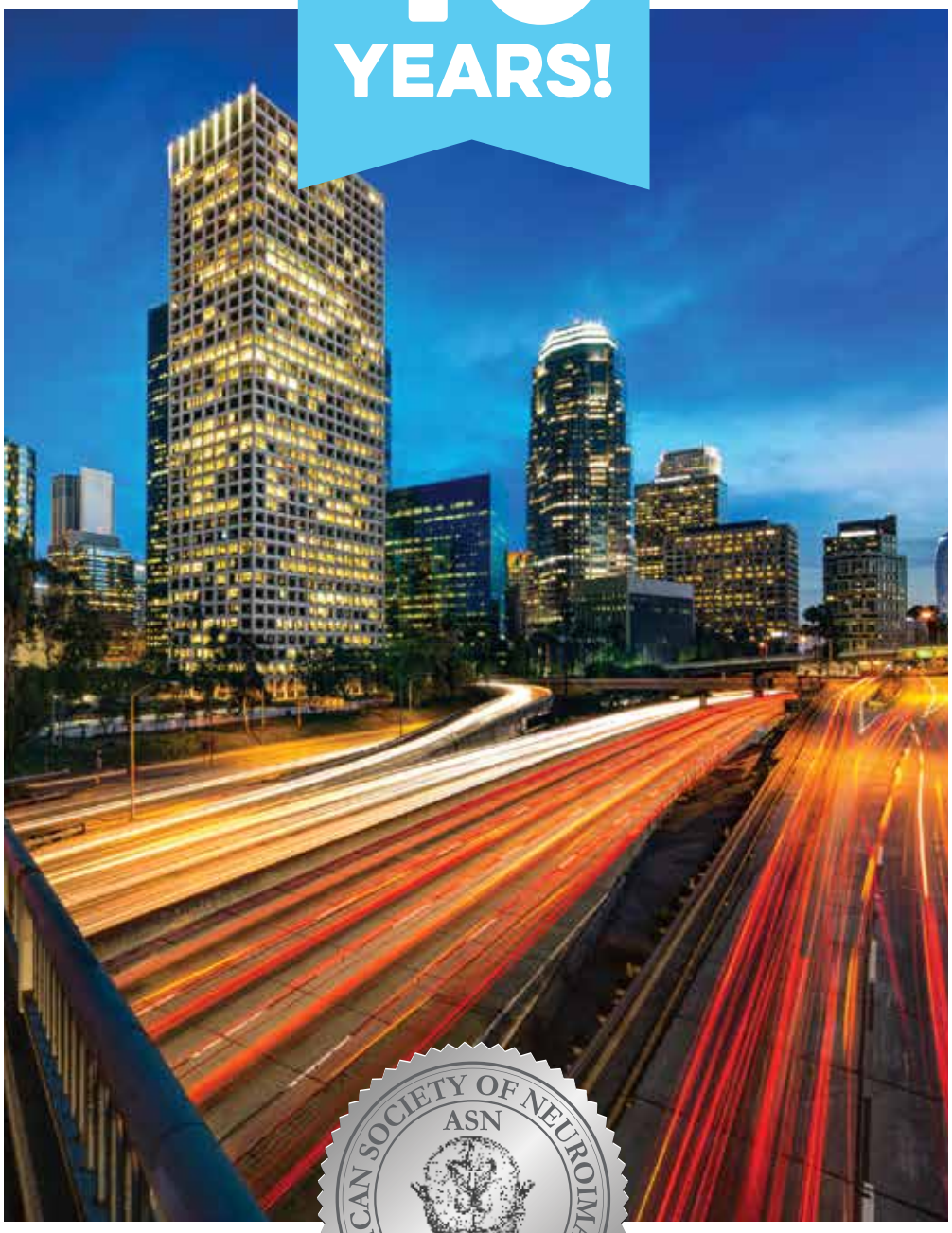
ASN CELEBRATES 40 YEARS!



AMERICAN SOCIETY OF NEUROIMAGING
ASN
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40TH ANNUAL MEETING • JANUARY 19-22, 2017

LUSKIN CONFERENCE CENTER IN LOS ANGELES • LOS ANGELES CALIFORNIA

2017 ASN ANNUAL MEETING

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NOTE

Refreshments Available. Centennial and Optimist Foyer

Thursday, January 19: 9:00 am – 12:00 pm and 1:00 pm – 5:00 pm
Friday, January 20: 8:00 am – 12:30 pm and 2:00 pm – 5:00 pm
Saturday, January 21: 8:00 am – 12:30 pm and 2:00 pm – 5:00 pm

NOTE

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

NOTE

CME Credits. Statements of credit will be awarded based on the participant's attendance. A statement of credit will be available upon completion of an online evaluation/claimed credit form available at: www.akhcme.com/ASN. Please claim your credit by February 25, 2017. If you have questions about this CME activity, please contact AKH inc. at jgoldman@akhcme.com.

Save the Date! ASN's 41st Annual Meeting. January 25-27, 2018. Austin, TX

40th Annual Meeting of the American Society of Neuroimaging

Neuroimaging for Precision Medicine and Health
January 19 - 22, 2017

Target Audience
This activity is designed to meet the needs of neurologists, neurosurgeons, neuroradiologists and other neuroscientists.

