



*34<sup>th</sup> Annual Meeting of*

# The Eastern Neuroradiological Society

**August 18 – 21, 2022**

Hilton Burlington Lake Champlain  
Burlington, Vermont

**SAM Credit Available**

26.25 AMA PRA Category 1 Credit(s)<sup>TM</sup>

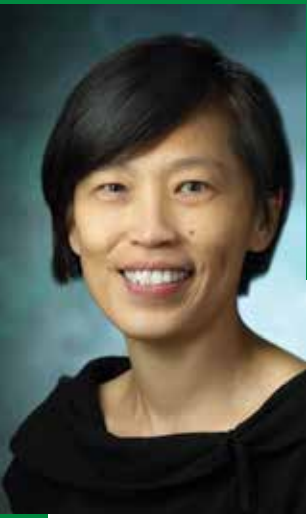
**Call for Abstracts**

**Deadline: June 24, 2022**

Those accepted need to prepare to submit  
final electronic poster by July 24<sup>th</sup>.

**Click Here** to access the abstract submission form.

**For more information, visit [enrs.edusymp.com](https://enrs.edusymp.com)**



# Letter from the Program Chair

On behalf of the Eastern Neuroradiological Society (ENRS), I would like to invite you to join us for the 34th Annual Meeting of the Society held on August 18 – 21, 2022 in beautiful Burlington, Vermont.

The ENRS 2022 program presents in-depth lectures covering essential topics in Neuroradiology and updates of the most

recent developments by phenomenal faculty speakers in our society, as well as nationally and internationally recognized guest speakers. Each day is focused on topics in Head and Neck, Brain, Pediatrics, Spine, Vascular imaging, and Neurointervention, with Lunch & Learn sessions. The advanced imaging and artificial intelligence session will feature state-of-the-art techniques and emerging technological advances that can enhance a high-value clinical practice. A new session of Global Radiology will highlight the opportunities and challenges of international outreach initiatives in addition to the innovation of "globally accessible MRI." This year there will be expanded time devoted to scientific presentations with live discussions. We encourage the younger generation of upcoming neuroradiologists and clinical scientists to submit as many scientific abstracts and excerpts extraordinaire as possible. Multiple SAM sessions are embedded in the program, allowing for MOC cycle certification and recertification. Finally, after 2 years of being physically apart, we will come together again for a fun and friendly competition in the "Stump the Stars" Jeopardy game just before the annual gala dinner.

The meeting location cannot be more perfect, as Vermont is green and friendly, and a cool place to be in the sizzling summer days of August. Burlington is a vibrant city located along beautiful Lake Champlain. The conference venue is nestled between Lake Champlain and the Burlington historic downtown area. Burlington is an ideal setting to relax with family and friends, enjoy a bike ride on the Burlington bike path alongside the shoreline, sail on Lake Champlain, or a stroll through the picturesque historic Burlington downtown. All are easily within a 5-minute walk from the hotel. Whether you are a history buff, food connoisseur, or art aficionado, Burlington has something to offer for everyone.

This year we offer a hybrid meeting for those who cannot join us in person. Registrants will be able to access the meeting materials and will view the lectures via a live-streamed program.

All attendees will receive meeting materials such as the program, faculty list, electronic syllabus, and as an added bonus, 90-days of on-demand access to the recorded lectures following the conclusion of the meeting.

The ENRS annual meeting has always been an intimate, family-oriented, and casual event that grows to be the favorite of many, including mine. It is a unique opportunity to reunite with old friends and make new connections, interact with nationally and internationally recognized physicians and scientists who are experts and leaders in neuroimaging, and learn and keep on top of new advances in the field.

My immense gratitude to the members of our Executive Committee and Program Committee who provided me with invaluable advice and help, the superb faculty speakers and moderators who agreed to participate, our generous sponsors, and the program managers at ESI.

The meeting will be 3½ days long -- let's reconnect, learn and share.

We all look forward to seeing you in August!

Doris D.M. Lin, M.D., Ph.D.  
President-Elect and Program Chair

## Target Audience

The ENRS 34th Annual Meeting is primarily intended and designed for academic and private practice neuroradiologists, general radiologists, and other health professionals whose practice involves neuroradiology, neurointervention, otolaryngology, neurosurgery, neurology, and imaging science. The meeting is also intended for trainees and is an excellent venue for physicians-in-training, including residents and fellows. The program covers current imaging of the brain, spine, head, and neck, as well as neurointervention in adults and children. Up-to-date guidelines, cutting-edge techniques, and image-guided interventions will be reviewed to enhance your diagnostic and interventional neuroradiology practice. In addition, current and future applications of artificial intelligence, deep learning, and radiomics will be discussed.

