

33rd Annual Meeting of

The Eastern Neuroradiological Society

Virtual! Impossible to Miss!

August 19 - 22, 2021 • Scheduled for Eastern Daylight Time

SA-CME Credit Available

27.0 AMA PRA Category 1 Credit(s)™

Call for Abstracts • Deadline: July 2, 2021

Those accepted need to prepare to submit final electronic poster by August 1st.

Click Here to access the abstract submission form.

For more information, visit www.enrs.org



From the Program Chair

It is my pleasure to welcome you to the all virtual 33rd Annual Meeting of the Eastern Neuroradiological Society (ENRS) to be held August 19-22, 2021. Socrates said, "To move the world, we must first move ourselves." I cannot think of a recent time when this saying was more appropriate. The year 2020 dramatically changed the landscape of our lives in response to the COVID-19 pandemic. As we enter 2021, the heroes of our society, including our own membership, have moved the world one step closer to normalcy with improved detection and management of COVID-19 related illness and the development and implementation of COVID-19 vaccines. Yet much uncertainty remains regarding the trajectory of this pandemic. Speaking on behalf of the Executive Committee and taking into consideration the welfare of our membership and global health, we believe a virtual meeting is the best choice for our 2021 annual meeting.

I am certain that this year's 33rd Annual ENRS program will deliver excellent educational and scientific content from world-renowned, experienced neuroradiologists as well as young, talented neuroradiologists bringing a new perspective and energy to our organization. The theme of the 3 ½ day meeting is "Evidenced Based Best Practices, Current Concepts, and Future Directions." The comprehensive program includes core imaging and neurointerventional educational content in adult and pediatric disorders of the brain, spine, and head and neck with key updates on:

- WHO 2021 5th edition CNS tumor classification and the role of advanced imaging techniques in diagnosis and response assessment in CNS neoplasms
- Stroke etiology, collateral assessment, vessel wall imaging and extended window endovascular stroke intervention
- State-of-the-art deep learning and advanced imaging applications for brain and spine imaging
- · Neonatal imaging, the pediatric connectome, and pediatric epilepsy imaging
- COVID-19 presentations in the brain and head and neck
- · Skull base, temporal bone, cranial nerve, and brachial plexus imaging
- Physiologic and structural imaging of dementia
- Distinguishing CNS neuroinflammatory disorders
- · Contemporary reporting in back pain
- Diagnosis and neurointerventional management of CSF flow disorders and CSF flow imaging
- Implementing NI-RADs into your practice
- MR guided focused ultrasound and new frontiers in neurointerventional procedures relevant to diagnostic neuroradiology practice

Tune in for Saturday's renowned keynote speaker Dr. Hugh Curtin who will lecture on "Conductive Hearing Loss – a Practical Approach."

Registrants will have access to quality continuing medical education using a streamlined, virtual interactive platform with the opportunity to meet with friends and colleagues on the screen. On-demand access will be conveniently available for review following the conclusion of the meeting. Encourage your medical students, residents, fellows, and colleagues to submit scientific presentations and be considered for the ENRS Norman E. Leeds Award, the Stephen A. Kieffer Award and the Robert D. Zimmerman Award.

The ENRS is well known for its first-class educational content delivered in a diverse, congenial, and inviting atmosphere that mentors and sponsors new faculty. With the help of our very knowledgeable, innovative Program Committee and Faculty, I believe you will find a similar experience at our virtual meeting this year. The Society remains committed to advancing medical care and medical education during these extraordinary times. So please register as soon as possible and join us online for 3 ½ days of refreshing education, networking, and entertainment August 19-22, 2021!

Sincerely,

Tanya J. Rath, MD

ENRS Vice President/President-Elect and Program Chair

Target Audience

The ENRS 33rd Annual Meeting is targeted to practicing academic and private practice radiologists, residents, fellows, scientists and other health professionals whose practice involves neuroradiology, neurointervention, otolaryngology, neurosurgery, neurology, and imaging science. The program includes a contemporary discussion of the current imaging best practices for the evaluation of adult and pediatric disorders of the brain, spine, and head and neck. Up-to-date guidelines, innovative techniques and image-guided interventions will be reviewed to enhance and grow your diagnostic and interventional neuroradiology practice. Current and future applications of artificial intelligence and deep learning will be discussed by leading scientists and physicians. Key teaching points will be emphasized by integrated self-assessment modules.

Accreditation

Physicians: This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of Educational Symposia and The Eastern Neuroradiological Society. Educational Symposia is accredited by the ACCME to provide continuing medical education for physicians.

Educational Symposia designates this enduring material for a maximum of 27.0 AMA PRA Category 1 Credit(s)TM. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

SA-CME: Credits awarded for some sessions of this enduring material are designated "SA-CME" by the American Board of Radiology (ABR) and qualify toward fulfilling requirements for Maintenance of Certification (MOC) Part II: Lifelong Learning and Self-assessment.

AMA PRA Category 1 Credit(s) TM for these programs may be claimed until November 20, 2021.