Method Of Participation
Statements of credit will be awarded based on the participant's attendance. A statement of credit will be available upon completion of an online evaluation/claimed credit form available at: www.akhcme.com/ASN

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CME Credit Provided by AKH Inc., Advancing Knowledge in Healthcare

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This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of AKH Inc., Advancing Knowledge in Healthcare and The American Society of Neuroimaging. AKH Inc., Advancing Knowledge in Healthcare is accredited by the ACCME to provide continuing medical education for physicians.

AKH Inc., Advancing Knowledge in Healthcare designates this live activity for a maximum of 25.0 *AMA PRA Category 1 Credit(s)™.* Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Physician Assistants
NCCPA accepts *AMA PRA Category 1 Credit™* from organizations accredited by ACCME.

Disclosures
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Disclosure of Unlabeled Use and Investigational Product
This educational activity may include discussion of uses of agents that are investigational and/or unapproved by the FDA. Please refer to the official prescribing information for each product for discussion of approved indications, contraindications, and warnings.

Disclaimer
This course is designed solely to provide the healthcare professional with information to assist in his/her practice and professional development and is not to be considered a diagnostic tool to replace professional advice or treatment. The course serves as a general guide to the healthcare professional, and therefore, cannot be considered as giving legal, nursing, medical, or other professional advice in specific cases. AKH Inc. specifically disclaim responsibility for any adverse consequences resulting directly or indirectly from information in the course, for undetected error, or through participant's misunderstanding of the content.

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Many thanks to the 2017 Program Committee for their work developing this year's program

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Lawrence Wechsler, MD

NOTE

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

Program At-a-Glance

THURSDAY, JANUARY 19, 2017

12:00 pm – 7:00 pm	Registration	
9:00 am – 2:00 pm	Precision Medicine and Neuroimaging in Clinical Practice 2017: From Training to Advanced Practice	Optimist
2:00 pm – 5:00 pm	Neurosonology Basics in Precision Medicine	Optimist
5:30 pm – 7:00 pm	Posters/Exhibits/Welcome Reception	Centennial A&B
7:00 pm– 8:30 pm	Keynote Address: NIH and Neuroimaging: Promise of the BRAIN Initiative – Walter Koroshetz, MD – NIH, Director - NINDS	Centennial C&D

FRIDAY, JANUARY 20, 2017

7:00 am – 4:30 pm	Registration	
7:00 am – 8:00 am	Breakfast with Exhibitors	Centennial A&B
8:00 am – 9:30 am	MR/CT: "Nuts & Bolts"	Centennial C&D
	Ultrasound: "Nuts & Bolts"	Optimist
9:30 am – 10:00 am	Break	
10:00 am – 11:00 am	Theranostics in Acute Stroke – Diagnosis and Treatment in Sync	Centennial C&D
11:00 am – 1:00 pm	MR/CT in Precision Medicine Part I	Centennial C&D
	Neurosonology in Precision Medicine	Optimist
1:00 pm – 2:00 pm	Lunch	
2:00 pm – 4:00 pm	Precision Medicine in Teleneurology	Centennial C&D
4:30 pm – 5:30 pm	Award presentations and "Best of" Oral Abstract trainee presentations	Centennial C&D
5:30 pm – 6:30 pm	40th Anniversary Celebration	Centennial C&D
7:00 pm – 9:00 pm	ASN 40th Anniversary Celebration Reception with Exhibitors	Centennial A&B

SATURDAY, JANUARY 21, 2017

7:00 am – 5:00 pm	Registration	
7:00 am – 8:00 am	Breakfast	Centennial Foyer
8:00 am – 12:00 pm	MR/CT in Precision Medicine Part II	Centennial C&D
	Advanced Neurosonology in Precision Medicine	Optimist
10:00 am – 10:15 am	Break	
12:00 pm – 1:00 pm	Stroke Etiology and Precision Stroke Medicine	Centennial C&D
2:00 pm – 5:00 pm	MRI Workshop – DTI and Perfusion Processing	Exploration
	Neurosonology Hands-On Workshop	Ronald Reagan Building in Room 6238
5:00 pm – 6:30 pm	Interesting Cases	Centennial C&D
7:00 pm – 8:00 pm	Closing Discussion – Practicing Perfection in Precision Medicine: Minimum Standards vs. Advanced Techniques and Value-Based Care with Neuroimaging	Centennial C&D
8:30 pm	Offsite Social Event	Bel-Air Mansion

NOTE

Annual Meeting WIFI. Complimentary wifi will be available in the Annual Meeting space. Please use the password LCC2017 to join the network.