## 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 live activity for a maximum of 26.25 *AMA PRA Category 1 Credit(s)*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

**Self-Assessment Modules (SAMs):** Educational Symposia has been granted Deemed Status by the American Board of Radiology (ABR). This allows Educational Symposia to develop and implement SAMs that satisfy ABR Part II MOC requirements.

## Educational Objectives

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

- Effectively evaluate and derive a differential diagnosis for various diseases in the neck, sinonasal cavity, salivary gland, and temporal bone in adults and children
- Discuss optimal techniques and approaches to characterize head and neck tumors
- Explain the up-to-date classification of head and neck vascular anomalies and treatment options
- Understand and implement artificial intelligence, deep learning, and radiomics in neuroradiology workflow
- Develop an approach for the evaluation of pediatric disorders, including congenital malformations of the brain and spine, neuro-metabolic disorders, pediatric brain tumors, abusive head trauma, and epilepsy
- Describe the updated classification of brain tumors, understand and implement advanced imaging techniques in tumor assessment, and recognize CNS treatment-induced effects and tumor mimics
- Differentiate between various neurologic autoimmune diseases and CNS inflammation
- Discuss current structural and molecular imaging in aging and dementia
- Understand the clinical and imaging presentations of COVID-19 related cerebrovascular disease 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
- Incorporate advanced neuroimaging techniques including vessel wall imaging, cerebral perfusion, and advanced CT technology in the evaluation of cerebrovascular diseases
- Understand the principles and pitfalls of advanced neurovascular imaging methods in interrogating cerebrovascular structures and functional reserves
- Evaluate and characterize infectious, inflammatory, degenerative, traumatic, vascular, and malignant disorders of the spine using conventional and advanced imaging techniques while providing clinically relevant reporting
- Recognize spine, spinal cord, and brachial plexus pathologies
- Discuss the best practices for evaluation of CSF hypotension
- Understand endovascular assessment and treatment of tinnitus
- Describe state-of-the-art technologies and neurointerventional procedures for image-guided treatment of CNS disorders

*No special educational preparation is required for this CME activity.*



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## 2021-2022 ENRS Executive Committee

### PRESIDENT & CHAIR

#### Tanya J. Rath, M.D.

Associate Professor  
Division Chair of Neuroradiology  
Senior Associate Consultant  
Departments of Radiology, Otolaryngology  
& Neurosurgery  
Mayo Clinic College of Medicine  
Phoenix, AZ

### VICE-PRESIDENT/PRESIDENT-ELECT

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

Associate Professor  
Russell H. Morgan Department of Radiology and  
Radiological Science  
Johns Hopkins University School of Medicine  
Baltimore, MD

### SECRETARY

#### Mari Hagiwara, M.D.

Associate Professor Radiology  
NYU Langone Health  
New York, NY

### TREASURER

#### Amy Fan-Yee Juliano, M.D.

Assistant Professor of Radiology  
Massachusetts Eye and Ear, Harvard Medical School  
Boston, MA

### 1<sup>ST</sup> PAST-PRESIDENT

#### 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

### 2<sup>ND</sup> PAST-PRESIDENT

#### Reza Forghani, M.D., Ph.D.

Professor & Vice-Chair of AI, Department  
of Radiology  
University of Florida College of Medicine  
Gainesville, FL

## ENRS Abstract Submission: Deadline for Abstract Submissions June 24, 2022

Abstracts will be accepted for presentation 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, health policy as well as technical abstracts.

**The deadline for abstract submissions is Friday, June 24, 2022. Authors of selected abstracts will be notified by early July. The presenting author of the accepted abstracts is expected to register for the meeting by August 1, 2022 and pay the meeting registration fee.**

Interested candidates should complete the [abstract submission form](#) and submit a copy of their abstract(s) electronically to the Scientific Presentations Committee at [enrs.scientific@gmail.com](mailto:enrs.scientific@gmail.com) (Word or PDF format). Please contact us regarding any issue encountered with the submission form.

## 2021-2022 ENRS Program Committee

### PROGRAM CHAIR:

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

Associate Professor  
Russell H. Morgan Department of Radiology and  
Radiological Science  
Johns Hopkins University School of Medicine  
Baltimore, MD

### HEAD AND NECK:

#### Mari Hagiwara, M.D.

Associate Professor Radiology  
NYU Langone Health  
New York, NY

#### Amy F. Juliano, M.D.

Assistant Professor of Radiology  
Massachusetts Eye and Ear  
Harvard Medical School  
Boston, MA

### ARTIFICIAL INTELLIGENCE AND ADVANCED IMAGING:

#### Reza Forghani, M.D., Ph.D.

Professor & Vice-Chair of AI, Department of Radiology  
University of Florida College of Medicine  
Gainesville, FL