Educational Objectives

At the conclusion of the meeting, the participant should be able to:

- Describe classification updates and clinically relevant advanced imaging applications in the assessment of adult brain tumors as well as recognize CNS treatment induced effects and tumor mimics.
- Describe characteristic imaging features of toxic encephalopathies, inflammatory demyelinating diseases and central nervous system parasitic infections.
- Discuss current structural and functional imaging techniques in the evaluation of dementia and adult epilepsy and describe the utility of susceptibility weighted imaging in central nervous system disorders.
- Discuss the clinical and imaging presentations of COVID-19 related stroke and head and neck pathology.
- Characterize the variable causes of adult stroke using conventional and advanced imaging techniques and effectively utilize collateral blood flow assessment and vessel wall imaging.
- Evaluate and characterize infectious, inflammatory, degenerative, traumatic, vascular and malignant disorders of the spine using conventional and advanced imaging applications while applying clinically relevant, contemporary reporting.
- Characterize the anatomy and imaging features of disorders affecting the brachial plexus.
- Discuss the imaging best practices for evaluation of CSF hypotension and describe current CSF flow imaging applications.
- Discuss optimal techniques and approaches to characterize disorders of the larynx, temporal bone, central skull base, cranial nerves, orbit, lymph nodes, sinonasal cavity, salivary glands and parathyroid glands.
- Explain the up-to-date classification of head and neck vascular anomalies and discuss the optimal imaging approach to assessment of tinnitus.
- Apply current concepts in staging of head and neck cancer and NI-RADS post-treatment surveillance.
- Describe current recommendations for management of intravascular contrast reactions and updates in malpractice as it pertains to neuroradiology.
- Discuss conventional and advanced imaging methods to diagnose developmental, neoplastic, inflammatory, infectious and traumatic disorders of the brain, spine and head and neck in the fetus and children.
- Review the principles and current applications of artificial intelligence and deep learning in the evaluation of central nervous system disorders.
- Describe state-of-the-art technologies and neurointerventional procedures for image guided treatment of central nervous system disorders.

No special educational preparation is required for this CME activity.



2020-2021 **ENRS Executive Committee**

PRESIDENT & CHAIR

Thierry A.G.M. Huisman, M.D., P.D., **EDINR, EDIPNR, FICIS**

Professor of Radiology, Pediatrics, Neurosurgery, Obstetrics and Gynecology Radiologist-in-Chief and Edward B. Singleton Chair of Radiology Texas Children's Hospital and Baylor College of Medicine Houston, TX

VICE-PRESIDENT/PRESIDENT-ELECT

Tanya J. Rath, M.D.

Neuroradiology Division Department of Radiology Senior Associate Consultant Mayo Clinic Associate Professor of Radiology Mayo Clinic College of Medicine Phoenix, AZ

SECRETARY

Doris D.M. Lin, M.D., Ph.D.

Associate Professor of Radiology and Radiological Science Johns Hopkins Hospital Baltimore, MD

TREASURER

Mari Hagiwara, M.D.

Associate Professor Radiology NYU Langone Medical Center New York, NY

1ST PAST-PRESIDENT

Reza Forghani, M.D., Ph.D., FRCPC
Associate Professor, Department of Radiology
Director, Augmented Intelligence & Precision Health Laboratory (AIPHL) McGill University Health Centre & Research Institute Montreal, Quebec, Canada

2ND PAST-PRESIDENT

Claudia F. E. Kirsch, M.D.

Division Chief of Neuroimaging
Professor of Neuroradiology and Otolaryngology
Department of Radiology Northwell Health
Zucker Hofstra School of Medicine at Northwell
North Shore University Hospital Manhasset, NY

ENRS Abstract Submission: Deadline for Abstract Submissions

July 2, 2021

Abstracts being accepted for presentation are in 2 categories: (1) Scientific Presentation or (2) Excerpta Extraordinaire (brief presentation of interesting, educational case reports). Submissions are welcome in all major categories in Neuroradiology including disorders of the brain, spine, head and neck, pediatrics, interventional neuroradiology, fetal neuroradiology and technical abstracts.

The deadline for abstract submissions is midnight, EDT on July 2nd, 2021. The presenting author of the accepted abstracts is expected to register for the meeting by August 1, 2021 and pay the meeting registration fee.

The presenting author is responsible for all expenses associated with the submission and presentation. Interested candidates should submit abstract(s) electronically to the Scientific Exhibits Committee at enrs.scientific@gmail.com (Word or PDF format) and fill the following abstract submission form: https://forms.gle/JpF3Bs3FvZr8csWE8

2020-2021 **ENRS Program Committee**

PROGRAM CHAIR:

Tanya J. Rath, M.D

Neuroradiology Division Department of Radiology Senior Associate Consultant Mayo Clinic Associate Professor of Radiology Mayo Clinic College of Medicine Phoenix, AZ

PEDIATRICS:

Aylin Tekes-Brady, M.D.

Associate Professor of Radiology and Radiological Sciences, JHH Director, Division of Pediatric Radiology and Pediatric Neuroradiology John Hopkins Hospital Baltimore, MD

Paul Caruso, M.D.

Paul Caruso, M.D.
Assistant Professor in Radiology
Harvard Medical School
Director of Pediatric Neuroimaging
Massachusetts General Hospital for Children
Assistant in Radiology
Massachusetts Fix and Far Instirmativ Massachusetts Eye and Ear Infirmary Boston, MA

BRAIN:

Girish M. Fatterpekar, MBBS, DNB, M.D.

Associate Professor Radiology Section Chief Neuroradiology NYU Langone Medical Center New York, NY

Carlos Torres M.D., FRCPC

Professor of Radiology Indicasor by Australia University of Ottawa Neuroradiologist and CME Director Department of Medical Imaging The Ottawa Hospital Clinician Investigator Ottawa Hospital Research Institute OHRI and Ottawa Brain and Mind Institute Ottawa, Ontario

STROKE AND VASCULAR DISORDERS:

Pina C. Sanelli, M.D., MPH, FACR

Professor of Radiology Vice Chairman of Research Department of Radiology Northwell Health Manhasset, NY

Pamela W. Schaefer, MD, FACR

Professor of Radiology Harvard Medical School Vice Chair Post-Graduate Education and Fellowship Training Clinical Director of MRI Interim Director of Neuroradiology Neuroradiology Fellowship Director Massachusetts General Hospital Boston, MA

HEAD AND NECK:

Claudia F.E. Kirsch, M.D.

