

# 2023 ASN ANNUAL CONFERENCE

August 12-14, 2023 | The Scott Resort & Conference Center | Scottsdale, AZ

#### **About ASN**

The American Society of Neuroimaging (ASN) is an international, professional organization educating & representing neurologists, APPS, neurosurgeons, neuroradiologists, residents, fellows, technologistsw and other neuroscientists who are dedicated to the advancement of techniques used to evaluate the nervous system, since 1977.

#### **Mission**

To provide neuroimaging, and informatics education, certification, support, and guidance to neurologists and other neuroscience clinicians, technologists, sonographers, and researchers.

#### **Vision**

To ensure all individuals with neurological disorders have access to experts in neuroimaging and neurosonology.

The American Society of Neuroimaging (ASN) is an active member of the House of Delegates (HOD) of the American Medical Association (AMA). The HOD is the principal policymaking body of the AMA.

#### Goals

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

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

- Presenting scientific and educational programs at an annual meeting and through the promotion of fellowships, preceptorships, tutorials and seminars related to neuroimaging
- · Publishing a scientific journal
- Formulating and promoting high standards of practice and setting training guidelines
- Evaluation of physician competency through examinations
- Emphasis is placed on the correlation between clinical information and neuroimaging data to provide the cost effective and efficient use of imaging modalities for the diagnosis and evaluation of diseases of the nervous system

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

## 2023 ASN Board and Committee Leaders

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#### **ASN Journals**

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

Peter Kalina, MD, MBA

Editor-in-Chief, Neuroimaging



## Annual Meeting of the American Society of Neuroimaging

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#### Follow ASN on Social Media!

Bring the Neuroimaging community into the conversation by tagging ASN and JON in your posts and tweets!



@JNeuroimaging

@asneuroimaging



@JNeuroimaging

@asneuroimaging

### Welcome ASN 2023!

This special 2023 summer program, located 17 minutes away from the Neurocritical Care Society's (NCS) meeting in beautiful Scottsdale on the three days preceding NCS (8/12-8/14, 2023), conveniently targets neuroimaging educational tracks for those planning to attend the Neurocritical Care Society Annual Meeting. Topics covered include neurovascular ultrasound, acute stroke imaging, imaging associated with endovascular neurosurgical procedures, neurotoxicity, and brain tumors applicable in all acute care settings. Additionally, we will be delivering in-depth coverage of ultrasonography including topics for certification preparation. Furthermore, the ASN will have low-cost basic and advanced TCD hands-on workshops for learners at all stages. In the first-ever collaboration between ASN and NCS, there will be co-sponsored POCUS and TCD workshops as well as a symposium entitled, "State of the Art in Imaging Science of Neurocritical Care".

Earlier in the year, we participated in the NeuroNet Annual Meeting, which is a summit of private practices that work together with industry to solve topical issues in the private sector.

ASN provided neuroimaging education to neurology providers, co-hosted sessions with neurology residents exploring options in community practice, lead panel discussions on the role of imaging in precision medicine and neuroinformatics and consulted to the pharmaceutical industry.

The unique meeting structure in 2023 represents ASN's commitment to bring neuroimaging skills to all stakeholders. In 2024 we will return to our normal January annual meeting cadence; we will continue to develop programs embedded in sub-specialty and regional society meetings.

We would also like to remind you that, in addition to clinical and basic science research by neuroimagers through our annual meetings, we are expanding our certification, fellowship and preceptorship programs to provide more in-depth and immersive training. Biweekly webinars provide continuous topical updates with CME credits and will soon be available in our online education center.

Finally, we are excited to announce we will soon have two scientific journals: our flagship internationally recognized Journal of Neuroimaging is conveniently available in print and online as part of membership; the new open access journal, Clinical Neuroimaging, will be entirely online and free. The new journal will feature new forms of digital tools such as dynamic imaging and infographics.

Please know that our membership welcomes students, trainees, APPs, sonographers, scientists, industry, and practicing physicians to join us to learn, appreciate and leverage the exciting field of neuroimaging.

As an active member of the House of Delegates of the American Medical Association, we encourage all our eligible members to also join AMA to help advocate for our mission.

Enjoy your time in Scottsdale. We look forward to seeing you here, and at our 2024 Annual Meeting in Myrtle Beach, January 12-14.

Sincerely,



Joseph Fritz, PhD, President



Ryan Hakimi, DO, MS, NVS, RPNI, CPB, FNCS, FCCM, Vice President & Program Chair

## **CE Information and Disclosure Statement**

## Acknowledgment of Financial Commercial Support

No financial commercial support was received for this educational activity.

#### **Acknowledgment of In-Kind Commercial Support**

No in-kind commercial support was received for this educational activity.

#### **Satisfactory Completion**

Learners must complete an evaluation form to receive a certificate of completion. Your chosen sessions must be attended in their entirety. Partial credit of individual sessions is not available. If you are seeking continuing education credit for a specialty not listed below, it is your responsibility to contact your licensing/certification board to determine course eligibility for your licensing/certification requirement.



#### Joint Accreditation Statement

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

Amedco Joint Accreditation Provider Number: 4008163

#### **Physicians**

#### **ACCME Credit Designation Statement**

Amedco LLC designates this live activity for a maximum of 19.50 AMA PRA Category 1 CreditsTM for physicians. Physiciansshould claim only the credit commensurate with the extent of their participation in the activity.

## Objectives - After Attending This Program You Should Be Able To

- 1. Recognize, identify, differentiate and interpret diseases of the nervous system based on interpretations of neuroimages.
  2. Using clinical data identify the correlation of the data with information derived from the various methods used to image the nervous system and related structures to treat various disorders of the nervous system.
- 3. Review ultrasound techniques and discuss the recent advances and new technologies.

#### **Disclosure of Conflict of Interest**

The following table of disclosure information is provided to learners and contains the relevant financial relationships that each individual in a position to control the content disclosed to Amedco. All of these relationships were treated as a conflict of interest, and have been resolved. (C7 SCS 6.1-6.2, 6.5)

All individuals in a position to control the content of CE are listed in the program book. If their name is not listed to the right, they disclosed that they had no financial relationships with a commercial interest.