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

Division Chief, Neuroradiology, Massachusetts  
General Hospital  
Associate Professor, Harvard Medical School  
Director, CT Innovation and Advanced X-ray Imaging  
Science (AXIS) Center  
Service Chief, Radiography  
Site Miner, Consortia for Integration of Medicine and  
Innovative Technologies (CIMIT)  
Boston, MA

### BRAIN:

#### Carlos H. Torres M.D., FRCPC

Professor of Radiology, 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, Canada

#### Suyash Mohan, M.D.

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

### PEDIATRIC NEURORADIOLOGY:

#### Aylin Tekes-Brady, M.D.

Associate Professor of Radiology and  
Radiological Sciences  
Johns Hopkins Hospital  
Director, Division of Pediatric Radiology and  
Pediatric Neuroradiology  
Charlotte R. Bloomberg Children's Center  
Baltimore, MD

#### Arastoo Vossough, M.D., Ph.D.

Lariussa T. Bilaniuk Endowed Chair in Pediatric  
Neuroradiology  
Children's Hospital of Philadelphia  
Associate Professor of Radiology  
University of Pennsylvania  
Philadelphia, PA

### SPINE:

#### Amish H. Doshi, M.D.

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

#### Majid Khan, M.D.

Associate Professor of Radiology, ENT and Neurology  
Director, Non-Vascular Spine Intervention (Neuro)  
Department of Radiology  
Jefferson University Hospital and SK Medical College  
Adjunct Associate Professor  
Russell. H Morgan Department of Radiology  
Johns Hopkins Hospital  
Baltimore, MD

### STROKE AND NEUROINTERVENTION:

#### Dheeraj Gandhi, M.D.

Professor and Vice Chair of Radiology  
Professor of Neurology and Neurosurgery  
Director, Interventional Neuroradiology  
Clinical Director, CMIT Center  
University of Maryland School of Medicine  
Baltimore, MD

### ADVANCED NEUROVASCULAR IMAGING: STRUCTURE & FUNCTION:

#### Bruce A. Wasserman, M.D.

Vice Chair of Clinical Research  
Professor of Radiology, Neurosurgery, and Vascular Surgery  
Department of Diagnostic Radiology & Nuclear Medicine  
University of Maryland School of Medicine  
Director of Neurovascular Imaging  
University of Maryland Medical Center  
Adjunct Professor of Radiology  
Department of Radiology and Radiological Sciences  
Johns Hopkins University School of Medicine  
Baltimore, MD

### GLOBAL HEALTH AND GLOBAL RADIOLOGY:

#### Maria J. Borja, M.D.

Assistant Professor of Radiology  
Division of Neuroradiology  
NYU School of Medicine  
New York, NY

#### Carlos Zamora, M.D., Ph.D.

Associate Professor of Radiology  
Chief, Division of Neuroradiology  
Department of Radiology  
University of North Carolina  
Chapel Hill, NC

### SCIENTIFIC PRESENTATIONS:

#### Laurent Letourneau-Guillon M.D., M.Sc.

Associate Professor of Radiology  
Centre Hospitalier de l'Université de Montreal (CHUM)  
Centre de Recherche du CHUM (CRCHUM)  
Montreal, Quebec  
Canada

#### Mai-Lan Ho, M.D.

Associate Professor of Radiology  
Director, Translational Imaging (I3) Core  
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

#### Jae W. Song, M.D., M.S.

Assistant Professor of Radiology  
Department of Diagnostic Radiology &  
Division of Neuroradiology  
Hospital of the University of Pennsylvania  
Philadelphia, PA

### STUMP THE STARS:

#### J. Eric Schmitt, M.D., Ph.D.

Assistant Professor of Radiology and Psychiatry  
Division of Neuroradiology  
Perelman School of Medicine at the University of  
Pennsylvania  
Philadelphia, PA

### SOCIAL MEDIA:

#### 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

## THURSDAY, AUGUST 18, 2022

- 8:00–9:00 AM Registration & Continental Breakfast for Attendees
- 9:00–9:20 Welcome - Tanya J. Rath, M.D.
- 9:20–9:30 Introduction  
*Doris D. M. Lin, M.D., Ph.D.*

