



NeuroNet | pro



The American Society
of Neuroimaging

SCOTTSDALE



A JOINT CONFERENCE ON NEUROINNOVATIONS

JANUARY 13-16, 2022

THE SCOTT RESORT & CONFERENCE CENTER | Scottsdale, Arizona

CONTINUING EDUCATION (CE) INFORMATION

Target Audience.

This activity is designed to meet the needs of neurologists, neurosurgeons, neuroradiologists, vascular sonographers, & other neuroscientists.

Method Of Participation.

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

Please claim your credit by February 15, 2022.

If you have questions about this CE activity, please contact AKH inc. at jgoldman@akhcme.com.

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

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 (ASN). 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.



JOINTLY ACCREDITED PROVIDER™
INTERPROFESSIONAL CONTINUING EDUCATION

Physicians

AKH Inc., Advancing Knowledge in Healthcare designates this live activity for a maximum of 17.75 AMA PRA Category 1 Credit(s)™.

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- Senior Director of Continuing Education & Compliance
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ANNUAL MEETING OBJECTIVES

Refresher: Imaging for the Clinician

- Apply knowledge of neuroimaging to formulate a focused differential diagnosis
- Describe the role of neuroimaging in the training and practice of neurology
- Order the proper imaging study based on clinical findings
- Review images and reports for the purpose of confirming clinical suspicions
- Ensure a practice-based imaging operation meets service standards
- Use images to discuss imaging and clinical findings with patients
- List some examples of how neurologists can enhance their patients' outcomes by neuroimaging
- Recognize how neuroimaging training is key to the future of Neuroimaging
- Evaluate Neuroimaging findings
- Apply knowledge of neuroanatomy to formulate a focused differential diagnosis

Refresher: Fundamentals of US & Acute Care Imaging

- Apply contemporary carotid duplex and TCD protocols in common neurovascular disorders, i.e., stroke, extra- and intracranial stenosis, subarachnoid hemorrhage, and traumatic brain injury.
- Discuss carotid duplex and TCD utilization in critical care and during cardiovascular procedures
- Utilize carotid duplex and TCD testing during different clinical pathways to improve patient management strategies and outcome

TCD Interpretation Workshop

- Review TCD findings and their clinical interpretation

Headache Imaging

- Explain when to image a headache
- Identify the use of different neuroimaging modalities on headache patients
- Review important imaging concepts, common findings, mimics and urgent findings in primary, secondary and pediatric headache

Multiple Sclerosis & Cognitive Disorders

- Review important imaging concepts, common findings, mimics and urgent findings of MS
- Evaluate key neuroimaging features of MS
- Review the role of conventional MRI in MS diagnosis
- Discuss neuroimaging of NMOSD, ADEM and other common MS mimics.
- Review important imaging concepts, common findings, mimics and urgent findings in Cognitive disorders and movement disorders

Ultrasound Technology

- Review of technology, clinical applications and how-to for ultrasound technologists
- Define waveform and vessel identification
- Define examinations protocols
- Define abnormal waveforms

Ultrasound Hot Topics

- Recognize anatomic landmarks using neurosonography and be familiar with age dependent variations
- Recognize pathologic findings requiring intervention
- Identify the limitations of neurosonography and decide how best to incorporate neurosonography into clinical practice

Acute Stroke and Neurocritical Care

- Review important imaging concepts, common findings, mimics and urgent findings in acute stroke and neurocritical care
- Recognize the role of collateral flow imaging and vessel wall imaging in managing acute stroke patients
- Describe the significance of neuroimaging in the management of patients presenting with acute stroke
- Identify various neuroimaging modalities in the management of patients with acute stroke
- Discuss current endovascular management of patients with acute stroke
- Describe the use and application of CT perfusion studies in the evaluation and management of acute ischemic stroke as it pertains to the selection of patients for acute reperfusion therapies
- Discuss the value of brain MRI in guiding emergent reperfusion therapies for acute ischemic stroke
- Describe the early ischemic changes seen in acute ischemic stroke and discuss the application of ASPECTS score for patient selection for acute reperfusion therapies, intravenous and endovascular
- Explain the role of collateral assessment in selection of patients for acute reperfusion therapies
- Discuss the role of neuroimaging technologies for management of acute stroke in the mobile stroke unit

Trauma

- Review important imaging concepts, common findings, mimics and urgent findings in trauma
- Outline two characteristic symptoms of CTE
- List three symptoms of concussion/TBI
- Describe changes on TCD after concussion/TBI
- Discuss different cases of post-traumatic epilepsy and understand the pathophysiology

TCD and Critical Care Monitoring

- Recognize the opportunities for applying 3D ultrasound for stroke prevention
- Recognize the opportunities for applying multimodal neuro monitoring
- Recognize the opportunities for applying TCD monitoring after thrombectomy

Neuroinflammation, Neuroinfection and Seizure Disorders

- Review important imaging concepts, common findings, mimics and urgent findings in neuroinflammatory disorders
- Review important imaging concepts, common findings, mimics and urgent findings in neuroinfectious disorders
- Review important imaging concepts, common findings, mimics and urgent findings in seizure disorders
- Review important imaging concepts of infections involving the CNS

Pediatric Neuroimaging

- Review important imaging concepts, common findings, mimics and urgent findings in pediatric neurologic disorders
- Review utilization practices for TCD among pediatric neurologists, intensivists and researchers who practice and conduct research in pediatric neurocritical care
- Review conditions for which TCD is currently being used in children in clinical practice and research
- Propose future directions intended to better understand the potential clinical impact of TCD in pediatric neurocritical care

WELCOME

Two Meetings Come Together to Produce a Unique Conference on Neuroinnovations

Since 1977, the **American Society of Neuroimaging** has always been a place for providers of all levels – students, residents, fellows, technologists, advanced practice providers & attendings – to gather & discuss all modalities of neuroimaging (CT, MRI, US), how they make our patients & practice better, & to meet with industry partners who bring us the latest in neurological diagnostic technology.

This year, we welcome as joint hosts, **NeuroNet Pro**, an education & consulting organization focused on helping physician groups implement best-practice business models, integrating modern technology to solve practical issues, & leveraging the value of neurology in our healthcare delivery system.

Together, these two societies offer an opportunity for examining potential solutions to significant real world issues through its own expert lens. Precision medicine from ASN providers & scientists. Business & operations technologies through the practical eyes of NeuroNetPro attendees. The groups will unite for strategic keynote addresses, panel discussions & social gatherings intended to re-imagine the neurology delivery model.

We hope that both clinical & business professionals attend this important in-person meeting together. It will be a beautiful time of year in Scottsdale, AZ. Our program & venue have been created to foster important relationships, & facilitate problem solving among clinicians, scientists, businesspersons, & industry.

-Joseph V. Fritz, PhD
Program Chair

"Neuroimaging plays a critical role in shaping the future of neurology & more importantly neuroimaging makes us better neurologists"

*Marc Malkoff, MD, FAAN, FAHA, RPNI
ASN President*

"It is impossible to separate treatment breakthroughs from the precision diagnostics & practice innovations that together are required to solve the devastation & economic burdens of neurologic disorders"

*David Evans, MBA
NeuroNet Pro CEO*

JOINT PROGRAM AT-A-GLANCE

NeuroNet Business Track

ASN Neuroimaging & Clinical Innovations Track

Thursday, January 13 | 1:00 - 7:30 pm

What's Your Hassle?

*Imaging Fundamentals
Refresher*

*Fundamentals of US &
Acute Care Imaging*

*Transcranial Doppler
Case Studies*

Welcome Reception & Poster Session

Friday, January 14 | 8:00 am - 7:30 pm

Clinical Plenary 1: Headache Imaging

*HR, Legal, Compliance, &
Ethical Issues*

*MS, Cognitive,
Neurodegenerative
Disorders*

*Ultrasound
Technology*

*Lunch, Opening of The Innovations Hall, Roundtable Discussion, & Keynote
"Role of AI & Digital Medicine in the Future Practice of Neurology"
Junaid Kalia, Founder AI Neuro Care*

*Comprehensive Service
Model*

*Imaging & Digital
Medicine
- Innovations Hall*

*Ultrasound
Hot Topics*

*"Exciting Transformations in Neurologic Healthcare Delivery"
Adam Boehler, Former CMMI Director*

Townhall Reception

Saturday, January 15 | 8:00 am - 10:00 pm

Clinical Plenary 2: Stroke

*Trends in Reimbursement
& Payment Reform*

Trauma

*TCD & Critical
Care Monitoring*

*Lunch & Broadcast
"The Emerging Role of TCD as a Neuro Diagnostic Tool in Resource Limited Settings"
Nicole O'Brien, MD*

*Innovations in the Practice of
Neurology
- Innovations Hall*

*Neuroinflammation,
Neuro-oncology &
Seizure Disorders*

*Pediatric
Neuroimaging*

*"Conference Gala"
sponsored by Dent Neurologic Institute*

ANNUAL MEETING PROGRAM

NeuroNetPro Business Track

THURSDAY, JANUARY 13

WHAT'S YOUR HASSLE | SUNSET

- Meet and greet, problem framing & group catharsis
- Performance Benchmarks and Alerts
- Resources for private practice

1:00pm - 4:30pm

WELCOME RECEPTION AND MEET THE EXPERTS

5:00pm - 7:30pm

FRIDAY, JANUARY 14

HR, LEGAL, COMPLIANCE AND ETHICAL ISSUES | SUNSET

- Fostering Wellbeing & Infecting culture enthusiastic of change
- Compliance Top 10: the pains & the risks
- Ethical considerations with COVID: mandates vs personal preferences
- Managing the VIP Patient
- The Team Member Experience: Recruiting, Growing, Retaining Talent
- Incorporating Inclusion, Diversity, and Equity

