

Visit www.cme.hms.harvard.edu/courses/neuroradiology for more information

September 21 - September 25, 2009 • The Royal Sonesta Hotel, Cambridge, MA

NEURORADIOLOGY

Post Graduate Course

September 21 - September 24, 2009

Program Directors

- R. Gilberto Gonzalez, MD, PhD
- Joshua A. Hirsch, MD
- Michael Lev, MD
- Pamela Schaefer, MD

HEAD AND NECK RADIOLOGY

September 24 - September 25, 2009

Program Directors Hugh Curtin, MD • Alfred Weber, MD

Renowned Harvard and Guest Faculty include

Maurico Castillo, MD • M. Judith Donovan Post, MD • Michael Modic, MD • Thomas Naidich, MD •
James Smirniotopoulos, MD • Deborah Reede, MD • Peter Som, MD • Hugh Curtin, MD

Massachusetts General Hospital • Harvard Medical School
Department of Radiology Department of Continuing Education

COURSE DESCRIPTION

The educational objective of this intensive five-day course is to provide a comprehensive review of basic and advanced principles in the management, acquisition and interpretation of structural and functional imaging studies of the brain, spine, and extra-cranial head and neck. This year's highlights include symposia on pediatric neuroradiology, spinal disease, trauma, acute stroke and MR spectroscopy.

At the conclusion of the program, the participant will be able to:

Select the most appropriate and cost effective imaging studies for specific clinical problems of the central nervous system and head and neck

Provide a full range of diagnostic possibilities for simple and complex imaging problems of the CNS and head and neck

Integrate the most current pathophysiological and pathological concepts into the interpretation of these imaging studies

New concepts and recent development in the diagnostic approach to clinical problems using basic and advanced Magnetic Resonance Imaging (MRI), Computed Tomography (CT), angiography, fMRI, MRS, PET, and neurovascular sonography will be discussed by leaders in the field. The course is designed for beginning and experienced radiologists and neuroradiologists in clinical practice.

This course should be of special interest to those who plan to take the examination for the Certificate of Added Qualification (CAQ) in neuroradiology which is sponsored by the American Board of Radiology. It will also be of interest to neurosurgeons, neurologists, otolaryngologists, osteopaths, neuroscience clinicians, residents, technologists, technical representatives, health planners, and residents preparing for Board examinations in radiology, neurology or neurosurgery.

This will be a unique opportunity for the participants to enhance their skills and evaluate some of the latest advances in the field of radiology. A renowned guest faculty, well known for their extensive contributions in neuroradiology, head and neck radiology, functional MRI and MR spectroscopy will join distinguished faculty from Harvard Medical School at the Massachusetts General Hospital, the Massachusetts Eye and Ear Infirmary and Beth Israel Deaconess Medical Center, in presenting this year's up to date overview. A comprehensive syllabus will be provided as a permanent record of the course.

ACCREDITATION

Harvard Medical School is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Harvard Medical School designates this Combined Course for a maximum of 39.75 AMA PRA Category 1 Credit(s)[™] : Neuroradiology for a maximum of 32.25 AMA PRA Category 1 Credit(s)[™], and Head and Neck Radiology for a maximum of 15.50 AMA PRA Category 1 Credit(s)[™].

Physicians should only claim credit commensurate with the extent of their participation in the activity.

REGISTRATION INFORMATION

Full Course- Physicians tuition fee: \$995 (USD). Reduced fee for Residents, Fellows in Training, (with a letter of verification from Department Chair): \$750 (USD). Neuroradiology Course only- Physicians tuition fee: \$810 (USD).

Head and Neck Radiology Course only - Physicians tuition fee: \$750 (USD).

All foreign payments must be made by a draft on a United States bank. If paying by check, make it payable to Harvard Medical School and mail with the completed registration form to:


Harvard Medical School, Department of Continuing Education, P.O. Box 825, Boston, MA 02117-0825.

If paying by credit card, please register online at: www.cme.hms.harvard.edu/courses/neuroradiology.