### HEAD AND NECK I

Moderators: *Sara B. Strauss, M.D. and Pritesh J. Mehta, M.D.*

### SAM SESSION - HEAD AND NECK PATHOLOGY

- 9:30–9:50 Vascular Anomalies: Diagnosis and Treatment Options  
*Christopher R. Bailey, M.D.*
- 9:50–10:10 Salivary Gland Pathology: A Case-Based Approach  
*Amit Mahajan, M.D.*
- 10:10–10:30 The Role of Nuclear Medicine Imaging in the Assessment of Head and Neck Tumors  
*Katie S. Traylor, D.O.*
- 10:30–10:50 Perineural Spread of Tumor  
*Nafi Ayygun, M.D., FACR*
- 10:50–11:30 Temporal Bone Imaging: Cases, Pearls, and Updates  
Moderator: *Hugh D. Curtin, M.D., FACR*  
Panel: *Caroline B. Robson, MBChB, Gul Moonis, MBBS, Felice D'Arco, M.D., Amy F. Juliano, M.D.*

- 11:30 – 12:00 PM Scientific Papers #1 ♦**  
*Laurent Letourneau-Guillon, M.D., Mai-Lan Ho, M.D., Jae W. Song, M.D., M.S.*

- 12:00 – 12:30 Scientific Papers #2 ♦**  
*Laurent Letourneau-Guillon, M.D., Mai-Lan Ho, M.D., Jae W. Song, M.D., M.S.*

- 12:30 – 1:30 Boxed Lunch for Attendees**

### ADVANCED IMAGING AND ARTIFICIAL INTELLIGENCE

Moderators: *A. John Tsiouris, M.D., and Karen A. Buch, M.D.*

- 1:30–1:50 Crowd-Sourcing with AI  
*Rajiv Gupta, M.D., Ph.D.*
- 1:50–2:10 Practical AI Implementation in Clinical Practice: Algorithm Evaluation and Orchestration  
*Reza Forghani, M.D., Ph.D.*
- 2:10–2:30 The Future of AI: 5 Year Overview  
*Keith Dreyer, D.O., Ph.D.*
- 2:30–2:50 Optimized Imaging of the Instrumented Spine  
*Lawrence N. Tanenbaum, M.D., FACR*
- 2:50–3:10 Novel Tracers in Neuro-Oncology: Beyond FDG  
*Ali Nabavizadeh, M.D.*
- 3:10–3:30 Radiogenomics and Molecular Imaging in Gliomas  
*Mariam Aboian, M.D., Ph.D.*
- 3:30–3:50 Clinical Applications of 7T MRI for Brain Imaging  
*Peter B. Barker, D.Phil.*
- 3:50 – 4:10 Refreshment Break and Visit Exhibits**

## THURSDAY, AUGUST 18, 2022 (continued)

### PEDIATRIC NEURORADIOLOGY

Moderators: *Bruno P. Soares, M.D. and Thierry A.G.M. Huisman, M.D., P.D., EDiNR, EDiPNR, FICIS*

- 4:10–4:30 Congenital Malformations of the Posterior Fossa  
*Elizabeth K. Weidman, M.D.*
- 4:30–4:50 Abusive Head Trauma  
*Thierry A.G.M. Huisman, M.D., P.D., EDiNR, EDiPNR, FICIS*
- 4:50–5:10 Metabolic Disorders  
*Bruno P. Soares, M.D.*
- 5:10–5:30 Epilepsy  
*Elysa Widjaja, M.D., MPH, Ph.D.*

### SAM SESSION: PEDIATRIC NEURORADIOLOGY

- 5:30–5:50 Pediatric Brain Tumors: Update  
*Melike Guryildirim, M.D.*
- 5:50–6:10 Congenital Malformation of the Spine  
*Karuna V. Shekdar, M.D.*
- 6:10–6:30 Case-Based Review: Advanced Neuroimaging Techniques in Pediatrics  
*Mai-Lan Ho, M.D.*

- 6:30 End of Session**

- 6:30 – 8:00 Welcome Reception**

## FRIDAY, AUGUST 19, 2022

- 7:00 – 7:30 AM Breakfast & Learn How-To Session ♦**  
Sponsored by Olea Medical
- Discriminating Progression From Radionecrosis Through Amide Proton Transfer Weighted Imaging in Brain Metastases  
*Lucia Nichelli M.D.*

- 7:30 – 8:00 AM Visit Exhibits**

### BRAIN: NEOPLASM

Moderators: *Rajiv Mangla, M.D. and Susie Yi Huang, M.D, Ph.D.*

- 8:00–8:20 2021 WHO Classification of CNS Tumors: What We Need to Know for Tumor Board!  
*Raymond Y. Huang, M.D., Ph.D.*
- 8:20–8:40 Beyond Choline: Problem Solving with MR Spectroscopy: 2-Hydroxyglutarate (2HG) and Other Metabolites  
*Robert J. Young, M.D.*
- 8:40–9:00 Functional MRI and DTI Tractography for Brain Mapping: Towards "Precision Surgery" and "Optimizing Outcomes"  
*Behroze Adi Vachha, M.D., Ph.D.*
- 9:00–9:20 Novel Approaches to Diagnosis and Treatment in Neuro-Oncology  
*Suyash Mohan, M.D.*
- 9:20–9:40 Treatment-Induced Neurotoxicity: Chemo, Immuno and CAR T-Cell Therapy  
*Carlos H. Torres, M.D., FRCPC*
- 9:40–10:00 CNS Neoplasms and Mimics: Eliminating "Mass" Confusion  
*Kevin A. Hsu, M.D.*
- 10:00 – 10:20 Refreshment Break and Visit Exhibits**

