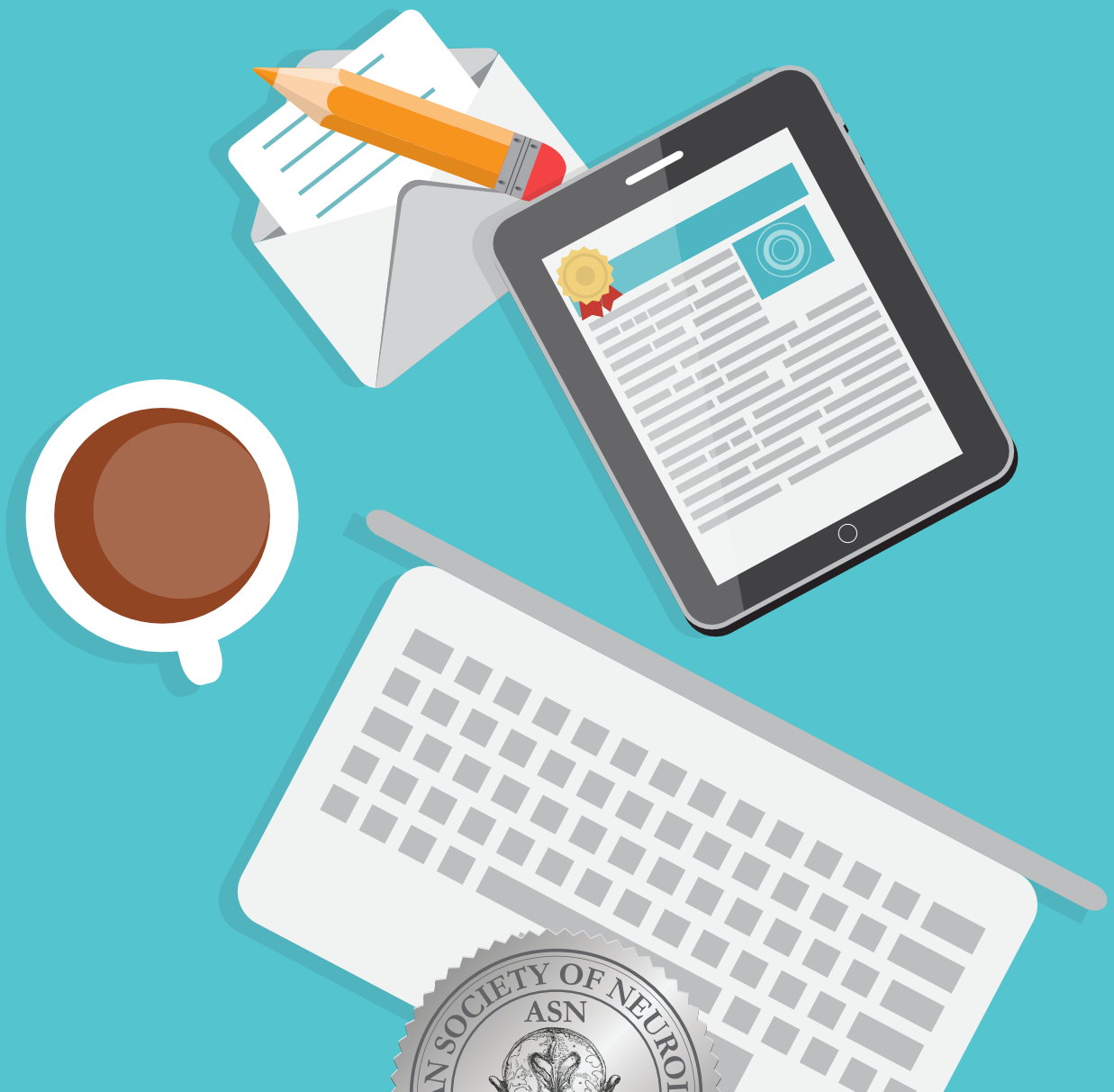
ASN 44TH ANNUAL MEETING

VIRTUAL



AMERICAN SOCIETY OF NEUROIMAGING
ASN
EST. 1977

JANUARY 25-31, 2021 • VIRTUAL

44TH ANNUAL MEETING OF THE AMERICAN SOCIETY OF NEUROIMAGING

Table of Contents

Thank you to our Social Media Ambassadors for engaging ASN members in growing our social media presence. Be sure to follow the Facebook and Twitter accounts of the Journal of Neuroimaging (JON) @ JNeuroimaging and ASN @asneuroimaging. Bring the Neuroimaging community into the conversation by tagging ASN and JON in your posts and tweets!

ASN Social Media Ambassadors:

Jerome Graber, MD, MPH
@neuroimagingdoc

Belinda Oyinkan Marquis, MD
@mizyinks

Richard Genova, BA, RVT, NVS, RPhS
@neurosonologist

#asn2021
@asneuroimaging

CE INFORMATION

Target Audience
This activity is designed to meet the needs of neurologists, neurosurgeons, neuroradiologists, vascular sonographers, 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: akhcme.com/akhcme/pages/asn

Please claim your credit by April 30, 2020
If you have questions about this CME activity, please contact AKH inc. at jgoldman@akhcme.com.

CE credit provided by AKH Inc., Advancing Knowledge in Healthcare. This activity is jointly-provided by AKH Inc., Advancing Knowledge in Healthcare and American Society of Neuroimaging.

JOINTLY ACCREDITED PROVIDER™
INTERPROFESSIONAL CONTINUING EDUCATION

In support of improving patient care, this activity has been planned and implemented by AKH Inc., Advancing Knowledge in Healthcare and American Society of Neuroimaging. AKH Inc., Advancing Knowledge in Healthcare is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Physicians
AKH Inc., Advancing Knowledge in Healthcare designates this live activity for a maximum of 24.0 *AMA PRA Category 1 Credit(s)™.* Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Planner And Reviewer Disclosures
The following planners and reviewers have no significant financial relationships with pharmaceutical or medical product manufacturers:

- Dorothy Caputo, MA, BSN, RN - Director of Accreditations
- ASN Staff and Planners
- AKH Inc. Staff and Planners

Commercial Support
This activity is supported by an educational grant from Longeviti and Phillips Healthcare.

Disclosures
It is the policy of AKH Inc. to ensure independence, balance, objectivity, scientific rigor, and integrity in all of its continuing education activities. The planners and faculty must disclose to the participants any significant relationships with ineligible companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients." or with the commercial supporter of this accredited continuing education activity. Identified conflicts of interest are mitigated by AKH prior to the planners/faculty assuming their role in this accredited continuing education activity.

