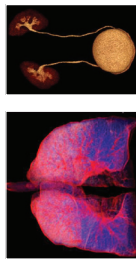


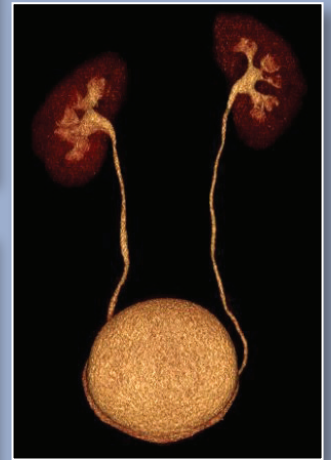
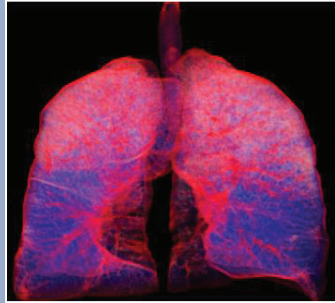
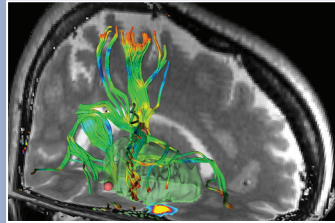


Harvard Medical School
Department of Continuing Education
PO Box 825
Boston, MA 02117-0825
www.cme.harvard.edu



MRI/CT Update
October 7-11, 2013
Monday - Friday
www.radcme.harvard.edu

MRI / CT UPDATE



October 7-11, 2013
Monday-Friday

The Fairmont Copley Plaza
Boston, Massachusetts

COURSE DIRECTORS

Hiroto Hatabu, MD, PhD
Srini Mukundan, PhD, MD

PROGRAM COMMITTEE

Stacy E Smith, MD
Aaron D Sodickson, MD, PhD



Harvard Medical School
Department of Continuing Education



Brigham and Women's Hospital
Department of Radiology

COURSE DESCRIPTION

The daily battle for the practicing radiologist is how to stay current and up to date on emerging techniques and technologies, while maintaining high-quality clinical practices in a time of limited resources. The 36th offering of our annual, postgraduate course that emphasizes clinical MRI and CT of the entire body is designed for practitioners using MRI and multi-detector CT. The basic format of the course is didactic lecture style, with daily case-based sessions, and opportunities for question and answers. The first two days of the course review emergency radiology, chest, abdomen, pelvis, cardiovascular, and breast imaging. The final two and a half days cover musculoskeletal radiology, neuroradiology, and head and neck imaging. The curriculum is directed toward the practicing radiologist, with emphasis on the translation of advanced techniques and technologies to the clinical domain.

OBJECTIVES

Upon completion of this activity, participants will be able to:

- Demonstrate knowledge of the latest MRI and CT techniques spanning all segments of the body.
- Appropriately utilize emerging MRI and CT techniques, many of which will be directly applicable in the clinic.
- Perform and interpret modern CT and MRI examinations.
- Utilize quality and safety programs related to medical imaging including CT radiation dose, MR safety, and contrast agents.

WHO SHOULD ATTEND

This course is geared primarily for physicians who are practicing radiology or have an interest in the radiological sciences as well as Medical Physicists interested in CT or MR.

COURSE DIRECTORS

Hiroto Hatabu, MD, PhD: Associate Professor of Radiology, Harvard Medical School; Clinical Director, MRI Program, Medical Director, Center for Pulmonary Functional Imaging, Department of Radiology, Brigham and Women's Hospital

Srinivasan Mukundan, Jr, PhD, MD: Associate Professor of Radiology, Harvard Medical School; Section Head of Neuroradiology, Brigham and Women's Hospital

GUEST FACULTY

Harprit S Bedi, MD: Assistant Professor of Radiology, Assistant Professor of Otolaryngology-Head and Neck Surgery, Tufts University School of Medicine, Residency Program Director, Department of Radiology, Tufts Medical Center, Boston, MA