# Program (Continued)

## FRIDAY, AUGUST 19, 2022 (continued)

### STROKE AND VASCULAR IMAGING

Moderators: Varun Naragum, M.D. and Dheeraj Gandhi, M.D.

- 10:20 – 10:40 Anterior Circulation Strokes: Evidence-Based Workflow  
*Prashant Raghavan, MBBS*
- 10:40 – 11:00 Applications of Machine Learning in Identification and Outcome Prediction of Stroke  
*Sam Payabwash, M.D.*
- 11:00 – 11:20 Imaging of Collaterals: What Does the Evidence Tell (and Not Tell) Us?  
*Ajay Malhotra, M.D., MMM*
- 11:20 – 11:40 WNRS Lecture: Small Vessel Vasculopathies  
*Jennifer L. Becker M.D., BMBS, MRCS, FRCR, WNRS President*
- 11:40 – 12:00 PM COVID and Its Impact on Cerebrovascular Disease  
*Varun Naragum, M.D.*
- 12:00 – 12:30 **Scientific Papers #3 ♦**  
*Laurent Letourneau-Guillon, M.D., Mai-Lan Ho, M.D., Jae W. Song, M.D., M.S.*
- 12:30 – 1:30 **Lunch & Learn How-To Session ♦**  
Sponsored by Bracco Diagnostics, Inc.  
  
Gadolinium-Based Contrast Agents: Past, Present and Future  
*Gianpaolo Pirovano, MD*
- 1:30 – 2:00 **Scientific Papers #4 ♦**  
*Laurent Letourneau-Guillon, M.D., Mai-Lan Ho, M.D., Jae W. Song, M.D., M.S.*

### NEUROINFLAMMATION

Moderators: Lindsay A. Cherpak, BSc, M.D., FRCPC and Anna Derman, M.D.

#### SAM SESSION: NEUROINFLAMMATION

- 2:00 – 2:20 Advanced Imaging in Multiple Sclerosis  
*Christopher G. Filippi, M.D.*
- 2:20 – 2:40 GFAP Astrocytopathy and Other Autoimmune Encephalitides and Their Mimics  
*Paulo Puac Polanco, M.D., MS.c.*
- 2:40 – 3:00 Bilateral Abnormality of the Deep Gray Matter: Roadmap to Diagnosis  
*Carlos Zamora, M.D., Ph.D.*
- 3:00 – 3:20 Fire and Ice: Neuro-Ophthalmology Imaging of NMO, MOG and OMG!  
*Mary Maber, M.D.*
- 3:20 – 3:40 Imaging Spectrum of CNS Vasculitis  
*Laurent Letourneau-Guillon, M.D.*
- 3:40 – 4:00 **Break and Visit Exhibits**

## FRIDAY, AUGUST 19, 2022 (continued)

### NEURODEGENERATION

Moderators: Ilya M. Nasrallah, M.D., Ph.D. and Jana Ivanidze, M.D., Ph.D.

#### SAM SESSION: NEURODEGENERATION

- 4:00 – 4:20 Molecular Imaging Biomarkers of Alzheimer's Disease  
*Ana M. Franceschi, M.D., Ph.D.*
- 4:20 – 4:40 Cerebral Amyloid Angiopathy (CAA) and All Its Faces  
*Eduardo Portela de Oliveira, M.D.*
- 4:40 – 5:00 Neuroimaging in Non-Alzheimer's Dementias: The Big 5!  
*Karine Massicotte-Tisluck, M.D.*
- 5:00 – 5:20 The Dynamics of the Glymphatic System  
*Charles R.G. Guttmann, M.D.*
- 5:20 – 5:40 **Current State of Affairs of the ASNR**  
*Erin Simon Schwartz, M.D., FACR*
- 5:40 – 5:45 **Presentation of ENRS 2023 Meeting**  
*Mari Hagiwara, M.D.*
- 5:45 **End of Session**
- 5:45 – 6:05 **ENRS Annual Business Meeting (ENRS Members Only) ♦**

## SATURDAY, AUGUST 20, 2022

- 7:00 – 7:30 AM **Breakfast & Learn How-To Session ♦**  
Sponsored by Philips Healthcare North America  
  
MR 7700 and seamless integration of MultiNuclei  
*Elizabeth Vincent*

#### 7:30 – 8:00 AM Visit Exhibits

### SPINE I

Moderators: Riban Khan, M.D. and Michael H. Schecht, M.D.

