicare (AIM) which is a committee formed by radiologists and pathologists. The goal of AIM is to end the practice of self-referral in patient care and essentially argues that neurologists who self-refer lack integrity. A letter was also sent to President Obama from the United States Senate outlining the concern for cuts to Medicare reimbursement for all imaging services.

Program Committee Report
Dr. Mechtler reported that there are 156 attendees at the meeting this year; the 2011 meeting had 161 in attendance. He noted that the registration fee was restructured from an "ala carte" selection to a flat fee model and believes the new structure has been successful. One result of the new structure is higher attendance at the Breakfast Seminars. Dr. Mechtler noted that 64 abstracts were submitted this year and encouraged those who submit an abstract to attend the meeting and present their poster.

Registration fees are waived for course directors and faculty, and honoraria has been provided in the past for member faculty. Dr. Mechtler reported that member faculty will not receive honorarium in future years and requested 2012 faculty members to voluntarily donate their honoraria.

Dr. Mechtler encouraged members to attend the 2013 Annual Meeting, which will be held at Caesars Palace in Las Vegas, Nevada.

Treasurer's Report
Dr. Ed Feldmann reported that the 2010-2011 financial reports were audited and were found to be in good order. ASN has assets for more than one year of operating expenses. Dr. Feldmann reported that the 2012 budget is projected to be in the red, mostly because of lagging

membership dues payments. Dr. Feldmann noted that it is very important to maintain/increase membership in order for ASN to remain in good financial standing.

Journal of Neuroimaging Report

Dr. Joseph Masdeu reported that the *Journal of Neuroimaging (JON)* is doing well and thanked former editors Drs. Larry Wechsler and Leon Prockop.

Dr. Masdeu noted that submissions have increased since 2005 and the acceptance rate hovers around 30%. There is currently a backlog of articles given that the *JON* is only printed four times per year. The backlog has a negative effect on the Journal's impact factor. It is not reasonable to simply add more pages to the *JON* as that will lead to increased publishing costs.

Dr. Masdeu outlined three potential remedies to correct the backlog situation: accept fewer articles (although this may discourage authors from submitting), shorten the length of articles, or move the *JON* to an online only publication. Dr. Masdeu distributed a questionnaire to the membership asking how they would feel about having the *JON* available as an online only publication. 64 members completed the survey and the results showed that 55% of those who responded feel the *JON* is an important membership benefit and 70% would not miss the printed version of the *JON*. Dr. Masdeu recommended that we move towards eliminating the printed version of the *JON* and have the articles available online only. Articles would be available online shortly after they are accepted.

Fellowship/Training Committee Report

Dr. Laszlo Mechtler reported that there are a total of 101 UCNS certified diplomats and that the pass rate is approximately 50%. Compared to other subspecialty exams, the rate is low.

Since ASN is the sponsoring organization of the UCNS MRI/CT exam, Dr. Mechtler believes all diplomats should be ASN members. Dr. Mechtler noted that there are four UCNS approved fellowships at this time. Although the approval process through UCNS is difficult, Dr. Mechtler stresses the importance of ASN members implementing more fellowships and submitting them for UCNS approval. The deadline for the 2013 UCNS exam is in August of 2012. Unless there is a change to the exam scheduling, the 2012 examination may be the last opportunity for those who are eligible to sit for the exam through the practice track route, as the practice track is scheduled to end in 2015. Dr. Mechtler reported that he will be serving on the UCNS Board of Directors.

Action: The ASN Executive Office will notify members of the UCNS exam application deadline and include a reminder about the conclusion of the practice track eligibility route in 2015.

Action: The ASN Executive Office will send a letter to UCNS diplomats who are not currently members and invite them to become members of ASN.

Dr. Mechtler reminded those in attendance of Dr. Eric Lindzen's neuroimaging webinars and encouraged participation from ASN members.