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Santa Monica Neurological Consultants
Los Angeles, CA

2017 ANNUAL MEETING PROGRAM

Thursday, January 19

Precision Medicine and Neuroimaging in Clinical Practice 2017: From Training to Advanced Practice*
CME: 4.0
9:00 am – 2:00 pm (break for lunch 11:30-12:30), Optimist

Course Directors
Ryan Hakimi, DO, MS and Emma Fields, APRN-CNP

Course Description
This course is intended for providers in training as well as the Advanced practice providers (Physician Assistants, Nurse Practitioners and Clinical Nurse Specialists) practicing in both outpatient and acute care settings to be knowledgeable in interpreting neuro-imaging for accurate diagnosis and timely interventions to ensure better patient outcomes. The advanced medical providers are presented with limited neuro-imaging during their training as there is no specialty based training. With the limited exposure during training as well as during national meetings; this course offering will be addressing this practice gap for those in the Neurology specialty. It will also be beneficial to the advanced practice provider who wants to specialize or is switching specialties to Neurology

Learning Objectives
- Discuss neuroimaging modalities in relation to various epilepsy etiologies (AVM, mesial temporal sclerosis, focal heterotopias, hypoplastic hamartomas).
- Describe transcranial Doppler ultrasound and its various neuroimaging applications
- Describe the significance of neuroimaging in the management of patients presenting with acute stroke
- Identify various neuroimaging tools in the management of patients with acute stroke
- Review diagnostic neuroimaging modalities for CVT
- Distinguish neuroimaging differences between demyelinating disease and cerebrovascular disease

Schedule

9:00-9:30	Headache and CVT- Jessica Erfan , MPAS, PA-C & Emma Fields, APRN-CNP
9:30-10:00	Demyelinating disease-Jessica Erfan , MPAS, PAC & Emma Fields, APRN-CNP
10:00-11:00	Neuroimaging of the acute stroke patient from ED to neurointervention-Guillermo Linares, MD
11:00-11:30	Understanding the basics of TCD's-Ryan Hakimi, DO, MS
11:30-12:30	Lunch – Complimentary in Plateia
12:30- 1:45	Neuroimaging of the patient with epilepsy-Gregory Kapinos, MD, MS,FASN
1:45- 2:00	Panel discussion : Jessica Erfan, MPAS PA-C, Ryan Hakimi, DO, MS, Guillermo Linares, MD, Gregory Kapinos, MD, MS,FASN & Emma Fields APRN-CNP

Modalities
MR, CT, TCD, EEG, and Angiography

***Participants in this session will receive a complimentary lunch in the Plateia Restaurant.

NOTE

Poster Session, Exhibits, and Welcome Reception.
January 19, 2017 in the Centennial Ballroom at 5:30 pm – 7:00 pm.
Please see page 15-16 for Abstract index.

Thursday, January 19

Neurosonology Basics in Precision Medicine
CME: 2.75
2:00 pm – 5:00 pm, Optimist

Course Director
Zsolt Garami, MD, RPVI

Course Description
This course will highlight basics of Transcranial Doppler (TCD) and carotid ultrasound physics as well as techniques of examinations, their clinical applications, and interpretations. Part I is for individuals seeking basic knowledge of Neurosonology. Part II is for individuals interested in performing and interpreting carotid duplex and Transcranial Doppler studies. Exposure to practical application and interpretation in the form of real case presentations will be done. This part of the Advanced Neurosonology Course will provide attendees with an opportunity to review cases with expert faculty. Case materials will include both carotid duplex and Transcranial Doppler examinations, and will highlight examples showing multiple concepts, unusual findings, and artifacts. The format will include team teaching with presentation of cases and time for discussion and questions between cases.

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

Schedule

2:00 – 2:20	Carotid Duplex Protocol – Zsolt Garami, MD, RPV
2:20 – 2:40	Transcranial Doppler Protocol - Zsolt Garami, MD, RPVI
2:40 – 3:00	Reporting Requirement – Marge Hutchisson, RVT, RDCS
3:00 – 3:20	Waveform Recognition, Detecting Occlusion – Andrei Alexandrov, MD, RVT
3:20 – 3:30	Q&A
3:30 – 4:45	BREAK
3:45 – 4:00	Subclavian vs. Vertebral Steal - Zsolt Garami, MD, RPVI
4:00 – 4:15	TCD in the ICU – Brain Death – Alexander Razumovsky, PhD, FAHA
4:15 – 4:30	TCD Bubble Test for PFO/ASD - Zsolt Garami, MD, RPVI
4:30 – 4:45	IAC Accreditation: Issues and Answers - Marge Hutchisson, RVT, RDCS
4:45 – 5:00	Q&A

Modalities
Ultrasound

Keynote Address: NIH and Neuroimaging: Promise of the BRAIN Initiative
CME: 1.5
7:00 pm – 8:30 pm, Centennial C&D

Keynote Speaker
Walter Koroshetz, MD – NIH, Director - NINDS

Course Description:
Many of the obstacles in the path of developing better treatments for persons with neurological disorders fall into a single class- the inability to image the underlying neuropathology. Multiple sclerosis and Alzheimer's disease are great examples of the power of neuroimaging in moving human science forward, informing the important preclinical questions, and even attracting whole industries into therapy development. However, there is much to do; both from the reproducibility/proving utility side for the techniques currently available and from the technology development side for new neuroimaging techniques. With regard to the latter the NIH BRAIN Initiative is an ambitious program to develop tools that will allow investigators to monitor and modulate neural circuits. Successful translational of BRAIN Initiative projects, such as next generation neuroimaging, to patients has the potential to transform the diagnosis and treatment of neuro/mental/substance abuse disorders.

Friday, January 20

Concurrent Session MR/CT: "Nuts & Bolts"
CME: 1.5
8:00 am – 9:30 am, Centennial C&D

Course Director
Joseph Fritz, PhD

Course Description
An image based review of MRI and CT techniques will be presented. Rationale for MR sequences and CT techniques will be tied to referring clinical indications. Representative neurology cases will be presented that highlight the requirements for specific acquisition and viewing parameters, as well as illustrate and interpret through artifacts that may confound interpretation.