Division Chief of Neuroimaging
Professor of Neuroradiology and Otolaryngology
Department of Radiology Northwell Health
Zucker Hofstra School of Medicine at Northwell North Shore University Hospital Manhasset, NY

Amy Fan-Yee Juliano, M.D.

Director of Research and Academic Affairs
Program Director, Head and Neck Radiology Fellowship
Department of Radiology
Massachusetts Eye and Ear
Boston, MA
Assistant Profession CD, India Assistant Professor of Radiology Harvard Medical School Boston, MA

SCIENTIFIC EXHIBITS:

Laurent Letourneau-Guillon, M.D.

Clinical Assistant Professor Centre hospitalier de l'Université de Montréal Montréal, Quebec, Canada

Mari Hagiwara, M.D.

Associate Professor Radiology NYU Langone Medical Center New York, NY

Doris D.M. Lin, M.D., Ph.D..

Associate Professor of Radiology and Radiological Science Johns Hopkins University School of Medicine The John's Hopkins Hospital Baltimore, MD

Mai-Lan Ho, M.D.
Associate Professor of Radiology
Director of Research, Department of Radiology
Director, Advanced Neuroimaging Core
Faculty Lead, Imaging Genomics Research Affinity Group
Secretary, Association for Staff and Faculty Women
Chair, Asian Pacific American Network
The Ohio State University
Nationwide Children's Hospital
Columbus, OH Columbus, OH

NEUROINTERVENTIONAL:

Dheeraj Gandhi, M.D.

Professor and Director, Professor and Director,
Interventional Neuroradiology
Professor of Radiology, Neurology and Neurosurgery
Clinical director, CMIT center,
University of Maryland School of Medicine
Director of Neuroimaging, BIOS Center
John Hopkins School of Medicine
Raltimore, MD Baltimore, MD

ARTIFICIAL INTELLIGENCE, ADVANCED **IMAGING APPLICATIONS AND POLICY:**

Reza Forghani, M.D., Ph.D., FRCPC

Associate Professor, Department of Radiology Director, Augmented Intelligence & Precision Health Laboratory (AIPHL) McGill University Health Centre & Research Institute Montreal, Quebec, Canada

Rajiv Gupta, M.D., Ph.D.

Associate Radiologist Massachusetts General Hospital Associate Professor Harvard Medical School Boston, MA

SPINE:

Amish Doshi, M.D.

Associate Professor of Radiology and Neurosurgery Chief, Division of Neuroradiology Program Director, Neuroradiology Associate Program Director, Radiology Residency Icahn School of Medicine at Mount Sinai New York, NY

Vikas Agarwal, M.D.

Associate Chief of Neuroradiology Associate Crief of Neurorausbogy Associate Professor of Radiology University of Pittsburgh Medical Center Pittsburgh. PA

SOCIAL MEDIA CHAIR

Suyash Mohan, M.D.

Associate Professor of Radiology and Neurosurgery Director, Neuroradiology Clinical Research Division Department of Radiology
Perelman School of Medicine at the University of Pennsylvania Philadelphia, PA

Program Schedule

Meeting Scheduled for Eastern Daylight Time

Thursday	v. Augus	t 19	2021

9:00 - 9:10 Welcome -Thierry A.G.M. Huisman, M.D., P.D., EDINR, EDIPNR, FICIS 9:10 - 9:20Introduction Tanya J. Rath, M.D.

ADULT BRAIN I: NEOPLASM Moderators: Anna Derman, M.D. and Pamela Nguyen, D.O. **SA-CME SESSION - Adult Brain Neoplasm** 9:20 - 9:40 Roadmap to WHO 2021 5th Edition Classification of CNS Tumors in Adults Rajan Jain, M.D. 9:40 - 10:00Evidence-Based Best Acquisition Protocols of DSC-MRI with Application to Treatment Response in High-Grade Gliomas Jerrold L. Boxerman, M.D., Ph.D., FACR 10:00 - 10:20 fMRI and DTI in Pre-Surgical Evaluation of Brain Tumors: Challenges and Tips Behroze Adi Vachha, M.D., Ph.D. 10:20 - 10:40Newer Neuro-oncologic Imaging Techniques: Potential and Limitations Suyash Mohan, M.D. 10:40 - 11:00 Treatment-Induced CNS Toxicity

Sachin K. Gujar, MBBS, M.D

Algorithmic Approach to Posterior Fossa Tumors 11:00 - 11:20

Nader Z. R. Zakhari, M.D.

Is this a Tumor or Not?: Case-Based Presentation 11:20 - 11:40

Evan A. Stein, M.D., Ph.D.

11:40 - 12:00 PM Scientific Papers I +

2:35 - 2:50

2:50 - 3:05

12:00 - 1:00 Lunch & Learn How-To-Session ◆

Sponsored by Bracco Diagnostics, Inc.