Awards

Dr. Prockop presented the John and Sophie Prockop Memorial Lectureship to Sheena Xin Liu, MD, PhD, and Dr. Qureshi presented the Qureshi Award to Rakesh Khatri, MD. Dr. Jamieson announced the Oldendorf Award recipient as Eugene Wang, MD, and the McKinney Award recipient as Deepak Gupta, MD. The Trainee Travel Awards were announced as Gloria Varela, MD, and Julio Andin, MD.

There being no new business, the meeting was adjourned.

Respectfully submitted,

Shannon Wild
Executive Director

SLW:lao

2013 AWARD WINNERS

Awards will be presented Saturday, January 19, 2012 during the Presidential Address and Awards Luncheon.

John and Sophie Prockop Memorial Lectureship

The John and Sophie Memorial Lectureship was established to enhance the scholarly and educational missions of the Society by honoring outstanding contributions made to the Society's peer-reviewed journal, the *Journal of Neuroimaging.* The recipient of the Lectureship is the first author of a manuscript published in the journal that has been judged to have outstanding value to the development and success of the journal, or the highest quality manuscript published in the prior year as judged by the American Society of Neuroimaging Education Foundation Board of Directors.

2013 John and Sophie Prockop Memorial Lectureship Recipient

Christopher Holland, MD, PhD
Emory University Department of Neurosurgery - Atlanta, GA
The Relationship between Normal Cerebral Perfusion Patterns and White Matter Lesion Distribution in 1,249 Patients with Multiple Sclerosis
(Volume 22, Issue 2, pages 129–136, April 2012)

Qureshi Award

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

2013 Qureshi Award Recipient

Syeda Alqadri, MD
University of Mississippi Medical Center - Jackson, MS
Patterns of Collateral Formation in Basilar Artery Steno-Occlusive Diseases

Oldendorf Award

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

2013 Oldendorf Award Recipient

Dolora Wisco, MD
Cleveland Clinic Foundation - Cleveland, OH
Correlation between pre-treatment CTA collaterals and MRI DWI Lesion Volumes in Endovascular Treatment of Acute Ischemic Stroke

McKinney Award

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

2013 McKinney Award Recipient

Mohammed Almekhlafi, MD, MSc
University of Alberta, Edmonton - Alberta, Canada
Malignant emboli on Trans cranial Doppler during carotid stenting predict post procedural DWI lesions and are most common during stent and distal protection device deployment

Trainee Travel Awards

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

2013 Resident Travel Award Recipients

Eric Grover, MD
University of South Alabama Neurology - Mobile, AL
Poster #56
Gestational Age May Predict Rate of Corpus Callosum Growth: a Prospective Neuro-sonographic Study

Seby John, MD
Cleveland Clinic Foundation - Cleveland, OH
Poster #23
Incidence of Persistent Median Artery using High Frequency Neuromuscular Ultrasound and Implications in Carpal Tunnel Syndrome

2013 ANNUAL MEETING ABSTRACT TITLES

Full abstracts are available in electronic format and can be found on the ASN website: www.asnweb.org

1. Patterns of Collateral Formation in Basilar Artery Steno-Occlusive Diseases
Syeda L. Alqadri[1], Malik M. Adil[2], Masaki Watanabi[2], Adnan Qureshi[2]
[1]University of Mississippi Medical Center, Dept of Neurology Jackson, MS, USA, [2]University of Minnessota, Zeenat Qureshi Stroke Research Center Minneapolis, MN, USA

2. WITHDRAWN

3. WITHDRAWN

4. Procedure Time and Outcome in Acute Endovascular Therapy
Zeshaun S. Khawaja, Dolora Wisco, Luzma Cardona, Shu-Mei Man, Ken Uchino, Muhammed S. Hussain
Cleveland Clinic / Cerebrovascular Center Cleveland, OH, USA

5. Vertebral Artery Dissection In Severe Rheumatoid Arthritis
Ritika Mahajan, Branko N Huisa
Department of Neurology, University of New Mexico Albuquerque, NM, USA