- 8:00 – 8:20 Reporting in Spine  
*Amish H. Doshi, M.D.*
- 8:20 – 8:40 AI Applications in Clinical Spine Imaging  
*Adam E. Flanders, M.D.*

#### SAM SESSION: SPINE I

- 8:40 – 9:00 Infections in the Spinal Cord and Meninges  
*Brian P. Rigney, M.D.*
- 9:00 – 9:20 Signal Changes within the Cord: What Does It Mean?  
*Maria J. Borja, M.D.*
- 9:20 – 9:40 Spine Emergencies  
*Harprit S. Bedi, M.D.*
- 9:40 – 10:00 Spinal Angiography Overview: Case-Based Illustration  
*Emanuele Orru, M.D.*

#### 10:00 – 10:20 Refreshment Break and Visit Exhibits

### HEAD AND NECK II

Moderators: Jared M. Steinklein, M.D. and Osamu Sakai, M.D., Ph.D., FACR

- 10:20 – 10:40 Embryologic Basis of Head and Neck Lesions: Making the Connections  
*Peter M. Som, M.D., FACR, F.R.S.M.*
- 10:40 – 11:00 Solid Pediatric Neck Masses  
*Karen K. Moeller, M.D.*
- 11:00 – 11:20 Immune-Mediated Responses in the Head and Neck  
*Claudia F.E. Kirsch, M.D., FASFN, FACR*
- 11:20 – 11:40 Differential Diagnosis of Sinonasal Masses  
*Deborah R. Shatzkes, M.D.*
- 11:40 – 12:00 PM Parathyroid Imaging: The Role of MRI  
*C. Douglas Phillips, M.D., FACR*

# Program (Continued)

## SATURDAY, AUGUST 20, 2022 (continued)

**12:00 – 12:30**     **Scientific Papers #5 ♦**  
*Laurent Letourneau-Guillon, M.D., Mai-Lan Ho, M.D.,  
Jae W. Song, M.D., M.S.*

**12:30 – 1:00**     **Scientific Papers #6 ♦**  
*Laurent Letourneau-Guillon, M.D., Mai-Lan Ho, M.D.,  
Jae W. Song, M.D., M.S.*

**1:00 – 2:00**     **Lunch on Your Own**

**SPINE II**  
*Moderators: Tanvir Rizvi, MBBS, M.D., DM and Robini Nadgir, M.D.*

2:00 – 2:20     Basics of Spine Intervention  
*Vikas Agarwal, M.D.*

2:20 – 2:40     Advanced Oncologic Imaging of Spine: Diffusion  
*Amit Aggarwal, M.D.*

2:40 – 3:00     Advanced Oncologic Imaging of Spine: Perfusion  
*Majid A. Khan, MBBS, M.D.*

3:00 – 3:20     Brachial and Lumbosacral MR Neurography:  
A Less Perplexing Perspective of the Plexus  
*Jeffrey A. Belair, M.D.*

3:20 – 3:40     Spontaneous Intracranial Hypotension: Where's the Leak?  
*William A. Mehan, Jr., M.D., MBA*

**3:40 – 4:00**     **Refreshment Break and Visit Exhibits**

**GLOBAL HEALTH, GLOBAL RADIOLOGY**  
*Moderators: Maria J. Borja, M.D. and Carlos Zamora, M.D., Ph.D.*

4:00 – 4:20     RAD-AID, Optimizing Access to Radiology in  
Low Resource Regions  
*Daniel J. Mollura, M.D.*

4:20 – 4:40     Imaging the World: Transforming Global Health  
*Kristen K. Destigter, M.D., FACR*

4:40 – 4:55     Globally Accessible MRI: Current State and Challenges  
*J. Thomas Vaughan, Ph.D.*

4:55 – 5:10     Neuroradiology in the Developing World:  
Is It Possible to Bridge the Training Gap?  
*Frank J. Minja, M.D.*

5:10 – 5:20     Question and Answer Session  
*Maria J. Borja, M.D. and Carlos Zamora, M.D., Ph.D.*

**The ENRS Game Show**

**5:20 – 6:15**     **Stump the Stars**  
*J. Eric Schmitt, M.D., Ph.D.*

**6:15**             **End of Session**

**6:30 – 9:00**     **Annual Gala Dinner**

## SUNDAY, AUGUST 21, 2022

**7:00 – 7:30 AM**     **Breakfast & Learn How-To Session ♦**  
Sponsored by Bayer Healthcare

Gadolinium-Based Contrast Agents (GBCAs):  
Update and Current Understanding  
*José Alberto Briceño Polacre, M.D., Ph.D.*