ASN ANNUAL MEETING COURSE OBJECTIVES

- Review current practices of utilizing transcranial Doppler ultrasound in pediatric neurocritical care.
- Discuss how transcranial Doppler ultrasound can be applied in a variety states of children with critical illness.
- Discuss controversies in management when applying transcranial Doppler ultrasound to guide clinical management in critically ill children.
- Evaluate key neuroimaging features of MS
- Review the role of conventional MRI in MS diagnosis
- Discuss neuroimaging of NMOSD, ADEM & other common MS mimics.
- Describe accepted applications of transcranial Doppler ultrasound for cerebrovascular disease
- Define the diagnostic criteria for each clinical application of transcranial Doppler
- Describe basic principles used to interpret spectral waveforms
- Recognize specific neuroimaging features in vascular ocular, orbital & spinal cord disorders
- Provide an update on the high-resolution vessel wall imaging techniques, & their applications in intracranial vasculopathies, such as reversible cerebral vasoconstriction syndrome, intracranial atherosclerotic disease, cerebral vasculitis
- Review the application of temporal artery ultrasound in large vessel vasculitis
- Define & discuss neurosonology applications in the intensive care unit setting
- Define & discuss emerging clinical applications of neurological ultrasound
- List clinical risk factors for neurologic thiamine deficiency
- Recognize neuroimaging clues to thiamine deficiency
- Identify the physiology of neurologic thiamine deficiency & supplementation
- Illustrate how to calculate the ASPECTS score & its clinical implication in acute stroke management
- Review the use of multimodal imaging in acute stroke management
- Illustrate the use of neuroimaging in prognosticating patient outcomes post-cardiac arrest
- Describe non-invasive intracranial pressure monitoring techniques
- Describe the uses of neuromuscular ultrasound in neurological patients
- Discuss neuroimaging modalities in the management of neurological patients with demyelinating diseases
- Develop an understanding of what drives value in health care
- Utilize patient satisfaction surveys
- Explain physics of carotid ultrasonography & transcranial Doppler ultrasonography
- Review the clinical indications & usefulness of the carotid ultrasound & TCD & apply contemporary protocols & practices in common neurovascular disorders

- Discuss the coding & billing for neurosonology such as the appropriate CPT & Medicare & local carriers' coverages
- Identify the anatomy in the head & neck of pediatric patients on MRI & CT imaging.
- Review common infections in pediatric patients as visualized on neuroimaging of the head on CT & MRI.
- Discuss new research findings on neuroimaging in Covid patients.
- Identify the causes of secondary headache disorders & discuss how the findings on MRI & CT imaging may clarify diagnosis & treatments.
- Review the safety of imaging in pregnancy & causes of headaches during pregnancy as identified on neuroimaging.
- Discuss neuroimaging findings of headaches caused by variations in CSF pressure.
- Identify Nuclear Neurology studies that are currently available to help manage patients, including which radiopharmaceuticals are FDA-approved.
- Identify what clinical questions can be addressed in different neurologic disease states by clinically available PET & SPECT.
- Decide how best to incorporate Nuclear Neurology into clinical practice, either through collaboration with other physician groups or pursuing government-mandated nuclear training.
- Review basic ultrasound physics.
- Apply the fundamentals of ultrasound physics to neurosonology.
- Review instrumentation & examination technique of carotid duplex, transcranial duplex & transcranial Doppler.
- Define & discuss ultrasound modalities for the rapid diagnosis of treatable lesions in acute ischemic stroke
- Define & discuss the rationale behind & clinical evidence for ultrasound for acute stroke therapy (sonothrombolysis)
- Describe the key principles of TCD performance & interpretation
- Describe the key principles of CUS performance & interpretation
- Define & discuss neurosonology applications in pediatric populations
- Define & discuss TCD monitoring rationale, technique & clinical evidence

ASN 2021 VIRTUAL MEETING

PROGRAM AT-A-GLANCE • JANUARY 25-31, 2021

	Monday, January 25		Tuesday, January 26		Wednesday, January 27	
11:00 - 12:30 ET 10:00 - 11:30 CT 9:00 - 10:30 MT 8:00 - 9:30 PT	Basic neurosonology - *Mark Rubin*	Neuroimaging and thiamine deficiency - *Jerome Graber*	Basic neurosonology - *Mark Rubin*	Neuroimaging of MS and MS Mimics - *Konstantin Balashov*	Advanced neurosonology - *Mark Rubin*	Patient Satisfaction and Value Creation for Neuroimagers - *Peter Kalina*
	30-Minute Break		30-Minute Break		30-Minute Break	
1:00 - 2:30 ET 12:00 - 1:30 CT 11:00 - 12:30 MT 10:00 - 11:30 PT	Basic neurosonology - *Mark Rubin*	Clinical Nuclear Neurology of dementia, parkinsonism, epilepsy, and traumatic brain injury - *Robert Miletich*	Advanced neurosonology - *Mark Rubin*	Neuroimaging of Headache - *Jennifer McVige*	Advanced neurosonology - *Mark Rubin*	Neuroimaging in distinctive stroke syndromes: a case-based approach - *Oana Dumitrascu*
					30-Minute Break	
2:00 - 4:30 ET 2:00 - 3:30 CT 1:00 - 2:30 MT 12:00 - 1:30 PT					Advanced Neurosonology: Diagnostic & Therapeutic TCD in Acute Stroke - *Andrei Alexandrov*	

	Thursday, Jan. 28	Friday, January 29		Saturday, January 30	
11:00 - 12:30 ET 10:00 - 11:30 CT 9:00 - 10:30 MT 8:00 - 9:30 PT	Covid imaging - *Andrei Alexandrov*	Emerging Clinical Application for Transcranial Doppler Ultrasound in Pediatric Critical Care: A Case-Based Discussion - *Brian Appavu*		Neuroimaging fundamentals a case study approach - *Ryan Hakimi and Emma Fields*	Transcranial Doppler Interpretation Skills - *Colleen Douville and Brenda Rinsky*
	30-Minute Break	30-Minute Break		30-Minute Break	
1:00 - 2:00 ET 12:00 - 1:00 CT 11:00 - 12:00 MT 10:00 - 11:00 PT	Business meeting/ awards - *Staff and Leadership*	Implementation of Neuroimaging in Pediatric Arterial Ischemic Stroke Management - *Brian Appavu*		Neuroimaging fundamentals: a case study approach - *Ryan Hakimi and Emma Fields*	Transcranial Doppler Interpretation Skills - *Colleen Douville and Brenda Rinsky*
2:00 - 2:30 ET 1:00 - 1:30 CT 12:00 - 12:30 MT 11:00 - 11:30 PT	Longeviti Sponsored Program: Exploration of ClearFit Implants Postoperative Ultrasound Implications for Neuroimaging				
	30-Minute Break	30-Minute Break		30-Minute Break	
3:00 - 4:30 ET 2:00 - 3:30 CT 1:00 - 2:30 MT 12:00 - 1:30 PT	Virtual Poster Session	Advanced neuro-sonology - *Mark Rubin*	Pediatric Imaging - *Jennifer McVige*	Neuroimaging fundamentals: a case study approach - *Ryan Hakimi and Emma Fields*	Transcranial Doppler Interpretation Skills *Colleen Douville and Brenda Rinsky*

	Sunday, January 31		Sunday, February 7
11:00 - 12:30 ET 10:00 - 11:30 CT 9:00 - 10:30 MT 8:00 - 9:30 PT	Practice updates - Neurosonology - *Jongyeol Kim*	Practice updates - MRI - *Mark Malkoff*	Neurosonology and Neurovascular Specialist Exam
	30-Minute Break		
1:00 - 2:30 ET 12:00 - 1:30 CT 11:00 - 12:30 MT 10:00 - 11:30 PT	Practice updates - Neurosonology - *Jongyeol Kim*	Practice updates - MR/CT - *Mark Malkoff*	

ASN 2021 ANNUAL MEETING FACULTY

Todd Abruzzo, MD, FAHA
Mayo Clinic College of Medicine &
University of Arizona
Phoenix, AZ

Andrei Alexandrov, MD, RVT, NVS, RPNI
The University of Tennessee
Health Science Center
Memphis, Tennessee

Brian Appavu, MD
Barrow Neurological Institute at Phoenix
Children's Hospital, University of Arizona
College of Medicine
Phoenix, Arizonia