6. Spontaneous Thrombosis of a Ruptured Brain Arteriovenous Malformation
Shraddha Mainali[1], Nitin Goyal[1], Daniel Hoit[2], Lucas Elijovich[1,2]
[1]University of Tennessee Department of Neurology Memphis, TN, USA, [2]University of Tennessee Department of Neurosurgery, Semmes-Murphey Neurologic and Spine Institute Memphis, TN, USA

7. Positional bilateral stenosis of healthy vertebral arteries resulting in Bow Hunter's syndrome
Luzma Cardona, Ken Uchino
Cleveland Clinic /Cerebrovascular center Cleveland, OH, USA

8. Seizure-related diffusion restriction confused with acute infarct in a patient with critical ipsilateral internal carotid stenosis.
Hesham Abboud[1,2], Gabor Toth[1]
[1]Cleveland Clinic, Neurological Institute Cleveland , OH, USA, [2]Alexandria University, Neurology department Alexandria, Egypt

9. Acute Stroke in Severe Leptomeningeal Neurosarcoidosis
Zubair Ahmed, Jinny Tavee
Cleveland Clinic Founation/Neurological Institute Cleveland, OH, USA

10. Spontaneous CSF leak secondary to a small transethmoidal encephalocele in association with an empty sella.
Mohammed S. Al-Natour, Haitham Elsamaloty
University of Toledo Medical Center/ Department of Radiology Toledo, OH, USA

11. An Objective Visual Guide to Decision Making in Acute Ischemic Stroke by applying Penumbra Tools to CT Perfusion.
Karthikeyan M. Arcot, Lawrence N. Tanenbaum, Vikram Sundaram
Mount Sinai School of Medicine NEw York, NY, USA

12. Decrypting Cryptogenic Stroke: Etiological Source of a Cryptogenic Stroke Uncovered due to High Intensity Transient Signals on Transcranial Doppler
Karthikeyan M Arcot, Jessica Falco-Walter, Lori Croft, Jesse Weinberger
Mount Sinai School of Medicine New York, NY, USA

13. Capecitabine Induced Reversible Multifocal Leukoencephalopathy: A Case Report
Suma Babu[1], Lauren Velander[2], Jessica Vensel-Rundo[3]
[1]Cleveland Clinic Foundation/General Neurology Cleveland, OH, USA, [2]Cleveland Clinic Foundation/General Neurology Cleveland, OH, USA, [3]Cleveland Clinic Foundation/General Neurology Cleveland, OH, USA

14. MRI Characteristics of Multiple Sclerosis in a Two-Year-Old Girl
Jonathan Beary[1], Donika Patel[1], Siddhant Chawla[2], Manikum Moodley[3]
[1]Cleveland Clinic, Department of General Neurology Cleveland , OH, USA, [2]Georgia Institute of Technology, Department of Engineering Atlanta, GA, USA, [3]Cleveland Clinic, Department of Pediatric Neurology Cleveland, OH, USA

15. Neurosarcoidosis: Rare, Isolated and Medically Refractory
Russell Cerejo[1], Timothy West[2]
[1]Cleveland Clinic Foundation, Department of Neurology Cleveland, OH, USA, [2]Cleveland Clinic Lou Ruvo Center for Brain Health Las Vegas, NV, USA

16. A Case of Transient Lesion in the Splenium of Corpus Callosum associated with Metronidazole toxicity
Nnamdi Dike, David Wright, Michael Goldberg, Sandeep Rana, Troy Desai, Edward Gettings
Allegheny General Hospital Pittsburgh, PA, USA

17. Leukoencephalopathy, Cerebral Calcifications, and Cysts
Megan T. Donnelly, Mark J. Stillman
Cleveland Clinic Cleveland, OH, USA

18. Dynamic adjustment of stimuli in real-time fMRI
I Jung Feng[1], Curtis Tatsuoka[2], Anthony Jack[3]
[1]Case Western Reserve University/Department of Epidemiology and Biostatistics Cleveland, OH, USA, [2]Case Western Reserve University/Department of Neurology Cleveland, OH, USA, [3]Case Western Reserve University/Department of Cognitive Science Cleveland, OH, USA