#### **How to Get Your Certificate**

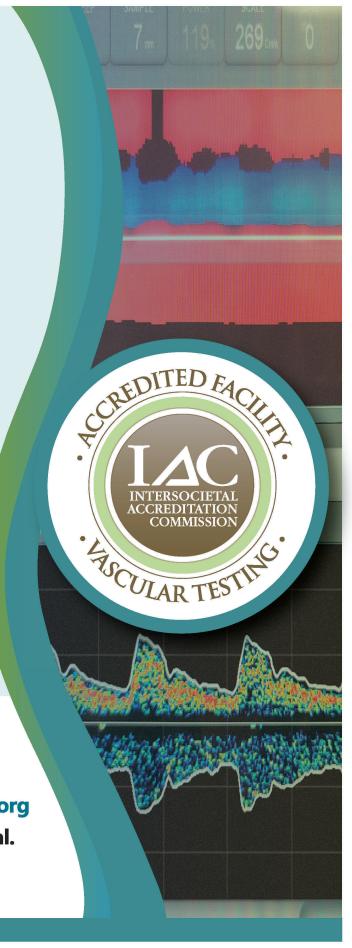
- 1. Go to asn.cmecertificateonline.com
- 2. Click on the 2023 American Society of Neuroimaging Annual Meeting link.
- 3. Evaluate the meeting.
- 4. Print, download, or save your certificate for your records.
- 5. If you lose your certificate, or need help, go to helpcmecertificateonline.com

Name	Commercial Interest: Relationship
Todd Abruzzo	Balt Medical: Consultan; Anuncia, Alcyone, Neuromed, Epi EP, Merlin MD, Arthromeda, Intralink Spine: Other
Anne Alexandrov	NA
Aaron Anderson	NA
Brian Appavu	Natus: Speakers Bureau
Marc Babi	NA
Rohit Bakshi	Brigham and Women's Novartis, EMD Serono, Bristol Myers Squibb: Research Grant Site Principal Investigator, EMD Serono: Consultant
John Bennett	NA
Julia Carlson	NA
Masoom Desai	NA
Abbigayle Doerr	NA
Zsolt Garami	Novasignal: Scientific/Medical Advisory Board Member; Siemens, Longeviti, Tienovix: Consultant
Shivani Ghoshal	NA
Camilo Gomez	NA
Jerome Graber	NA
Ryan Hakimi	NA
Mohammad Hirzallah	NA
Mai-Lan Ho	NA
Courtney Hrdlicka	NA
Marge Hutchisson, BS, RVT, RDCS, RPhS	NA
Spencer Hutto	NA
Peter Kalina	NA
Gregory Kapinos	NA
John Karis	NA
Joshua Klein	NA
Jacqueline Kraft	NA
Gyan Kumar	Oculus Imaging, AZMB: Consultant
Michael Kuwabara	NA NA
Shraddha Mainali	Image Monitoring USA: Research Grant Site Principal Investigator
Tara Mangum	NA
Sishir Mannava	Occlutech: Other
Peter Nakaji	GT Medical Technologies: Private Stock Shareholder; AcuMed   Osteomed: Patent Holder
Methil Pradeep	NA NA
Adnan Qureshi	Chiesi USA: Research Grant Site Principal Investigator
Venkatakrishna Rajajee	NA NA
Mark Rubin	NovaSignal: Consultant
Aarti Sarwal	Butterfly, Inc, Image Monitoring: Other
Erika Sigman	NA S
Jimmy Suh	NA NA
Charles Truwit	Hyperfine: Employee
Jesse Weinberger	NA NA
Dawn Whyte	NA NA
Maggie Gruennert	NA NA
Ryan Dixon	NA NA
Tryan Dixon	13/13

## Neurovascular Specialist (NVS) Credential

is now accepted as an appropriate Technical Director/technical staff credential for facilities applying for IAC Vascular Testing accreditation (Extracranial and/or Intracranial Cerebrovascular Testing).

Visit intersocietal.org/vascular to view the *IAC Standards* or asnweb.org for details about the NVS credential.



66 There is now a practical pathway for health care technologists to earn an appropriate credential for performing carotid duplex and TCD exams in comprehensive stroke centers, critical care units and operative suites. The NVS gives nurses, neuromonitoring and EEG techs, and other non-sonographer specialists a recognized credential of competency to perform carotid duplex and TCD exams. And for those who are already credentialed vascular technologists or certified POCUS practitioners, earning the NVS credential will demonstrate that they have taken their neurovascular ultrasound imaging skills and dedication to a higher level to improve patient care.

#### Richard Genova, BA, RVT, NVS, RPhS

Neurovascular Lab Technical Director at Weill Cornell Medicine

Member of the IAC Vascular Testing Board of Directors, representing the American Society of Neuroimaging Kudos to the IAC for recognizing the NVS credential. The acceptance of the Neurovascular Specialist credential by the IAC Vascular Testing division means there is now no excuse for TCD to be performed in any clinical setting by a non-credentialed individual, nor for any facility performing TCD exams not to be accredited by the IAC.

#### John Bennett, PhD, RVT, NVS

Chair of the American Society of Neuroimaging Subcommittee for the NVS

The recent approval of the NVS credential for carotid and TCD exams by the IAC Vascular Testing Board is a huge step forward for the neurovascular community. As many technologists and vascular neurologists in stroke units and vascular neurology outpatient clinics perform only transcranial Doppler and carotid examinations, this credential creates a pathway for vascular technologists, neurologists and other related vascular professionals to be recognized in the field. In addition, these individuals' possession of the NVS credential will significantly contribute to improved standards of care and health quality for our patients. I congratulate IAC Vascular Testing Board for taking this step forward.

#### Tatjana Rundek, MD, PhD, FANA

Director of the Clinical Translational Research Division Department of Neurology University of Miami, Miller School of Medicine

Member of IAC Vascular Testing Board of Directors and Immediate Past President, representing the American Society of Neuroimaging



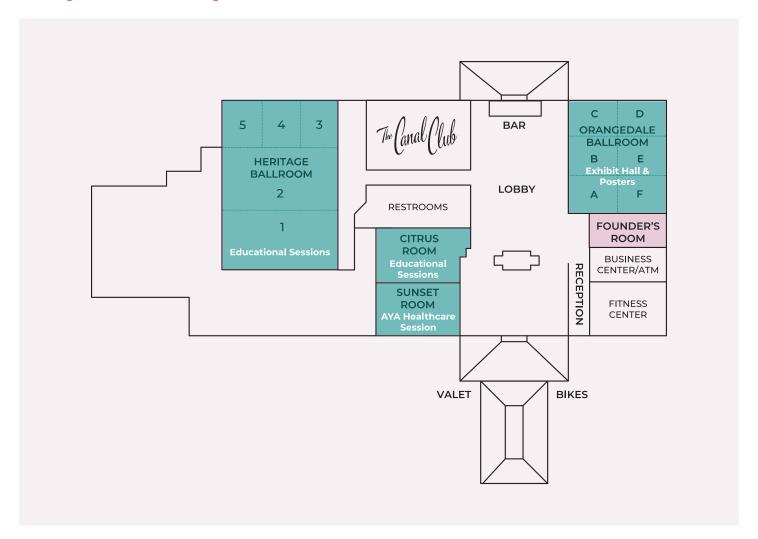
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## Map of the Space





## American Society of Neuroimaging and Neurocritical Care Society Collaboration

For the first time, ASN has partnered with the Neurocritical Care Society to co-sponsor a TCD Workshop on Tuesday, August 15 at the NCS Annual Meeting in Phoenix. If you have not registered and wish to attend please visit the registration desk at the ASN Annual Meeting.