COL Jamie B Grimes, MD, MC: Chair, Department of Neurology, Uniformed Services University of the Health Sciences, Bethesda, MD

CC Tchoyoson Lim, MBBS, FRCR, MMed: Senior Consultant, Department of Neuroradiology, National Neurosciences Institute, Adjunct Associate Professor of Radiology, Duke NUS, Singapore

Mark L Schiebler, MD: Associate Professor of Radiology, Chief, Thoracic Imaging, University of Wisconsin-Madison School of Medicine and Public Health, Madison, WI

Jorge Soto, MD: Professor of Radiology, Vice-Chairman of Radiology, Boston University Medical Center, Boston, MA

HARVARD MEDICAL SCHOOL FACULTY

Jeanne B Ackman, MD: Instructor in Radiology, Harvard Medical School (HMS); Associate Radiologist, Division of Thoracic Imaging and Intervention, Massachusetts General Hospital (MGH)

Alexander J Adduci, MD, PhD: Instructor in Radiology, HMS; Division of Emergency Radiology, Brigham and Women's Hospital (BWH)

Michael A Blake, MD: Assistant Professor of Radiology, HMS; Division of Abdominal Imaging, MGH

Avni A Chudgar, MD: Instructor in Radiology, HMS; Division of Emergency Radiology, BWH

Mary E Cunnane, MD: Instructor in Radiology, HMS; Massachusetts Eye and Ear Infirmary, Division of Neuroradiology, MGH

Hugh D Curtin, MD: Professor of Radiology, HMS; Chief of Radiology, Massachusetts Eye and Ear Infirmary

Pamela J DiPiro, MD: Assistant Professor of Radiology, HMS; Division of Breast Imaging and Oncologic Imaging; Clinical Director of CT, Dana Farber Cancer Institute

Alejandra Duran Mendicuti, MD: Instructor in Radiology, HMS, Division of Emergency Radiology, BWH

Fionna M Fennessy, MBBCH: Assistant Professor of Radiology, HMS; Division of Cancer Imaging, Dana-Farber Cancer Institute, BWH

Glenn C Gaviola, MD: Instructor in Radiology, HMS; Division of Musculoskeletal Imaging and Intervention, BWH

Victor H Gerbaudo, PhD, MSHCA: Assistant Professor of Radiology, HMS; Director, Nuclear Medicine and Molecular Imaging Program; Senior Administrative Director, Noninvasive Cardiovascular Imaging, Associate Director, Center for Pulmonary Functional Imaging, BWH

Leena M Hamberg, PhD: Associate Professor of Radiology, HMS; Chief Radiology Physicist, Department of Radiology, BWH

Liangge Hsu, MD: Assistant Professor of Radiology, HMS; Division of Neuroradiology, BWH

Raymond Huang, MD, PhD: Instructor in Radiology, HMS; Neuroradiology Section, BWH

Andetta R Hunsaker, MD: Assistant Professor of Radiology, HMS; Director, Division of Thoracic Radiology, BWH

Francine L Jacobson, MD: Assistant Professor of Radiology, HMS; Division of Thoracic Radiology, BWH

Amy Juliano, MD: Instructor in Radiology, HMS; Massachusetts Eye and Ear Infirmary

Bharti Khurana, MD: Instructor in Radiology, HMS; Division of Emergency Radiology, BWH

Vera L Kimbrell, BS, RT(R)(MR): MRI Technologist, Department of Radiology, BWH

Roman A Klufas, MD: Instructor in Radiology, HMS; Staff Neuroradiologist, Neuroradiology Section, BWH

Katherine M Krajewski, MD: Instructor of Radiology, HMS; Dana-Farber Cancer Institute

Thomas C Lee, MD: Instructor in Radiology, HMS; Assistant Head, Neuroradiology Section, BWH