19. Natalizumab-Related Progressive Multifocal Leukoencephalopathy: A Case Report
Carrie Hersh, Robert Fox
Cleveland Clinic Foundation Cleveland, OH, USA

20. Steal phenomenon secondary to large Arteriovenous malformation (AVM) masquerading as rhombencephalitis
Adham Jammoul, Muhammad Shazam Hussain
Cleveland Clinic foundation Cleveland, OH, USA

21. Case Report: Brain MRI revealing the rare but distinctive “double panda sign” in a patient with Wilson’s Disease
Rebecca Jimenez, Yazan Suradi, Melissa Freeman
USF Morsani College of Medicine/Neurology Tampa, FL, USA

22. Transient Hyperintensity on Diffusion Weighted Imaging with corresponding Apparent Diffusion Coefficient Hypointensity on MRI caused by Axonal Changes secondary to Cerebral Hypoxic-Ischemic Injury
Seby John[1], Adrienne Boissy[2], Mei Lu[3]

23. Incidence of Persistent Median Artery using High Frequency Neuromuscular Ultrasound and Implications in Carpal Tunnel Syndrome
Seby John, Steven J. Shook
Neuromuscular Center, Cleveland Clinic Foundation Cleveland, OH, USA

24. An Unusual Case of Langerhan Cell Histiocytosis of the Central Nervous System
Haris Kamal[1], Bijal K Mehta[2]
[1]SUNY Buffalo, Dept. of Neurology Buffalo, NY, USA, [2]Harbor-UCLA Medical Center Torrance, CA, USA

25. WITHDRAWN

26. Neurocysticercosis affecting multiple spinal segments: diagnosed with MRI and treated with surgical and pharmacological measures
Tapan R Kavi
UMDNJ, Cooper University Hospital Camden, NJ, USA

27. Multiple Sclerosis 'phenotype switch' to Balo's Concentric Sclerosis: Resistance to steroids, typical MRI findings and treatment with Plasmapheresis
Tapan R Kavi, Usman Moghal, Anca Popescu
UMDNJ, Cooper University Hospital Camden, NJ, USA

28. WITHDRAWN

29. Case Study: Radiographic Progression of Herpes Simplex Viral Encephalitis (HSVE) Despite Negative PCR and Clinical Improvement
Lauren Koffman[1], Adarsh Bhimraj[2]
[1]Cleveland Clinic Foundation Neurology Cleveland, OH, USA, [2]Cleveland Clinic Foundation Infectious Disease Cleveland, OH, USA

30. Development of cortical complexity statistical maps to augment in the diagnosis of neurodegenerative diseases
Sourav R Kole, Angela Y Wang, Richard D King
University of Utah Salt Lake City, UT, USA

31. Gliomatosis Cerebri: A Case Report and Review of the Literature.
Michael B Lee
Kaiser Permanente Ontario, CA, USA

32. Moebius Syndrome and Magnetic Resonance Imaging (MRI) Findings: A case of respiratory failure with abnormality in the pontine tegmentum
Melanie A. Lising[1,2], Quyen Luc[1,2]
[1]Children's Hospital Los Angeles, Department of Neurology Los Angeles, CA, USA, [2]University of Southern California, Department of Neurology Los Angeles, CA, USA

33. Bilateral internal carotid artery occlusion presenting with acute bilateral anterior cerebral artery infarction: A case report.
Melanie A. Lising[1], David Millett[1,2], Danielle M. Yanuck[1]
[1]University of Southern California/ Department of Neurology Los Angeles, CA, USA, [2]Rancho Los Amigos National Rehabilitation Center Downey, CA, USA

34. Cerebellar abscess with Nocardia: A rare diagnosis
Konark Malhotra, Nnamdi Dike, Sandeep Rana, Khaled Aziz, Kevin Perez
Allegheny General Hospital Pittsburgh, PA, USA