## **Program at a Glance**

subject to change



#### Saturday, August 12 | 7:00 AM - 8:00 PM

7:00 am–7:45 am Breakfast | Orangedale Ballroom

8:00 am–10:30 am General Sessions | Heritage Ballroom 1

8:00 AM-8:30 AM

Ultrasound Physics: Overview of What you Really Need to Know

Mark Rubin, MD, RPNI, NVS

Edward Hines, Jr. VA Medical Center, Loyola University Medical Center Stritch School of Medicine

8:30 AM-9:00 AM

High Yield Test Items: Resolution Types and Artifacts

Mark Rubin, MD, RPNI, NVS Edward Hines, Jr. VA Medical Center, Loyola University Medical Center Stritch School of Medicine

9:00 AM-9:30 AM

Carotid Duplex Primer and Technical Considerations

John Bennett, PhD, RVT, NVS, FICA Wake Forest University School of Medicine

9:30 AM-10:00 AM

Teach Me How to Interpret a Carotid Duplex

Aaron Anderson, MD, RPNI Emory University, Marcus Stroke & Neuroscience Center Grady

10:00 am–10:30 am Coffee Break with Exhibitors | Orangedale Ballroom

10:30 am–12:00 pm General Sessions | Heritage Ballroom 1

10:30 AM-11:00 AM

Carotid Duplex Artifacts

Courtney Hrdlicka, MD, RPNI Mayo Clinic Scottsdale

11:00 AM-11:30 AM

Carotid Duplex Tips and Tricks From the Expert

Jesse Weinberger, MD Icahn School of Medicine at Mount Sinai; Mount Sinai Medical Center

11:30 AM-12:00 PM

Clinical Applications of Optic Nerve Sheath Diameter Measurements

Mohammad Hirzallah, MD, MMSc

Departments of Neurology, Neurosurgery, and Center for Space Medicine; Section of Neurocritical care and Vascular Neurology; Baylor College of Medicine

12:00 pm-1:00 pm Lunch | Orangedale Ballroom

1:00 pm-2:00 pm Breakout Sessions

1:00 PM-2:00 PM

Transcranial Doppler: Interpretation Skills–Team of Expert Physicians and Sonographers | Heritage Ballroom 1

Mark Rubin, MD, RPNI, NVS Aaron Anderson, MD Dawn Whyte, RVT, NVS Gyanendra Kumar, MD, MBBS, FASN John Bennett, PhD, RVT, NVS, FICA 1:00 PM-1:30 PM

Outside of the Brain: Head and Neck Imaging Above the Skull Base | Heritage Ballroom 2 Peter Kalina, MD, MBA, Mayo Clinic Rochester

1:30 PM-2:00 PM

Outside of the Brain: Head and Neck Imaging Below the Skull Base | Heritage Ballroom 2 Peter Kalina, MD, MBA, Mayo Clinic Rochester 2:00 pm-2:45 pm Coffee Break with Exhibitors | Orangedale Ballroom

2:45 pm-4:30 pm General Sessions | Heritage Ballroom 1

2:45 PM - 3:30 PM

The Business of Thrombectomy: Understanding How Conversion of Medical DRG to a Surgical DRG Changes Your Program's Profit Margin

Camilo Gomez, ME MU Healthcare

3:30 PM - 4:00 PM

Son

NVS, RPNI, RVT: Alphabet Soup of TCD Credentials and Why it Matters

Marge Hutchisson, BS, RVT, RDCS, RPhS Intersocietal Accreditation Commission

4:00 PM - 4:30 PM

SP

TCD Lab Accreditation: It's About Patient Care

Marge Hutchisson, BS, RVT, RDCS, RPhS Intersocietal Accreditation Commission

4:30 pm-6:00 pm Welcome Reception with Exhibitors and Poster Session | Orangedale Ballroom

\*See pages 17-18 for Abstract Index

6:00 pm-8:00 pm TCD Hands – on Basic Workshop – Knobology and Seeing Each Manufacturers

Bells and Whistles | Heritage Ballroom 3-5

Son

\*Must be pre-registered for workshop

Mark Rubin, MD, MD, RPNI, NVS Methil Pradeep, MD, FRCP, FASN Aaron Anderson, MD Gyanendra Kumar, MD John Bennett, PhD, RVT, NVS, FICA Mohammad Hirzallah, MD

#### Sunday, August 13 | 8:00 AM - 5:30 PM

8:00 am-10:00 am TCD Hands - on Advanced Workshop - Cool Tips & Tricks | Heritage Ballroom 3-5

Son

\*Must be pre-registered for workshop

Mark Rubin, MD, MD, RPNI, NVS Methil Pradeep, MD, FRCP, FASN Aaron Anderson, MD Gyanendra Kumar, MD John Bennett, PhD, RVT, NVS, FICA Mohammad Hirzallah, MD

10:00 am–10:30 am Neurosarcoidosis: A Neuroimaging Review | Heritage Ballroom 2

Spencer Hutto, MD

Emory University School of Medicine

10:30 am–11:00 am Coffee Break with Exhibitors | Orangedale Ballroom

11:00 am–12:00 pm General Session & Aya Healthcare Focus Group

Acute Demyelinating Disorders in Adults: A Neuroimaging Review |

Heritage Ballroom 2

Rob Bakshi, MD, PhD Brigham and Women's Hospital, Harvard Medical School Aya Health Focus Group | Sunset Room (invitation only)



12:00 pm-1:00 pm Lunch Symposium Sponsored by Horzion Therapeutics | Heritage Ballroom 1

HORIZON.

1:00 pm-2:00 pm Break with Exhibitors | Orangedale Ballroom

#### 2:00 pm-4:00 pm

#### **Breakout Sessions**

#### 2:00 PM-2:30 PM



TCD Artifacts | Heritage Ballroom 1

Courtney Hrdlicka, MD Mayo Clinic Scottsdale

#### 2:30 PM-3:00 PM



TCD Emboli Detection: Monitoring of Anterior and Posterior Circulation |

Heritage Ballroom 1

Gyanendra Kumar, MD, RPNI Mayo Clinic Scottsdale

#### 3:00 PM-3:30 PM



Neuroimaging of Systemic Disease |

Heritage Ballroom 1

Shivani Ghoshal, MD Columbia University Vagelos College of Physicians and Surgeons

#### 3:30 PM-4:00 PM



Using TCD in the Management of Sub-occlusive Large Vessel Thrombosis

Heritage Ballroom 1

Ryan Hakimi, DO, NVS, RPNI Prisma Health

4:00 pm-5:30 pm

Awards Presentation, ASN Business Meeting & Reception with Exhibitors | Orangedale Ballroom

#### Monday, August 14 | 7:15 AM - 5:00 PM

7:15 am-8:00 am

Breakfast | Orangedale Ballroom

#### 8:00 am-10:00 am

#### **Breakout Sessions**

8:00 AM-8:30 AM



TCD as a Multi-Modality Tool in Critically-ill Brain-injured Patients |

Heritage Ballroom 3-5

Shraddah Mainali, MD Virginia Commonwealth University

#### 8:30 AM-9:00 AM



Non-Invasive Monitoring of ICP |

Heritage Ballroom 3-5

Venkatakrishna Rajajee, MD Departments of Neurosurgery & Neurology, University of Michigan, Ann Arbor