Learning Objectives
- Identify how to order MRIs with greater precision
- Recognize artifacts that may confound interpretation.
- Explain the purpose of commonly used imaging techniques

Schedule

8:00-8:15	Introduction to CT and MRI technologies, Joseph Fritz, PhD
8:20-9:20	Case study approach to Understanding CT and MRI Techniques, Nandor Pinter, MD

Modalities
MRI and CT

Concurrent Session
Neurosonology: "Nuts & Bolts"
CME: 1.5
8:00 am – 9:30 am, Optimist

Course Director
Andrei Alexandrov, MD, RVT

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 fluid dynamics.

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

Modalities
Ultrasound

NOTE

CME Credits. Statements of credit will be awarded based on the participant's attendance. A statement of credit will be available upon completion of an online evaluation/claimed credit form available at: www.akhcme.com/ASN. Please claim your credit by February 25, 2017. If you have questions about this CME activity, please contact AKH inc. at jgoldman@akhcme.com.

Friday, January 20

Theranostics in Acute Stroke – Diagnosis and Treatment in Sync
CME: 1.0
10:00 am – 11:00 am, Centennial C&D

Course Director
David Liebeskind, MD

Course Description
The diagnosis and treatment of acute stroke are no longer sequential steps in patient care, as theranostics or providing the right treatment for the right diagnosis at the right moment occur in sync. Real time decision-making by neurologists incorporates both clinical and imaging information to rapidly define individualized care that is focused on best outcomes for each patient. This session on the theranostics of acute stroke includes separate topics on telestroke/mobile imaging triage, transient ischemic attacks/minor strokes, and endovascular strategies. Each speaker will provide an overview on how neuroimaging technologies are now being used by neurologists in real time to optimally treat specific stroke presentations in the acute phase, concluding with a guiding statement on the future of such precision stroke care. Five minutes of audience discussion are then utilized to engage participants and expand such innovative strategies.

Learning Objectives
- To understand how telestroke/mobile imaging decisions are being used in triage.
- To develop knowledge on how neuroimaging may be used to guide treatment of TIA/minor stroke.
- To learn about the advantages and disadvantages of multimodal imaging with CT or MRI in the peri-procedural management of stroke patients undergoing endovascular therapy.

Schedule

10:00-10:15	Telestroke/Mobile CT – Andrei Alexandrov
10:15-10:20	Discussion
10:20-10:35	TIA and Minor Stroke – Edward Feldmann
10:35-10:40	Discussion
10:40-10:55	Endovascular - Diogo Haussen
10:55-110:00	Discussion

Modalities
CT, MRI, Ultrasound, and Angiography

Concurrent Session
MR/CT in Precision Medicine Part I
CME: 2.0
11:00 am – 1:00 pm, Centennial C&D

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

Course Description
In the first session of the MR/CT in Precision Medicine course, 3 speakers will present the neuroimaging markers of a patient presenting with an acute focal neurological deficit. In turn, early identification of these imaging findings should allow the clinician-neuroimager the timely and accurate establishment of patient-specific diagnosis, and assist in management in a cost conscious manner.

Learning Objectives
The Course describes the neuroimaging characteristics of neurological disorders encountered in in-and outpatient clinical practice. The lectures focus on subjects previously determined as practice gaps by audience feedback from prior neuroimaging meetings. At the conclusion of the course, the audience will be able to utilize the gained knowledge in several ways in their daily patient care, such as by improving image interpretation skills and integrate clinical with neuroimaging information, and therefore improve diagnosis of neurological disorders and complications related to their treatments.

Schedule

Imaging in a Patient with an Acute Focal Neurological Deficit

11:00-11:35	Neuroimaging in Demyelinating Disorders – Andy Woo
11:35-12:10	MRI of Small Vessel Disease – Jason Hinman
12:10-12:45	Mapping of MRI Patterns of Infarct Evolution to Tailor Therapy – Fabien Scalzo
12:45-1:00	Questions and Discussion

Modalities
MR, CT, MRA, CTA, MRV, and CTV

Friday, January 20

Concurrent Session
Neurosonology in Precision Medicine
CME: 2.0
11:00 am – 1:00 pm, Optimist

Course Director
Zsolt Garami, MD, RPVI

Course Description
The concept of precision medicine - prevention and treatment strategies that take individual variability into account — is not new. The prospect of applying this concept broadly has been dramatically improved by the recent development of large-scale biologic databases (such as the human genome sequence), powerful methods for characterizing patients (such as proteomics, metabolomics, genomics, diverse cellular assays, and even mobile health technology), and computational tools for analyzing large sets of data. What is needed now is a broad research program to encourage creative approaches to precision medicine, test them rigorously, and ultimately use them to build the evidence base needed to guide clinical practice in neurosonology. The proposed initiative has two main components: help to make decisions and connect dots in literature to generate knowledge applicable to the whole range of health and disease.