Konstantin Balashov, MD, PhD, FAAN
Rutgers-Robert Wood Johnson
Medical School
New Brunswick, New Jersey

John Bennett, PhD, RVT, FICA, NVS
Neurology & Stroke Associates
Lititz, Pennsylvania

Eduardo Cortez- Garcia, DO
Prisma Heath Upstate
Affiliated with University of South Carolina
Greenville, SC

Keith Dombrowski, MD
University of South Florida/Tampa
General Hospital
Tampa, FL

Colleen Douville, RVT, NVS
Swedish Neuroscience Institute
Seattle, Washington

Oana Dumitrascu MD, MSc
Cedars-Sinai Medical Center
Los Angeles, California

Zhaoyang Fan, MD, PhD
Keck School of Medicine of University of
Southern California
Los Angeles, CA

Emmaculate Fields, APRN-CNP
University of Oklahoma
Health Sciences Center
Oklahoma City, Oklahoma

Joseph Fritz, PhD
Dent Neurologic Institute
Buffalo, New York

Jerome Graber, MD, MPH
University of Washington Medicine
Seattle, WA

Ryan Hakimi, DO, MS, FCNS, NVS, RPNI
University of South Carolina School of
Medicine-Greenville
Greenville, South Carolina

Dana Harrar, MD
Children's National
Washington, D.C.

Emily Ho, MD, PhD, RPNI
Swedish Neuroscience Institute
Seattle, WA

Elie Isenberg-Grzeda, MD, FACPC
Sunnybrook Health Sciences Centre
University of Toronto
Toronto, Canada

Dara Jamieson, MD
Weill Cornell Medicine
New York, NY

Peter Kalina, MD, MBA, FACR
Mayo Clinic College of Medicine
Rochester, Minnesota

Leni Karr, BA
University of Washington Medical Center
Seattle, WA

Jongyeol Kim, MD
University Medical Center – Texas Tech
University Health Sciences Center
Lubbock, Texas

Joshua Klein, MD, PhD, FANA, FASN, FAAN
Brigham and Women's Hospital
Harvard Medical School
Boston, Massachusetts

Gyanendra Kumar, MD
Mayo Clinic
Phoenix, Arizona

Kerri LaRovere, MD
Boston Children's Hospital
Boston, Massachusetts

Karen Lidsky, MD
Wolfson Children's Hospital
University of Florida
Gainesville, Florida

Sarah Lee, MD
Pediatric Stroke Program at Stanford
Unviversity
Stanford, CA

David Liebeskind, MD, FAHA, FAAN
UCLA Department of Neurology
Los Angeles, California

Marlina Lovett, MD
Nationwide Children's Hospital
The Ohio State University
Columbus, Ohio

Marc Malkoff, MD, FAAN, FAHA, RPNI
University of Tennessee
Health Science Center
Memphis, Tennessee

Doug Mayson, MD
Georgetown University Medical Center
Washington, DC

Jennifer McVige, MD
Dent Neurological Institute
Amherst, New York

Laszlo Mechtler, MD, FAAN, FASN, FEAN, FAHS
Dent Neurologic Institute
Buffalo, New York

Darryl Miles, MD
UT Southwestern Medical Center
Dallas, Texas

Robert Miletich, MD, PhD, FAAAS
Jacobs School of Medicine & Biomedical
Sciences
University at Buffalo
Buffalo, NY

Nicole O'Brien, MD
Nationwide Children's Hospital
Columbus, OH

Jorge Ortiz-Garcia, MD
University of Oklahoma Health Sciences Center
Oklahoma City, OK

Marina Mir Parramon, MD
Montreal Children's Hospital
Montreal, Canada

Hooman Poor, MD
Mount Sinai Health System
New York, NY

Nando Pinter, MD
Dent Neurologic Institute
Buffalo, NY

Venkatakrishna Rajajee, MBBS
University of Michigan
Ann Arbor, MI

Alexander Razumovsky, PhD, FAHA, NVS
TCD Global Inc.
Hunt Valley, Maryland

Karin Reuter-Rice, PhD, NP, FCCM, FAAN
Duke Institute for Brain Sciences
Durham, North Carolina

Alexandra Reynolds
Mount Sinai Hospital
New York, New York

Brenda Rinsky, RDMS, RVT, NVS
Cedars Sinai
Los Angeles, California

Mark Rubin, MD, NVS
University of Tennessee Health Science Center
Memphis, Tennessee

Aarti Sarwal, MD, FNCS, FAAN
Wake Forest School of Medicine,
Wake Forest Baptist Health Center
Winston-Salem, North Carolina

Konrad Schlick, MD
Cedars Sinai
Los Angeles, California

Reza Bavarsad Shahripour, MD
University of California San Diego
La Jolla, CA

Aaron Stayman, MD
Swedish Neuroscience Institute
Seattle, Washington

Charles Tegeler, IV, MD
Wake Forest School of Medicine, Wake Forest Baptist Health Center
Winston-Salem, North Carolina

Georgios Tsivgoulis, MD, PhD, MSc, FESO, FEAN, FAAN
National & Kapodistrian University of Athens, Greece

Nickolas Zalewski, MD, PhD
Mayo Clinic
Phoenix, AZ

ASN 2021 ANNUAL MEETING PROGRAM

ALL TIMES MOUNTAIN STANDARD TIME

Monday, January 25

Basic Neurosonology: Ultrasound Physics, Instrumentation and Examination Technique
Course Director: Mark Rubin
9:00 am - 12:30 pm MT

Course Description/Abstract: This course will cover the basics of the physics of ultrasound, how those principles are applied to neurological ultrasound , as well as demonstrate the instrumentation and examination technique for three common neurosonology applications: carotid duplex, transcranial duplex, and transcranial Doppler.

Course Schedule:

9:00 - 9:45 am	Ultrasound Physics - Mark Rubin
9:45 - 10:30 am	Applied Ultrasound Physics - Andrei Alexandrov
10:30 - 11:00 am	Break
11:00 -11:30 am	Carotid Duplex Ultrasonography: Instrumentation and Technique - John Bennett
11:30 am -12:00 pm	Transcranial Duplex Ultrasonography: Instrumentation and Technique - Colleen Douville
12:00 -12:30 pm	Transcranial Doppler Ultrasonography: Instrumentation and Technique - Brenda Rinsky

Course Objectives:

1. To review basic ultrasound physics.
2. To apply the fundamentals of ultrasound physics to neurosonology.
3. To review instrumentation and examination technique of carotid duplex, transcranial duplex and transcranial Doppler.

Modalities: Ultrasound: Carotid Duplex, Transcranial Duplex, Transcranial Doppler

Monday, January 25

Neuroimaging & Thiamine Deficiency
Course Director: Jerome Graber
9:00 - 10:30 am MT

Course Description/Abstract: Neurologic thiamine deficiency (Wernicke's) remains underrecognized and is a treatable cause or cofactor in neurologic illness. While traditionally associated with alcohol use, several other clinical risk factors have been described associated with neurologic thiamine deficiency, and clinical criteria have been studied to diagnosed thiamine deficiency. Classic and atypical neuroimaging features can help to recognize neurologic thiamine deficiency and improve diagnosis and adequate treatment, especially in at-risk populations.