#### 9:00 AM-9:30 AM

Multi-modal Imaging of Acute Ischemic Stroke | Heritage Ballroom 3-5

Abbigayle Doerr, APRN Central DuPage Hospital

#### 9:30 AM-10:00 AM

Neuroimaging on Mobile Stroke Units | Heritage Ballroom 3-5

Anne Alexandrov, PhD, CCRN, AGACNP-BC, FAAN Professor of Nursing & Neurology, UTHSC at Memphis

#### 2:00 PM-2:30 PM

Using Neuroimaging to Guide Brain Tumor Management | Heritage Ballroom 2

Jerome Graber, MD University of Washington; Alvord Brain Tumor Center

#### 2:30 PM-3:00 PM

Neuroimaging of Paraneoplastic Syndromes | Heritage Ballroom 2

Jerome Graber, MD University of Washington; Alvord Brain Tumor Center

#### 3:00 PM-3:30 PM

Neuroimaging of Cancer-related Treatment Associated Neurotoxicity |

Heritage Ballroom 2

Joshua Klein, MD, PhD, FANA,FASN, FAAN Brigham and Women's Hospital

#### 8:00 AM-8:30 AM

Neuroimaging in Pediatric Arterial Ischemic Stroke | *Citrus Room* 

Tara Mangum, DO Phoenix Children's

#### 8:30 AM-9:00 AM

Neuroimaging & Management of Stroke Related to Bow Hunter Physiology | Citrus Room

Todd Abruzzo, MD Phoenix Children's

#### 9:00 AM-9:30 AM

Pediatric TBI Monitoring Through Serial Neuroimaging | Citrus Room

Michael Kuwabara, MD, RPNI Phoenix Children's

#### 9:30 AM-10:00 AM

Vasospasm in Kids: You Can't Use the Same Criteria as Adults | Citrus Room

Brian Appavu, MD Phoenix Children's 10:00 am-11:00 am

## Wake Up Strokes: How to Organize Neuroimaging Services in the ED to Obtain Timely MRIs | Heritage Ballroom 3-5

Ryan Hakimi, DO - Co-Moderator Peter Kalina, MD - Co-Moderator Todd Abruzzo, MD Joshua Klein, MD, PhD, FANA, FASN, FAAN Mai-Lan Ho, MD Peter Nakaji, MD Chip Truwit, MD

11:00 am-11:30 am

Break with Exhibitors | Orangedale Ballroom

11:30 am-12:30 pm

Lunch Symposium Sponsored by SpinTech MRI | Heritage Ballroom 3-5

SpinTechMRI

12:30 pm-1:00 pm

Break with Exhibitors | Orangedale Ballroom

1:00 pm-4:00 pm

#### **Breakout Sessions**

#### 1:00 PM-2:30 PM



The Legacy of Vasospasm in Aneurysmal Subarachnoid Hemorrhage | Heritage Ballroom 3-5

Dr. Shraddha Mainali, Moderator

· Is TCD the Right Tool for Vasospasmscreening?

Gyanendra Kumar, MD

 Imaging Diagnosis of Vasospasm-CTA/CTP/DSA

Sishir Mannava, MD

 Management of Vasospasm- What's Old, What's New?

Erika Sigman, MD

 Management Strategies on the Horizon: Research and Innovation in Vasospasm
 Jacqueline Kraft, MD

#### 2:30 PM-4:00 PM



Cerebral Circulatory Arrest Symposium | Heritage Ballroom 3-5

• The Perennial Pertinence & Perspicacity of Neurosonology in Brain Death Ancillary Testing

Gregory Kapinos, MD

• Time Dependence of TCD Findings Supporting Circulatory Arrest; Protocols, Technicalities and Special Circumstances

Aarti Sarwal, MD

 Case Based Discussion on TCD Based Scenarios for Brain death Determination—Need for a Delphi Consensus

Jimmy Suh, MD Aaron Anderson. MD Greg Kapinos, MD Ryan Hakimi, DO

#### 1:00 PM-1:30 PM

Neuroimaging Review of Anoxic Brain Injury | Citrus Room

Julia Marion Carlson, MD University of North Carolina School of Medicine

#### 1:30 PM-2:00 PM

Neuroimaging Review of ICH Patient: Updates from the 2022 Guidelines | *Citrus Room* 

Mark Babi, MD Cleveland Clinic Florida

#### 2:00 PM-3:00 PM

MRI Findings in Patients Following Status Epilepticus: When to be Concerned | Citrus Room

Masoom Desai, MD, FACNS UNM Health Sciences Center

#### 3:00 PM-3:30 PM

Cerebral Venous Sinus Thrombosis: When Is Thrombectomy Indicated |

Citrus Room

Adnan Qureshi, MD MU Healthcare

#### 3:30 PM-4:00 PM

Extracranial Internal Carotid Artery Stenting: Appropriate Care for Patient with Bilateral Stenosis |

Citrus Room

Camilo Gomez, MD MU Healthcare

4:00 pm-5:00 pm

Reception with Exhibitors | Orangedale Ballroom

## Thank you to our **Sponsors & Exhibitors!**

**Lunch Symposium Sponsors** 





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**Exhibitors** 











## **Sponsored Lunch Presentations**



## **Lunch Symposium**

Sponsored by Horizon Therapeutics

Sunday, August 13, 2023 | 12:00pm-1:00pm | Heritage Ballroom 1



## Treatment Decisions in NMOSD – Real-World NMOSD Patient Cases

Presented by: Aram Zabeti, MD Waddell Center for Multiple Sclerosis, Cincinnati, OH

Dr Aram Zabeti is an associate professor of neurology and endowed chair at the Waddell Center for Multiple Sclerosis at the University of Cincinnati. He also serves as the demyelinating disease/ neuroimmunology fellowship director.

#### **Background**

Dr Zabeti has been designated as a Multiple Sclerosis (MS) Partner in Care by the National MS Society. He has been the principal investigator or subinvestigator on multiple clinical trials and has published numerous peer-reviewed journal articles.

#### **Training and NMOSD Publications**

Dr Zabeti earned his medical degree at Azad University School of Medicine. He completed a neurology residency at West Virginia University School of Medicine and an MS fellowship at Oregon Health and Science University.

Rensel M, Zabeti A, Mealy MA, et al. Long-term efficacy and safety of inebilizumab in neuromyelitis optica spectrum disorder: analysis of aquaporin-4-immunoglobulin G-seropositive participants taking inebilizumab for ≥4 years in the N-MOmentum trial. Mult Scler.