Alexander P Lin, PhD: Instructor in Radiology, HMS; Division of Research, BWH

Rachna Madan, MD: Instructor in Radiology, HMS; Division of Thoracic Radiology, BWH

Theresa C McLoud, MD: Professor of Radiology, HMS; Vice Chair for Education, Department of Radiology; Division of Thoracic Imaging and Intervention, MGH

Mizuki Nishino, MD: Assistant Professor of Radiology, HMS; BWH and Dana-Farber Cancer Institute

Larry P Panych, PhD: Associate Professor of Radiology, HMS; BWH

Nikhil H Ramaiya, MBBS: Instructor in Radiology, HMS; Department of Imaging, Dana-Farber Cancer Institute

Sughra Raza, MD: Assistant Professor of Radiology, HMS; Associate Director Breast Imaging, Director, Women's Imaging Program, Director, Clinical Breast MRI, BWH

Dushyant Sahani, MD: Associate Professor of Radiology, HMS; Director of CT, MGH

V Anik Sahni, MD: Instructor in Radiology, HMS; Associate Director, Division of Abdominal Imaging and Intervention, BWH

Nehal Shah, MD: Instructor in Radiology, HMS; Division of Musculoskeletal Imaging and Intervention, BWH

Paul B Shyn, MD: Assistant Professor of Radiology, HMS; Medical Director of Cross-Sectional Interventional Radiology, BWH

Stuart G Silverman, MD, FACP: Professor of Radiology, HMS; Director, Abdominal Imaging and Intervention, BWH

Kirstin M Small, MD: Instructor in Radiology, HMS; Division of Musculoskeletal Imaging and Intervention, Director of Sports Imaging, BWH

Stacy E Smith, MD: Assistant Professor of Radiology, HMS; Chief and Distinguished Barbara Weissman Chair, Division of Musculoskeletal Imaging and Intervention, BWH

Aaron Sodickson, MD, PhD: Associate Professor of Radiology, HMS; Section Chief of Emergency Radiology and Medical Director of CT, BWH

Clare M C Tempany, MD: Professor of Radiology, HMS; Ferenc Jolesz, Chair of Radiology Research, Vice Chair, Radiology Research, Director, Clinical Focused Ultrasound, Department of Radiology, BWH

Beatrice Trotman-Dickenson, MD: Assistant Professor of Radiology, HMS; Division of Thoracic Radiology, BWH

Barbara N Weissman, MD: Professor of Radiology, HMS; Vice Chair of Radiology, Radiology Residency Program Director, BWH

Geoffrey S Young, MD: Assistant Professor of Radiology, HMS; Neuroradiology Section, BWH

Rose Wach, CRA, RT: CT Manager of Operations, Department of Radiology, BWH

Scott S White, MD: Instructor in Radiology, HMS; Division of Emergency Radiology, BWH

Amir A Zamani, MD: Associate Professor of Radiology, HMS; Neuroradiology Section, BWH

MONDAY, OCTOBER 7

7:00 Registration / Full Course and Body Imaging /
Continental Breakfast

7:55 Welcome and Introduction *Hiroto Hatabu, MD, PhD*

EMERGENCY RADIOLOGY

Moderator: Aaron Sodickson, MD, PhD

8:00 Acute Aortic Syndromes *Alejandra Duran Mendicuti, MD*

8:25 Orbital Trauma *Scott S White, MD*

8:50 Spine Trauma: What the Surgeon
Wants to Know *Bharti Khurana, MD*

9:15 Dual Energy CT in the ER *Aaron Sodickson, MD, PhD*

9:40 Questions and Answers *Morning Speakers*

9:50 Coffee Break

EMERGENCY RADIOLOGY II / ABDOMEN I

10:10 GU Trauma: From the Kidneys
to the Urethra *Avni Chudgar, MD*

10:35 Bowel Imaging *Alexander J Adduci, MD*

11:00 Current Concepts in Imaging
of Acute Pancreatitis *Jorge Soto, MD*

11:25 CT/MRI of Cystic Pancreatic Masses *V Anik Sahni, MD*

11:50 Abdominal Toxicities in era of Molecular Targeted Therapy:
What Should a Radiologist Know *Nikhil Ramaiya, MBBS*