Course Objectives
- Diagnostic methods of PFO detection (Echos, TCD, MRI)
- Ongoing Trials and Evidence Based Treatment option for intracranial aneurysms
- Neurosonology in the patient specific clinical practice in NICU: diagnostics, follow up and angiographic correlations with treatment outcomes

Schedule

1:00-11:2	Carotid IMT, Genes and Big Data – Tanja Rundek, MD, PhD
11:20-11:40	PFO : Close it or Not? – John Volpi, MD
11:40-12:00	MoyaMoya – Sebina Bulic, MD
12:00-12:20	Neurosonology in the ICU – How Do I Use the Results? – Sebina Bulic, MD
12:20-12:40	Aneurysm Selection for Intervention - John Volpi, MD
12:40-12:50	Remote Proctoring – TCD Monitoring – Zsolt Garami, MD, RPVI
12:50-1:00	Q&A

Modalities
MRI, CT, Ultrasound, and Angiography

Precision Medicine in Teleneurology
CME: 2.0
2:00 pm – 4:00 pm, Centennial C&D

Course Director
Lawrence Wechsler, MD

Course Description
This session will emphasize personalized approaches to imaging through examples of teleneurology cases encountered in the UPMC teleneurology network. Teleneurology presents challenges to neurological diagnosis due to the limitations of the neurological examination and the technology involved in remote consultation. The choice of imaging and the integration of imaging results in individual cases becomes critically important to help offset the limitations and assist with proper diagnosis and choice of treatment.

Learning Objectives
- To acquire and understanding of teleneurology
- To choose imaging modalities to complement teleneurology evaluations
- To apply the results of imaging to teleneurology diagnosis and treatment decisions

Schedule

2:00-4:00	Case presentations and discussion with faculty. Audience participation is welcomed.

Modalities
MR, CT, Angiography, and Ultrasound

Friday, January 20

ASNR Award Ceremony and Oral Abstract Session
CME: None
4:30 pm- 5:30 pm, Centennial C&D

Schedule

4:30-4:35	**Welcome and announcement of ASN Fellows and abstract poster award winners**
4:35-4:45	**McKinney Award Recipient.** Transcranial Sonographic Measurement of Optic Nerve Sheath Diameter in Collegiate Soccer Players: A Prospective Analysis Over Three Months - Rasadul Kabir, MD
4:45-4:55	**Oldendorf Award Recipient.** Clinical Correlations of Vectors of Neoplastic Spread in Patients with Pituitary Adenomas - Natasha Topoluk, PhD
4:55-5:05	**Qureshi Award Recipient.** Flow diversion headaches and facial pain in patients with asymptomatic internal carotid artery stenosis - Nabeel Herial, MD, MPH
5:05-5:10	**Oral Abstract Presentation.** Does the Presence of Pretreatment "Hyperdense MCA Sign" Predict the Outcome of Intraarterial Thrombectomy Plus Intravenous tPA for Acute Stroke? - Ashkan Mowla

ASN 40th Anniversary Celebration!
Program: 5:30 pm – 6:30 pm, Centennial C&D
Reception: 7:00 pm – 9:00 pm, Centennial A&B

We look forward to seeing all attendees at this special event as we look back and celebrate the history of the ASN and neuroimaging. Dr. Laszlo Mechtler will be the Emcee. Dr. Ryan Hakimi will give an engaging presentation on where we have been and how far we have come over the past 40 years from a scientific perspective. A special award will be given at the end of this event and will be followed by a completely different kind of trip down memory lane. Be sure to celebrate with us while enjoying, refreshments and special entertainment.

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REDUCED RATES ON:
- Continuing Medical Education credits offered through symposia, seminars, and the scientific program at the ASN Annual Meeting
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- Annual Meeting video presentations

PRESTIGE AND INFLUENCE, INCLUDING:
- ASN Membership Certificate
- Full representation in the AMA's House of Delegates, with access to the AMA policy-making bodies to present a unified position on issues dealing with neuroimaging, through the Specialty and Service Society of the AMA
- Opportunities to be involved in the process of creating guidelines for the performance of different neuroimaging procedures in the workup of patients with neurological disorders
- A multidisciplinary forum for sharing ideas and viewpoints with colleagues from other specialties involved in neuroimaging

Saturday, January 21

Concurrent Session
MR/CT in Precision Medicine Part II
CME: 3.75
8:00 am – 12:00 pm, Centennial C&D

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

Course Description
In the second session of the MR/CT in Precision Medicine course, 6 speakers will present the neuroimaging markers of a patient presenting with mental status change and in the second part of the session with headache.
In turn, early identification of these imaging findings should allow the clinician-neuroimager the timely and accurate establishment of patient-specific diagnosis, and assist in management in a cost conscious manner.

Learning Objectives
The Course describes the neuroimaging characteristics of neurological disorders encountered in in-and outpatient clinical practice. The lectures focus on subjects previously determined as practice gaps by audience feedback from prior neuroimaging meetings. At the conclusion of the course, the audience will be able to utilize the gained knowledge in several ways in their daily patient care, such as by improving image interpretation skills and integrate clinical with neuroimaging information, and therefore improve diagnosis of neurological disorders and complications related to their treatments.