2022;28(6):925-932. doi:10.1177/13524585211047223

Tullman MJ, Zabeti A, Vuocolo S, Dinh Q. Inebilizumab for treatment of neuromyelitis optica spectrum disorder. Neurodegener Dis Manag. 2021;11(5):341-352. doi:10.2217/nmt-2021-0017

#### INDICATION AND IMPORTANT SAFETY INFORMATION

#### INDICATION

UPLIZNA (inebilizumab-cdon) is indicated for the treatment of neuromyelitis optica spectrum disorder (NMOSD) in adult patients who are anti-aquaporin-4 (AQP4) antibody positive.

#### IMPORTANT SAFETY INFORMATION

UPLIZNA is contraindicated in patients with:

- A history of life-threatening infusion reaction to UPLIZNA
- · Active hepatitis B infection
- Active or untreated latent tuberculosis

#### WARNINGS AND PRECAUTIONS

**Infusion Reactions:** UPLIZNA can cause infusion reactions, which can include headache, nausea, somnolence, dyspnea, fever, myalgia, rash, or other symptoms. Infusion reactions were most common with the first infusion but were also observed during subsequent infusions. Administer pre-medication with a corticosteroid, an antihistamine, and an anti-pyretic.

Infections: The most common infections reported by UPLIZNA-treated patients in the randomized and open-label periods included urinary tract infection (20%), nasopharyngitis (13%), upper respiratory tract infection (8%), and influenza (7%). Delay UPLIZNA administration in patients with an active infection until the infection is resolved.

Increased immunosuppressive effects are possible if combining UPLIZNA with another immunosuppressive therapy.

The risk of Hepatitis B Virus (HBV) reactivation has been observed with other B-cell-depleting antibodies. Perform HBV screening in all patients before initiation of treatment with UPLIZNA. Do not administer to patients with active hepatitis.

Although no confirmed cases of Progressive Multifocal Leukoencephalopathy (PML) were identified in UPLIZNA clinical trials, JC virus infection resulting in PML has been observed in patients treated with other B-cell-depleting antibodies and other therapies that affect immune competence. At the first sign or symptom suggestive of PML, withhold UPLIZNA and perform an appropriate diagnostic evaluation.

Patients should be evaluated for tuberculosis risk factors and tested for latent infection prior to initiating UPLIZNA.

Vaccination with live-attenuated or live vaccines is not recommended during treatment and after discontinuation, until B-cell repletion.

**Reduction in Immunoglobulins:** There may be a progressive and prolonged hypogammaglobulinemia or decline in the levels of total and individual immunoglobulins such as immunoglobulins G and M (IgG and IgM) with continued UPLIZNA treatment. Monitor the level of immunoglobulins at the beginning, during, and after discontinuation of treatment with UPLIZNA until B-cell repletion especially in patients with opportunistic or recurrent infections.

**Fetal Risk:** May cause fetal harm based on animal data. Advise females of reproductive potential of the potential risk to a fetus and to use an effective method of contraception during treatment and for 6 months after stopping UPLIZNA.

Adverse Reactions: The most common adverse reactions (at least 10% of patients treated with UPLIZNA and greater than placebo) were urinary tract infection and arthraloia

Please see Full Prescribing Information at UPLIZNAhcp.com

## SpinTechMRI

## **Lunch Symposium**

Sponsored by SpinTech MRI

Monday, August 14, 2023 | 11:30am-12:30pm | Heritage Ballroom 3-5



Presented by: James Backstrom, MD Practicing Neuroradiologist (Adult and Pediatric)/Chief Medical Officer, Armstrong County Memorial Hospital

Moderated by: Karen Holzberger, Chief Executive Officer, SpinTech MRI

Kelly Leydon, Senior Product Leader, SpinTech MRI





Quantitative imaging techniques, such as QSM and TI Mapping, have long been confined to the realm of research because health systems do not have the time to run extended patient scans. Despite the breakthrough applications in improving diagnosis and treatment of neurodegenerative diseases and movement disorders such as Dementia and MS, clinical adoption of these technologies has been constrained by long scan times, complex processing, and laborious workflows. But no longer. STAGE, from SpinTech MRI, provides radiologists and neurologists practical access to quantitative data and improved image clarity with every scan, all while reducing MRI brain protocol times by 30%. Come learn from Dr. James Backstrom, Chief Medical Officer and practicing Neuroradiologist, as he discusses how STAGE helps him gain access to novel biomarkers, all while improving clinical efficiency.

## **Annual Meeting Objectives**

Recognize, identify, differentiate and interpret diseases of the nervous system based on interpretations of neuroimages.
Using clinical data identify the correlation of the data with information derived from the various methods used to image the nervous system and related structures to treat various disorders of the nervous system.
Review ultrasound techniques and discuss the recent advances and new technologies.
Understand the components of interpreting a carotid duplex.
Recognize abnormal findings on a carotid duplex.
Describe the most common clinicoradiographic phenotypes of neurosarcoidosis.
Recognize the utility of specific MRI abnormalities in suggesting neurosarcoidosis as a cause of a patient's neuroinflammation.
Discuss conditions manifesting with cerebrovascular vasospasms in children.
Discuss limitations as well as helpful ways to apply transcranial Doppler ultrasound in the diagnosis of cerebrovascular vasospasms in children.
Appraise the updated AHA/ASA guidelines for the neuro imaging diagnosis and management of ICH.
Understand how to diagnose and monitor MS by MRI.
Understand the role of spinal cord MRI in the differential diagnosis of demyelinating diseases.
Recognize key imaging features for brain tumor diagnosis.
Describe risk factors for pseudoprogression and imaging modalities to address.
Identify pseudoresponse to vascular agents and describe more reliable imaging features.
List various neuroimaging sequelae of prior radiation and oncology treatments.
Understand how to perform and interpret ONSD measurements.
Recognize how to avoid Evaluate causes of ONSD measurement variation.
Appreciate the benefits to the facility to employ modality specific credentialed technologists.
Understand the value of standardization in testing and interpetation of cases.