Course Schedule:

9:00 - 9:20 am	Case presentation - Jerome Graber
9:20 - 9:40 am	Case presentation - Jerome Graber
9:40 -10:15 am	Review on risk factors for thiamine deficiency and underlying pathophysiology and treatment - Elie Isenberg-Grzeda
10:15 -10:30 am	Review of neuroimaging features of thiamine deficiency - Jerome Graber

Course Objectives:

1. Improved knowledge of clinical risk factors for neurologic thiamine deficiency.
2. Improved recognition of neuroimaging clues to thiamine deficiency.
3. Better understanding of the physiology of neurologic thiamine deficiency and supplementation.

Modalities: MR

Monday, January 25

Clinical Nuclear Neurology of Dementia, Parkinsonism, Epilepsy, & Traumatic Brain Injury
Course Director: Robert Miletich
11:00 am - 12:30 pm MT

Course Description/Abstract: Although most in the neurology and clinical neuroscience communities have some familiarity with positron emission tomography (PET) and single photon emission computed tomography (SPECT), knowledge of the practical utilization of these modalities for clinical patients is not as prevalent. This lack of knowledge of applied Nuclear Neurology extends to what clinical questions can be addressed by PET and SPECT, what radiopharmaceuticals are clinically available (ie. Approved by FDA) and what types of studies can be performed. This course focuses on practical, present day, clinical application of Nuclear Neurology, presenting some basic science, but illustrating concepts and applications through clinical material. The capacity of Nuclear Neurology to address management questions which arise in multiple disease states will be discussed. Radiopharmaceuticals available clinically will be presented. Imaging indications in the disease states of dementia, neurodegenerative disease, parkinsonism, epilepsy, and traumatic brain injury will be reviewed. Standard and newly developed imaging techniques will be discussed. Finally, government-mandated training requirements for Nuclear Neurology will be presented.

Course Schedule:

11:00 - 11:20 am	Dementia - Robert Miletich
11:20 - 11:40 am	Parkinsonism - Robert Miletich
11:40 -12:00 pm	Epilepsy - Robert Miletich
12:00 -12:15 pm	Traumatic Brain Injury - Robert Miletich
12:15 -12:30 pm	Regulatory Requirements to Practice Nuclear Neurology - Robert Miletich

Course Objectives:

1. Know what kind of Nuclear Neurology studies are currently available to help manage patients, including which radiopharmaceuticals are FDA-approved.
2. Understand what clinical questions can be addressed in different neurologic disease states by clinically available PET and SPECT.
3. Decide how best to incorporate Nuclear Neurology into clinical practice, either through collaboration with other physician groups or pursuing government-mandated nuclear training.

Modalities: PET, SPECT, Nuclear Scintigraphy

Tuesday, January 26

Basic Neurosonology: TCD and CUS
Course Director: Mark Rubin
9:00 am – 12:30 pm MT

Course Description/Abstract: This course will build on the basics of ultrasound physics, instrumentation and examination technique learned in the previous course to introduce the application of these principles for transcranial Doppler (TCD) and carotid duplex ultrasound (CUS). These in-depth reviews will cover critical principles for understanding performance and interpretation as well as an overview of clinical indications for each modality.

Course Schedule:

9:00 - 10:30 am	Basic Neurosonology: TCD – Alexander Razumovsky
10:30 - 11:00 am	Break
11:00 am - 12:30 pm	Basic Neurosonology: CUS – Charles Tegeler

Course Objectives:

1. To describe the key principles of TCD performance and interpretation.
2. To describe the key principles of CUS performance and interpretation.

Modalities: Ultrasound: Carotid Duplex, Transcranial Duplex, Transcranial Doppler

Tuesday, January 26

Neuroimaging of MS & MS Mimics
Course Director: Konstantin Balashov
9:00 - 10:30 am MT

Course Description/Abstract: This course is designated for neurologists and other physicians interested to improve their knowledge and skills in neuroimaging of patients with MS and major MS mimics. In the first part of this course, we are going to review the role of MRI in disease diagnosis and monitoring disease activity. In the second part, we will discuss neuroimaging of common demyelinating disorders of the CNS other than MS. The list of common MS mimics includes but is not limited to NMOSD, ADEM, Neurosarcoidosis, and Neuroborreliosis.

Course Schedule:

9:00 - 9:40 am	Neuroimaging in MS - Konstantin Balashov
9:40 - 9:50 am	Break
9:50 - 10:30 am	Neuroimaging in NMOSD and other MS mimics - Konstantin Balashov

Course Objectives:

1. To evaluate key neuroimaging features of MS.
2. To review the role of conventional MRI in MS diagnosis.
3. To discuss neuroimaging of NMOSD, ADEM and other common MS mimics.

Modalities: MRI

Tuesday, January 26

Headache
Course Director: Jennifer McVige
11:00 am – 12:30 pm MT

Course Description/Abstract: The Neuroimaging of Headache course was designed to aid in diagnosis and treatment through the use of neuroimaging in a patient presenting with headaches. The course will review the imaging characteristics and how the findings relate to the pathology.

Course Schedule:

11:00 - 11:30 am	Neuroimaging of Secondary Headache Disorders - Laszlo Mechtler
11:30 am - 12:00 pm	Neuroimaging of Headache in Pregnancy- Dara Jameison
12:00 - 12:20 pm	Low and High Pressure Headaches - Jennifer McVige
12:20 - 12:30 pm	Questions

Course Objectives:

1. Identify the causes of secondary headache disorders and discuss how the findings on MRI and CT imaging may clarify diagnosis and treatments.
2. Review the safety of imaging in pregnancy and causes of headaches during pregnancy as identified on neuroimaging.
3. Discuss neuroimaging findings of headaches caused by variations in CSF pressure.

Modalites: MRI, MRA, CT, CTA

Wednesday, January 27

Pediatric and Advanced Neurosonology
Course Director: Mark Rubin
9:00 am – 12:30 pm MT

Course Description/Abstract: These courses will cover the breadth of neurosonology in the pediatric population as well as the first course in advanced neurosonology discussing the rationale, technique and evidence for TCD monitoring.

Course Schedule:

9:00 - 10:30 am	Pediatric Neurosonology - Kerri LaRovere, MD & Nicole O'Brien, MD
10:30 - 11:00 am	Break
11:00 am - 12:30 pm	Advanced Neurosonology: TCD Monitoring - Mark N Rubin, MD, RPVI, NVS

Course Objectives:

1. To define and discuss neurosonology applications in pediatric populations.
2. To define and discuss TCD monitoring rationale, technique and clinical evidence.

Modalities: Ultrasound, Carotid Duplex, Transcranial Duplex, Transcranial Doppler

Wednesday, January 27

Patient Satisfaction and Value Creation
Course Director: Peter Kalina
9:00 – 10:30 am MT

Course Description/Abstract: Creating value, optimizing customer service and maintaining patient satisfaction are the goals of any health care provider. While these concepts have many unifying themes, they are also open to a degree of variability and interpretation. We will address these from two potentially unique perspectives. We hope and anticipate that the subjective nature of these principles will stimulate a great deal of discussion.

Course Schedule:

9:00 – 9:45 am	Patient Satisfaction and Value Creation – Radiologist's Perspective - Peter Kalina
9:45 – 10:30 am	Patient Satisfaction and Value Creation – Neurologist's Perspective - Laszlo Mechtler

Course Objectives:

1. Develop an understanding of what drives value in health care.
2. Become familiar with patient satisfaction surveys.
3 Understand that there are a multitude of factors that contribute to optimal patient outcomes.
4. Our definition of value, satisfaction, and service may have similarities but may also vary with our perspective.