35. Cases of Sporadic Creutzfeldt-Jakob Disease in Two Multiple Sclerosis Patients with Rapid Progression a Neuroimaging Perspective
Amir C. Mazhari, Hee-Byung Choe
Neurology and Neuroscience Associates Inc. White Pond, OH, USA

36. A Case of Spontaneous Unilateral Superior Opthalmic Vein Thrombosis
Amir C. Mazhari, DeRen Huang, Hee-Byung Choe
Neurology and Neuroscience Associates Inc. White Pond, OH, USA

37. Rare Case of Ischemic Stroke caused by Air Emboli from Hydrogen Peroxide Ingestion
Emily M Nakagawa, Melissa Freeman, Muntean Eugeniu
University South Florida Tampa, FL, USA

38. Bilateral Vision Loss Secondary to Pachymeningitis in a Patient with IgG4-Related Disease
Lucas Ramirez, Andrea D'Auria, Adeel Popalzai, Nerses Sanossian
University of Southern California Los Angeles, CA, USA

39. A Case of Congenital Cervical Canal Stenosis Simulating an Infantile Diagnosis of Spinal Muscular Atrophy Type I
Liliana A. Ramirez-Gomez[1], Leigh Ramos-Platt[2], Nerses Sanossian[1]
[1]USC Los Angeles, CA, USA, [2]USC-CHLA Los Angeles, CA, USA, [3]USC Los Angeles, CA, USA

40. Abnormal Gd enhancement of Bilateral Facial Nerve in the setting of Facial Diplegia and Paresthesias (FDP).
Fernando Santos-Pinheiro, Pravin George, Mark J Stillman
Cleveland Clinic Foundation Cleveland, OH, USA

41. Spinal Dural Arterio-Venous Fistula Presented with Acute Paraplegia, Sensory Loss and Sphincter Dysfunction. Case Report.
Yazan M. Suradi[1], Katie Bailey[2], Noemi Rincon-Flores[3], Rebecca Jimenez-Chinea[4]
[1]University of South Florida Tampa, FL, USA, [2]University of South Florida Tampa, FL, USA, [3]University of South Florida Tampa, FL, USA, [4]University of South Florida Tampa, FL, USA

42. Reversible Cerebral Vasoconstriction Syndrome And Fibromuscular Dysplasia: Two Uncommon Vasculopathies In The Same Patient – Causal Link Or Coincidence?
Ather M Taqui[1], Muhammad S Hussain[2]
[1]Cleveland Clinic Foundation/Department of Neurology Cleveland, OH, USA, [2]Cleveland Clinic Foundation/Cerebrovascular Center Cleveland, OH, USA

43. Presentation of Neuro-Behcet's Disease as a Mimicker of Acute Disseminated Encephalomyelitis (ADEM)
Ather M Taqui[1], Alexander Rae-Grant[2]
[1]Cleveland Clinic Foundation/Department of Neurology Cleveland, OH, USA, [2]Cleveland Clinic Foundation/Mellen Center for Multiple Sclerosis Cleveland, OH, USA

44. Interobserver reliability of degree of Aortic Arch Calcification and Outcomes of Endovascular Treatment of Ischemic Stroke
Nauman Tariq[1], Haseeb Rahman[1], Saqib Chaudhry[2], Shahram Majidi[1], Malik M Adil[1], Rehan Saeed[1], Adnan I Qureshi[1]
[1]Zeenat Qureshi Stroke Research Center, University of Minnesota Minneapolis, MN, USA, [2]Michigan State University Lansing, MI, USA

45. Evidence of dural sinus compression in patients with malignant brain edema secondary to acute ischemic stroke
Nauman Tariq, Haseeb Rahman, Alexander McKinney , Adnan I Qureshi
University of Minnesota Minneapolis, MN, USA