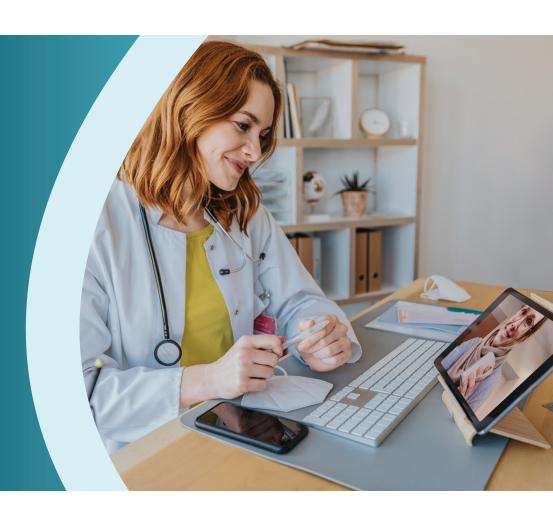
Value added benefits of continuous quality improvement activities.
Imaging differentiation of tumor progression from treatment-related toxicity.
Neurology and neuroimaging of CAR-T related toxicity.
Understand what TBI looks like in the acute, subacute, and chronic phase.
Understand the utility of advanced imaging techniques beyond a CT.
Describe the evidence for the diagnostic accuracy of optic nerve ultrasound for the assessment of intracranial pressure in the neuroICU.
Describe the evidence for the diagnostic accuracy of transcranial doppler for the assessment of intracranial pressure in the neuroICU.
Describe the role of noninvasive ICP assessment in the critically-ill patient with concern for elevated ICP.
Describe the component modalities that make up a carotid duplex exam.
Describe the vessel segments and information that comprise a complete carotid duplex exam.
Identify normal and abnormal findings associated with common applications of TCD.
Identify the vulnerable plaque.
Improve management of patients with asymptomatic carotid artery stenosis.
Discuss differential presentations of Bowhunter Syndrome according to age and imaging diagnosis.
Discuss anatomical subtypes of Bowhunter syndrome and imaging diagnosis.
Discuss the diagnosis and management of Bowhunter syndrome.
Familiar with the results of the recent clinical trials relevant to management of patients with cerebral venous thrombosis.
Identify patients with cerebral venous thrombosis who can benefit from thrombectomy.
Review/discuss the commonly used imaging modalities for ischemic stroke.
Review/discuss the pros/cons of the commonly used imaging modalities for ischemic stroke.

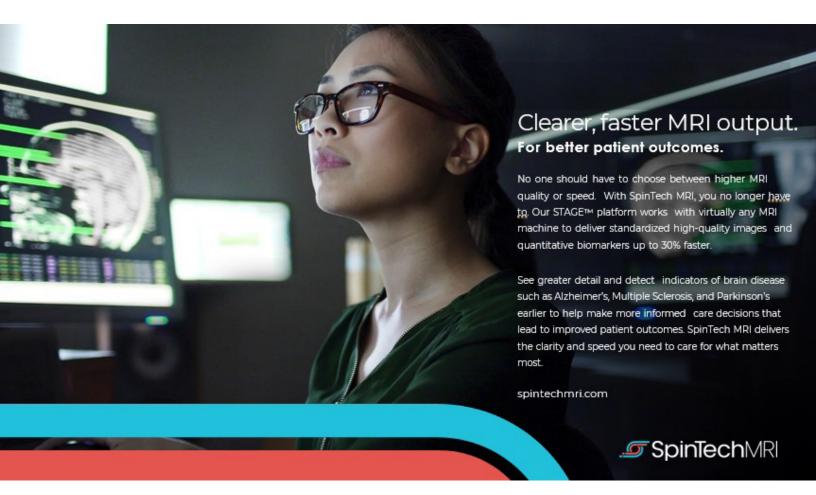


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## **ASN 2023 Annual Meeting Faculty**

Δ

#### Todd Abruzzo, MD

Phoenix Children's Phoenix, Arizona

#### Anne Alexandrov, RN, CCRN, ANVP-BC, NVRN-BC. FAAN

Department of Neurology, University of Tennessee Health Science Center Memphis, Tennessee

#### Aaron Anderson, MD

Emory University, Marcus Stroke & Neuroscience Center Grady Atlanta, Georgia

#### Brian Appavu, MD

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Cleveland Clinic Florida Port St. Lucie, Florida

#### Rohit Bakshi. MD

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Columbia University Vagelos College of Physicians and Surgeons New York, New York

#### Camilo Gomez, MD

University of Missouri Columbia Columbia, Missouri

#### Jerome Graber, MD, MPH, FAAN

University of Washington; Alvord Brain Tumor Center Seattle, Washington

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#### Ryan Hakimi, DO, MS, NVS, RPNI, CPB, FNCS, FCCM

Prisma Health Greenville, South Carolina

#### Mohammad Hirzallah, MD, MMSc

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#### Mai-Lan Ho, MD

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## Courtney Hrdlicka, MD, RPNI

Mayo Clinic Scottsdale Scottsdale, Arizona

## Marge Hutchisson, BS, RVT, RDCS, RPhS

Intersocietal Accreditation Commission Ellicott City, Maryland

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Mayo Clinic Rochester, Minnesota

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#### Joshua P. Klein, MD, PhD, FANA, FASN, FAAN

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#### Jacqueline Kraft, MD

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## Michael Kuwabara, MD, RPNI

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#### Sishir Mannava, MD, RPNI

UTHealth Houston Houston. Texas

#### Tara Mangum, DO

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#### Peter Nakiji, MD

University of Arizona College of Medicine Phoenix Phoenix, Arizona

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## Methil Pradeep, MD, FRCP, FASN

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## Adnan Qureshi, MD, RPNI, NVS

Zeenat Qureshi Stroke Institute and University of Missouri Columbia, Missouri

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#### Venkatakrishna Rajajee, MD

University of Michigan Ann Arbor, Michigan

#### Mark Rubin, MD, RPNI

Edward Hines, Jr. VA Medical Center; Loyola University Medical Center Stritch School of Medicine Hines, Illinois

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## Aarti Sarwal, MD, FNCS, FAAN

Wake Forest University School of Medicine, Wake Forest Baptist Health Center Winston-Salem, North Carolina

#### Erika Sigman, MD

Emory University School of Medicine Atlanta, Georgia

#### Jimmy Suh, MD

MUSC Health Charleston, South Carolina

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## Charles Truwit, MD, FACR

Hyperfine Wayzata, Minnesota

W

#### Jesse Weinberger, MD

Icahn School of Medicine at Mount Sinai; Mount Sinai Medical Center New York, New York

#### Dawn Whyte, NVS

Sunnybrook Health Science Centre Waterdown, Ontario, Canada

## **Abstract Index**

#### **Poster Session**

Saturday, August 12, 2023 4:30pm-6:00pm

\*Posters will be on display for the duration of the Annual Meeting

#### P1: Viz LVO versus Rapid LVO: Detection of Large Vessel Occlusion on CTA for Acute Stroke

\*2023 Resident Travel Award Recipient

<u>Ali Kerro</u><sup>1</sup>, Adam Delora<sup>1,2</sup>, Christopher Hadjialiakbari<sup>1,2</sup>, Eryn Percenti<sup>1,2</sup>, Jordan Torres<sup>1,2</sup>, Yazan Alderazi<sup>1</sup>, Rime Ezzeldin<sup>1</sup>, Ameer Hassan<sup>3</sup>, Mohamad Ezzeldin<sup>1</sup>

<sup>1</sup>HCA Houston Healthcare, Houston, USA. <sup>2</sup>University of Houston, Houston, USA. <sup>3</sup>Valley Baptist Medical Center, Harlingen, USA

## P2: Diffusion Tensor Imaging (DTI) of the Corpus Callosum: Role in Dementia

Meghana Rajashekara Swamy<sup>1</sup>, Sujith Rajashekar Swamy<sup>2</sup>

<sup>1</sup>Brown University, Pawtucket, USA. <sup>2</sup>Bangalore Medical College, Bangalore, India