Wednesday, January 27

Neuroimaging in Distinctive Stroke Syndromes: A Case-Based Approach
Course Director: Oana Dumitrascu
11:00 am – 12:30 pm MT

Course Description/Abstract: This course is designed to provide an update on various neuroimaging modalities and their applications in distinctive neurovascular syndromes. Following a case-based approach, we will review ocular, orbital and spinal cord vascular syndromes. We will discuss various cerebral vasculopathies and the value of neuroimaging in establishing the positive diagnosis. Imaging modalities to evaluate the extracranial large vessel vasculitis will be appraised. More specifically, the course will review current advances and limitations of MRI, CT, high-resolution vessel wall imaging and temporal artery ultrasound in specific syndromes.

Course Schedule:

11:00 - 11:20 am	High-resolution vessel wall imaging in intracranial vasculopathies - Zhaoyang Fan
11:20 - 11:40 am	Neuroimaging in vascular spinal cord syndromes - Nickolas Zalewski
11:40 am - 12:00 pm	Neuroimaging in vascular eye disorders - Oana Dumitrascu
12:00 - 12:15 pm	Temporal artery ultrasound and its applications in giant cell arteritis - Gyanendra Kumar
12:15 - 12:30 pm	Neuroimaging in CNS vasculitis - Reza Bavarsad Shahripour

Course Objectives:

1. To recognize specific neuroimaging features in vascular ocular, orbital and spinal cord disorders.
2. To provide an update on the high-resolution vessel wall imaging techniques, and their applications in intracranial vasculopathies, such as reversible cerebral vasoconstriction syndrome, intracranial atherosclerotic disease, cerebral vasculitis.
3. To review the application of temporal artery ultrasound in large vessel vasculitis.

Modalities: MRI, CT, MR/CT angiogram, ultrasound, high-resolution vessel wall imaging

Thursday, January 28

COVID Imaging
Course Director: Andrei Alexandrov
9:00 – 10:30 pm MT

Course Description/Abstract: Pending

Course Schedule:

9:00 – 9:45 am	Neurological Complications - Georgios Tsvigoulis, MD, PhD, MSc, FESO
9:45 – 10:30 am	TCD & Pulmonary Shunting in CGVIP Patients - Hooman Poor, MD & Alexandra Reynolds, MD

Thursday, January 28

Business Meeting and Awards
11:00 am – 12:00 pm MT

Topic	*Speaker*
Welcome to the 2021 ASN Annual Meeting	Andrei Alexandrov, MD, RVT, NVS, RPNI – President
New Credential – Registered Physician in Neurovascular Interpretation (RPNI)	Andrei Alexandrov, MD, RVT, NVS, RPNI – President
Save the Dates – 2022 & 2023 ASN Annual Meetings	Andrei Alexandrov, MD, RVT, NVS, RPNI – President
2021 Election Results – New VP & Program Chair, Secretary, Treasurer, Board Member	Andrei Alexandrov, MD, RVT, NVS, RPNI – President
Thanks to our outgoing Board Members	Andrei Alexandrov, MD, RVT, NVS, RPNI – President
2021 Award Winners: Lifetime Achievement Award – Charles H. Tegeler IV, MD Resident Abstract Award – Shayan Torabi, MD Oldendorf Award – Abdulmajeed Alotaibi, MD, PhD Qureshi Award – Robert W. Regendhard, MD, PhD	Andrei Alexandrov, MD, RVT, NVS, RPNI – President
Passing of the Gavel	Andrei Alexandrov, MD, RVT, NVS, RPNI – President
Closing Statements	Marc Malkoff – Vice President & Program Chair, incoming President

Longeviti Sponsored Program: Exploration of ClearFit Implants Postoperative Ultrasound Implications for Neuroimaging
12:00 - 12:30 pm MT

Friday, January 29

Emerging Clinical Application for Transcranial Doppler Ultrasound in Pediatric Critical Care: A Case-Based Discussion
Course Director: Brian Appavu, MD
9:00 – 10:30 am MT

Course Description / Abstract: Transcranial Doppler (TCD) ultrasonography is a non-invasive, bedside monitor that allows for real-time measurements of cerebral blood flow, and is gaining popularity in the pediatric neurocritical care population. In this session, we will review existing literature describing the usage of transcranial Doppler ultrasound in pediatric neurocritical care, and consensus recommendations regarding its usage. Then, the speakers will engage in a lively case-based discussion of how they would use transcranial-Doppler ultrasound as a tool in critical care management, and how they would address controversial findings. Cases discussed will include patients with traumatic brain injury, cerebral vasospasms, cardiac arrest, and those undergoing extra-corporeal membrane oxygenation. Each case will include time for initial case presentation, speaker-based discussion on how data can be used, case progression and audience question and answer.

Course Schedule:

9:00 - 9:05 am	Introduction – Brian Appavu
9:05 - 9:15 am	Emerging literature on Transcranial Doppler Ultrasound in Pediatric Critical Care – Nicole O'Brien
9:15 - 9:30 am	Transcranial Doppler Ultrasound in TBI Management - Case presentation, Karin Reuter-Rice
9:30 - 9:41 am	Transcranial Doppler Ultrasound in Cerebral Vasospasm Management - Case presentation, Marlina Lovett
9:41 - 9:51 am	Transcranial Doppler Ultrasound in Cardiac Arrest - Case Presentation: Darryl Miles
9:51 - 10:08	Transcranial Doppler Ultrasound in Extracorporeal Membrane Oxygenation - Case Presentation: Karen Lidsky
10:08 - 10:20	Transcranial Doppler Ultrasound in Congenital Heart Disease - Case Presentation: Marina Mir
10:20 - 10:30 am	Live Group Discussion

Course Objectives:

1. Review current practices of utilizing transcranial Doppler ultrasound in pediatric neurocritical care.
2. Discuss how transcranial Doppler ultrasound can be applied in a variety states of children with critical illness.
3. Discuss controversies in management when applying transcranial Doppler ultrasound to guide clinical management in critically ill children.

Modalities: Transcranial Doppler Ultrasound

Friday, January 29

Implementation of Neuroimaging in Pediatric Arterial Ischemic Stroke Management
Course Director: Brian Appavu, MD
11:00 am – 12:30 pm MT

Course Description / Abstract: High-level evidence-based guidelines for the diagnosis and management of adult arterial ischemic stroke and certification of stroke centers that follow these guidelines has led to standardization of adult stroke management. In contrast, childhood arterial ischemic stroke carries less evidence-based guidelines, making diagnostic and management strategies more challenging. In this session, we will discuss the role of neuroimaging in pediatric stroke management. We will discuss existing evidence for perfusion imaging and the role of mechanical thrombectomy after pediatric arterial ischemic stroke. We will discuss how transcranial Doppler ultrasound may be used in clinical decision support of children at risk of stroke. We will discuss imaging modalities implemented in the diagnosis of Bow Hunter Syndrome, a unique cause of pediatric posterior fossa strokes. We will also describe how to employ effective neuroimaging protocols in the development of an institutional pediatric acute stroke response protocol. The session will end with time allotted for questions and answers with the audience.