9:00am - 11:30am

LUNCH, INNOVATIONS HALL, ROUNDTABLE DISCUSSION, & KEYNOTE

11:30am - 2:00pm

- Keynote Speech: "Role of AI & Digital Medicine in the Future Practice of Neurology"
-Junaid Kalia, Founder AI Neuro Care-

CREATING A COMPREHENSIVE SERVICE MODEL | SUNSET

2:00pm - 4:30pm

- Strategies for and Benefits of a comprehensive practice model
- Keys to setting up your own infusion & imaging centers
- Inventory management
- Clinical Trial Strategies in Private Practice
- Collaborating with Industry under the 2022 Guidelines

TOWN HALL RECEPTION | INNOVATIONS HALL

5:00pm - 7:30pm

- A Town Hall Discussion: "Exciting Transformations in Neurologic Healthcare Delivery"
-Adam Boehler, Former CMMI Director-

SATURDAY, JANUARY 15

TRENDS IN REIMBURSEMENT AND PAYMENT REFORM | SUNSET

9:00am - 11:30am

- Medicare changes for 2022
- Top 10 Dos and Don't of Revenue Cycle Management in a Fee for Service Environment
- The Buy-and-Bill market: keys to effective billing
- Clinical documentation and its many downstream uses
- Know thy stakeholders: what is your value proposition?
- New players in healthcare: population health collaboratives, health information exchanges, payer-provider networks, and corporations
- Why should I care about MU & Interoperability?
- Succeeding with Risk Based Payment Models
- Identifying & coordinating care for your at-risk patients

LUNCH AND BROADCAST

11:30am - 1:30pm

- Keynote Speech: "The Emerging Role of TCD as a Neuro Diagnostic Tool in Resource Limited Settings"
-Nicole O'Brien, MD-

TECHNOLOGY & AUTOMATION | INNOVATIONS HALL

1:30pm - 4:00pm

- EMR gaps and workarounds
- Intelligent Automation of Forms, Scheduling, Registration, Auths and Patient Communication
- Data integration, curation, management and decision support
- The Touchless Office
- Virtual Scribes
- Optimizing patient flow with Virtual & Digital Medicine
- Managing formulary changes and prior authorization
- Clinical Trials strategies for outpatient clinics & remote care
- Cognitive Assessment Tools: methods of reimbursement, efficient collection, accuracy, standardization

CONFERENCE GALA

7:30pm - 10:30pm

- SPONSORED BY DENT NEUROLOGIC INSTITUTE -

ASN Neuroimaging & Clinical Track Details

Thursday, January 13

Fundamentals of Ultrasound & Acute Care Imaging

1:00 - 5:00 pm | Heritage 2 | *Course Director(s)*: Ryan Hakimi, DO, MS, RPNI, NVS, CPB, FNCS, FCCM & Emma Fields, APRN-CNP

TOPICS:

- "Clinical Applications of TCD" - Ryan Hakimi, DO, MS, RPNI, NVS, CPB, FNCS, FCCM
- "Carotid US for Stroke Risk" - Mark Rubin, MD, NVS, RPNI
- "Role of Emboli Detection" - Zsolt Garami, MD
- "Imaging for Acute Stroke Treatment in the Early Time Window" - Sanjeev Sivakumar, MD
- "Imaging Based Stroke Treatment Strategies in Late Time Window" - Ashu Jadhav, MD, PhD
- "Imaging in TBI-Past, Present & Future" - Ruchira Jha, MD, MSc

Imaging Fundamentals Refresher

1:00 - 5:00 pm | Heritage 1 | *Course Director*: Jennifer McVige, MD

TOPICS:

- "What to Order When: A Case Study Approach" - Laszlo Mechtler, MD
- "Imaging is Done & A Report Provided: Now What?" - Pat Capone, MD
- "Every Neuroimagers 5 Customers" - Peter Kalina, MD, MBA
- "Integrating Images into your Follow Up Visit with the Patient" - Jennifer McVige, MD

Transcranial Doppler Case Studies

1:00 - 5:00 pm | Heritage 5 | *Course Director(s)*: Colleen Douville, RVT, NVS & Brenda Rinsky, RDMS, RVT, NVS

STRUCTURE:

- Building Interpretation Skills in an Interactive Setting

FACULTY:

- Emily Ho, MD, PhD, RPNI
- Mark Rubin, MD, RPNI, NVS
- Konrad Schlick, MD, RPNI
- Aaron Stayman, MD, RPNI

Welcome Reception & Poster Session

5:00 - 7:30 pm

ASN NEUROIMAGING & CLINICAL OVERVIEW

Friday, January 14

CLINICAL PLENARY: Headache Imaging

8:00 - 10:00 am | Orangedale 1 (B,C,D,E) | *Course Director:* Laszlo Mechtler, MD

TOPICS:

- "Biology of Headache" - Sheena Auora, MD
- "Secondary Headaches & Red Flags" - Laszlo Mechtler, MD
- "Common Neuroimaging Findings in Pediatric Headaches" - Jennifer McVige, MD

Multiple Sclerosis, Cognitive & Neurodegenerative Disorders

10:30 - 12:00 pm | Orangedale 1 (B,C,D,E)
Course Director: John Bertelson, MD, FAAN

TOPICS:

- "Imaging & other Biomarkers in MS"
- Wisam Elmalik, MD
- "Imaging in Cognitive Disorders"
- Joseph Masdeu, MD, PhD
- "Imaging Biomarkers in Movement Disorders"
- Mark Haacke, PhD

Ultrasound Technology

10:00 - 12:00 pm | Orangedale 2 (A,F)
Course Director: Mark Rubin, MD, RPNI, NVS

TOPICS:

- "21st Century TCD"
- Robert Hamilton, PhD, MS
- "Engineering Innovations in Ultrasound"
- Carl Herickhoff, PhD
& Dongwoon Hyun, PhD

LUNCH, Keynote, & Opening of The *Innovations Hall*

11:30 - 2:00 pm

Keynote - 12:30pm

"Role of AI & Digital Medicine in the Future Practice of Neurology"

Junaid Kalia, Founder AI Neuro Care

Roundtables Discussions - 1:00pm

"Therapy Pipeline, Biomarkers & Practical Issues in Precision Neurology"

Imaging & Digital Medicine

2:00- 4:30 pm | In the Innovations Hall
Course Director: Nandor Pinter, MD

TOPICS:

- Session 1: New Imaging Technology
- Session 2: Biomarkers & Digital Medicine in Neurology

Ultrasound Hot Topics

2:00 - 5:00 pm | Orangedale 2 (A,F)
Course Director: Mark Rubin, MD, RPNI, NVS

TOPICS:

- "Sonolysis"
- Andrei Alexandrov, MD, RVT, NVS
- "Right Heart Monitoring During TCD Bubble Studies"
- Mark Rubin, MD, NVS, RPNI
- "Intraoperative Monitoring with TCD"
- Zsolt Garami, MD
- "Alphabet Soup of Credentialing"
- JP Hughes, RVT, RVS, NVS

"Exciting Transformations in Neurologic Healthcare Delivery"

Adam Boehler, Former CMMI Director"

5:00 - 5:30 pm | Innovations Hall

*Ultrasound Hands-on Training Sessions | 11:30am-5:30pm

ASN NEUROIMAGING & CLINICAL OVERVIEW

Saturday, January 15

Stroke

8:00 - 10:00 am | Orangedale 1 (B,C,D,E) *Course Director:* Adnan Siddiqui, MD, PhD, FAHA

TOPICS:

- "Uses of Ultrasound in Stroke Prevention" - J. David Spence, CM, MD, FRCPC, FAHA
- "Vessel Wall & Collateral Flow Imaging" - Nandor Pinter, MD & Rick Magun, MD, MSc
- "Imaging Innovations in Vascular Neurosurgery" - Adnan Siddiqui, MD, PhD, FAHA

Trauma

10:30 - 12:30 pm | Orangedale 1 (B,C,D,E)

Course Director: Jennifer McVige, MD

TOPICS:

- "Pediatric Abusive Head Trauma"
- Peter Kalina, MD, MBA
- "Using Lesions to Map Brain Network"
- Michael Fox, MD, PhD
- "Imaging of Disorder of Consciousness"
- Brian Edlow, MD
- "Advanced MRI in Severe TBI"
- Peter Ferrazzano, MD

TCD & Critical Care Monitoring

10:30- 12:30 pm | Orangedale 2 (A,F)

Course Director: Mark Rubin, MD, RPNI, NVS

TOPICS:

- "TCD - A Stethoscope for the Brain"
- Marek Czosnyka, PhD
- "Multimodal Neuro Monitoring"
- Brian Appavu, MD
& Matthew Kirschen, MD, PhD
- "TCD Monitoring after Thrombectomy"
- Claudio Baracchini, MD, PhD, FESO

LUNCH in the *Innovations Hall*

11:30- 2:00 pm

Broadcast - 12:30pm

"The Emerging Role of TCD as a Neurodiagnostic Tool in Resource Limited Settings"

- Nicole O'Brien, MD

Neuroinflammation, Neuro-oncology & Seizure Disorders

2:00 - 4:00 pm | Orangedale 1 (B,C,D,E)

Course Director: Laszlo Mechtler, MD

TOPICS:

- "Imaging of Neuro-Inflammatory & Neuro-Rheumatologic Diseases"
- Shamik Bhattacharyya, MD, MS
- "Tumor or Trouble? Integrating Contrast Clearance Analysis in Brain Radiosurgery"
- Dheerendra Prasad
- "Imaging of Focal Seizure Disorders"
- Robert Miletich, MD, PhD, FAAAS

Pediatric Neuroimaging

2:00 - 5:00 pm | Orangedale 2 (A,F)

Course Director: Kerri LaRovere, MD

TOPICS:

- "TCD for Sickle Cell Anemia"
- Robert Adams, MD
- "Pediatric & Adult POCUS"
- Marinna Mir, MD
& Aarti Sarwal, MD, FNCS, FAAN, RPNI
- "Pediatric Echoencephalography"
- Paul Maertens, MD

"Conference Gala"

Sponsored by Dent Neurological Institute

7:30 - 10:30 pm

KEYNOTE DETAILS

Friday, January 14

"Role of AI & Digital Medicine in the Future Practice of Neurology"

12:30 - 1:30 pm | *Innovations Hall*

Course Director:

Junaid Kalia, MD
Founder of AI Neuro Care

Panel Discussion Moderated by:

David Evans, MBA
CEO, Texas Neurology

Overview:

This joint session will demonstrate ways to create efficient workflows, reduce healthcare costs, improve data, and most importantly, better serve, diagnose and treat our patient populations with the use of technology. Dr. Junaid Kalia, Founder of AI Neuro Care, will share insights and benefits of incorporating AI and digital medicine in everyday patient care.

Our panelists representing clinical neurology, neuroimaging, pharmaceutical developers, and business perspectives will then join Dr. Kalia to discuss the implementation of informatics in the practice of neurology.

Town Hall Reception: "Exciting Transformations in Neurologic Healthcare Delivery"

5:00 - 7:30 pm | *Heritage Ballroom & Courtyard*

Adam Boehler
Former Center for Medicare & Medicaid Innovations (CMMI) Director

Overview:

This special fireside chat with former CMS Innovations Program Director, Adam Boehler will review the current state of healthcare economics in the United States and discuss why urgent change is needed in the delivery model. The role of, and benefits for, neurologists and neuroimagers will be emphasized as he outlines exciting opportunities for transformation.

Saturday, January 15

The Emerging Role of TCD as a Neurodiagnostic Tool in Resource Limited Settings

11:30 - 1:30 pm | *Innovations Hall*

Course Director:

Nicole O'Brien, MD
Nationwide Children's Hospital

Moderator:

Kerri LaRovere, MD
Boston Children's Hospital

Overview:

Nicole O'Brien is an Associate Professor in the Division of Critical Care Medicine and the Director of Pediatric Neurocritical Care at Nationwide Children's Hospital in Columbus, Ohio. She has been using Transcranial doppler ultrasound in clinical care and research since 2009 in both the USA as well as in several NIH funded projects in sub-Saharan Africa.

REFRESHER COURSE DETAILS

Thursday, January 13

Imaging Fundamentals Refresher

1:00 - 5:00 pm | Heritage 1

Course Director:

Jennifer McVige, MD
DENT Neurologic Institute

Course Description:

This session is intended to help providers use imaging more proficiently in their everyday neurology practice. As the primary diagnostic tool used in neurology, is critical that neurologists, APPs, and residents learn and remain current with regular technological advances and guidelines for neuroimaging. This is especially true in an era of explosive growth in the pipeline of sophisticated therapies that require for precision diagnostics, as well as safety and effectiveness monitoring. The course will be taught by neurologists with expertise in imaging, who will share practical insights on appropriate ordering and justification, clinical details that determine imaging protocols, reviewing images to gain greater insight and reassurance into your patient's disorder than a radiology report by itself, and offer tips on how to use images to communication with your patient.

Course Objectives:

- a) Apply knowledge of neuroimaging to formulate a focused differential diagnosis
- b) Describe the role of neuroimaging in the training and practice of Neurology
- c) Ordering the proper imaging study based on clinical findings
- d) Reviewing images and reports for the purpose of confirming clinical suspicions
- e) Ensuring a practice based imaging operation meets service standards
- f) How to use images to discuss imaging and clinical findings with patients
- g) List some examples of how neurologists can enhance their patients' outcomes by neuroimaging
- h) Recognize how neuroimaging training is key to the future of Neuroimaging
- i) Evaluate Neuroimaging findings
- j) Apply knowledge of neuroanatomy to formulate a focused differential diagnosis

Individual Speaker Schedule:

1:00 - 1:45 pm **What to Order When: A Case Study Approach** - Laszlo Mechtler, MD

1:45 - 2:30 pm **Imaging is Done, & A Report Provided: Now What?** - Pat Capone, MD

2:30 - 2:45 pm **BREAK**

2:45 - 3:30 pm **Don't Miss These Findings at the Edges of Your Images** - Peter Kalina, MD, MBA

3:30 - 4:15 pm **Integrating Images into your Follow Up Visit with the Patient** - Jennifer McVige, MD

Thursday, January 13

Fundamentals of Ultrasound & Acute Care Imaging

1:00 - 5:00 pm | Heritage 2

Course Director(s):

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

USC School of Medicine-Greenville

Course Director(s):

Emmaculate Fields, APRN-CNP

University Of Oklahoma Health Services center

Course Description:

This course is intended for trainees, advanced practice providers, general neurologists & new learners in the neurosciences. It will highlight the use of various neuroimaging modalities; including TCD, carotid ultrasound, CT, CT angiography, CT perfusion, MRI, conventional cerebral angiography, & functional neuroimaging modalities in helping guide the evaluation & management of patients with neurological injuries.

Course Objectives:

- a) Describe common clinical applications of transcranial Doppler ultrasound (TCD)
- b) Illustrate the use of carotid ultrasound in stroke risk assessment
- c) Demonstrate the use of TCD emboli detection studies in stroke risk factor modification
- d) Review the use of CT, CTA, CT perfusion, MRI brain in the acute phase of stroke assessments
- e) Review the various imaging modalities utilized in the care of patients with traumatic brain injury

Individual Speaker Schedule:

1:00 - 1:30 pm Clinical Applications of TCD - Ryan Hakimi, DO, MS, RPNI, NVS, CPB, FNCS, FCCM

1:30 - 2:00 pm Carotid Ultrasound for Stroke Risk Assessment - Mark Rubin, MD, NVS, RPNI

2:00 - 2:15 pm BREAK

2:15 - 2:45 pm The Role of Emboli Detection in Stroke Risk Factor Modification - Zsolt Garami, MD

2:45 - 3:15 pm Imaging for Acute Stroke Treatment in the Early Window - Sanjeev Sivakumar, MD

3:15 - 4:00 pm Imaging Based Stroke Treatment Strategies in the Late Time Window
- Ashutosh P. Jadhav, MD, PhD

4:00 - 4:45 pm Imaging in TBI-Past, Present, & Future - Ruchira Jha, MD, MSc

List all modalities addressed within this session:

TCD, Carotid US, CT, CTA, CT perfusion, MRI, MR perfusion, conventional cerebral angiography, functional neuroimaging

** This session counts towards Ultrasound Maintenance of Certification requirement*

Transcranial Doppler Case Studies:

"Building Interpretation Skills in an Interactive Setting"

1:00 - 5:00 pm | Heritage 5

Course Director(s):

Brenda Rinsky, RDMS, RVT, NVS
Cedars-Sinai Medical Center

Course Director(s):

Colleen Douville, RVT, NVS
Swedish Neuroscience Institute

Course Description:

The spectral Doppler waveform generated by transcranial Doppler (TCD) technology exquisitely defines the movement of red blood cells through vascular spaces.

The goal of this seminar is to acquire the skills essential for interpretation of TCD findings. TCD case studies will be presented by expert faculty who utilize this technology in their hospital practice & outpatient settings.

Following each case presentation there will be opportunities for questions, dialogue, & polling to test your understanding.

Cerebrovascular applications covered include the usefulness of TCD in acute & chronic stroke, competency of collateral flow, vasospasm secondary to subarachnoid hemorrhage, emboli monitoring, detection and grading of right to left cardiac shunts (PFO), vasomotor reactivity, cerebral circulatory arrest, & intraoperative applications for carotid procedures.

These case studies may be used to help satisfy the 100 supervised studies required to take the ASN RPNI exam.