## P3: The Prevalence of Right-to-Left Cardiac Shunts in Mechanical Embolectomy Cases

<u>Amanda Holcomb</u><sup>1</sup>, Thomas Alexander<sup>2</sup>, Kaitlyn Alexander<sup>2</sup>, Elisabeth Golden<sup>3</sup>, Paul Kowalski<sup>3</sup>, Kyna Schreiber<sup>3</sup>, Allison Hennigan<sup>3</sup>

<sup>1</sup>SW Cerebral Circ. Dynthwestern Cerebral, Tyler, USA. <sup>2</sup>SW Cerebral Circ Dyn, Tyler, USA. <sup>3</sup>UT-Health East Texas, Tyler, USA

## P4: A Cause of False Positive Transcranial Doppler Studies

<u>Amanda Holcomb</u>¹, Thomas Alexander¹, Kaitlyn Alexander¹, Elisabeth Golden², Paul Kowalski², Kyna Schreiber², George Plotkin²

 $^{\rm l}$ Southwestern Cerebral Circulatory Dynamics, Tyler, USA.  $^{\rm 2}$ UT-Health East Texas, Tyler, USA

## P5: Lumbar Foraminal Stenosis: a Clinical Neurosurgery/Neuroimaging Perspective

<u>John Gilbert</u>, Brydon Christensen, Sherri Matheny, Norita Word, Skyelar Williams

Spine and Brain Neurosurgical Center, Lexington, USA

#### P6: Congenital Continuous Retrograde Basilar Flow Suggests a Type B Interrupted Aortic Arch in a Neonate

<u>Paul Maertens</u>, Shrestha Diksha, Kalsang Dolma University of South Alabama, Mobile, USA

## P7: Time Interval of the Screening for the Stroke Risk in Children with Sickle Cell Disease

<u>Paul Maertens</u>, Asri Yuliati, Jennifer Williams University of South Alabama, Mobile, USA

#### P8: Embolic Hippocampal Infarct from Ipsilateral Tandem Carotid Stenosis: a Lesson on the Vascular Supply

Monica Nitu<sup>1</sup>, Curtis Lunt<sup>2</sup>, Jacob Sobczak<sup>3</sup>, Oana Dumitrascu<sup>4</sup>

<sup>1</sup>Xavier College Preparatory, Phoenix, USA. <sup>2</sup>Arizona College of Osteopathic Medicine – Midwestern University, Glendale, USA. <sup>3</sup>Barrett, The Honors College at Arizona State University, Tempe, USA. <sup>4</sup>Department of Neurology, Division of Stroke and Cerebrovascular Disorders, Mayo Clinic Arizona, Scottsdale, USA

#### P9: Risk of New Ischemia in Patients with Symptomatic Internal Carotid Artery Stenosis While Awaiting Revascularization

\*2023 Qureshi Award Recipient

<u>Navpreet Bains</u><sup>1</sup>, Ravi Nunnal, Rami Fakih<sup>1</sup>, Attiya Jaural, Brandi French<sup>1</sup>, Farhan Siddiq<sup>1</sup>, Camilo Gomez<sup>1</sup>, Adnan Qureshil,<sup>2</sup>

<sup>1</sup>University of Missouri, Columbia, USA. <sup>2</sup>3. Zeenat Qureshi Stroke Institute, St. Cloud, USA

#### P10: Vertebral Metastasis Secondary to Pulmonary Sarcoidosis

Bhupinder Singh<sup>1</sup>, Karanbir Singh<sup>2</sup>

<sup>1</sup>Government Medical College, Amritsar, India. <sup>2</sup>Apex Hospital, Jalandhar, India

#### P11: Differentiating Cerebral Amyloid Angiopathy-Related Inflammation (CAA-RI) from Cerebral Amyloid Angiopathy (CAA) on Neuroimaging

<u>Sean Lee</u>, Benjamin Renshaw, Samuel Rogers, Anna Kafka University of Arizona, Tucson, USA

#### P12: Brain Functional Network hierarchy and Neurochemical Correlates in Deficit and Non-Deficit Schizophrenia

\*2023 Oldendorf Award Recipient

Chengmin Yang

West China Hospital of Sichuan University, Chengdu, China

#### P13: Adding a Chapter to Literature: A Rare Encounter of Moyamoya Disease and Persistent Trigeminal Artery

Ramit Singla, Yaimara Hernandez Silva, Linda Sherine Alfred, <u>Ali Abualhayjaa</u>, Marilhia Cornejo Leon, Savdeep Singh, Balaji Krishnaiah

UTHSC, Memphis, USA

#### P14: Pseudotumor Cerebri With a Panoply of Clinicoradiological Findings Including Cerebellar Tonsillar Herniation Mimicking Chiari Malformation

<u>Atif Ghaffar</u><sup>1</sup>, Shawn Marcell<sup>1</sup>, Cyprian Afunugo<sup>1</sup>, Hiba Elaasar<sup>1</sup>, Kristen Butner<sup>1</sup>, Merritt Brown<sup>1,2</sup>, Edward Mader<sup>1</sup>

<sup>1</sup>LSU Health Sciences Center, Department of Neurology, New Orleans, USA. <sup>2</sup>LSU Health Sciences Center, Department of Neurosurgery, New Orleans, USA

## P15: Transcranial Doppler Ultrasound to Evaluate the Risk of Hyperperfusion After Endovascular Thrombectomy for Stroke

\*2023 McKinney Award Recipient

<u>Abhilekh Srivastava</u>¹, Luciana Catanese¹², Demetrios J. Sahlas¹, Kanjana Perera¹², Kelvin K. H. Ng¹², Raed Joundi¹², Brian Van Adell, Ramiro Larrazaball, Kanchana Ratnayake³, Georgios Tsivgoulis⁴⁵, Oscar Benavente⁶, Robert Hart², Mukul Sharma¹², Ashkan Shoamanesh¹², Aristeidis Katsanos¹²

<sup>1</sup>McMaster University, Hamilton, Canada. <sup>2</sup>Population Health and Research Institute, Hamilton, Canada. <sup>3</sup>Hamilton Health Sciences, Hamilton, Canada. <sup>4</sup>National & Kapodistrian University of Athens, Athens, Greece. <sup>5</sup>University of Tennessee Health Science Center, Memphis, USA. <sup>6</sup>University of British Columbia, Vancouver, Canada

## P16: Delayed Lower Extremity Monoplegia After ACDF; A Rare Instance of Cervical Spinal Ischemic Reperfusion Injury

<u>Rose Zach</u><sup>1</sup>, Mohamed Abdulhamid<sup>2</sup>, Navid Valizadeh<sup>3</sup>, Victor Zach<sup>4</sup>

<sup>1</sup>Arizona State University, Tempe, USA. <sup>2</sup>Royal Spine Surgery, Scottsdale, USA. <sup>3</sup>Neurocritical Care and Stroke of Arizona, Phoenix, USA. <sup>4</sup>Midwestern University, Glendale, USA