Schedule

Imaging in a Confused Patient

8:00-8:35	Toxic-Metabolic – Dara Jamieson, MD
8:35-9:10	Infectious-Inflammatory – Joshua Klein, MD, PhD
9:10-9:45	Dementia – John Bertelson, MD
9:45-10:00	Questions and Discussion
10:00-10:15	Break

Imaging in Patients with Headache

10:15-10:45	Imaging in Primary Headache Disorders and the Symptomatology of Secondary Headaches – Soma Sahai-Srivastava, MD
10:45-11:15	Neuroimaging in Secondary Headaches – Meng Law, MD
11:15-11:45	Neuroimaging in a Traumatic Brain Injury – Laszlo Mechtler, MD, FAAN, FASN
11:45-12:00	Questions and Discussion

Modalities
MR, CT, MRA, CTA, MRV, and CTV

Concurrent Session
Advanced Neurosonology in Precision Medicine
CME: 3.75
8:00 am – 12:00 pm, Optimist

Course Director
Alexander Razumovsky, PhD, FAHA

Course Description
Course objective will be to provide a comprehensive update on TCD clinical applications in the critical care setting, including acute ischemic stroke, subarachnoid hemorrhage and traumatic brain injury. New promising TCD clinical utilization for patients after concussion will be presented. Neuromonitoring protocols during Cardiovascular Surgery using TCD, Near-Infrared Spectroscopy and other modalities for CEA, CABG, aortic arch surgeries, etc.) will be discussed. An internationally renowned faculty of leaders in field of Neurosonology will be assembled to provide the latest in retrospective areas of expertise. This will be accomplished via didactic lectures but will be enhanced by ample time for faculty panel discussions to provide interaction with the audience.

Learning Objectives
- Competence: Achieve experience in understanding and applying contemporary TCD protocols in common neurovascular disorders, i.e., stroke, extra- and intracranial stenosis, subarachnoid hemorrhage, trauma.
- Performance: Have acquired new knowledge for TCD utilization in critical care and during cardiovascular procedures
- Patient Outcomes: Improved patient outcome due to utilization of TCD testing during different clinical pathways

Schedule

8:00-8:45	TCD and acute ischemic stroke – Andrei Alexandrov, MD
8:45-9:30	Concussion: Is there role for TCD – Alexander Razumovsky, PhD, FAHA
9:30-10:00	Specifics TCD Applications for Patients after SAH – Ryan Hakimi, DO, MS
10:00-10:15	Coffee break
10:15-11:00	TCD: critical tool in critical care – Alexander Razumovsky, PhD, FAHA
11:00-12:00	TCD Monitoring during invasive cardiovascular procedures – Zsolt Garami, MD

Modalities
Ultrasound, angiography, MRI, MRA, CT, and CTA

Saturday, January 21

Stroke Etiology and Precision Stroke Medicine
CME: 1.0
12:00 pm – 1:00 pm, Centennial C&D

Course Directors
David Liebeskind, MD

Course Description
Determination of stroke etiology or the underlying cause, advanced by neuroimaging patterns and the evolution of brain and blood vessel changes over time, is critical to develop precision stroke medicine or optimal care of the individual stroke patient. Subacute management of the stroke patient in the intensive care unit to definitive treatment of underlying small vessel disease or intracranial atherosclerosis may be guided by serial neuroimaging in clinical context. Neurologists are poised to define such precision stroke medicine, leveraging expertise in both image interpretation and clinical decision-making. Each speaker will provide an overview on how neuroimaging technologies are now being used by neurologists in real time to optimally treat specific manifestations in the ICU, small vessel disease and intracranial atherosclerosis, concluding with a guiding statement on the future of such precision stroke care. Five minutes of audience discussion are then utilized to engage participants and expand such innovative strategies.

Learning Objectives
- To understand how serial neuroimaging of stroke may be used to guide individual treatment decisions in the ICU.
- To develop knowledge on how neuroimaging may be used to guide treatment of intracranial atherosclerosis.
- To learn about novel strategies to define risk and prevention of recurrent small vessel disease, including stroke and vascular cognitive impairment.

Schedule

12:00-12:15	ICU – Wade Smith, MD
12:15-12:20	Discussion
12:20-12:35	ICAD – David Liebeskind, MD
12:35-12:40	Discussion
12:40-12:55	Small Vessel Disease: Jason Hinman, MD, PhD
12:55-1:00	Discussion

Modalities
CT, MRI, Ultrasound, and Angiography

Concurrent Session
MRI Workshop – DTI and Perfusion Processing
CME: 3.0
2:00 pm – 5:00 pm, Exploration

Course Directors
Eduardo Gonzalez-Toledo, MD, PhD and Fabien Scalzo, PhD

Workshop Description
This workshop allows the participants not only to understand diffusion tensor imaging but to calculate themselves in their own computers.

Learning Objectives
- To understand the principles of DTI
- To learn how to use specific software
- To perform tracts reconstructions, measure FA, and diffusivity

Modalities
MR

Saturday, January 21

Concurrent Session
Neurosonology Hands-On Workshop
CME: 3.0
2:00 – 5:00 pm, Ronald Reagan Building in Room 6238

Course Directors
Andrei Alexandrov, MD, RVT and Zsolt Garami, MD

Workshop Description
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.

Learning Objectives
- 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, headturning, peri-operative testing), and IMT measurements.
- Review equipment and expertise requirements in performing selected tasks with faculty using hands-on, instructional video, or real-time case recordings.