12:15 Questions and Answers *Morning Speakers*

12:25 Lunch - On your Own

ABDOMEN / PELVIS

Moderator: Anik Sahni, MD

1:40 CT/MRI of Focal Liver Lesions: Detection Characterization
and Surgical Planning *Dushyant Sahani, MD*

2:05 Liver Tumor Ablation Update *Paul B Shyn, MD*

2:30 MRI of the Prostate Gland *Clare M C Tempany, MD*

2:55 MRI of the Female Pelvis *Fionna Fennessy, MBBS*

3:20 Questions and Answers *Afternoon Speakers*

3:30 Coffee Break

Moderator: Stuart G Silverman, MD, FACP

3:50 Imaging of Renal Cell Carcinoma *Katherine Krajewski, MD*

4:15 CT/MRI of the Adrenal Gland *Michael A Blake, MD*

4:40 CT Urography *Stuart G Silverman, MD, FACP*

5:05 Questions and Answers *Afternoon Speakers*

5:15 Adjourn

TUESDAY, OCTOBER 8

7:00 Continental Breakfast

7:10 Morning Announcements *Hiroto Hatabu, MD, PhD*

THORACIC IMAGING (INCLUDING BREAST AND HEART)

Moderator: Hiroto Hatabu, MD, PhD

7:15 Morning Cases - Thoracic *Rachna Madan, MD*

8:00 MRI Physics Review *Larry Panych, PhD*

8:25 Breast MRI *Eren Yeh, MD*

8:50 Whole Body Imaging of
Breast Cancer Patients *Pamela J DiPiro, MD*

9:15 COPD Screening and Staging *Francine L Jacobson, MD*

9:40 Questions and Answers *Morning Speakers*

9:50 Coffee Break

10:05 New Classification
of Former BAC *Andetta Hunsaker, MD*

10:30	Pulmonary MR Angiography for Pulmonary Embolism	Mark L Schiebler, MD
10:55	Coronary CT: Why are we not Doing More?	Mark L Schiebler, MD
11:20	From Lesion Dimensions to Molecular Pathways: Monitoring Tumoral Metabolic Response to Therapy	Victor Gerbaudo, PhD, MSHCA
12:00	Questions and Answers	Morning Speakers
12:15	Lunch - On your Own	
<i>Moderator: Hiroto Hatabu, MD, PhD</i>		
1:30	Approach to CT of Diffuse Lung Disease	Hiroto Hatabu, MD, PhD
1:55	Cystic Lung Disease	Beatrice Trotman-Dickenson, MBBS
2:20	Smoking Related Lung Disease	Hiroto Hatabu, MD, PhD
2:45	Medico-Legal Aspect of Chest Imaging	Mark L Schiebler, MD
3:10	Questions and Answers	Afternoon Speakers
3:20	Coffee Break	
<i>Moderator: Hiroto Hatabu, MD, PhD</i>		
3:40	MR of Mediastinal Masses with CT Correlation	Jeanne B Ackman, MD
4:05	Response Evaluation of Lung Cancer in the Era of Genomic Medicine	Mizuki Nishino, MD
4:30	Lung Cancer Screening: An Update	Theresa C McLoud, MD
5:00	Questions and Answers	Afternoon Speakers
5:10	Adjourn	