## P17: Osmotic Demyelination Syndrome in Normonatremia

Rose Zach<sup>1</sup>, Jeffrey Barletta<sup>2</sup>, Victor Zach<sup>3</sup>

<sup>1</sup>Arizona State University, Tempe, USA. <sup>2</sup>College of Pharmacy Practice, Midwestern University, Glendale, USA. <sup>3</sup>Midwestern University, Glendale, USA

## P18: Role of Neurosonology and Extracorporeal CO2 Removal Therapy in Acute Brain Injury-Related ARDS: Case Report

Jorge Hernández, Juan Toro, <u>Jorge Carrizosa</u> Fundación Santafe de Bogotá, Bogotá, Colombia

## P19: Advanced Imaging of Proton Radiation Pseudoprogression in Gliomas

<u>Kiki Zavala-Galvin</u>, Reed Ritterbusch, Jerome Graber University of Washington, Seattle, USA

## P20: Diagnostic Utility of Transcranial Doppler in Carotid Cavernous Fistula

Anusha Battineni<sup>1</sup>, Sanjeev Sivakumar<sup>2,3</sup>, Ryan Hakimi<sup>2</sup>

<sup>1</sup>Prisma Health Upstate Greer Neurology Program, Greer, USA. <sup>2</sup>Prisma Health Neurology, Greenville, USA. <sup>3</sup>University of South Carolina Greenville School of Medicine, Greenville, USA

## P21: Zinc Intake and Associated Subacute Combined Degeneration

Kenneth Bhatti<sup>1</sup>, Alejandro Antezana<sup>2</sup>, Ariel Antezana<sup>2</sup>

<sup>1</sup>Edward Via College of Osteopathic Medicine, Monroe, USA. <sup>2</sup>Neuromedical Clinic of CENLA, Alexandria, USA

## P22: Transcranial Doppler in Autonomic Disorders: Review of Published Methodologies to Develop an Optimal Implementation Protocol

Curtis Lunt<sup>1,2</sup>, Monica Nitu<sup>2</sup>, Jacob Sobczak<sup>2</sup>

<sup>1</sup>Midwestern University - AZCOM, Glendale, USA. <sup>2</sup>Mayo Clinic, Scottsdale, USA

#### P23: To Ultrasound and Not to Ozone: Neurosonography's Utility in a Patient with Ozone Therapy-Related Stroke

Daniel Marín<sup>1</sup>, <u>Jorge Carrizosa</u><sup>2</sup>, Jimmy Anzueta<sup>3</sup>

<sup>1</sup>Universidad Nacional de Colombia, Bogotá, Colombia. <sup>2</sup>Fundación Santa Fe de Bogotá, Bogota, Colombia. <sup>3</sup>Universidad del Bosque, Bogotá, Colombia

## P24: Auditory Agnosia Following Ischemic Strokes in Bilateral Temporal Neocortex

<u>Chaitanya Ganne</u>, Yosefa Modiano, James Grotta, Sishir Mannava The University of Texas Health Science Center at Houston, Houston, USA

## P25: Low NIHSS and Tandem Occlusion: A Double Treatment Dilemma

Jacob Sambursky<sup>1</sup>, Dileep Yavagal<sup>2,3</sup> Tyler Simons<sup>1</sup>

<sup>1</sup>University of Texas-Houston McGovern Medical School, Houston, USA. <sup>2</sup>University of Miami Miller School of Medicine, Miami, USA. <sup>3</sup>Jackson Memorial Hospital, Miami, USA

## **Award Winners**

#### **Oldendorf Award**

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

Brain functional network hierarchy and neurochemical correlates in deficit and nondeficit schizophrenia

Chengmin Yang

West China Hospital of Sichuan University, Chengdu, China

#### **McKinney Award**

The McKinney Award is for the best abstract submitted by a student, resident or fellow that is based in basic or clinical research in Neurosonology.

#### Transcranial doppler ultrasound to evaluate the risk of hyperperfusion after endovascular thrombectomy for stroke

Abhilekh Srivastava<sup>1</sup>, Luciana Catanese<sup>1,2</sup>, Demetrios J. Sahlas<sup>1</sup>, Kanjana Perera<sup>1,2</sup>, Kelvin K. H. Ng<sup>1,2</sup>, Raed Joundi<sup>1,2</sup>, Brian Van Adel<sup>1</sup>, Ramiro Larrazabal<sup>1</sup>, Kanchana Ratnayake<sup>3</sup>, Georgios Tsivgoulis<sup>4,5</sup>, Oscar Benavente<sup>6</sup>, Robert Hart<sup>2</sup>, Mukul Sharma<sup>1,2</sup>, Ashkan Shoamanesh<sup>1,2</sup>, Aristeidis Katsanos<sup>1,2</sup>

<sup>1</sup>McMaster University, Hamilton, Canada. <sup>2</sup>Population Health and Research Institute, Hamilton, Canada. <sup>3</sup>Hamilton Health Sciences, Hamilton, Canada. <sup>4</sup>National & Kapodistrian University of Athens, Athens, Greece. <sup>5</sup>University of Tennessee Health Science Center, Memphis, USA. <sup>6</sup>University of British Columbia, Vancouver, Canada

#### **Qureshi Award**

The Qureshi Award is for excellence in diagnostic angiography.

#### Risk of New Ischemia in Patients with Symptomatic Internal Carotid Artery Stenosis While Awaiting Revascularization

<u>Navpreet Bains</u><sup>1</sup>, Ravi Nunna<sup>1</sup>, Rami Fakih<sup>1</sup>, Attiya Jaura<sup>1</sup>, Brandi French<sup>1</sup>, Farhan Siddiq<sup>1</sup>, Camilo Gomez<sup>1</sup>, Adnan Qureshi<sup>1,2</sup>

<sup>1</sup>University of Missouri, Columbia, USA. <sup>2</sup>Zeenat Qureshi Stroke, Institute, St. Cloud, USA

#### **Resident Award**

The Resident Award is for excellence of abstract presented by a resident in a neurology program.

#### Viz LVO versus Rapid LVO: Detection of Large Vessel Occlusion on CTA for Acute Stroke

<u>Ali Kerro</u><sup>1</sup>, Adam Delora<sup>1,2</sup>, Christopher Hadjialiakbari<sup>1,2</sup>, Eryn Percenti<sup>1,2</sup>, Jordan Torres<sup>1,2</sup>, Yazan Alderazi<sup>1</sup>, Rime Ezzeldin<sup>1</sup>, Ameer Hassan<sup>3</sup>, Mohamad Ezzeldin<sup>1</sup>

<sup>1</sup>HCA Houston Healthcare, Houston, USA. <sup>2</sup>Univesity of Houston, Houston, USA. <sup>3</sup>Valley Baptist Medical Center, Harlingen, USA

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#### 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
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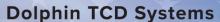
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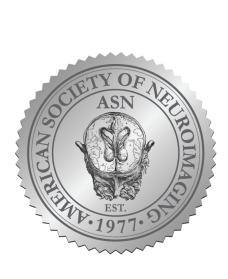




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