**7:30 – 8:00 AM**     **Visit Exhibits**

**ADVANCED INTRACRANIAL VASCULAR IMAGING:  
STRUCTURE AND FUNCTION**  
*Moderators: Bruce A. Wasserman, M.D. and David J. Mikulis, BSc, M.D., FRCR*

8:00 – 8:20     Vessel Wall Imaging: Pearls and Pitfalls  
*Bruce A. Wasserman, M.D.*

8:20 – 8:40     Cerebrovascular Reactivity Mapping  
*David J. Mikulis, BSc, M.D., FRCR*

8:40 – 9:20     Intracranial Vascular Imaging: Cases, Pearls, and Best Practice  
*Laurent Letourneau-Guillon, M.D., Michelle P. Lin, M.D.,  
Clifford J. Eskey, M.D., Ph.D., and Dheeraj Gandhi, M.D.*

**EMERGENCY IMAGING (CASE-BASED)**  
*Moderator: Alvand Hassankhani, M.D.*

9:20 – 9:40     Head and Neck Emergencies  
*Gopi K. Nayak, M.D.*

9:40 – 10:00     Pitfalls in the Imaging of Head Trauma:  
When You Need to Think Twice!!  
*Siavash Bebbahani, M.D.*

**10:00 – 10:20**     **Refreshment Break and Visit Exhibits**

**NEUROINTERVENTION**  
*Moderators: Gerard Deib, M.D. and Dipanka Sarma, M.D.*

10:20 – 10:40     Mechanical Thrombectomy in Acute Ischemic Stroke:  
New Horizons and Possibilities  
*Manuel C. Fortes, M.D.*

10:40 – 11:00     Flow Diversion of Intracranial Aneurysms:  
Lessons Learned from Clinical Practice  
*Timothy R. Miller, M.D.*

11:00 – 11:20     Chronic SDH: Lessons from Early Endovascular Experience  
*Reade De Leacy, M.D., MBBS (Hons) FRANZCR*

**SAM SESSION: NEUROINTERVENTION**

11:20 – 11:40     Dual Energy CT: Applications for Neurointerventionalists  
*Urtam K. Bodanapally, MBBS*

11:40 – 12:00 PM     Curing with Sound: MR-Guided Focused Ultrasound  
*Dheeraj Gandhi, M.D.*

12:00 – 12:20     Endovascular Evaluation and Treatment of Tinnitus  
*Yafell Serulle, M.D., Ph.D.*

12:20 – 12:30     Closing Remarks  
*Doris D.M. Lin, M.D., Ph.D.*

**12:30**             **End of Meeting**

Faculty & topics subject to change.

♦ Session not accredited for AMA PRA Category 1 Credit(s)<sup>™</sup>

# Invited Faculty

**Mariam Aboian, M.D., Ph.D.**

Yale University School of Medicine  
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**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

**Nafi Ayygun, M.D.**

University of South Florida  
Tampa, FL

**Christopher R. Bailey, M.D.**

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Baltimore, MD

**Peter B. Barker, D.Phil.**

Johns Hopkins University School of Medicine  
Baltimore, MD

**Jennifer L. Becker, M.D., MBBS, MRCS, FRCR**

University of Arizona  
Phoenix, AZ

**Harprit S. Bedi, M.D.**

Boston University School of Medicine  
Boston, MA

**Siavash Behbahani, M.D.**

Boston University School of Medicine  
Boston, MA

**Jeffrey A. Belair, M.D.**

Thomas Jefferson University  
Philadelphia, PA

**Uttam K. Bodanapally, MBBS**

University of Maryland Medical Center  
Baltimore, MD

**Maria J. Borja, M.D., M.D.**

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New York, NY

**Karen A. Buch, M.D.**

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Massachusetts General Hospital  
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**Lindsay A. Cherpak, BSc., M.D., FRCPC**

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**Hugh D. Curtin, M.D., FACR**

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Boston, MA

**Felice D'Arco, M.D.**

Great Ormond Street Hospital for Children  
Guy's and St Thomas' Foundation Trust & Evelina  
Children's Hospital  
London - UK

**Reade De Leacy, M.D., MBBS (Hons) FRANZCR**

Mount Sinai Hospital  
New York, NY

**Gerard Deib, M.D.**

West Virginia University  
Morgantown, WV

**Anna Derman, M.D.**

Maimonides Medical Center  
SUNY Downstate Health Sciences University  
Brooklyn, NY

**Kristen K. Destigter, M.D., FACR**

Larner College of Medicine at the University of Vermont  
University of Vermont Health Network  
Burlington, VT