Individual Speaker(s):

Emily Ho, MD, PhD, RPNI
Swedish Neuroscience Institute

Mark Rubin, MD, RPNI, NVS
Univ. Tennessee Health Science Center

Konrad Schlick, MD, RPNI
Cedars-Sinai Medical Center

Aaron Stayman, MD, RPNI
Swedish Neuroscience Institute

*** This session counts towards Ultrasound Maintenance of Certification requirement**

ASN COURSE DETAILS

Friday, January 14

Clinical Plenary: Headache Imaging

8:00 - 10:00 am | Orangedale 1 (B,C,D,E)

Course Director:

Laszlo Mechtler, MD

DENT Neurologic Institute

Individual Speaker Schedule:

8:00 - 8:40 am Biology of Headache - Sheena Aurora, MD

8:40 - 9:20 am Secondary Headaches & Red Flags - Laszlo Mechtler, MD

9:20 - 10:00 am Pediatric Headache - Jennifer McVige, MD

Ultrasound Technology

** This session counts towards Ultrasound Maintenance of Certification requirement*

10:00 - 12:00 pm | Orangedale 2 (A,F)

Course Director:

Mark Rubin, MD, RPNl, NVS

Univ. Tennessee Health Science Center

Individual Speaker Schedule:

10:00 - 10:45 am 21st Century TCD - Robert Hamilton, PhD, MS

10:45 - 12:00 pm Engineering Innovations in Ultrasound - Carl Herickhoff, PhD & Yongwoon Hyun, PhD

Multiple Sclerosis, Cognitive Disorders & Neurodegenerative Diseases

10:30 - 12:00 pm | Orangedale 1 (B,C,D,E)

Course Director:

John Bertelson, MD, FAAN

UT Health Austin

Individual Speaker Schedule:

10:30 - 11:00 am Imaging & other Biomarkers in MS - Wisam Elmalik, MD

11:00 - 11:30 pm Imaging in Cognitive Disorders - Joseph Masdeu, MD, PhD

11:30 - 12:00 pm Imaging Biomarkers in Movement Disorders - Mark Haacke, PhD

BUSINESS TRACK DETAILS

HR, Legal, Compliance & Ethical Issues

9:00 - 11:30 am | Sunset

Course Director:

Lee Williams, Esq. General Counsel

Director of Business Development Dent Neurologic Institute

Overview:

This all-encompassing session will dive into hot topics on the HR, legal and compliance front. Learn how to create a culture that embraces and adapts to change, how to incorporate inclusion, diversity, and equity, and best practices for recruiting, growing and retaining talent within your organization. This session will also provide solutions and insights for mitigating risk within your organization.

Course Objectives:

- a) Fostering wellbeing & creating a culture that is enthusiastic about change
- b) Compliance Top 10: Pains & Risks
- c) Ethical considerations with COVID: Mandates vs. personal preferences
- d) Managing VIP patient
- e) The Team Member Experience: Recruiting, growing, retaining talent
- f) Incorporating inclusion, diversity & equity

Creating a Comprehensive Service Model

2:00 - 4:30 pm | Sunset

Course Director:

Leeann Garms, MBA

CEO Raleigh Neurology

Overview:

Discover ways to transform your practice model and optimize your financial and operating potential. Outpatient practices can bridge the gap with comprehensive service models that support cost-effective, high-quality patient care. Our experts will share best practices for setting up and managing your own infusion and/or imaging center, integrating inventory management solutions into your practice, and incorporating clinical trials into your organization.

Course Objectives:

- a) Strategies for & benefits of a comprehensive practice model
- b) Keys to setting up your own infusion & imaging center
- c) Inventory management
- d) Clinical Trial Strategies in private practice
- e) Collaborating with industry under 2022 guidelines

Friday, January 14

Ultrasound Hot Topics

2:00 - 5:00 pm | Orangedale 2 (A,F)

** This session counts towards Ultrasound Maintenance of Certification requirement*

Course Director:

Mark Rubin, MD, RPNI, NVS
Univ. Tennessee Health Science Center

Individual Speaker Schedule:

2:00 - 2:40 pm	Sonolysis - Andrei Alexandrov, MD, RVT, NVS
2:40 - 3:20 pm	Right Heart Monitoring During TCD Bubble Studies - Mark Rubin, MD, NVS, RPNI
3:20 - 3:40 pm	BREAK
3:40 - 4:20 pm	Intraoperative Monitoring with TCD - Zsolt Garami, MD
4:20 - 5:00pm	Alphabet Soup of Credentialing - JP Hughes, RVT, RVS, NVS

Imaging & Digital Medicine

2:00- 4:30 pm | Innovations Hall

Course Director:

Nandor Pinter, MD
Univ. at Buffalo, Jacobs School of Medicine & Biomedical Sciences

TOPICS:

Session 1: New Imaging Technology
Session 2: Biomarkers & Digital Medicine in Neurology

Saturday, January 15

Stroke

8:00 - 10:00 am | Orangedale 1 (B,C,D,E)

** This session counts towards Ultrasound Maintenance of Certification requirement*

Course Director:

Adnan Siddiqui, MD, PhD, FAHA
Univ. at Buffalo, Jacobs School of Medicine & Biomedical Sciences

Individual Speaker Schedule:

8:00 - 8:40 am	Uses of Ultrasound in Stroke Prevention - J. David Spence, CM, MD, FRCPC, FAHA
8:40 - 9:20 am	Vessel Wall & Collateral Flow Imaging - Nandor Pinter, MD & Rick Magun, MD, MSc
9:20 - 10:00 am	Imaging Innovations in Vascular Neurosurgery - Adnan Siddiqui, MD, PhD, FAHA

Trauma

10:30 - 12:30 pm | Orangedale 1 (B,C,D,E)

Course Director:

Jennifer McVige, MD
DENT Neurologic Institute

Individual Speaker Schedule:

10:30 - 11:00 am	Pediatric Abusive Head Trauma - Peter Kalina, MD, MBA, FACR
11:00 - 11:30am	Using Lesions to Map Brain Networks - Michael Fox, MD, PhD
11:30 - 12:00 pm	Imaging of Disorder of Consciousness - Brian Edlow, MD
12:00 - 12:30 pm	Advanced MRI in Severe TBI - Peter Ferrazzano, MD

TCD & Critical Care Monitoring

**This session counts towards Ultrasound Maintenance of Certification requirement*

10:30 - 12:30 pm | Orangedale 2 (A,F)

Course Director:

Mark Rubin, MD, RPNI, NVS
Univ. Tennessee Health Science Center

Individual Speaker Schedule:

- | | |
|------------------|--|
| 10:30 - 11:10 am | TCD - A Stethoscope for the Brain - Marek Czosnyka, PhD |
| 11:10 - 11:50 am | Multimodal Neuro Monitoring - Brian Appavu, MD & Matthew Kirschen, MD, PhD |
| 11:50 - 12:30 pm | TCD Monitoring after Thrombectomy - Claudio Baracchini, MD, PhD, FESO |

Neuroinflammation, Neuro-oncology, & Seizure Disorders

2:00 - 4:00 pm | Orangedale 1 (B,C,D,E)

Course Director:

Laszlo Mechtler, MD
DENT Neurologic Institute

Individual Speaker Schedule:

- | | |
|----------------|--|
| 2:00 - 2:40 pm | Imaging in Neuro-inflammatory & Neuro-rheumatologic Diseases
- Shamik Bhattacharyya, MD, MS |
| 2:40 - 3:20 pm | Tumor or Trouble? Integrating Contrast Clearance Analysis in Brain Radiosurgery
- Dheerendra Prasad |
| 3:20 - 4:00 pm | Imaging of Focal Seizure Disorders - Robert Miletich, MD, PhD, FAAAS |

Pediatric Neuroimaging

**This session counts towards Ultrasound Maintenance of Certification requirement*

2:00 - 5:00 pm | Orangedale 2 (A,F)

Course Director:

Kerri LaRovere, MD
Boston Children's Hospital

Individual Speaker Schedule:

- | | |
|----------------|---|
| 2:00 - 2:45 pm | TCD for Sickle Cell Anemia - Robert Adams, MD |
| 2:45 - 3:30 pm | Pediatric Application POCUS - Marina Mir, MD |
| 3:30 - 4:15 pm | Adult POCUS - Aarti Sarwal, MD, FNCS, FAAN, RPNI |
| 4:15 - 5:00 pm | Pediatric Echoencephalography - Paul Maertens, MD |

BUSINESS TRACK DETAILS

Thursday, January 13

What's Your Hassle?

1:00 - 4:30 pm | Sunset

Course Director:

Christine Mann, MBA

COO, Dent Neurologic Institute

Overview:

Neurology practice leaders will address everyday hassle factors that impact the sustainability of the outpatient sector. Come prepared to share your hassles and frame the issues that will be addressed throughout the conference, including revenue cycle management, employee retention and recruiting, compliance, and process improvement.

Objectives:

- a) Problem framing & group catharsis
- b) Performance benchmarks
- c) Resources for private practice

Friday, January 14

HR, Legal, Compliance & Ethical Issues

9:00 - 11:30 am | Sunset

Course Director:

Lee Williams, Esq. General Counsel

Director of Business Development Dent Neurologic Institute

Overview:

This all-encompassing session will dive into hot topics on the HR, legal and compliance front. Learn how to create a culture that embraces and adapts to change, how to incorporate inclusion, diversity, and equity, and best practices for recruiting, growing and retaining talent within your organization. This session will also provide solutions and insights for mitigating risk within your organization.

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- f) Incorporating inclusion, diversity & equity

Friday, January 14

Creating a Comprehensive Service Model

2:00 - 4:30 pm | Sunset

Course Director:

Leeann Garms, MBA
CEO Raleigh Neurology

Overview:

Discover ways to transform your practice model and optimize your financial and operating potential. Outpatient practices can bridge the gap with comprehensive service models that support cost-effective, high-quality patient care. Our experts will share best practices for setting up and managing your own infusion and/or imaging center, integrating inventory management solutions into your practice, and incorporating clinical trials into your organization.

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- a) Strategies for & benefits of a comprehensive practice model
- b) Keys to setting up your own infusion & imaging center
- c) Inventory management
- d) Clinical Trial Strategies in private practice
- e) Collaborating with industry under 2022 guidelines

Saturday, January 15

Trends in Reimbursement and Payment Reform

9:00 - 11:30 am | Sunset

Course Director:

Joseph Fritz, PhD
CEO Dent Neurologic Institute

Expert Panel:

Thomas Schenk, MD, Executive Director Population Health, Former CMO Blue Cross
Dan Porecca, MBA, Executive Director, Health-e-Link Health Information Exchange
Ron Howrigan, MBA, Owner, Fulcrum Technologies Managed Care Consulting and Strategic Planning
Jonathan Feldstein, MD, Rubicon Founders
Rob Fraser, PhD, Molecular You – leveraging technology in preventative care models
David Evans, MBA, Neurology Practice Consortium of Outpatient Neurology Group Practices

Overview:

This session will bring experts in payment negotiation, strategic planning, payment reform and representatives from successful outpatient neurology group practices to discuss strategies for improving revenue cycle management and transforming to the new world of value based payment models.