46. Fractal dimensional analysis: Relationship to cognition in a clinically normal community-based cohort.
Madeline B Torres, Kevin Duff, Richard D King
University of Utah Department of Neurology Salt Lake City, UT, USA

47. Sever toxic leucoencephalopathy following Cocaine abuse
Reuben M. Valenzuela, Yasmin Ali, Jorge Kattah
University of IL College of Medicine Peoria, IL, USA

48. Utility of Diffusion Tensor Imaging in the Diagnosis of Motor Neuron Disease: A Case Report and Review of the Literature
David W. Van Wyck, Michael V. Krasnokutsky
Madigan Army Medical Center Tacoma, WA, USA

49. Correlation between pre-treatment CTA collaterals and MRI DWI Lesion Volumes in Endovascular Treatment of Acute Ischemic Stroke
DOLORA WISCO, ESTEBAN CHENG CHING, PRAVIN GEORGE, SHUMEI MAN, KEN UCHINO, M. SHAZAM HUSSAIN
Cleveland Clinic Foundation Cleveland, OH, USA

50. Immune Reconstitution Inflammatory Syndrome in the Setting of HIV infection
Laurice T. Yang, Mark Lew
University of Southern California Los Angeles, CA, USA

51. Metronidazole Induced MRI Changes
Laurice T. Yang, Melanie A. Lising, Benjamin A. Emanuel

University of Southern California Los Angeles, CA, USA

52. Dolichoectasia of the Vertebral Artery: A Case of Symptomatic Compression of the Medulla Causing Recurrent Hemiparesis in a Hypertensive Patient
Noor Yono, Igor Rybinnik, Bashar Zleik
North Shore University Hospital Manhasset, NY, USA

53. WITHDRAWN

54. TO TCD OR NOT TO TCD - 4 YEARS OF CODE STROKE EXPERIENCE
THOMAS ALEXANDER[1], LISA HUTCHISON[2], LESTER COLLINS[1], GEORGE PLOTKIN[2]
[1]SOUTHWESTERN CEREBRAL CIRCULATORY DYNAMICS Tyler, TX, USA, [2]EAST TEXAS MEDICAL CENTER NEUROLOGICAL INSTITUTE Tyler, TX, USA

55. Malignant emboli on Trans cranial Doppler during carotid stenting predict post procedural DWI lesions and are most common during stent and distal protection device deployment
Mohammed A Almekhlafi[1, 2], Simerpeet Bal[1, 6], Caroline Stephenson[1], Eileen Stewart[1], Sachin Mishra [1], Vivek Nambiar[1], Bijoy Menon[1], Michael D Hill[1, 3, 4], Andrew M Demchuk[1], Mayank Goyal[1,5]
[1]University of Calgary, Clinical Neuroscience Dept Calgary, AB, Canada, [2]King Abudalziz University, Faculty of Medicine Jeddah, Saudi Arabia, [3]University of Calgary, Internal Medicine Calgary, AB, Canada, [4]University of Calgary, Community Health Sciences Calgary, AB, Canada, [5]University of Calgary, Diagnostic Imaging Calgary, AB, Canada, [6]University of Manitoba Winnipeg, MB, Canada

56. Gestational Age May Predict Rate of Corpus Callosum Growth: a Prospective Neuro-sonographic Study
Eric H Grover[1], Kathryn B Lalor[1], Paul Maertens[1], Michael Zayek[2]
[1]University of South Alabama Department of Neurology Mobile, AL, USA, [2]University of South Alabama Department of Pediatrics Mobile, AL, USA

57. WITHDRAWN

58. Ultrasonography of the lateral femoral cutaneous nerve in meralgia paresthetica
Donika K. Patel, Steven J. Shook
Cleveland Clinic, Department of Neurology Cleveland, OH, USA

59. Diagnostic PET/MRI in head and neck cancer: Qualitative and quantitative comparison to PET/CT
Sasan Partovi[1], Bryan J. Traughber[2], Smitha Thomas[1], Rodney Ellis[2], Min Yao[2], Peter Faulhaber[1]
[1]University Hospitals Case Medical Center, Case Western Reserve University / Radiology Cleveland, OH, USA, [2]University Hospitals Case Medical Center, Case Western Reserve University / Radiation Oncology Cleveland, OH, USA