PEDIATRIC I

Moderators: Manohar M. Shroff, M.D., FRCPC and Edwin Gulko, M.D.			
1:00 – 1:20	Neonatal Neuroimaging: Current Best Practices and Future Directions Aylin Tekes-Brady, M.D.		
1:20 – 1:40	Abusive Head Trauma: Evidenced Based Neuroimaging Criteria and Differential Diagnosis <i>Deborah M. Zarnow, M.D.</i>		
1:40 – 2:00	Pediatric Onset Sensorineural Hearing Loss and Syndromic Associations Caroline D. Robson, MBChB		
2:00 – 2:20	How to Image the Pediatric Orbit: Infection, Trauma, Tumor and Beyond Srikala Narayanan, M.D.		
2:20 – 2:35	Connectome in the Pediatric Brain: Present and Future Elysa Widjaja, M.D., MPH, Ph.D.		

DTI and Connectome Mai-Lan Ho, M.D.

Break - Visit Technical Exhibits

Evidence Based Best Practices for Seizure Imaging, Current Practice and Future Directions including 7T,

Thursday, August 19, 2021 (continued)

HEAD & NECK IMAGING I

Moderators: Amy Fan-Yee Juliano, M.D. and Katie S. Traylor, D.O.

7:00 – 7:30 AM	Visit Technical Exhibits	
Friday, August 20, 2021		
4:55 – 6:00	Scientific Papers II ◆	
4:55	End of Session	
4:40 – 4:55	Unique Cases - Head and Neck Review with the Love Train $\it Laurie A. \it Loevner, M.D.$	
4:20 – 4:40	WNRS Lecture: Avoiding the Wild West of Mistakes and Pitfalls in the Head and Neck Ashok Srinivasan, M.D., WNRS President	
4:05 – 4:20	Can You Hear Me Now? Pre-operative Imaging of Cochlear Implantation <i>Gul Moonis, MBBS</i>	
3:50 – 4:05	Let's Get Wired - Cranial Nerve Imaging and Pathology Ari M. Blitz, M.D.	
3:35 – 3:50	A Firm Bony Foundation - Skull Base Anatomy and Variants $\it Vikas \ Jain, M.D.$	
3:20 – 3:35	Going Viral - COVID Update in the Head and Neck Claudia F.E. Kirsch, M.D.	
3:05 – 3:20	Catch These Sound Waves - US Head and Neck Applications Mary Elizabeth Cunnane, M.D.	

7:00 – 7:30 AM	Visit Technical Exhibits
7:30 – 8:00	Breakfast & Learn How-To-Session ◆ Sponsored by TBD

STROKE & VASCULAR DISORDERS I

Moderators: Pina C. Sanelli, M.D., MPH, FACR and Avraham B. Zlochower, M.D.			
SA-CME SESSION - Stroke			
8:00 – 8:20	Infectious and Inflammatory Causes of Stroke Pamela W. Schaefer, M.D.		
8:20 – 8:40	Familial and Genetic Causes of Stroke Daniel J. Boulter, M.D.		
8:40 – 9:00	Venous Stroke Causes and Patterns Scott B. Raymond, M.D., Ph.D.		
9:00 – 9:20	Vascular Causes of Dementia Jana Ivanidze, M.D., Ph.D.		
9:20 – 9:40	COVID-19 Stroke Presentation and Outcomes <i>Pina C. Sanelli, M.D., MPH, FACR</i>		
9:40 – 10:00	Neuroimaging Findings in COVID-19 Related Stroke Byung (Jason) Yoon, M.D., Ph.D.		
10:00 – 10:15	Break - Visit Technical Exhibits		

Friday, I	August 20,	2021	(continued)
-----------	------------	------	-------------