**Amish H. Doshi, M.D.**

Icahn School of Medicine at Mount Sinai  
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**Keith J. Dreyer, D.O., Ph.D.**

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Harvard Medical School  
Boston, MA

**Clifford J. Eskey, M.D., Ph.D.**

Dartmouth Hitchcock Medical Center  
Hanover, NH

**Christopher G. Filippi, M.D.**

Tufts University School of Medicine  
Tufts Medical Center  
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**Adam E. Flanders, M.D.**

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**Reza Forghani, M.D., Ph.D.**

University of Florida College of Medicine  
Gainesville, FL

**Manuel C. Fortes, M.D.**

University of Virginia - School of Medicine  
Fairfax Radiological Consultants, PC  
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**Ana M. Franceschi, M.D., Ph.D.**

Donald and Barbara Zucker School of Medicine at  
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**Dheeraj Gandhi, M.D.**

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

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**Melike Guryildirim, M.D.**

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**Charles R.G. Guttmann, M.D.**

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**Alvand Hassankhani, M.D.**

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**Mai-Lan Ho, M.D.**

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

**Kevin A. Hsu, M.D.**

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**Susie Yi Huang, M.D., Ph.D.**

Massachusetts General Hospital  
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**Raymond Y. Huang, M.D., Ph.D.**

Harvard Medical School  
Brigham and Women's Hospital  
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**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

**Amy F. Juliano, M.D.**

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**Majid A. Khan, MBBS, M.D.**

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**Karine Massicotte-Tisluck, M.D.**

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

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The Massachusetts General Hospital  
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**Pritesh J. Mehta, M.D.**

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Harvard Medical School  
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**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  
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# Invited Faculty

**Frank J. Minja, M.D.**

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**Karen K. Moeller, M.D.**

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**Sam Payabvash, M.D.**

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**Eduardo Portela de Oliveira, M.D.**

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uOttawa Brain and Mind Research Institute  
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**Carlos Zamora, M.D., Ph.D.**

University of North Carolina  
Chapel Hill, NC



# Registration Information

34<sup>th</sup> Annual Meeting of

# The Eastern Neuroradiological Society

ENRS22

## PRICING IN-PERSON ATTENDEES

ENRS Member.....	\$475 <sup>00</sup>
Non-Member.....	\$795 <sup>00</sup>
Members-in-Training.....	\$300 <sup>00</sup>
<input type="checkbox"/> Resident <input type="checkbox"/> Fellow	
<input type="checkbox"/> Medical Student	

## HYBRID PRICING

ENRS Member.....	\$475
Non-Member.....	\$695
Members-in-Training.....	\$200
<input type="checkbox"/> Resident <input type="checkbox"/> Fellow	
<input type="checkbox"/> Medical Student	
Int'l Attendees.....	\$200
(excludes North America)	
Low GBD Countries.....	\$100

## WELCOME RECEPTION • THURSDAY, AUGUST 18, 2022

Yes, I plan to attend the Welcome Reception .....FREE

## GALA DINNER • SATURDAY, AUGUST 20, 2022

Yes, I plan to attend the Gala Dinner (Attendee).....\$75<sup>00</sup>

Yes, I plan to have a guest attend

Guest / Spouse Dinner Fee.....\$120<sup>00</sup>

Children under 12 years of age.....\$25<sup>00</sup>

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Online or by Phone



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WE ACCEPT



**CANCELLATIONS:** Requests for refund of registration fees, less a \$75.00 administrative fee, will be made to those providing written notification of cancellation by **July 18, 2022**. After that date, there will be no refunds given for cancellations. Please email notice of cancellation to: [cancel@edusymp.com](mailto:cancel@edusymp.com) or fax to 813-806-1001.

**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.



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**Group Room Rates Start At ..... \$259.00 nt.**  
(Single/Double Occupancy)

### HOTEL TAX:

9% State Occupancy Tax, 2% City Tax, \$1/night Service Charge and a \$1.50/night Vermont Marketing Fee

**HOTEL CUT-OFF DATE: Sunday, July 17, 2022**  
(group rates 3 days prior/post – space available basis)

### SELF-PARKING:

Complimentary parking to guests attending the Event for one vehicle per room night.

### DEPOSIT POLICY:

Reservation must be guaranteed with a major credit card.

### CANCELLATION POLICY:

If a guest does not cancel a reservation within 48 hours before 4:00 PM of the guest's check-in date, then Hotel may charge the credit card one night's room fee plus any applicable taxes. Check in time is: 4:00 PM; check out time is: 11:00 AM.

**HOTEL:** 60 Battery Street  
Burlington, Vermont 05401

**PHONE:** (802) 658-6500