Course Schedule:

11:00 - 11:05 am	Introduction – Brian Appavu
11:05 - 11:23 am	Perfusion Imaging and the Role of Mechanical Thrombectomy in Pediatric Arterial Ischemic Stroke – Sarah Lee, Stanford University
11:23 - 11:41 am	Use of Transcranial Doppler Ultrasound in Children at Risk of Pediatric Stroke – Kerri LaRovere, Boston Children's Hospital
11:41 - 11:59 am	Diagnosis and Management of Bow Hunter Syndrome: A Unique Cause of Pediatric Stroke – Todd Abruzzo MD, Phoenix Children's Hospital
11:59 am - 12:17 pm	Developing a Pediatric Acute Stroke Response Protocol – Dana Harrar, Children's National Medical Center
12:17 - 12:30 pm	Question and Answers

Course Objectives

1. Review applicability perfusion-weighted imaging and ultrasound in pediatric stroke management
2. Discuss usage of various neuroimaging modalities in the diagnosis of unusual pediatric stroke conditions
3. Discuss strategies of implementing neuroimaging protocols as part of a clinical pathway for pediatric acute stroke management

Modalities Addressed Within This Session

1. CT and MR Perfusion weighted imaging
2. Digital Subtraction Cerebral Angiography
3. Transcranial Doppler Ultrasound
4. CT imaging, including angiography
5. MR imaging, including angiography

Friday, January 29

Advanced Neurosonology: Critical Care and Emerging Applications in Neurosonology
Course Director: Mark Rubin
1:00 – 2:30 pm MT

*Course Description/Abstract: T*his course will cover neurosonology applications in the intensive care unit, including the role of neurosonology in multimodal monitoring, as well as emerging applications of neurological ultrasound.

Course Schedule:

1:00 - 1:45 pm	Advanced Neurosonology: Critical Care Neurosonology - Ryan Hakimi
1:45 - 2:30 pm	Advanced Neurosonology: Emerging Applications of Neurological Ultrasound - Aarti Sarwal

Course Objectives:

1. To define and discuss neurosonology applications in the intensive care unit setting.
2. To define and discuss emerging clinical applications of neurological ultrasound.

Modalities: Ultrasound, Carotid Duplex, Transcranial Duplex, Transcranial Doppler

Friday, January 29

Pediatric Imaging
Course Director: Jennifer McVige
1:30 – 3:00 pm MT

Course Description/Abstract: The Pediatric Neuroimaging course was designed to highlight diseases in pediatric neurology where neuroimaging can aid in diagnosis and treatment. The course will review the imaging characteristics and how the findings relate to the pathology.

Course Schedule:

1:30 - 2:10 pm	Pediatric Head and Neck - Peter Kalina
2:10 -2:50 pm	The Neuroimaging of Infections in Pediatric Patients with a focus on Covid - Jennifer McVige
2:50 -3:00 pm	Questions

Course Objectives:

1. Identify the anatomy in the head and neck of pediatric patients on MRI and CT imaging.
2. Review common infections in pediatric patients as visualized on neuroimaging of the head on CT and MRI.
3. Discuss new research findings on neuroimaging in Covid patients.

Modalities: MRI, MRA, CT, CTA

Saturday, January 30

Transcranial Doppler Interpretation Skills
Course Director: Colleen Douville BA, RVT, CPMM, NVS & Brenda Rinksy RDMS, RVT, NVS
8:45 am – 2:15 pm MT

Course Description/Abstract: This one day intensive course is designed to provide an overview of the use of Transcranial Doppler (TCD) in patients with multiple forms of cerebrovascular disease and specifically on how to interpret TCD exam findings. It is intended for those engaged in performing and/or interpreting TCD studies in a variety of specialized clinical settings.

The course is designed to be interactive with ample opportunity to practice interpretation skills in real-time. Physician faculty with expertise in transcranial Doppler will present an overview of each clinical topic and representative case studies. Expert neurovascular sonographers and physician faculty will then work in breakout sessions with participants to interpret case studies. Materials will be provided in advance with detailed diagnostic criteria for each topic.

Course Schedule:

08:45-08:50	Welcome - Instructions - Brenda Rinsky RDMS, RVT, NVS & Colleen Douville BA, RVT, CPMM, NVS
08:50-09:30	Principles of Waveform Interpretation - Aarti Sarwal MD
09:30-10:00	Intracranial Stenosis/Thrombosis and Microemboli - Aaron Stayman MD
10:00-10:20	Breakout
10:20-10:35	Break
10:35-11:05	Collateral Flow - Emily Ho MD, PhD
11:05-11:25	Breakout
11:25-11:55	Patent Foramen Ovale Grading - Mark Rubin, MD
11:55-12:15	Breakout
12:15-12:30	Break
12:30-1:00	Vasospasm - Aarti Sarwal MD
1:00-1:20	Breakout
1.20-1:50	Intracranial Pressure and Cerebral Circulatory Arrest - Konrad Schlick MD
1:50-2:10	Breakout
2:10	Closing Remarks

Course Objectives:

1. Describe accepted applications of transcranial Doppler ultrasound for cerebrovascular disease.
2. Define the diagnostic criteria for each clinical application of transcranial Doppler.
3. Describe basic principles used to interpret spectral waveforms.

Modalities: The focus is neurovascular ultrasound using transcranial Doppler. CT, MRI and Arteriography may be used as part of the case studies presentation, for correlation only, but these modalities will not be taught specifically.

Saturday, January 30

Neuroimaging Fundamentals: A Case Study Approach
Course Directors: Ryan Hakimi & Emma Fields
9:00 am - 2:30 pm MT

Course Description/Abstract: 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.

Course Schedule:

9:00 - 9:05 am	Welcome and Program Overview - Emma Fields
9:05 - 9:30 am	Fundamentals of neuroimaging modalities - Emma Fields
9:30- 10:00 am	How to calculate an ASPECTS score and its clinical implication - Doug Mayson
10:00 -10:30 am	Multi-modality acute stroke neuroimaging - Jorge Ortiz-Garcia
10:30 - 11:00 am	Break
11:00 - 11:45 am	Incorporating neuroimaging in prognostication post-cardiac arrest - Ryan Hakimi
11:45 am -12:30 pm	Using optic nerve sheath diameter and TCD for ICP assessment - Venkatakrishna Rajajee
12:30 - 1:00 pm	Break
1:00-1:40 pm	Introduction to neuromuscular ultrasound - Eduardo Cortez-Garcia
1:40-2:10 pm	A case-based approach to demyelinating diseases - Keith Dombrowksi
2:10 -2:30 pm	Q & A

Course Objectives:

1. Illustrate how to calculate the ASPECTS score and its clinical implication in acute stroke management.
2. Review the use of multimodal imaging in acute stroke management.
3. Illustrate the use of neuroimaging in prognosticating patient outcomes post-cardiac arrest.
4. Describe non-invasive intracranial pressure monitoring techniques.
5. Describe the uses of neuromuscular ultrasound in neurological patients.
6. Discuss neuroimaging modalities in the management of neurological patients with demyelinating diseases.

Modalities: MRI, CT /CTA/CTP, Conventional cerebral angiography, Optic nerve sheath ultrasound, TCD, Peripheral nerve ultrasound

Sunday, January 31

Practice Updates - Neurosonology
Course Director: Jongeyol Kim
9:00 am – 12:30 pm MT

Course Description/Abstract: This Neurosonology Course will provide a comprehensive update on physics, indications, clinical applications, interpretation, and coding and billing for Neurosonology (carotid ultrasonography and TCD). Nationally and internationally renowned faculty of leaders in the field of Neurosonology will provide the up-to-dated reviews 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.