Friday, August 20, 2021 (continued)		Friday, August 20, 2021(continued)	
Moderato	SPINE I rs: Adam E. Flanders, M.D. and Laila Alshafai, M.B.B.S.	4:50 – 5:10	ED Implementation of an ICH Deep Learning Algorithm <i>R. Gilberto Gonzalez, M.D., Ph.D.</i>
10:15 – 10:35	Al and Spine Imaging Lawrence N. Tanenbaum, M.D., FACR	5:10 – 5:30	ASNR Presidential Address & Lecture Tina Young Poussaint, M.D., FACR, 2021-2022 President, ASNR
10:35 – 10:55	Reporting in Back Pain Amish H. Doshi, M.D.	5:30	End of Session
10:55 – 11:15	Reporting in Post-Op Spine Imaging	5:30 - 5:50	Scientific Paper Session III ♦
	Vikas Agarwal, M.D.	5:50 – 6:10	ENRS Annual Business Meeting ♦ (ENRS Members Only)
11:15 – 11:35	It's Not A Tumor: Benign Spinal Lesions Harprit S. Bedi, M.D.	Saturday, August	21, 2021
11:35 – 11:55	It is a Tumor: Malignant Spinal Lesions Amit Aggarwal, M.D.	7:00 – 7:30 AM	Visit Technical Exhibits
11:55 – 12:15 PM	Practical Applications of CSF Flow Imaging Sara B. Strauss, M.D.	7:30 – 8:00	Breakfast & Learn How-To-Session ◆ Sponsored by TBD
12:15 – 1:15	Lunch & Learn How-To-Session ◆ Sponsored by Biogen	Moderato	ADULT BRAIN II: NON-TUMOR rs: Lev Bangiyev, DABR & Elizabeth K. Weidman, M.D.
Moderato	PEDIATRIC II rs: Doris D.M. Lin, M.D., Ph.D. and Neel Madan, M.D.	8:00 – 8:20	Your Brain on Drugs: Neuroimaging of Toxic Encephalopathies Laurent Letourneau-Guillon, MD
SA-	-CME SESSION - Pediatric Neuroradiology	8:20 - 8:40	MOGAD vs. NMOSD: MRI Characteristics and Update Maria J. Borja Angulo, M.D.
1:15 – 1:35	Al in Pediatric Neuroradiology: Evidence Based Current Applications in Brain and Future Directions Thierry A.G.M. Huisman, M.D., P.D., EDiNR, EDiPNR, FICIS	8:40 – 9:00	What Is That Thing in Your Brain? Imaging of Parasitic Infections of the CNS Carlos H. Torres, M.D., FRCPC
1:35 – 1:55	Metabolic Disease Neonatal Onset: Best Diagnostic Strategies William T. O'Brien, Sr., M.D., FAOCR	9:00 – 9:20	Imaging Adult Seizures Joseph M. Mettenburg, M.D., Ph.D.
1:55 – 2:15	Last Decade in Neuroinflammatory Disorders: Acute Flaccid Myelitis to COVID and More Karuna V. Shekdar, M.D.	9:20 – 9:40	Neuroimaging Update in Dementia: Structural and Physiologic Evaluation <i>Timothy M. Shepherd, M.D., Ph.D.</i>
2:15 – 2:35	RAPNO Recommendations for Pediatric Spine Tumor Imaging Aashim Bhatia, M.D., M.S.	9:40 – 10:00	SWI: Not Every Black Dot is a Hemorrhage Javier M. Romero, M.D., FAHA
2:35 – 2:50	Fetal Imaging Evidenced Based: 3T vs 1.5T and	10:00 – 10:15	Break - Visit Technical Exhibits
	Future Directions P. Ellen Grant, M.D., MSc.		STROKE & VASCULAR DISORDERS II ela W. Schaefer, M.D. and Katharina Eikermann-Haerter, M.D.
2:50 – 3:05	"Deep Learning" with Rapid Fire Cases Paul A. Caruso, M.D. and Aylin Tekes-Brady, M.D.	10:15 – 10:35	Perspectives on the Assessment of Collateral Blood Flow in Steno-occlusive Disease David J. Mikulis, BSc, M.D., FRCR
3:05 – 3:20 ADVAN	Break and Visit Technical Exhibits ICED IMAGING & ARTIFICIAL INTELLIGENCE:	10:35 – 10:55	Intracranial Vessel Wall MR Imaging Jae W. Song, M.D., M.S.
CUI Pi	RRENT TECHNIQUES TO ENHANCE YOUR RACTICE & EMERGING TECHNOLOGIES or: Rajiv Gupta, M.D., Ph.D. and Sam Payabvash, M.D.	10:55 – 11:15	Advanced Imaging in Hypoxic-Ischemic Injury Ona Wu, Ph.D.
3:20 – 3:40	Deep Learning: Promise, Hype and Deep Concerns Rajiv Gupta, M.D., Ph.D.	11:15 – 11:35	Advanced Imaging in Hemorrhagic Stroke Ajay Malhotra, M.D., MMM
3:40 – 4:00	Quantitative Feature Extraction and Prediction Modeling Using Al Reza Forghani, M.D., Ph.D., FRCP	11:35 - 11:55	WNRS Lecture: Magnetoencephalography: Basic Principles and Clinical Applications Roland R. Lee, M.D., FACR, WNRS Past President
4:00 – 4:15	Distributed Learning and Applications Jayashree Kalpathy-Cramer, Ph.D.	11:55 – 12:00 PM	Presentation of ENRS 2022 Meeting Doris D.M. Lin, M.D., Ph.D.
4:15 – 4:30	Automap: Can I Finally Forget About the K-Space? <i>Matthew Rosen, Ph.D.</i>	12:00 – 1:00	Lunch & Learn How-To-Session ♦ Sponsored by Guerbet, LLC.
4:30 – 4:50	Deep Spine Stuart Pomerantz, M.D.		