Course Objectives:

- a) Medicare changes for 2022
- b) Keys to effective billing & revenue cycle management
- c) Transitioning Neurology to risk based payment models

Saturday, January 15

"Innovations in the Practice of Neurology"

1:30 - 4:30 pm | *Innovations Hall*

Course Director:

Shawn Ferger

Business Development, Dent Neurologic Institute

Overview:

This interactive session allows attendees to collaborate and network with sponsors and peers. Hear from experts that have developed and used technology to address common problems in workflow, revenue cycle management, patient communication, remote patient monitoring and information technology.

Course Objectives:

- a) EMR gaps
- b) Intelligent automation forms, scheduling, registration, authorization & patient communication
- c) Data integration, curation, management and decision support
- d) The Touchless Office
- e) Virtual scribes
- f) Optimizing patient flow with Virtual and Digital Medicine
- g) Clinical Trials strategies for outpatient clinics and remote care
- h) Cognitive Assessment Tools

ABSTRACT INDEX

POSTER SESSION

Thursday, January 14th, 2022

5:00 - 7:00pm | Heritage Rooms 3 & 4

P1: Brain abscess appearing twenty years post craniotomy

Rebecca John, Vijay Palakuzhy, Chris Ralyea, Laszlo Mechtler
Dent Neurologic Institute, Buffalo, USA

P2: Clinical Characteristics of Patients with Acute Ischemic Stroke including neurosonology lab

Jun Hong Lee
Department of Neurology, National Health Insurance Service Ilsan Hospital, Goyang-si, Korea, Republic of

P3: Postoperative Diffusion Restriction in the Proximal Optic Nerve: Optic Neuropathy or Central Retinal Artery Occlusion?

Parth P Parikh¹, Oana M Dumitrascu²
¹Mayo Clinic Alix School of Medicine, Scottsdale, Arizona, USA. ²Mayo Clinic Arizona, Phoenix, AZ, USA

P4: Magnetic resonance imaging as a prognostic disability marker in clinically isolated syndrome: A systematic review

Amjad Ibrahim Altokhis^{1,2}, Abrar Omran Alamrani³, Abdulmajeed Alotaibi^{1,4}, Anna Podlasek¹, Cris Constantinescu¹
¹University of Nottingham, Nottingham, United Kingdom. ²Princess Nourah bint Abdulrahman University, Riyadh, Saudi Arabia. ³York University, Toronto, Canada. ⁴King Saud bin Abdulaziz University, Riyadh, Saudi Arabia

P5: Neuroaspergillosis in a patient with chronic lymphocytic leukemia as progressively worsening ischemic infarct

Gull Zareen Khan Sial, John M. Hourihane
University at Buffalo, Buffalo, USA

P6: Bilateral Internuclear Ophthalmoplegia Caused by Unilateral Infarction

Yathish Haralur Sreekantaiah, Srimadhav Nallani Chakravartula
Mississippi Baptist Medical Center, Jackson, USA

P8: Neuroimaging in Mitochondrial Short-Chain Enoyl-coa Hydratase 1 Deficiency: A Progressive Encephalomyelopathy Starting in Utero

Paul Maertens, Asri Yuliaty
University of South Alabama, Mobile, USA

P9: Childhood-Onset Neurodegeneration with Brain Atrophy (CONDBA): Imaging Findings of a Rare Diagnosis

Osman Corbali, Laszlo Mechtler
Dent Neurologic Institute, Buffalo, USA

P10: Multiple Sclerosis Associated with Balo-like Lesions Post-COVID-19

Rana Zabad^{1,2}, Kathleen Healey^{3,2}, Angela French², Afsaneh Shirani^{1,2}
¹University of Nebraska Medical Center, Omaha, USA. ²Nebraska Medicine, Omaha, USA. ³University of Nebraska Medical Center, Omaha, USA

P11: Within-subject reproducibility of quantitative proton density mapping

Karthik R Sreenivasan, Dietmar Cordes, Virendra R Mishra, Le H Hua
Cleveland Clinic Lou Ruvo Center for Brain Health, Las Vegas, USA

P12: Acute Ischemic Stroke Management with Outcome Variations In COVID-19 Related Hypercoagulable State

Zunir T Chaudhry, Avi Landman, Jorge Morales, Rupin Singh, Muhammad-Atif Zubairi
University of Central Florida, Orlando, USA

P13: Disseminated Invasive Aspergillosis in a Patient with Neurosarcoidosis: Persistent Contrast Enhancement Despite Prolonged Antifungal Treatment

Lakshman Arcot, Afsaneh Shirani, Mark Keiper, Kelly Cawcutt, Rana K. Zabad
University Of Nebraska Medical Center, Omaha, USA

P14: Hemispherectomy Resulting in Intracranial Double-Pulse Phenomenon as Captured on TCD

Olivia G Mattner¹, Donna Serna, RVT², Ryan Hakimi, DO, MS, NVS, RPNI, CPB, FNCS, FCCM^{3,4}
¹Edward Via College of Osteopathic Medicine, Spartanburg, USA. ²Prisma Health-Upstate Vascular Laboratory, Greenville, USA. ³Prisma Health-Upstate, Greenville, USA. ⁴USC School of Medicine-Greenville, Greenville, USA

ABSTRACT INDEX

P15: Positional headache and spinal cord compression in Klippel-Feil Syndrome

Sehar Babar^{1,2}, Nishath Naseem^{3,2}, Adnan Iqbal Qureshi^{4,2}

¹University of Tennessee Health Science Center, Memphis, USA. ²University of Illinois and Mercyhealth, Rockford, USA. ³Stanley Appel Institute of Neurological Sciences, Houston Methodist Hospital, Houston, USA. ⁴University of Missouri, Columbia, USA

P16: A Mysterious Case of Cavernous Malformation Requiring Exploratory Surgical Intervention: A Case Report

Khadija Awais

University of Tennessee, Memphis, USA

P17: Cavernous Malformations: A Mini-Case-Series on Diagnosis and Management

Khadija Awais

University of Tennessee, Memphis, USA

P18: Prevalence of asymptomatic internal jugular venous stenosis/occlusion in the analysis of 165 cerebral angiograms

2022 Qureshi Award Recipient

Sehar Babar^{1,2}, Ahmer Asif^{3,2}, Fawad Ishfaq^{2,1}, Iqra Akhtar², Adnan Iqbal Qureshi²

¹University of Tennessee Health Science Center, Memphis, USA. ²University of Missouri, Columbia, USA. ³University of Oklahoma Health Sciences Center, Oklahoma City, USA

P19: Stenosis of Azygos ACA Results in Bilateral ACA Infarcts

Diana C Yang, Brian B Miremadi, Anton Mlikotic, Kassi J Kronfeld

Harbor-UCLA Medical Center, Torrance, USA

P22: Coronavirus Vaccine and Cerebral Vasculitis: Case & Imaging Review with Discussion of Potential Pathophysiology

Adam Khan Durrani^{1,2}, Anne VanHeel², Qasim Durrani², Sunil Mutgi²

¹Royal College of Surgeons, Al Sayh Muharrag Governorate, Bahrain. ²Sanford Health System, Fargo, USA

P23: Cerebral Venous Sinus thrombosis masquerading as Acute Arterial Ischemic Stroke

Muhammad Ubaid Hafeez¹, Komal Hafeez¹, Syeda Qasim², Ravi Shastri¹

¹Baylor College of Medicine, Houston, USA. ²RWJ Barnabas Health, Livingston, USA

P24: White Matter Alterations in Diabetes: UK Biobank Study of Neurite Orientation Dispersion and Density Imaging.

Abdulmajeed M Alotaibi^{1,2}, Rob Dineen², Sieun Lee³, Cris Constantinescu⁴

¹King Saud bin Abdulaziz University for Health Sciences, Riyadh, Saudi Arabia. ²University of Nottingham, Nottingham, United Kingdom. ³University of Nottingham, Nottingham, United Kingdom. ⁴Cooper University Hospital, Camden, USA

P25: Repetitive Head Impact (RHI) Induced Topological Reorganization of Diffusion MRI Derived Structural Connectome

Virendra R Mishra¹, Aaron Ritter¹, Charles Bernick^{2,1}

¹Cleveland Clinic Lou Ruvo Center for Brain Health, Las Vegas, USA. ²University of Washington Seattle, Seattle, USA

P26: Effect of Somatosensory and Active Motor Stimulation on Cerebral Blood Flow Response

Benjamin Hage¹, Dominique James², Steven Barlow¹, Greg Bashford¹

¹University of Nebraska-Lincoln, Lincoln, NE, USA. ²University of Texas at Dallas, Dallas, TX, USA

P27: The Prevalence of Right-to-Left Cardiac Shunt in Mechanical Embolectomy Cases

Thomas Alexander, Amanda Holcomb, Lisa Hutchinson, Allison Hennigan, Kyna Schreiber, Paul Kowalski, George Plotkin

UTHET, Tyler, USA

P28: A Deep Learning Model for Grading Right-To-Left Shunts Developed with Synthetic Data

Corey M. Thibeault, Aly Ung, Alex Zhao, Amber Y. Dorn, David Dayanim, Shankar Radhakrishnan, Robert B. Hamilton