WEDNESDAY, OCTOBER 9

6:15	Registration / Neuro Imaging	
7:00	Continental Breakfast	
MUSCULOSKELETAL/SPINE IMAGING		
<i>Moderator: Barbara N Weissman, MD</i>		
7:10	Morning Announcements	Srinivasan Mukundan Jr, PhD, MD
7:15	Morning Cases-Bone	Nehal Shah, MD
8:00	Foot and Ankle	Stacy E Smith, MD
8:45	Knee	Glenn C Gaviola, MD
9:30	Coffee Break	
9:45	Lumbar Spine Imaging	Thomas C Lee, MD
10:15	Elbow	Stacy E Smith, MD
10:45	Spine Oncology	Glenn C Gaviola, MD
11:15	Shoulder	Kirstin M Small, MD
12:00	Questions and Answers	
12:15	Lunch-On Your Own	

QUALITY AND SAFETY PROGRAMS

<i>Moderator: Srinivasan Mukundan Jr, PhD, MD</i>		
1:30	CT Quality Program-RT Perspectives	Rose Wach, BS, CRA, RT
2:00	MRI Quality Program-RT Perspective	Vera Kimbrell, BS, RT(R)(MR)
2:45	CT Radiation Safety	Leena M Hamberg, PhD
3:15	Coffee Break	
3:30	MRI Safety Program	Geoffrey S Young, MD
4:15	Contrast Agent Updates: CT and MRI	Srinivasan Mukundan Jr, PhD, MD
5:00	Questions and Answers	
5:10	Adjourn	

THURSDAY, OCTOBER 10

7:00	Continental Breakfast	
NEURORADIOLOGY GAMUTS		
<i>Moderator: Srinivasan Mukundan Jr, PhD, MD</i>		
7:10	Morning Announcements	Srinivasan Mukundan Jr, PhD, MD
7:15	Morning Cases-Neuroradiology	Raymond Huang, MD, PhD
8:00	Pitfalls in Diagnostic Neuroradiology	Tchoyoson Lim, MMed, MBBS, FRCR
8:45	Pituitary Imaging	Srinivasan Mukundan Jr, PhD, MD
9:30	Coffee Break	
9:45	CNS Infections	Liangge Hsu, MD
10:30	Rare Causes of Headaches	Tchoyoson Lim, MMed, MBBS, FRCR
11:00	Head Trauma	Roman Klufas, MD
11:30	Running on Empty: Hypoxia and Hypoglycemia	Tchoyoson Lim, MMed, MBBS, FRCR
12:00	Questions and Answers	
12:15	Lunch-On Your Own	
HOT TOPICS IN NEURORADIOLOGY		
<i>Moderator: Geoffrey S Young, MD</i>		
1:30	Advanced Brain Tumor Imaging	Raymond Huang, MD, PhD
2:00	Perfusion Imaging: CT and MRI	Tchoyoson Lim, MMed, MBBS, FRCR
2:45	Imaging of Dementia	Amir A Zamani, MD
3:15	Coffee Break	
3:30	Clinical Correlation: TBI to the Neurologist - How Imaging Helps	COL Jamie B Grimes, MD, MC
4:15	Advances in TBI Imaging: SWI, DTI, MRS	Alexander P Lin, PhD
5:00	Questions and Answers	
5:10	Adjourn	

FRIDAY, OCTOBER 11

7:00	Continental Breakfast	
ENT IMAGING		
<i>Moderator: Thomas C Lee, MD</i>		
7:10	Morning Announcements	Srinivasan Mukundan Jr, PhD, MD
7:15	Morning Cases- Neuro	Amy Juliano, MD
8:00	Dental Lesions	Harprit Bedi, MD
8:30	Orbits	Mary E Cunnane, MD
9:00	Temporal Bone I	Hugh D Curtin, MD
9:45	Coffee Break	
10:00	Temporal Bone II	Hugh D Curtin, MD
10:45	ENT Emergencies	Harprit Bedi, MD
11:15	Cancer of the Head and Neck	Hugh D Curtin, MD
12:00	Questions and Answers	
12:10	Adjourn	

Please note: Program changes/substitutions may be made without notice.