		I	
Moderator	SPINE II rs: A. Orlando Ortiz, MBA, FACR and Puneet S. Pawha, M.D.	7:00 – 7:30 AM	Visit Technical Exhibits
	SA-CME SESSION - Spine	7:30 – 8:00	Breakfast & Learn How-To-Session ◆ Sponsored by TBD
1:00 – 1:20	Current Concepts in Imaging of Intracranial Hypotension and CSF Leaks Majid A. Khan, MBBS, M.D.		ERGENCY IMAGING AND HEAD & NECK III rators: Keerthi Arani, M.D. and Rohini Nadgir, M.D.
1:20 – 1:40	·	SA-0	CME SESSION - Emergency Neuroradiology
1.20 – 1.40	Imaging Approach to Myelopathy and Myelitis Anousheh Sayah, M.D.	8:00 – 8:20	Imaging of Spinal Emergencies: Acute or Not? William A. Mehan, M.D., MBA
1:40 – 2:00	Infection vs Degeneration in the Spine: Tools and Tips <i>Alexander H. Levitt, M.D.</i>	8:20 – 8:40	Head and Neck 911 - Traumatic and Non-Traumatic Emergencies
2:00 – 2:20	Non-invasive Vascular Imaging of the Spine <i>Michele H. Johnson, M.D., FACR, FASER</i>	0.400.00	Amit Mahajan, M.D.
2:20 – 2:35	Imaging of Brachial Plexus: A Case Based Approach <i>Alvand Hassankhani, M.D.</i>	8:40 – 9:00	Traumatic and Non-Traumatic Emergencies of Pediatric Spine Melike Guryildirim, M.D.
2:35 – 2:50	Mortality and Morbidity of Compression Fractures Joshua A. Hirsch, MD, FACR, FSIR, FSNIS	9:00 – 9:15	Code Blue: Managing Contrast Reactions and Adverse Events in Radiology <i>Marion A. Hughes, M.D.</i>
2:50 - 3:05	Break and Visit Technical Exhibits	9:15 – 9:30	Got too much milk? Nope it's the Parathyroid Hillary R. Kelly, M.D.
7.6	HEAD & NECK IMAGING II	3.10 3.00	
Moaerato	ors: Xuan V. Nguyen, M.D., Ph.D. and Pritesh J. Mehta, M.D. SA-CME SESSION - Head & Neck	9:30 – 9:45	Let's talk about it - Optimizing Laryngeal Imaging <i>Hilda E. Stambuk, M.D.</i>
3:05 – 3:25	Keep Your Eye on This - Vision Loss and Novel Surgical Approaches <i>Katherine L. Reinshagen, M.D.</i>	9:45 – 10:00	Center Stage - Keeping Current with Head and Neck Cancer Staging Eugene Yu, M.D., FRCPC
3:25 – 3:45	Does This Talk Ring a Bell - Imaging of Tinnitus Gopi K. Nayak, M.D.	10:00 – 10:15	Break and Visit Technical Exhibits
3:45 – 4:05	Is There a 4th Pair? Salivary Gland Imaging Update Mari Hagiwara, M.D.	10:15 – 10:55	NIRADS Workshop Amy Fan-Yee Juliano, M.D. and Karen A. Buch, M.D.
4:05 – 4:25	Things That I have Learned Interpreting Sinus Images Peter M. Som, M.D., FACR, F.R.S.M.		RONTIERS AND DISRUPTIVE TECHNOLOGIES IN NEURO-INTERVENTION rs: Dipanka Sarma, M.D. and Yafell Serulle, M.D., Ph.D
4:25 – 4:40	Word Up! Correct Classification and Nomenclature of Vascular Anomalies <i>Deborah R. Shatzkes, M.D.</i>	10:55 – 11:15	Embolization of Chronic Subdural Hematoma: Ready for Primetime? <i>Timothy R. Miller, M.D.</i>
4:40 – 4:55	Malpractice Update C. Douglas Phillips, M.D., FACR	11:15 – 11:35	Emerging Capabilities and Technologies in the Neuro-Endovascular Procedure Suite
	KEYNOTE LECTURE		Vitor Mendes Pereira, MSc, M.D.
4:55 – 5:00	Introduction of Keynote Lecturer Tanya J. Rath, M.D.	11:35 – 11:55	Using Sound for Cure: MR Guided FUS Dheeraj Gandhi, M.D.
5:00 – 5:45	Conductive Hearing Loss - A Practical Approach Hugh D. Curtin, M.D., FACR	11:55 – 12:10 PM	Venous Sinus Stenting for Pseudotumor Cerebri: What Does the Current Evidence Tell Us? Reade DeLeacy, M.D., MBBS (Hons) FRANZCR
5:45 – 6:00	Announcement of Awards Laurent Letourneau-Guillon, M.D.	12:10 – 12:25	Endovascular Management of Acute Stroke: Extending the Boundaries
6:00	End of Session	12:25 – 12:30	Manuel Fortes, M.D. Closing Remarks Tanya J. Rath, M.D.

12:30

End of Meeting

Sunday, August 22, 2021

Invited Faculty

Vikas Agarwal, M.D.

University of Pittsburgh Medical Center Pittsburgh, PA

Amit Aggarwal, M.D.

Icahn School of Medicine at Mount Sinai New York, NY

Laila Alshafai, MBBS, FRCPC (dNR), dABR (dNR)

Mount Sinai Hospital & University Health Network Toronto, Ontario, Canada

Keerthi Arani, M.D.

University of Pittsburgh Medical Center Pittsburgh, PA

Lev Bangiyev, D.O., DABR

Stony Brook University Hospital Stony Brook, NY

Harprit S. Bedi, M.D.

Boston University School of Medicine Boston, MA

Aashim Bhatia, M.D., M.S.

Children's Hospital of Pittsburgh of UPMC Pittsburgh, PA

Ari M. Blitz, M.D.

Case Western Reserve University School of Medicine Cleveland, OH

Maria J. Borja Angulo, M.D.

NYU School of Medicine New York, NY

Daniel J. Boulter. M.D.

The Ohio State University Wexner Medical Center Columbus, OH

Jerrold L. Boxerman, M.D., Ph.D., FACR

Alpert Medical School of Brown University Rhode Island Hospital Providence, RI

Karen A. Buch, M.D.

Harvard Medical School Massachusetts General Hospital Boston, MA

Paul A. Caruso, M.D.

Harvard Medical School Massachusetts General Hospital for Children Boston, MA

Mary Elizabeth Cunnane, M.D.

Harvard Medical School Boston, MA

Hugh D. Curtin, M.D., FACR

Harvard Medical School Boston, MA

Reade DeLeacy, M.D., MBBS (Hons) FRANZCR

Mount Sinai Hospital New York, NY

Anna Derman, M.D.

NYU Langone Medical Center New York, NY

Amish H. Doshi, M.D.

Icahn School of Medicine at Mount Sinai New York, NY

Katharina Eikermann-Haerter, M.D.

Massachusetts General Hospital Boston, MA Girish M. Fatterpekar, MBBS, DNB, M.D.