Interesting Cases
CME: 1.5
5:00 pm – 6:30 pm, Centennial C&D

Course Director
Dara Jamieson, MD

Workshop Description
Interactive case presentations highlighting neuroimaging in diagnosis and treatment

Learning Objectives
- To analyze the role of MRI in diagnosis of Neurological disease.
- To discuss unusual uses of neuroimaging in neurological diagnosis and treatment.
- To differentiate between the attributes of different imaging modalities.

Modalities
MRI, CT, CTA, Ultrasound

Practicing Perfection in Precision Medicine: Minimum Standards vs. Advanced Techniques and Value-Based Care with Neuroimaging
CME: 1.0
7:00 – 8:00 pm, Centennial C&D

Course Directors
David Liebeskind, MD

Course Description
The prospect of neuroimaging in precision medicine is explored in this concluding session, covering two key considerations for neurologists as the pioneers of theranostics in their specialty, tailoring optimal care to achieve the best outcomes of their patients. The balance between adhering to minimal standards versus use of advanced neuroimaging techniques is explored by a panel, followed by a second panel that considers the future of value-based care, where reimbursement is linked with real time decision-making that impacts long term patient outcomes. These two challenges and next steps are summarized at the conclusion, with a recap on the potential of neuroimaging in precision medicine gleaned from the 2017 ASN annual meeting.

Learning Objectives
- To understand the challenges of balancing minimal use of neuroimaging to preserve cost, while efficiently using advanced imaging techniques to deliver the right care for the individual patient.
- To become familiar with value-based care for neurological disorders using neuroimaging at the time of therapeutic decision-making.
- To gain knowledge on the potential and implementation of precision medicine with the use of neuroimaging.

Schedule

7:00-7:20	Min. vs. Max: Advanced Techniques Panel
7:20-7:25	Discussion
7:25-7:45	Value Based Care in Neuroimaging
7:45-7:50	Discussion
7:50-8:00	Conclusions and Next Steps on Neuroimaging in Precision Medicine

Modalities
CT, MRI, Ultrasound, and Angiography

Saturday, January 21

ASN Mansion Reception
Starting at 8:30 pm, off site

A fun way to close the Annual Meeting with a night at a Bel Air mansion – come for food, drinks and most importantly comradery among colleagues.

2017 Faculty and Program Committee Disclosures

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Speaker Bureau: Genentech, Inc.

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None

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Salary: Sentient NeuroCare Services

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Fabien Scalzo, PhD
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Charles Tegeler, MD
None

John Volpi, MD
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Contracted Research: Bristol-Myers-Squibb, Boerhinger-Ingelheim

Lawrence Wechsler, MD
None

Andy Woo, MD, PhD
None

Journal of Neuroimaging

The Journal of Neuroimaging offers full coverage of all the relevant clinical neurological aspects of MRI, SPECT, Neurosonology, CT, PET, Transcranial Doppler, Carotid Ultrasound, and other neuroimaging modalities. This journal gives you the kind of practical information you can put to immediate use but cannot find elsewhere. Save valuable time by reading this one publication; you'll learn the developments, research, equipment and reports that have the most meaning for you. Expert authors advise readers on the best techniques for maximum results and minimal risk. Carefully reproduced images illustrate the articles with clarity and fidelity. The articles and illustrations emphasize selecting the appropriate modality and using neuroimaging techniques to improve patient care.The Journal of Neuroimaging addresses the full spectrum of human nervous system disease including stroke, neoplasia, degenerative and demyelinating disease, epilepsy, infectious disease, toxic-metabolic disease, psychoses, dementias, heredo-familial disease and trauma. Each issue offers original clinical articles, case reports, articles on advances in experimental research, technology updates, and neuroimaging CPCs.

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[1]Thomas Jefferson Univ., Philadelphia, USA, [2]Zeenat Qureshi Stroke Institute, St. Cloud, USA, [3]Univ. of Minnesota, Minneapolis, USA

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Ekaterina Bakradze, David Pasquale, Kathryn Kirchoff-Torres
Albert Einstein College of Medicine, Bronx, NY, USA

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Keck School of Medicine of USC, Los Angeles, CA, USA

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Avani Shah, Hesham Masoud
SUNY Upstate Medical Univ., Syracuse, NY, USA

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Sumul Modi, Kavit Shah, Tarun Girotra, Horia Marin, Panayiotis Mitsias
Henry Ford Hospital, Wayne State Univ., Detroit, Michigan, USA

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Khalid Alzimami[1], Abdelmoneim Sulieman[2]
[1]Radiology Science Dept., College of Applied Medical Sciences, King Saud Univ., Riyadh, Saudi Arabia, [2]Radiology and Medical Imaging Dept., College of Applied Medical Sciences, Prince Sattam bin Abdulaziz Univ., Alkharj, Saudi Arabia

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Natl. Hospital of Sri Lanka, Colombo, Sri Lanka

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Mary Beth Farrell[2], Mary Lally[2], John Y. Choi[1]
Winchester Neurologic Consultants, Inc., Winchester, VA, USA[1], Intersocietal Accreditation Commission, Ellicott City, MD, USA[2]

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Mohammed Kananeh, Lalathaksha Kumbar, MD
Henry Ford Hospital, Detroit, MI, USA

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Antonio de Matos[1], Luiz Dalfior Junior[1], Michel Machado[1], Cesar Seculin[1], Paulo Napoli1, Maria Sheila G. Rocha[1]
[1]Hospital Santa Marcelina, Sao Paulo, Sao Paulo, Brazil, [2]Hospital Israelita Albert Einstein, Sao Paulo, Sao Paulo, Brazil