Telephone or mail-in registration with credit card payment is not accepted. Inquiries should be directed to the above address, made by phone: 617-384-8600, Monday- Friday, 10 AM to 4 PM (EST), or by email: hms-cme@hms.harvard.edu. Upon receipt of registration a confirmation letter will be mailed to the address listed on the form.

ONLINE INFORMATION

To register or view course information online, visit:
www.cme.hms.harvard.edu/courses/neuroradiology.

 To ensure proper registration, please add the last three characters of the source code found at the bottom of the registration form.

REFUND POLICY

A handling fee of \$60 is deducted for cancellation. Refund request must be received by mail or fax one week prior to the course. No refund will be made thereafter.

COURSE LOCATION

All sessions will be held at The Royal Sonesta Hotel,
5 Cambridge Parkway, Cambridge, MA 02142.
Telephone: 617-806-4200

ACCOMMODATIONS

Hotel rooms in Boston and Cambridge are limited. You are urged to make reservations early. A limited number of rooms have been reserved at The Royal Sonesta Hotel until August 31, 2009. Please specify that you are enrolled in the course to receive a reduced room rate. A map of Boston and Cambridge, listing local hotels, will be sent with your confirmation of enrollment.

TRAVEL

For information on reduced airfare, call Harvard Medical School, Department of Continuing Education office at 617-384-8600, Monday-Friday, 10 am to 4 pm (EST).



MASSACHUSETTS
GENERAL HOSPITAL

RADIOLOGY



HARVARD MEDICAL SCHOOL
Department of Continuing Education

SUNDAY, SEPTEMBER 20, 2009

5:30-7:30 PM REGISTRATION

MONDAY, SEPTEMBER 21, 2009

7-8:15 AM REGISTRATION AND CONTINENTAL BREAKFAST

7:30-8:15 BREAKFAST CONFERENCES

Venous Sinus Imaging and Treatment	Yoo
CTA Practical: Pearls and Pitfalls	Pomerantz
DTI: Pearls and Pitfalls	Buchbinder

8:15-9:00 Brain Anatomy and Gender *Naidich*

MINISYMPOSIUM ON INTRACRANIAL HEMORRHAGE

9:00-9:30 Intraparenchymal Hemorrhage – Algorithm for Work-up and Differential Diagnosis *Schaefer*

9:30-10:00 CTA in the Work-up of Intraparenchymal Hemorrhage, the Spot Sign *Romero*

10:00-10:30 Susceptibility Weighted Imaging in the Assessment of Intraparenchymal Hemorrhage *Copen*

10:30-10:45 COFFEE BREAK

10:45-11:15 Treatment Options for Intraparenchymal Hemorrhage *Rosand*

11:15-11:45 Traumatic Brain Injury *Ptak*

11:45-12:15 Intracranial Vascular lesions – Aneurysms, AVMs and Dural AVF's *Rabinov*

12:15-1:30 LUNCH BREAK

MINISYMPOSIUM ON CEREBROVASCULAR DISEASE

1:30-1:55 Clinically Relevant Stroke Physiology *Gonzalez*

1:55-2:20 Basics of Acute Stroke Imaging & MRI in the Differential Diagnosis of Acute Stroke Syndromes *Schaefer*