NYU Langone Medical Center New York, NY

Adam E. Flanders, M.D.

Thomas Jefferson University Hospital Philadelphia, PA

Reza Forghani, M.D., Ph.D., FRCPC

McGill University Health Centre & Research Institute Montreal, Quebec, Canada

Manuel Fortes, M.D.

Fairfax Radiological Consultants, PC Fairfax, VA

Dheeraj Gandhi, M.D.

University of Maryland School of Medicine John Hopkins School of Medicine Baltimore, MD

R. Gilberto Gonzalez, M.D., Ph.D.

Harvard Medical School Massachusetts General Hospital Boston, MA

P. Ellen Grant, M.D., MSc.

Boston Children's Hospital Harvard Medical School Boston, MA

Sachin K. Gujar, MBBS, M.D.

Johns Hopkins University School of Medicine Baltimore, MD

Edwin Gulko, M.D.

Westchester Medical Center New York Medical College School of Medicine Valhalla, NY

Rajiv Gupta, M.D., Ph.D.

Harvard Medical School Massachusetts General Hospital Boston, MA

Melike Guryildirim, M.D.

Johns Hopkins University School of Medicine The Johns Hopkins Hospital Baltimore, MD

Mari Hagiwara, M.D.

New York University Langone Medical Center New York, NY

Alvand Hassankhani, M.D.

Perelman School of Medicine at the University of Pennsylvania Philadelphia, PA

Joshua A. Hirsch M.D., FACR, FSIR, FSNIS

Massachusetts General Hospital Harvard Medical School Boston, MA

Mai-Lan Ho, M.D.

The Ohio State University Nationwide Children's Hospital Columbus, OH

Marion A. Hughes, M.D.

University of Pittsburgh Medical Center Pittsburgh, PA

Thierry A.G.M. Huisman, M.D., PD, EDINR, EDIPNR, FICIS

Texas Children's Hospital and Baylor College of Medicine Houston. TX

Jana Ivanidze, M.D. Ph.D.

Molecular Imaging Innovations Institute New York, NY Rajan Jain, M.D.

NYU School of Medicine New York, NY

Vikas Jain, MBBS

Case Western Reserve University Cleveland, OH

Michele H. Johnson, M.D., FACR, FASER

Yale University School of Medicine New Haven, CT

Amy Fan-Yee Juliano, M.D.

Harvard Medical School Boston, MA

Jayashree Kalpathy-Cramer, Ph.D.

Harvard Medical School Massachusetts General Hospital Boston, MA

Hillary R. Kelly, M.D.

Harvard Medical School Massachusetts General Hospital Boston, MA

Majid A. Khan, MBBS, M.D.

Johns Hopkins University School of Medicine Baltimore, MA

Claudia F.E. Kirsch, M.D.

Zucker Hofstra School of Medicine at Northwell North Shore University Hospital Manhasset, NY

Roland R. Lee, MD, FACR

UCSD and VA San Diego San Diego, CA

Laurent Letourneau-Guillon, M.D.

Centre Hospitalier de l'Université de Montréal (CHUM) Montreal, Quebec, Canada

Alexander H. Levitt, M.D.

Jacobi Medical Center Bronx, NY

Doris D.M. Lin, M.D., Ph.D.

Johns Hopkins University School of Medicine The Johns Hopkins Hospital Baltimore, MD

Laurie A. Loevner, M.D.

University of Pennsylvania Health System Philadelphia, PA

Neel Madan, M.D.

Tufts Children's Hospital Boston, MA

Amit Mahajan, M.D.

Yale University New Haven, CT

Ajay Malhotra, M.D., MMM

Yale University New Haven, CT

William A. Mehan, Jr., M.D., MBA

Harvard Medical School The Massachusetts General Hospital Boston, MA

Pritesh J. Mehta, M.D.

Beth Israel Deaconess Medical Center Boston, MA

Vitor Mendes Pereira, MSc, M.D.

University of Toronto Toronto, Ontario, Canada

Invited Faculty

Joseph M. Mettenburg, M.D., Ph.D.

University of Pittsburgh School of Medicine University of Pittsburgh Medical Center Pittsburgh, PA

David J. Mikulis, BSc, M.D., FRCR

The University of Toronto The University Health Network The Toronto Western Hospital Toronto, Ontario, Canada

Timothy R. Miller, M.D.

University of Maryland School of Medicine Baltimore, MD

Suyash Mohan, M.D.

Perelman School of Medicine at the University of Pennsylvania Philadelphia, PA

Gul Moonis, MBBS

Columbia University Medical Center New York, NY

Rohini Nadgir, M.D.

The Johns Hopkins Hospital Baltimore, MD

Srikala Narayanan, M.D.

Children's Hospital of Pittsburgh of UPMC Pittsburgh, PA

Gopi K. Nayak, M.D.

NYU Langone Medical Center New York, NY

Pamela Nguyen, D.O.

Columbia University Medical Center New York, NY

Xuan V. Nguyen, M.D., Ph.D.

The Ohio State University Wexner Medical Center Columbus, OH

William T. O'Brien, Sr., D.O., FAOCR

Cincinnati Children's Hospital Medical Center University of Cincinnati College of Medicine Cincinnati, OH

A. Orlando Ortiz, M.D., MBA, FACR

Jacobi Medical Center Albert Einstein College of Medicine Bronx. NY

Puneet S. Pawha, M.D.

Icahn School of Medicine at Mount Sinai New York, NY

Sam Payabvash, M.D.