NovaSignal Corporation, Los Angeles, USA

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P29: Choroid Plexus Papilloma in an Adult Female

Laszlo Mechtler, MD, FAAN, FASN, FAHS, FEAN (Dent Neurologic Institute, Roswell Park Comprehensive Cancer Center)
Robert Fenstermaker, MD, FACS, FAANS (Roswell Park Comprehensive Cancer Center)
Vincent Bargnes III (Dent Neurologic Institute)
Said Shukri, MBA (Dent Neurologic Institute)

P30: Sex, resting state functional connectivity fMRI and cognition in late middle age

**2022 Oldendorf Award Recipient*

Mouna Tahmil¹, Brady Rippon², Priya Palta^{1,3}, Luisa Soto¹, Fernando Ceballos¹, Michelle Pardo¹, Greysi Sherwood¹, Gabriela Hernandez¹, Amirreza Sedaghat⁴, Soroush Arabshahi⁴, Krystal K Laing⁵, Jeanne Teresi⁶, Adam M Brickman^{5,7}, Qolamreza Razlighi⁸, José A Luchsinger^{1,3}
¹Department of Medicine, Columbia University Irving Medical Center, New York, USA. ²Weill Cornell Medicine Biostatistics and Epidemiology, New York, USA. ³Department of Epidemiology, Columbia University Irving Medical Center, New York, USA. ⁴Department of Biomedical Engineering, Columbia University, New York, USA. ⁵Taub Institute for Research on Alzheimer's Disease and the Aging Brain, Columbia University Irving Medical Center, New York, USA. ⁶Research Division, Hebrew Home in Riverdale, New York, USA. ⁷Department of Neurology, Columbia University Irving Medical Center, New York, USA. ⁸Department of Radiology, Weill Cornell Medicine, New York, USA

P31: Rimegepant Preference and Improved Clinical Global Impression of Change Among Adults With Triptan Treatment Failure

Ira M. Turner¹, William T. Seidel², Jelena M. Pavlovic^{3,4}, Richard B. Lipton^{3,4}, Christopher M. Jensen², Alexandra Thiry², Meghan Lovegren², Charles M. Conway², Vladimir Coric², Robert Croop²
¹Island Neurological Associates, Plainview, USA. ²Biohaven Pharmaceuticals, New Haven, USA. ³Einstein College of Medicine, Bronx, USA. ⁴Montefiore Headache Center, Bronx, USA

P32: Long-term Rimegepant for the Acute Treatment of Migraine Reduces Use of Analgesics and Antiemetics

David Kudrow¹, William T. Seidel², Kate Mullin³, Gary Berman⁴, Richard B. Lipton^{5,6}, Alexandra Thiry², Robert Croop², Meghan Lovegren², Vladimir Coric², Christopher M. Jensen²
¹California Medical Clinic for Headache, Santa Monica, USA. ²Biohaven Pharmaceuticals, New Haven, USA. ³New England Institute for Neurology & Headache, Stamford, USA. ⁴Clinical Research Institute, Minneapolis, USA. ⁵Albert Einstein College of Medicine, Bronx, USA. ⁶Montefiore Headache Center, Bronx, USA

P33: Rimegepant for the Acute Treatment of Migraine With and Without a History of Triptan Failure

Christopher M. Jensen¹, William T. Seidel¹, Richard B. Lipton^{2,3}, Andrew Blumenfeld⁴, Robert Croop¹, Alexandra Thiry¹, Gilbert L'Italien¹, Beth A. Morris¹, Vladimir Coric¹, Peter J. Goadsby^{5,6}
¹Biohaven Pharmaceuticals, New Haven, USA. ²Albert Einstein College of Medicine, Bronx, USA. ³Montefiore Headache Center, Bronx, USA. ⁴Headache Center of Southern California, Carlsbad, USA. ⁵NIHR-Wellcome Trust King's Clinical Research Facility, King's College Hospital/SLaM Biomedical Research Centre, King's College London, United Kingdom. ⁶University of California, Los Angeles, USA

P34: Phase 2/3, Randomized, Double-blind, Placebo-controlled Study Evaluating Rimegepant for the Preventive Treatment of Migraine

Robert Croop¹, William T. Seidel¹, Richard B. Lipton^{2,3}, David Kudrow⁴, David A. Stock¹, Lisa Kamen¹, Charles M. Conway¹, Elyse G. Stock¹, Vladimir Coric¹, Peter J. Goadsby^{5,6}
¹Biohaven Pharmaceuticals, New Haven, USA. ²Albert Einstein College of Medicine, Bronx, USA. ³Montefiore Headache Center, Bronx, USA. ⁴California Medical Clinic for Headache, Santa Monica, USA. ⁵King's College Hospital/SLaM Biomedical Research Centre, King's College London, United Kingdom. ⁶University of California, Los Angeles, USA

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P35: Iron Rims as an Imaging Biomarker in MS: A Systematic Mapping Review

Amjad Ibrahim Altokhis^{1,2}, Abdulmajeed Alotaibi^{1,3}, Chadah Felmban³, Cris Constantinescu¹, Nikos Evangelou¹

¹University of Nottingham, Nottingham, United Kingdom. ²Princess Nourah bint Abdulrahman, Riyadh, Saudi Arabia. ³King Saud bin Abdulaziz University, Riyadh, Saudi Arabia

P36: Susceptibility Weighted Imaging is Useful in Improving the Accuracy of DSC-MRI Parameters in Low-Grade Glioma

Amjad Ibrahim Altokhis^{1,2,3}, Marco Borri³, Thomas Booth³

¹University of Nottingham, Nottingham, United Kingdom. ²Princess Nourah bint Abdulrahman University, Riyadh, Saudi Arabia. ³King's College London, London, United Kingdom

P37: Transcranial Doppler Ultrasound Significantly Improves Identification of Acute Phase Large Vessel Occlusions

**2022 McKinney Award Recipient*

Corey M. Thibeault, Amber Y. Dorn, Shankar Radhakrishnan, Robert B. Hamilton
NovaSignal Corporation, Los Angeles, USA

P38: Lhermitte Duclos Disease Diagnosed with Multi-Modal MRI techniques in a patient with complex symptomatology

**2022 Resident Travel Award Recipient*

Shahhan Spall, Chris Ralyea, Laszlo Mechtler
Dent Neurological Institute, Buffalo, New York, USA

P39: If There is Air in the Thecal Sac, Think Gl Tract

Brittany M. Kasturiarachi, DO¹, Rashi Krishnan, MD^{1,2}, Barrett Schwartz, MD², Jock Lillard, MD², William Mangham, MD², Khalid Alsherbini, MD^{1,3}

¹University of Tennessee Health Sciences Center Department of Neurology, Memphis TN, USA;
²University of Tennessee Health Sciences Center Department of Neurosurgery, Memphis TN, USA;
³Methodist University Hospital, Memphis, TN, 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.

Sex, resting state functional connectivity fMRI and cognition in late middle age

Mouna Tahmi¹, Brady Rippon², Priya Palta^{1,3}, Luisa Soto¹, Fernando Ceballos¹, Michelle Pardo¹, Greysi Sherwood¹, Gabriela Hernandez¹, Amirreza Sedaghat⁴, Soroush Arabshahi⁴, Krystal K Laing⁵, Jeanne Teresi⁶, Adam M Brickman^{5,7}, Qolamreza Razlighi⁸, José A Luchsinger^{1,3}

¹Department of Medicine, Columbia University Irving Medical Center, New York, USA. ²Weill Cornell Medicine Biostatistics and Epidemiology, New York, USA. ³Department of Epidemiology, Columbia University Irving Medical Center, New York, USA. ⁴Department of Biomedical Engineering, Columbia University, New York, USA. ⁵Taub Institute for Research on Alzheimer's Disease and the Aging Brain, Columbia University Irving Medical Center, New York, USA. ⁶Research Division, Hebrew Home in Riverdale, New York, USA. ⁷Department of Neurology, Columbia University Irving Medical Center, New York, USA. ⁸Department of Radiology, Weill Cornell Medicine, New York, USA

AWARD WINNERS

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 Significantly Improves Identification of Acute Phase Large Vessel Occlusions

Corey M. Thibeault, Amber Y. Dorn, Shankar Radhakrishnan, Robert B. Hamilton
NovaSignal Corporation, Los Angeles, USA

Qureshi Award

The Qureshi Award is for excellence in diagnostic angiography.

Prevalence of asymptomatic internal jugular venous stenosis/occlusion in the analysis of 165 cerebral angiograms

Sehar Babar^{1,2}, Ahmer Asif^{3,2}, Fawad Ishfaq^{2,1}, Iqra Akhtar², Adnan Iqbal Qureshi²

¹University of Tennessee Health Science Center, Memphis, USA. ²University of Missouri, Columbia, USA.