2:20-2:45 Advanced Imaging of Acute Stroke *Lev*

2:45-3:15 Acute Stroke Treatment Options *Nogueira*

3:15-3:30 QUESTIONS AND COFFEE BREAK

MINISYMPOSIUM ON PEDIATRIC NEUROIMAGING

3:30-3:55 Pediatric Stroke *Grant*

3:55-4:20 Pediatric Trauma - Accidental and Nonaccidental *Silvera*

4:20-4:45 Pediatric Intracranial Vascular Anomalies *Robertson*

4:45-5:10 Pediatric Head and Neck Vascular Malformations *Robson*

5:10-5:40 Case Presentation – Adult and Pediatric Brain *Rapalino*

TUESDAY, SEPTEMBER 22, 2009

7:00-8:15 AM

BREAKFAST CONFERENCES

7:30-8:15 Carotid Imaging – Ultrasound, CTA and MRA *Romero*

White Matter Review *Rincon*

Molecular Imaging *Chen*

8:15-9:00 A Tool Kit for Brain Development *Naidich*

MINI SYMPOSIUM ON BRAIN TUMORS

9:00-9:30 Differential Diagnosis of Intracranial Masses *Lev*

9:30-10:00 Neuro-Oncologic Imaging: The Clinical Perspective *Batchelor*

10:00-10:30 Imaging of Angiogenesis *Hunter*

10:30-10:45 COFFEE BREAK

10:45-11:15 Glial Neoplasms *Smirniotopoulos*

11:15-11:45 Advanced Tumor Imaging and Biomarkers *Sorensen*

11:45-12:15 Pineal Region Neoplasms *Smirniotopoulos*

12:15-1:30 LUNCH

1:30-2:00 MR Spectroscopy and Biological Behavior of Brain Tumors *Castillo*

JUAN TAVERAS ANNUAL LECTURE

2:00-2:45 Advances and Challenges in Pediatric Brain Tumor Imaging *Young Poussaint*

MINI SYMPOSIUM ON PEDIATRICS

2:45-3:15 Leukoencephalopathies and Metabolic Disorders *Castillo*

3:15-3:45 Pediatric Infection *Golja*

3:45-4:00 COFFEE BREAK

4:00-4:30 Prenatal MRI *Schwartz*

4:30-5:00 CNS malformations *Caruso*

5:00-5:30 Case Presentations: Miscellaneous Lesion *Gonzalez*

Program changes/substitutions may be made without notice.

WEDNESDAY, SEPTEMBER 23, 2009

7:00-8:15 AM CONTINENTAL BREAKFAST

SPINE SERIES

7:30-8:15 BREAKFAST CONFERENCES

CT Radiation Dosage in Pediatrics	Hamberg
The Intervertebral Disc	Pomerantz
The Sacrum	Yoo
8:15-9:00 Congenital Spine Anomalies	Schwartz
9:00-9:30 Pediatric Spine Tumor	Schwartz
9:30-9:35 QUESTIONS	
9:35-10:05 Inflammatory Disease of the Spine	Donovan Post
10:05-10:20 COFFEE BREAK	
10:20-10:50 Post Op Spine: An Evidence Based Approach	Naidich
10:50-10:55 QUESTIONS	
10:55-11:40 Back Pain & Radiculopathy: Etiology Natural History and the Impact of Imaging	Modic
11:40-11:45 QUESTIONS	
11:45-1:00 LUNCH	
1:00-1:30 Vertebral Body Marrow: Tumor Infection and Trauma	Modic
1:30-1:35 QUESTIONS	
1:35-2:05 Imaging Paradigms for Interventions	Palmer
2:05-2:10 QUESTIONS	
2:10-2:25 COFFEE BREAK	
2:25-2:55 Spinal Instrumentation as it pertains to the Neuroradiologist	Coumans
2:55-3:00 QUESTIONS	
3:00-3:20 Spinal Vascular Anatomy and Introduction to Spinal Angiography	Noguiera
3:20-3:40 MRA and Spinal Angiography	Rabinov
3:40-3:45 QUESTIONS	
3:45-4:15 Spinal Vascular Malformation: from Diagnosis to Treatment	Wahkloo
4:15-4:20 QUESTIONS	
4:20-5:00 Case Based Presentations of Interesting Spinal Diseases	Smirniotopolous