Yale School of Medicine New Haven, CT

C. Douglas Phillips, M.D., FACR

Weill Cornell Medical College NewYork-Presbyterian Hospital New York, NY

Stuart Pomerantz, M.D.

Harvard Medical School Massachusetts General Hospital Boston, MA

Tanya J. Rath, M.D.

Mayo Clinic Mayo Clinic College of Medicine Phoenix, AZ

Scott B. Raymond, M.D., Ph.D.

University of Vermont Medical Center Burlington, VT

Katherine L. Reinshagen, M.D.

Harvard Medical School Boston, MA

Caroline D. Robson, MBChB

Boston Children's Hospital Boston, MA

Javier M. Romero, M.D., FAHA

Massachusetts General Hospital Harvard Medical School Boston, MA.

Matthew Rosen, Ph.D.

Harvard Medical School Massachusetts General Hospital Boston, MA

Pina C. Sanelli, M.D., MPH, FACR

Northwell Health Manhasset, NY

Dipanka Sarma, M.D.

University of Toronto Toronto, Ontario, Canada

Anousheh Sayah, M.D.

MedStar Georgetown University Hospital Washington, D.C

Pamela W. Schaefer, M.D.

Harvard Medical School Massachusetts General Hospital Boston, MA

Yafell Serulle, M.D., Ph.D.

Zucker Hofstra School of Medicine at Northwell Manhasset, NY

Deborah R. Shatzkes, M.D.

Zucker School of Medicine at Hofstra/Northwell Lenox Hill Hospital Northwell Health New York, NY

Karuna V. Shekdar, M.D.

Raymond and Ruth Perelman School of Medicine, University of Pennsylvania The Children's Hospital of Philadelphia Philadelphia, PA

Timothy M. Shepherd, M.D., Ph.D.

New York University New York, NY

Manohar M. Shroff, M.D., FRCPC

University of Toronto Hospital for Sick Children (SickKids) Toronto, Ontario, Canada

Peter M. Som, M.D., FACR, F.R.S.M.

Icahn School of Medicine at Mount Sinai New York, NY

Jae W. Song, M.D., MS

University of Pennsylvania Perelman School of Medicine Philadelphia, PA

Ashok Srinivasan, M.D.

University of Michigan Ann Arbor, MI

Hilda E. Stambuk, M.D.

Memorial Sloan-Kettering Cancer Center Weill Cornell Medical College New York, NY

Evan A. Stein, M.D., Ph.D.

Maimonides Medical Center Brooklyn, NY

Sara B. Strauss, M.D.

Weill Cornell Medical College New York-Presbyterian Hospital New York, NY

Lawrence N. Tanenbaum, M.D., FACR

RadNet, Inc. New York, NY

Aylin Tekes-Brady, M.D.

John Hopkins Hospital Baltimore, MD

Carlos H. Torres, M.D., FRCPC

University of Ottawa The Ottawa Hospital Ottawa, Ontario, Canada

Katie S. Traylor, D.O.

University of Pittsburgh Pittsburgh, PA

Behroze Adi Vachha, M.D., Ph.D.

Weill Medical College of Cornell University New York, NY

Elizabeth K. Weidman, M.D.

Weill Cornell Medical College NewYork-Presbyterian Hospital New York, NY

Elysa Widjaja, M.D., MPH, Ph.D.

Hospital for Sick Children Toronto, Ontario, Canada

Ona Wu, Ph.D.

Harvard Medical School Massachusetts General Hospital Charlestown, MA

Byung (Jason) Yoon, M.D., Ph.D.

Harvard Medical School Massachusetts General Hospital Boston, MA

Tina Young Poussaint, M.D., FACR

Harvard Medical School Boston Children's Hospital Boston, MA

Eugene Yu, M.D., FRCPC

Princess Margaret Cancer Centre University of Toronto Toronto, Ontario, Canada

Nader Z. R. Zakhari, M.D.

University of Ottawa The Ottawa Hospital Ottawa, Ontario Canada

Deborah M. Zarnow, M.D.

Perelman School of Medicine at the University of Pennsylvania The Children's Hospital of Philadelphia Philadelphia, PA

Avraham B. Zlochower, M.D.

Lenox Hill Hospital Northwell Health New York, NY

Registration Information

33rd Annual Meeting of

The Eastern Neuroradiological Society

Members-in-Training □ Resident □ Fellow □ Medical Student □ \$120.00 TOTAL ENCLOSED: \$ **PHONE FAX** 4 Easy Ways To Register c/o Educational Symposia Check payable to: (813) 806-1000 (813) 806-1001 **INTERNET** 5620 West Sligh Avenue ENRS.Edusymp.com Tampa, Florida USA We Accept Name Degree ☐ M.D. ☐ D.O. ☐ Ph.D. ☐ Other Company / Institution Specialty: Staff Neuroradiologist Staff Head & Neck Private Practice Neuroradiologist Private Practice Head & Neck Other Address City / State / Zip Code / Country Phone Email (Required) Card Number / Card Type: ☐ Master Card ☐ Visa ☐ American Express ☐ Discover Expiration Date Security Code Billing Address City / State / Zip Code / Country

ENRS21

Cardholder Signature

ADA COMPLIANCE: Educational Symposia (ESI) and the Eastern Neuroradiological Society (ENRS) wish to ensure that no individual with a disability is excluded, denied services, segregated or otherwise treated differently from other individuals because of the absence of auxiliary aids and services. If you need any auxiliary aids or services identified in the Americans with Disabilities Act, please contact ESI at (813) 806-1000.