Course Schedule:

9:00 - 9:45 am	Physics - Leni Karr
9:45 - 10:30 am	Carotid Ultrasound - Charles Tegeler
10:30 -11:00 am	Break
11:00 -11:45 am	Transcranial Doppler - Aarti Sarwal
11:45 -12:30 pm	Coding and Billing - Alexander Razumovsky

Course Objectives:

1. Explain physics of carotid ultrasonography and transcranial Doppler ultrasonography.
2. Review the clinical indications and usefulness of the carotid ultrasound and TCD and apply contemporary protocols and practices in common neurovascular disorders.
3. Discuss the coding and billing for neurosonology such as the appropriate CPT and Medicare and local carriers' coverages.

Modalities: Ultrasound, Carotid ultrasound, Transcranial Doppler

Sunday, January 31

Practice Updates - MRI/CT
Course Director: Marc Malkoff
9:00 am – 12:30 pm MT

Course description: This update course is designed to update practitioners on the latest imaging developments and to review key topics in CT and MRI.

Course Schedule:

9:00 – 9:45 am	MRI Physics – Joseph Fritz and Nandor Pintor
9:45 – 10:30 am	Neurooncology – Laszlo Mechtler
10:30 – 11:00 am	Break
11:00 – 11:45 am	Stroke Imaging – David Liebeskind
11:45 am – 12:30 pm	ADEM – Joshua Klein

Course Objectives:

1. Understand new updates in MRI sequences.
2. Understand advances in neurooncology images.
3. Understand the use of imaging in stroke therapy.
4. Understand imaging in ADEM.

INDEX OF ASN ABSTRACTS

14: Initial Experience With Autonomous Robotic Transcranial Doppler For Detecting Right-Left Shunts In Hepatopulmonary Syndrome

Steven To, Pooja Reddy Tekula, Nastassija S Omire, Sherif Nagueh, John J Volpi, Zsolt Garami

Vascular Ultrasound Laboratory, Echocardiogram Laboratory, DeBakey Heart and Vascular center, Houston Methodist Hospital, Houston, USA

15: Real-Time Transcranial Doppler Monitoring and Correlation with Cerebral Oximetry During Carotid Endarterectomy

Pooja Tekula, Busra Tok Cekmecelioglu, Charudatta Bavare, Kavya Sinha, Zsolt Garami, Martin Giesecke, Alan B Lumsden

DeBakey Heart and Vascular center, Houston Methodist Hospital, Houston, USA

16: Initial Experience With Autonomous Robotic Transcranial Doppler For Detecting Patent Foramen Ovlae With Bubble Studies

Steven To, Pooja Reddy Tekula, Nastassija S Omire, Sherif Nagueh, John J Volpi, Zsolt Garami

Vascular Ultrasound Laboratory, Echocardiogram Laboratory, DeBakey Heart and Vascular center, Houston Methodist Hospital, Houston, USA

17: Neural Activation Patterns Predictive of Emotional State, and their Resting-State Connectivity

Shauna M Zodrow[1], Isabelle Kaminer[1], Karol Osipowicz2

[1]Drexel University, Philadelphia, USA. [2]Drexel Univeristy, Philadelphia, USA

RESIDENT ABSTRACT AWARD WINNER

18: Vasospastic Phenomenon and TGA Symptoms Following TCD with Bubble Study

Shayan Torabi[1], Abdullah Ibish[2], Gin Tang Huang[1], Navdeep Sangha[1]

[1]Kaiser Permanente Los Angeles Medical Center, Los Angeles, USA. 2Keck School of Medicine of USC, Los Angeles, USA

OLDENDORF AWARD WINNER

19: Investigating Brain Microstructural Alterations in Diabetes: A Systematic Review of Diffusion Tensor Imaging.

Abdulmajeed Alotaibi[1,2], Christopher Tench[1], Rebecca Stevenson[1], Ghadah Felimban[1,2], Amjad Altokhis[1,3], Ali Aldhebaibb[2], Robert Dineen[1], Cris S Constantinescu[1]

[1]University of Nottingham, Nottingham, United Kingdom. [2]King Saud bin Abdul-Aziz University for Health Sciences, Riyadh, Saudi Arabia. [3]Princess Nourah bint Abdulrahman University, Riyadh, Saudi Arabia

QURESHI AWARD WINNER

20: Intravenous alteplase "drip-and-ship" treatment of large vessel occlusion stroke patients in a hub-and-spoke Telestroke model

Robert W. Regenhardt, Joseph A. Rosenthal, Neal M. Nolan, Joyce A. McIntyre, Cynthia M. Whitney, Naif M. Alotaib, Justin E. Vranic, Christopher J. Stapleton, Aman B. Patel, Natalia S. Rost, Lee H. Schwamm, Thabele M. Leslie-Mazwi

Massachusetts General Hospital, Boston, USA

The American Society of Neuroimaging

(ASN) invites attending physicians, residents, fellows, advanced practice providers and neurovascular technologists to join our community.

Education. We offer the only conference in the US focused specifically on Neuroimaging education, including opportunities to earn CE credits specific to MR/CT and Neurovascular ultrasound.

Advocacy. We represent the interests of neuroimagers in the American Medical Association's House of Delegates and tackle issues that threaten self-referral.

Certification. We offer the only physician and neurovascular technologist certification programs in Neurosonology allowing you to elevate your practice and recognize your expertise in Applied Principles of Physics and Fluid Dynamics, Carotid Duplex, Transcranial Doppler. Physicians who become certified in Neurosonology may use the credential RPNI. See page 21 for details. A Certification program for Neurovascular Technologists is now being offered as well.

Networking. We connect you to other medical professionals who use neuroimaging in their day-to-day clinical practice via our Annual Meeting and membership directory.

Professional Development. We have opportunities for you to get involved on committees, which allow you to sharpen your volunteer skills.

Become a member at asnweb.org

ASN BOARD AND COMMITTEE LEADERS

Officers:

Andrei Alexandrov, MD, RVT, NVS, RPNI
- *President*

Marc Malkoff, MD, FAAN, FAHA, RPNI
- *Vice-President / Scientific Program Chair*

Joshua Klein, MD, PhD, FANA, FASN, FAAN
- *Secretary*

Ryan Hakimi, DO, MS, FCNS, NVS, RPNI
- *Treasurer*

David Liebeskind, MD, FAAN, FAHA, FANA
- *Immediate Past President*

Board of Directors:

Bela Ajtai, MD, PhD
Emma Fields, APRN-CNP
Gregory Kapinos, MD, MS, FASN
Jongyeol Kim, MD, RPVI, RVT
Venkatachalam Mangeshkumar, MD, FRCP (I), FAAN
Jennifer McVige, MD
Brenda Rinsky, RVT, NVS
Aarti Sarwal, MD

Board Advisors:

Madhureeta Achari, MD
John Chawluk, MD
Dara Jamieson, MD
Joseph Masdeu, MD, PhD
Laszlo Mechler, MD, FAAN, FASN, FEAN, FAHS
Robert Miletich, MD, PhD
Charles Tegeler, IV, MD
Lawrence Wechsler, MD

Editor-in-Chief,
Journal of Neuroimaging
Rohit Bakshi, MD

Many thanks to the 2020 Scientific Program Committee for their work developing this year's program.