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Natasha Topoluk[1], Justin Collins[3], Christine Schammel[2], David Schammel[2], Lee Madeline[2], Michael Lynn[2], Ryan Hakimi[2]
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Julian Duda, Sonal Mehta
Univ. of South Carolina-Palmetto Health, Columbia, SC, USA

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Nikil Swamy, Harley Morgan, James Parrott, Anna Mrelashvili
Palmetto Health, Columbia, SC, USA

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Paul Maertens, Deena Wafadari, Megan Zak
Univ. of South Alabama, Mobile, Alabama, USA

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Cedars Sinai Medical Center, Los Angeles, CA, USA

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Pirouz Piran[1], Subin Mathew[1], Alex Linn[1], Mei Lu[2]
[1]Cleveland Clinic, Weston, Florida, USA, [2]Cleveland Clinic, Cerebrovascular Center, Cleveland, Ohio, USA

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Soniya Pinto, Brian Midkiff
St. Vincent's Hospital, Worcester, MA, USA

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Saul R. Korey Dept. of Neurology, Montefiore Medical Center, Bronx, NY, USA

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Monetefiore Medical Center, Bronx, NY, USA

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East Texas Medical Center Neurological Institute

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Azerbaijan State Postgraduate Institution, Baku, Azerbaijan

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[1]Univ. of Alberta Hospital, Edmonton, Alberta, Canada, [2]Royal Alexandria Hospital, Edmonton, Alberta, Canada

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Adnan Qureshi[1], Muhammad Saleem[1], Asad Ahrar[1], Faisal Raja[2]
[1]Zeenat Qureshi Stroke Institute, St. Cloud, Minnesota, USA, [2]Rockford Memorial Hospital, Rockford, Illinois, USA

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Mirza Bulic[2], Ling Zheng[1], Sebina Bulic[1], Joseph Kim[1], Jared Noroozi[1], May Kim-Tenser[1]
[1]Univ. of Southern California, Los Angeles, Ca, USA, [2]Pasadena City College, Pasadena, Ca, USA

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Joseph Kim[1], Ling Zheng[1], Sebina Bulic[1], Jared Noroozi[1], Mirza Bulic[2], May Kim-Tenser[1]
[1]Univ. of Southern California, Los Angeles, CA, USA, [2]Pasadena City College, Pasadena, CA, USA

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Univ. of South Carolina / Palmetto Health, Columbia, SC, USA

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Fatemeh Nejatbakhshesfahani
Ludwig Maximilian Universität, Munich, Germany, Technical Univ. of Munich, Munich, Germany

Award Winners

Awards will be presented Friday, January 20,during the Award Ceremony.

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

2017 Qureshi Award Recipient
Nabeel Herial, MD, MPH
Flow diversion headaches and facial pain in patients with asymptomatic internal carotid artery stenosis

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

2017 Oldendorf Award Recipient
Natasha Topoluk, PhD
Clinical Correlations of Vectors of Neoplastic Spread in Patients with Pituitary Adenomas

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

2017 McKinney Award Recipient
Rasadul Kabir, MD
Transcranial Sonographic Measurement of Optic Nerve Sheath Diameter in Collegiate Soccer Players: A Prospective Analysis Over Three Months

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

2017 Resident Travel Award Recipients

Hayrapet Kalashyan, MD, MRCP
Carotid Plaque Volume Changes of Stroke and TIA patients in Six Month Follow-up Period: Observational Study, updated

Nikil Swamy, MS
Anterior Myelitis: The Modern Day Relative of Polio

Poster Session, Exhibits, and Welcome Reception.

January 19 in the Centennial Ballroom at 5:30 pm – 7:00 pm.
Please see page 15-16 for Abstract index.

ASN 40th Anniversary Celebration!

January 20
Program: 5:30 pm – 6:30 pm, Centennial C&D
Reception: 7:00 pm – 8:30 pm, Centennial A&B

We look forward to seeing all attendees at this special event as we look back and celebrate the history of the ASN and neuroimaging. Dr. Laszlo Mechtler will be the Emcee. Dr. Ryan Hakimi will give an engaging presentation on where we have been and how far we have come over the past 40 years from a scientific perspective. A special award will be given at the end of this event and will be followed by a completely different kind of trip down memory lane. Be sure to celebrate with us while enjoying, refreshments and special entertainment.

ASN Mansion Reception

January 21, Starting at 8:30 pm, off site

A fun way to close the Annual Meeting with a night at a Bel Air mansion – come for food, drinks and most importantly comradery among colleagues.

Fellowship of the American Society of Neuroimaging (FASN)

Fellowship in the American Society of Neuroimaging (FASN) is meant to recognize individuals who have made significant contributions to the field of neuroimaging and have impacted the growth and practice of neuroimaging at a regional and national level.

Current Fellows
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Gregory Kapinos, MD, MS, FASN
Joshua Klein, MD, PhD, FANA, FASN
Tomasz Kosierkiewicz, MD, FASN
Laszlo Mechtler, MD, FAAN, FASN
Mohammed Zafar, MD, FASN

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Notes

ASN 41ST ANNUAL MEETING

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