60. Acute on Chronic Subdurals in Infants with Suspected Non Accidental Head Injury
Joseph Scheller, Patrick Capone
Winchester Medical Center Winchester, VA, USA

61. Neuroimaging in a Case of E200K Mutation Related Fatal Insomnia
Pravin George, Karin P. Mente, Nishtha Sodhi, Erik P. Pioro
Cleveland Clinic Foundation Cleveland, OH, USA

62. PET imaging pitfalls in a patient with concurrent radiologically isolated MS and suspected primary progressive aphasia
Dimitrios A. Nacopoulos, Robert A. Bermel
Cleveland Clinic Cleveland, OH, USA

63. Nonenhancing Diffusion Restricting Lesions May Signal Early CNS Involvement of Systemic Lymphoma.
Noemi Rincon Flores[1], Edward Pan [2], Cultrera Jennifer [3], Suradi Yazan[1]
[1]University of South Florida/ Neurology Tampa, FL, USA, [2]Moffitt Cancer Center/ Neurology Tampa, FL, USA, [3]Moffitt Cancer Center/ hematology oncology Tampa, FL, USA

64. Utility of Brain ^{99m}Tc HMPAO SPECT in Dementia Diagnostic Dilemmas: A Case Series Report
Aaron McMurtray, Natalie Diaz, Bijal K Mehta
Harbor-UCLA Medical Center/ LA Biomed Torrance, CA, USA

65. Positron emission tomography (PET) to differentiate high-grade from low-grade glioma: a meta-analysis of test performance
Takashi Nihashi[1], Issa J Dahabreh[2], Teruhiko Terasawa[3]
[1]Department of Radiology, Nagoya University Graduate School of Medicine Nagoya, Japan, [2]Center for Evidence-based Medicine, Program in Public Health, Brown University Providence, RI, USA, [3]Department of Internal Medicine, Fujita Health University School of Medicine, Fujita Health University Nanakuri Sanatorium Tsu, Japan

66. Clinical correlation of MRI findings in a case of Wernicke encephalopathy
Olimpia Carbunar, M.D., M.S.1, Kurian Thomas, M.D.1,2. 1University of Illinois at Chicago, Chicago, IL, United States; 2Jesse Brown Veterans Affairs, Chicago, IL, United States

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Company Representatives: Maria Caserta and Amanda Fisher

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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

Intersocietal Accreditation Commission (IAC)

Company Representatives: Marge Hutchisson

The Intersocietal Accreditation Commission (IAC) provides accreditation for Vascular Testing; Echocardiography; Nuclear/PET; MRI; CT (including Dental); and Carotid Stenting. A new program for vein centers will become available within 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!

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Lippincott Williams and Wilkins/Wolters Kluwer

Company Representatives: Roxanna Aloia and Steve Gervase

Lippincott Williams and Wilkins/Wolters Kluwer publishes high-quality textbooks, references, journals and electronic products for all health-related professions. In the last year we've published several highly regarded texts for the field of neuroimaging.

Net Medical Xpress

Company Representatives: Bill Peck, John Tanner, David McCraney and Dick Govatski

Net Medical provides telemedicine services to hospitals. We are currently recruiting neurologists to provide services for general neurology and stroke evaluation. The specialist program began in February, 2012 and is growing rapidly. Please contact us for program details.

Zogenix, Inc.

Company Representatives: Timmi Stump, Ned McDonnell and Scott Szymanski

Zogenix, Inc. (Nasdaq:ZGNX), is a pharmaceutical company commercializing and developing products for the treatment of central nervous system disorders and pain. SUMAVEL® DosePro®, their first product offers fast-acting, needle-free subcutaneous administration of sumatriptan for the acute treatment of migraine and cluster headache.

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

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