Marc Malkoff, MD, FAAN, FAHA, RPNI
- *Chair*

Andrei Alexandrov, MD, RVT, NVS, RPNI
Christy Cornwall, BS, RVT, NVS
Colleen Douville, RVT, NVS
Emma Fields, APRN-CNP
Eduardo Gonzalez- Toledo, MD
Ryan Hakimi, DO, MS, FCNS, NVS, RPNI
Dara Jamieson, MD
Peter Kalina, MD, MBA, FACR
Joshua Klein, MD, PhD, FANA, FASN, FAAN
Kerri LaRovere, MD
Paul Maertens, MD
Jennifer McVige, MD
Laszlo Mechtler, MD, FAAN, FASN
Alexander Razumovsky, PHD, FAHA, NVS
Brenda Rinsky, RDMS, RVT, NVS
Charles Tegeler, IV, MD

FASN

Fellowship in 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

Angelo Alves, MD, PhD, FASN
Patrick Capone, MD, PhD, FASN
John Choi, MD, FASN
Gregory Kapinos, MD, MS, FASN
William Kinkel, MD, FASN
Joshua Klein, MD, PhD, FANA, FASN, FAAN
Tomasz Kosierkiewicz, MD, FASN
Laszlo Mechtler, MD, FAAN, FASN, FEAN, FAHS
Methil Pradeep, MD, FASN
Gabriella Szatmáry, MD, PhD, FASN
Mohammed Zafar, MD, FASN

View eligibility criteria and apply for FASN status at www.asnweb.org.

CONGRATULATIONS TO OUR 2021 AWARD WINNERS!

Oldendorf Award

The Oldendorf Award is for the best abstract submitted by a student, resident or fellow. The abstract must be based in basic or clinical research in CT, MRI, SPECT or PET.

Investigating Brain Microstructural Alterations in Diabetes: A Systematic Review of Diffusion Tensor Imaging

Abdulmajeed Alotaibi, MD, PhD

University of Nottingham, Nottingham, United Kingdom; King Saud bin Abdul-Aziz University for Health Sciences, Riyadh, Saudi Arabia

Qureshi Award

The Qureshi Award is for the best abstract submitted by a student, resident or fellow. The abstract must be based in basic or clinical research in Diagnostic Angiography.

Intravenous alteplase "drip-and-ship" treatment of large vessel occlusion stroke patients in a hub-and-spoke Telestroke model

Robert W. Regenhardt, MD, PhD

Massachusetts General Hospital, Boston, MA

Resident Poster Awards

The Resident Award(s) are offered to persons in a neurology residency program. Selection is based on the quality of the abstract.

Vasospastic Phenomenon and TGA Symptoms Following TCD with Bubble Study

Shayan Torabi, MD

Kaiser Permanente, Los Angeles, CA

NEW NEUROSONOLOGY CREDENTIAL & CERTIFICATE

The ASN Board of Directors recently approved a formal credential for those who passed the ASN Neurosonology Exam. The new credential is called the Registered Physician in Neurovascular Interpretation (RPNI) credential. Anyone who has passed the Neurosonology Exam (physics as well as carotid and/or TCD) and whose certification is in good standing may now use the RPNI letters after their name (E.g., Jane Doe, MD, RPNI).

The ASN Board of Directors took up this consideration at the request of members and leaders in the community and recognize that the ASN Neurosonology credentials for physicians and now sonographers, which represent a high-level of expertise in the field and grant clinical laboratory privileges in the United States and Internationally, may go under- or unrecognized by credentialing bodies without an easily verifiable, lettered credential at the end of the specialist's name. A similar credential exists for interpreters in vascular ultrasound; it is called Registered Physician in Vascular Interpretation (RPVI) and it's recognized by accrediting bodies as demonstration of proficiency to interpret ultrasound studies and serve as a medica Director of an ultrasound laboratory. Our Neurosonology credential has also been recognized in a similar way, but until this decision we did not have a formal acronym. RPNI follows the accepted format by our vascular ultrasound colleagues.

If you would like to order an RPNI Certificate, please complete the order request form on this webpage - www.asnweb.org/i4a/pages/index.cfm?pageid=4100. This new certificate is not to replace your previous neurosonology certificate, but rather to provide a clearly recognized acronym and a registry number that can be used by credentialing bodies to check your good status with our Society.

2021 ASN FACULTY DISCLOSURE STATEMENT

KEY:
P = Scientific Program Committee
F = Annual Meeting Faculty

Andrei Alexandrov, MD, RVT, PIVS, RPNI (F/P)
Consultant: Nova Signal
Speakers Bureau: Genentech, Inc.

Joe Fritz, PhD (F)
Consultant: Neuronet Pro, Acadia
Speakers Bureau: Biogen

David Liebeskind, MD (F/P)
TBD

Jennifer McVige, MD (F/P)
Contracted Research: Allergan/AbbVie, Amgen/ Novartis, Avanir, Biohaven, Eli Lilly & Company,

Nandor Pinter, MD
TBD

No Disclosures

Todd Abruzzo, MD (F)

Brian Appavu, MD (F)

Konstantin Balashov, MD, PhD (F)

Reza Bavarsad, MD (F)

John Bennett, PhD, RVT, FICA, NVS (F)

Christy Cornwall, BS, RVT, NVS (F/P)

Eduardo Cortez-Garcia, DO (F)

Keith Dombrowski, MD (F)

Colleen Douville, RVT, NVS (F/P)

Oana Dumitrascu MD, MSc (F)

Zhaoyang Fan, PhD (F)

Emmaculate Fields, APRN-CNP (F/P)

Jerome Graber, MD, MPH (F)

Ryan Hakimi, DO, MS, NVS, RPNI (F/P)

Dana Harrar, MD, PhD (F)

Emily Ho, MD, PhD, RPNI (F)

Elie Isenberg-Grzeda, MD (F)

Dara Jamieson, MD (P)

Peter Kalina, MD (F/P)

Leni Karr, BA (F)

Jongyeol Kim, MD (F)

Joshua Klein, MD, PhD, FASN, FAAN (F/P)

Gyanendra Kumar, MD, FASN (F)

Kerri LaRovere, MD (F/P)

Sarah Lee, MD (F)

Karen Lidsky, MD (F)

Marlina Lovett, MD (F)

Paul Maertens, MD (P)

Marc Malkoff, MD, RPNI (F/P)

Douglas J. Mayson, MD (F)

Darryl Miles, MD (F)

Robert S. Miletich, MD, PhD, FAAAS (F)

Nicole O'Brien, MD (F)

Jorge Ortiz-Garcia (F)

Marina Mir Parramon, MD (F)

Hooman Poor, MD

Venkatakrishna Rajajee, MBBS (F)

Alexander Razumovsky, PhD, FAHA, NVS (F/P)

Karin Reuter-Rice, PhD, NP, FCCM, FAAN (F)

Alexandra Reynolds, MD (F)

Brenda Rinsky, RDMS, RVT, NVS (F/P)

Mark Rubin, MD (F)

Aarti Sarwal, MD, FNCS, FAAN (F)

Konrad Schlick, MD (F)

Aaron Stayman, MD (F)

Charles Tegeler, IV, MD (F/P)

Georgios Tsvigoulis, MD, PhD, MSc, FESO, FEAN, FAAN (F)

Nickolas Zalewiski, MD, PhD (F)

All of the relevant financial relationships listed for these individuals have been mitigated.

Thank you *to our Annual Meeting Sponsors*

Platinum

longeviti

WILEY

Gold

PHILIPS

SAVE THE DATES

THE SCOTT RESORT & SPA

SCOTTSDALE, AZ

ASN 2022: JANUARY 13-15 • ASN 2023: AUGUST 10-12