³University of Oklahoma Health Sciences Center, Oklahoma City, USA

Resident Awards

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

Lhermitte Duclos Disease Diagnosed with Multi-Modal MRI techniques in a patient with complex symptomatology

Shahhan Spall, Chris Ralyea, Laszlo Mechtler

Dent Neurological Institute, Buffalo, New York, USA

MEET THE EXPERTS

Neuroimaging & Clinical Expert Faculty

Andrei Alexandrov, MD, RVT, NVS

Chairman of Department of Neurology
University of Tennessee

Brian Appavu, MD

Phoenix Children's Hospital
Phoenix, AZ

Rohit Bakshi, MD

Brigham & Women's Hospital
Boston, MA

Claudio Baracchini, MD, PhD, FESO

Head of Stroke Unit & Neurosonology Lab
University School of Padua School of Medicine

John Bertelson, MD, FAAN

UT Health Austin Clinics
Austin, TX

Shamik Bhattacharyya, MD

Brigham & Women's Hospital
Boston, MA

Pat Capone, MD, PhD

Director of Winchester Neuroimaging
Winchester, VA

Marek Czosnyka, PhD

University of Cambridge
Cambridge, UK

Colleen Douville, RVT, NVS

Swedish Neuroscience Institute
Seattle, WA

Brian Edlow, MD

Massachusetts General Hospital
Boston, MA

Peter Ferrazzano, MD

University of Wisconsin
Madison, WI

Emmaculate Fields, APRN-CNP

University of Oklahoma
Oklahoma City, OK

Michael Fox, MD, PhD

Brigham & Women's Hospital
Boston, MA

Zsolt Garami, MD

Houston Methodist
Houston, TX

Ewart Mark Haacke, PhD

Wayne State University
Detroit, MI

Ryan Hakimi, DO, MS, RPNI, NVS

University of South Carolina
Greenville, SC

Robert Hamilton, PhD, MS

Johns Hopkins Medicine
Baltimore, MD

Carl Herickhoff, PhD

University of Memphis
Memphis, TN

Emily Ho, MD, PhD, RPNI

Swedish Neuroscience Institute
Seattle, WA

JP Hughes, RVT, RVS

Society of Vascular Ultrasound
Wilkes Barre, PA

Dongwoon Hyun, PhD

Stanford Medicine
Stanford, CA

Ashutosh Jadhav, MD, PhD

Barrow Neurological Institute
Phoenix, AZ

Ruchira Jha, MD, MSc

Barrow Neurological Institute
Phoenix, AZ

Peter Kalina, MD, MBA, FACP

Mayo Clinic College of Medicine
Rochester, MN

MEET THE EXPERTS

Neuroimaging & Clinical Expert Faculty

Matthew Kirschen, MD, PhD
University of Pennsylvania
Philadelphia, PA

Joshua Klein, MD, PhD
Brigham & Women's Hospital
Boston, MA

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

Marc Malkoff, MD, RPNI
University of Tennessee
Knoxville, TN

Paul Maertens, MD
University of South Alabama
Mobile, AL

Wisam E. Elmalik, MD
DENT Neurologic Institute
Buffalo, NY

Rick Magun, MD, MSc
University at Buffalo
Buffalo, NY

Joseph Masdeu, MD, PhD
Houston Methodist
Houston, TX

Jennifer McVige, MD
Dent Neurologic Institute
Buffalo, NY

Laszlo Mechtler, MD
Dent Neurologic Institute
Buffalo, NY

Robert Miletich, MD, PhD, FAAAS
University at Buffalo
Buffalo, NY

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

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

Nandor Pinter, MD
Dent Neurologic
Buffalo, NY

Dheerendra Prasad, MD, MCh
Medical Director Roswell Park
Buffalo, NY

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

Mark Rubin, MD, RPNI, NVS
University of Tennessee
Memphis, TN

Adnan Siddiqui, MD, PhD, FAHA
University at Buffalo Neurosurgery
Buffalo, NY

Sanjeev Sivakumar, MD
Assistant Professor. USCSOM-Greenville
Greenville, SC

JD Spence, MD
Western University, Univ. Hospital
Ontario, CA

Aarti Sarwal, MD, FNCS FAAN, RPNI
Wake Forest School of Medicine
Winston-Salem, NC

Konrad Schlick, MD, RPNI
Cedars Sinai
Los Angeles, CA

Aaron Stayman, MD, RPNI
Swedish Neuroscience Institute
Seattle, WA

Charles Tegeler, IV, MD, RPNI
Wake Forest School of Medicine
Winston-Salem, NC

Meet the Experts

BUSINESS PROGRAM EXPERT FACULTY

Adam Boehler

Former Director CMMI
CEO Rubicon Founders

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Thomas Schenk, MD

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Speakers Bureau - Astra Zeneca
Consultant - NovaSignal

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Salary - Impel Neuropharma
Stock - Impel Neuropharma

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Pat Capone, MD, PhD (F)

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Royalty - Part of Licensing fee for IC+ Software (Cambridge Enterprise Ltd, UK)
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Consultant - Delica Ltd (China)

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Consultant - NovaSignal, Siemens, Tienoviz
Other – OrvosAI

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Contracted Research - National Institutes of Health

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Salary - NovaSignal
Stock - NovaSignal

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KEY:

P = Scientific Program Committee

F = Annual Meeting Faculty

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

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Contracted Research - Biogen, Eli Lilly,
Abbvie, Eisai, Green Valley

Jennifer McVige, MD (F/P)

Contracted Research – Allergen/Abbvie,
Biohaven, Eli Lilly, Teva, Theranica,
Lundbeck, Currax
Speakers Bureau – Allergen/Abbvie,
Biohaven, Eli Lilly, Teva, Theranica,
Neurelis

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Teva, Biohaven, Amgen, Impel
Contracted Research - Allergan/Abbvie

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J. David Spence, MD

Other – Unpaid Officer of Vascularis
Royalty – Small Royalties on a patent
for 3D Ultrasound
Consultant - Advisory boards of Amgen,
Orphan Technologies
Speakers Bureau - Lecture fees from
Pfizer, BMS, Amgen

Adnan Siddiqui, MD, PhD, FAHA (F)

Stock - Adona Medical, Inc., Amnis
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BlinkTBI, Inc., Buffalo Technology
Partners, Inc., Cardinal Consultants, LLC,
Cerebrotech Medical Systems, Inc.,
Cerevatech Medical, Inc., Cognition
Medical, CVAID Ltd., E8, Inc., Endostream
Medical, Ltd, Imperative Care, Inc., Instylla,
Inc., International Medical Distribution
Partners, Launch NY, Inc., NeuroRadial
Technologies, Inc., Neurotechnology
Investors, Neurovascular Diagnostics, Inc.,
PerFlow Medical, Ltd., Q'Apel Medical, Inc.,
QAS.ai, Inc., Radical Catheter
Technologies, Inc., Rebound Therapeutics
Corp. (Purchased 2019 by Integra
Lifesciences, Corp), Rist Neurovascular, Inc.
(Purchased 2020 by Medtronic), Sense
Diagnostics, Inc., Serenity Medical, Inc.,
Silk Road Medical, SongBird Therapy,
Spinnaker Medical, Inc., StimMed, LLC,
Synchron, Inc., Three Rivers Medical, Inc.,
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Inc., Vastrax, LLC, VICIS, Inc., Viseon
Consultant - Amnis Therapeutics, Apellis
Pharmaceuticals, Inc., Boston Scientific,
Canon Medical Systems USA, Inc., Cardinal
Health 200, LLC, Cerebrotech Medical
Systems, Inc., Cerenovus, Cerevatech
Medical, Inc., Cordis, Corindus, Inc.,
Endostream Medical, Ltd, Imperative Care,
Integra, IRRAS AB, Medtronic,
MicroVention, Minnetronix Neuro, Inc.,
Penumbra, Q'Apel Medical, Inc., Rapid
Medical, Serenity Medical, Inc., Silk Road
Medical, StimMed, LLC, Stryker
Neurovascular, Three Rivers Medical, Inc.,
VasSol, Viz.ai, Inc., W.L. Gore & Associates
Other - Cerenovus EXCELLENT and ARISE
II Trial; Medtronic SWIFT PRIME, VANTAGE,
EMBOLISE and SWIFT DIRECT Trials;
MicroVention FRED Trial & CONFIDENCE
Study; MUSC POSITIVE Trial; Penumbra 3D
Separator Trial, COMPASS Trial, INVEST
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** All of the relevant financial relationships listed
for these individuals have been mitigated.*

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AbbVie's mission is to discover and deliver innovative medicines that solve serious health issues today and address the medical challenges of tomorrow. We strive to have a remarkable impact on people's lives across several key therapeutic areas: immunology, oncology, neuroscience, eye care, virology, women's health and gastroenterology, in addition to products and services across its Allergan Aesthetics portfolio.



At Biogen, our mission is clear: we are pioneers in neuroscience. One of the world's first global biotechnology companies, Biogen discovers, develops, and delivers worldwide innovative therapies for people living with serious neurological and neurodegenerative diseases. Biogen has a portfolio of medicines to treat certain types of multiple sclerosis, has introduced an approved treatment for spinal muscular atrophy, developed five treatments for multiple sclerosis, and is focused on advancing neuroscience research programs for various diseases, including Alzheimer's disease.



Biohaven is a clinical-stage biopharmaceutical company with proven leadership in industry and academic settings. Our portfolio is comprised of innovative, late-stage product candidates targeting neurological and neuropsychiatric diseases, including rare disorders.

Nurtec™ ODT (Rimegepant 75 mg) received FDA approval in February 2020 and is quickly gaining traction as the only orally disintegrating CGRP antagonist for acute treatment of migraine. At the same time, Biohaven is advancing novel acute and preventive treatments for migraine with zavegepant and rimegepant. In addition to continued exploration of our CGRP receptor antagonists, multiple clinical trials are ongoing for product candidates across our neuroinnovative platforms.

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Philips works as trusted partners to our customers, helping them to adapt to healthcare's evolving world and to advance digital health transformation at defining moments in a patient's journey. Our solutions deliver optimized imaging service lines and enable enterprise imaging across sites, specialties and technologies to simplify medical image management, enable effective collaboration and enhance patient care. Philips IntelliSpace Cognition is a digital cognitive assessment solution that helps neurologists gain insight into their patients' cognition, empowering them to make more appropriate referral and treatment decisions. Talk to us at the ASN/NeuroNet show to learn more!