THURSDAY, SEPTEMBER 24, 2009

7:00-8:15 AM	REGISTRATION AND CONTINENTAL BREAKFAST	Morning Session – Moderator – Dr. Curtin
7:30-8:00	Interesting Head and Neck Cases	Juliano
8:00-8:30	CT Scan Dosage	Hamberg
8:30-9:00	Imaging of the Temporal Bone – Part I Normal Anatomy	Curtin
9:00-10:00	Imaging of the Temporal Bone – Part II Inflammatory Disease and Cholesteatoma	Mafee
10:00-10:15	COFFEE BREAK	
10:15-11:15	Imaging of the Temporal Bone – Part III Neurogenic and other tumors of the temporal bone	Mafee
11:15-12:00	Orbital Imaging (Globe to Chiasm)	Caruso
12:00-1:15	LUNCH BREAK NEURORADIOLOGY REGISTRANTS ADJOURN HERE	Afternoon Session - Moderator – Dr Caruso
1:15-2:00	Imaging of the Temporal Bone- Part IV Fibroosseous lesions, petrodical tumors and trauma	Mafee
2:00-2:45	CT and MRI of the Parapharyngeal Spaces	Curtin
2:45-3:00	COFFEE BREAK	
3:00-3:45	Imaging of the Larynx	Curtin
3:45-4:30	Parathyroid imaging	Hunter
4:30- 5:00	QUESTIONS	

FRIDAY, SEPTEMBER 25, 2009

7:00-8:15 AM	REGISTRATION AND CONTINENTAL BREAKFAST	Morning Session – Moderator – Dr. Curtin
7:30- 8:15	Interesting Head and Neck Cases	Cunnane
8:15- 9:15	Imaging of the Sinonasal Cavities	Som
9:15-10 :00	CT and MRI of the Neck (Cysts, Tumors and Inflammatory Disease)	Reede
10:00-10:15	COFFEE BREAK	
10:15-11:15	Imaging of the Cervical Lymph Nodes	Som
11:15-12:00	Post treatment neck	Som
12:00-1:15	LUNCH BREAK	Afternoon Session – Moderator – Dr. Weber
1:15-2:00	CT and MRI of the Pharynx and Oral Cavity	Reede
2:00- 2:45	Thoracic inlet	Reede
2:45-3:00	COFFEE BREAK	
3:00-3:45	Temporomandibular Joint	Sweriduk
3:45-4:30	Lesions of the Jaw	Weber
4:30-5:00	QUESTIONS	
5:05	ADJOURN CONFERENCE	

HARVARD FACULTY

TRACY T. BATCHELOR, MD, MPH

Associate Professor of Neurology, Harvard Medical School; Executive Director, Stephen E. and Catherine Pappas Center for Neuro-Oncology, Associate Neurologist, Department of Neurology, Consultant, Department of Radiation Oncology, Massachusetts General Hospital

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GUEST FACULTY

MAURICIO CASTILLO, MD, FACR

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AJAY K. WAKHLOO, MD, PhD

Professor of Radiology, Neurosurgery, and Neurology, University of Massachusetts; Director, Division Of Neuroimaging and Intervention; Program Director, Neuroradiology, University of Massachusetts Medical Center, Worcester, MA

REGISTRATION FORM

TUITION FEES: (check one below)

Course # 291135

- \$995 (USD) Full Course (Sept 21 - Sept 25, 2009) \$750 (USD) Residents* and Fellows in Training* (Sept 21 - Sept 25, 2009)
* A letter of verification from the Department Chair must accompany the registration form.
- \$810 (USD) Neuroradiology (Sept 21 - 24 until noon, 2009) \$750 (USD) Head and Neck (Sept 24 - Sept 25, 2009)

Please Print Clearly. All fields are required.

Full Name _____ Degree _____
First Middle Last

Mailing Address _____
Street City State Zip Code

Daytime Phone (____) _____ Fax # (____) _____ E-Mail _____

Professional School Attended _____ Yr. of Grad. _____

Profession _____ Primary Specialty (Physicians Only) _____ Board Certified: Yes No

Organization Affiliation _____

PAYMENT by Check

If paying by check, please make payable to Harvard Medical School and mail to:

Harvard Medical School-Department of Continuing Education, PO Box 825, Boston, MA 02117-0825.

PAYMENT by Credit Card

If paying by credit card, telephone or mail-in registrations are not accepted. Please register online at :

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 Online registrants - Add the last three characters of the source code found here -->

Source Code: A B C D E F G X Z



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