THERAPEUTICS

As a global leader in neurosciences, Merz Therapeutics is committed to improving the lives of patients who suffer from movement disorders, spasticity and other neurological conditions. Since 1908, Merz has strived to understand the complex realities that patients, caregivers and physicians face. Our mission is to deliver meaningful treatment options and a better patient experience to meet the unique needs of each person we serve. Merz Therapeutics is dedicated to providing leading therapeutic treatment options for patients. Our focus on advancing neurotoxin technology has given way to a clinically-proven and time-tested therapy that's helped more than three million patients worldwide for various conditions. With trusted therapies and an unwavering commitment to helping patients achieve better experiences, Merz Therapeutics continues to address many unmet needs for pediatric and adult patients.

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Amgen is one of the world's leading biotechnology companies. Amgen is a values-based company, deeply rooted in science and innovation to transform new ideas and discoveries into medicines for patients with serious illnesses. Amgen focuses on areas of high unmet medical need and leverages its expertise to strive for solutions that improve health outcomes and dramatically improve people's lives. A biotechnology innovator since 1980, Amgen has grown to be one of the world's leading independent biotechnology companies, has reached millions of patients around the world and is developing a pipeline of medicines with breakaway potential.



Impel NeuroPharma is focused on developing transformative therapies for people living with central nervous system (CNS) disorders through the pioneering of an optimized approach to drug delivery. Our therapies are enabled by the Company's proprietary upper nasal delivery technology, known as the Precision Olfactory Delivery, or POD®, device. The upper nasal space is surrounded by a rich vasculature that has the potential for injection-like absorption, resulting in more rapid and consistent bioavailability and clinical response. While an ideal target for drug delivery, to date no technology has been able to consistently deliver drugs predictably and consistently to the upper nasal area.



McKesson helps specialty providers run profitable, independent businesses by clearing the path so they can focus on patient care. Our Onmark® Group Purchasing Organization helps providers maximize their purchasing power, while our support services go above and beyond the essentials of pharmaceutical distribution. Our broad portfolio of solutions makes practice management more manageable by increasing efficiency, productivity, and profitability for specialty providers. We take a collaborative "all-in" approach to understanding each practice's unique needs which informs the business insights, strategies, and resources we offer, including regulatory guidance and advocacy. We invite you to discover and explore the McKesson difference.



Our purpose is to reimagine medicine to improve and extend people's lives. We use innovative science and technology to address some of society's most challenging healthcare issues. We discover and develop breakthrough treatments and find new ways to deliver them to as many people as possible. Novartis was created in 1996 through a merger of Ciba-Geigy and Sandoz. Novartis and its predecessor companies trace roots back more than 250 years, with a rich history of developing innovative products.

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PatientPoint is the patient engagement platform for every point of care. Our innovative, tech-enabled solutions create more effective doctor-patient interactions and deliver high value for patients, providers & healthcare sponsors. Through our nearly 140 unique healthcare provider relationships, PatientPoint's solutions impact roughly 750 million patient visits each year, further advancing our mission of making every doctor-patient engagement better. Learn more at patientpoint.com



Theranica has a highly experienced team that has set a goal to translate our technological and business knowledge in mobile digital solutions to the field of pain therapeutics. We develop non-invasive, drug-free, personalized and affordable wearable therapeutic products for the treatment of pain by integrating the latest neuroscience research with notable technological expertise.

Theranica's novel smartphone-controlled prescription migraine wearable device, Nerivio®, was recognized in TIME Magazine's 2019 annual list of the 100 Best Inventions.



Upsher-Smith Laboratories, LLC is a trusted U.S. pharmaceutical company. We offer a suite of branded central nervous system (CNS) medications to help patients living with migraine headaches and seizure disorders.

For more information, visit www.upsher-smith.com.

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Acadia is trailblazing breakthroughs in neuroscience to elevate life. For more than 25 years we have been working at the forefront of healthcare to bring vital solutions to people who need them most. We developed and commercialized the first and only approved therapy for hallucinations and delusions associated with Parkinson's disease psychosis. Our late-stage development efforts are focused on dementia-related psychosis, negative symptoms of schizophrenia and Rett syndrome, and in early-stage clinical research we are exploring novel approaches to pain management, and cognition and neuropsychiatric symptoms in central nervous system disorders.



Ceras Health Connected Care services grow and improve the healthcare industry for patients and practices around the globe. Ceras provides digital care with a human touch, through innovative smart devices and a full clinically trained support staff.



For more than 40 years, Genentech has pursued groundbreaking science to discover and develop innovative medicines for people facing serious and life-threatening diseases. Our transformational discoveries include the first targeted antibody for cancer and the first medicine for primary progressive multiple sclerosis. Genentech became a member of the Roche Group in 2009.



Horizon is focused on researching, developing and commercializing medicines that address critical needs for people impacted by rare and rheumatic diseases. Our pipeline is purposeful: we apply scientific expertise and courage to bring clinically meaningful therapies to patients. We believe science and compassion must work together to transform lives. For more information on how we go to incredible lengths to impact lives, please visit www.horizontherapeutics.com, follow us @HorizonNews on Twitter, like us on Facebook or explore career opportunities on LinkedIn.



Lilly was founded in 1876 by Colonel Eli Lilly, a man committed to creating high-quality medicines that met real needs in an era of unreliable elixirs peddled by questionable characters. His charge to the generations of employees who have followed was this: "Take what you find here and make it better and better." More than 140 years later, we remain committed to his vision through every aspect of our business and the people who serve starting with those who take our medicines, and extending to health care professionals, employees and the communities in which we live.

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Luma Health was founded on the idea that healthcare should work better for all patients. We empower providers to make this a reality through digital health solutions, designed to boost access, streamline patient-provider communications, and drive increased revenues. Luma Health's Healthcare Engagement Engine™ is accelerating the digital transformation in healthcare, partnering with 600+ health systems, hospitals, specialty networks, federally qualified health systems, and ACOs – connecting 50 million patients in the US to care.



A Subsidiary of Samsung Electronics Co., Ltd

NeuroLogica, a subsidiary of Samsung Electronics Co., brings the power of innovative imaging to your patients. With a strong foundation of expertise in CT design, development and manufacturing, NeuroLogica transforms fixed CT technologies into portable platforms. Our growing portfolio of advanced imaging medical technologies are used throughout the world in intensive care units, neurosurgical operating rooms, emergency departments, stroke centers and other key clinical areas. For more information, please visit www.NeuroLogica.com



NovaSignal is a medical technology and data company that is revolutionizing transcranial Doppler ultrasound through the application of robotics, artificial intelligence, and cloud computing. The NovaSignal Platform, including the FDA cleared NovaGuide 2 Intelligent Ultrasound and cloud-based NovaGuide View, assesses cerebral hemodynamics in real time to support physicians in their clinical decision making.



SK Life Science, Inc., the U.S. subsidiary of SK Biopharmaceuticals, is an innovative global pharmaceutical company focused on the research, development, and treatment of central nervous system (CNS) disorders. The company has a pipeline of seven compounds in development for CNS disorders including epilepsy. XCOPRI is indicated for the treatment of partial-onset seizures in adult patients.



TSI Healthcare is a leading EHR in the U.S., focused on Neurology. TSI Healthcare's solutions are designed to meet the unique needs of the community Neurology practice through specialty-specific content, including, Sleep Medicine content, a built in Infusion Suite, and Prior Authorization/Therapy tracking dashboards. We have built in questionnaires, such as the MIDAS, QOLIE, SSQ, Epworth, plus many more! TSI Healthcare also offers an integrated Practice Management System, Patient Portal, Mobile App, Revenue Cycle Management, cloud hosting, and more.

Don't Miss This Opportunity!

INTENDED AUDIENCE FOR ASN CLINICAL IMAGING & PRECISION MEDICINE SESSIONS

ASN welcomes providers of all levels: attendings, students, residents, fellows, technologists, advanced practice providers. We gather & discuss all modalities of neuroimaging (CT, MRI, US), how they make our patients & practice better, & meet with industry partners who bring us the latest in neurological diagnostic technology.

We believe neuroimaging training produces better neurologists, & have increased emphasis on refresher courses & clinical plenaries that relate imaging to clinical decision making & therapy management.

While the focus of the ASN conference remains on clinical neuroimaging & patient benefit, we will be working with our NeuroNet partners to bring economic & business perspectives, & inviting engineers to bring us leading-edge diagnostic technology updates, including topics related to informatics, data management & AI, thus expanding an already robust meeting to even more related professions & professionals.



INTENDED AUDIENCE FOR NEURONET PRO BUSINESS SESSIONS

Business sessions welcome all those involved in practice management to interact with expert peers as we roll up our sleeves to identify solutions for common hurdles that affect the sustainability of the neurology practice.

Topic areas will appeal to those involved in revenue cycle management & payment reform, human resources & retention/recruiting, compliance & ethics, and process improvement & intelligent automation.

Shared keynotes & panel discussions alongside clinical teammates offer a unique opportunity to align all stakeholders in integrating 21st-century tools & business models to develop a vision for transformative changes in healthcare delivery.





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 CME 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. A Certification program for Neurovascular Technologists is a brand new certification, launched in 2018.

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

NOTES

WEBSITE QR CODES

Visit the ASN & NeuroNet Pro websites for the further program & meeting information.



ASNWeb.org



NeuroNetPro.com

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