ACCREDITATION

The Harvard Medical School is accredited by the Accreditation Council for Continuing Medical Education to provide c

ontinuing medical education for physicians.

The Harvard Medical School designates this live activity for a maximum of 36.50 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Body Imaging: A maximum of 20 AMA PRA Category 1 Credits™

Neuro Imaging: A maximum of 16.50 AMA PRA Category 1 Credits™

ACGME COMPETENCIES

This course is designed to meet one or more of the following Accreditation Council of Graduate Medical Education competencies:

- * Patient care
- * Practice-based learning and improvement
- * Medical knowledge
- * Systems-based practice

REGISTRATION INFORMATION

Tuition Fee:

Full Course (October 7-11)

Physicians /electronic syllabus only	\$925 (USD)
Physicians /electronic and Paper syllabus	\$1,000 (USD)
Residents/Fellows in Training/Allied Health Professionals:	
Electronic syllabus only	\$625 (USD)
Electronic and Paper syllabus	\$700 (USD)

Body Imaging/MSK Imaging (October 7-9)

Physicians /electronic syllabus only	\$695 (USD)
Physicians /electronic and Paper syllabus	\$770 (USD)
Residents/Fellows in Training/Allied Health Professionals:	
Electronic syllabus only	\$495 (USD)
Electronic and Paper syllabus	\$570 (USD)

MSK Imaging/Neuro Imaging (October 9-11)

Physicians /electronic syllabus only	\$695 (USD)
Physicians /electronic and Paper syllabus	\$770 (USD)
Residents/Fellows in Training/Allied Health Professionals:	
Electronic syllabus only	\$495 (USD)
Electronic and Paper syllabus	\$570 (USD)

Registration by credit card (VISA or MasterCard) can be made at: www.cme.hms.harvard.edu/courses/mrict. Registration by check (draft on a United States bank), please make payable to Harvard Medical School and mail with registration form to Harvard Medical School-Department of Continuing Education, PO Box 417476, Boston, MA 02241-7476. Telephone or fax registration is not accepted. Registration with cash payment is not permitted. Upon receipt of your paid registration an email confirmation from the HMS-DCE office will be sent to you. Be sure to include an email address that you check frequently. Your email address is used for critical information including: registration confirmation, evaluation and certificate.

INQUIRIES

By phone 617-384-8600, Monday-Friday, 10 AM to 4 PM (EST) or by email at: hms-cme@hms.harvard.edu.

ONLINE INFORMATION

To register or view activity information online, visit: www.cme.hms.harvard.edu/courses/mrict. To ensure proper registration, please add the first three characters of the source code.

DISCLOSURE POLICY

Harvard Medical School (HMS) adheres to all ACCME Essential Areas, Standards, and Policies. It is HMS's policy that those who have influenced the content of a CME activity (e.g. planners, faculty, authors, reviewers and others) disclose all relevant financial relationships with commercial entities so that HMS may identify and resolve any conflicts of interest prior to the activity. These disclosures will be provided in the activity materials along with disclosure of any commercial support received for the activity. Additionally, faculty members have been instructed to disclose any limitations of data and unlabeled or investigational uses of products during their presentations.

REFUND POLICY

A handling fee of \$60 is deducted for cancellation. Refund requests must be received by postal mail, email or fax one week prior this activity. No refunds will be made thereafter.

COURSE LOCATION

All sessions will be held at the Fairmont Copley Plaza, 138 St. James Avenue, Boston, MA 02116 (617-267-5300).

ACCOMMODATIONS/TRAVEL

A limited number of rooms have been reserved at the Fairmont Copley Plaza, (800) 441-1414 or (617) 267-5300 until September 15, 2013. Please specify that you are enrolled in this activity to receive a reduced room rate of \$329 and \$359 Deluxe room per night Single/Double. You may also reserve your hotel reservations online via the dedicated booking website: <https://resweb.passkey.com/go/mrictupdate1>. Please do not purchase non-refundable airline ticket(s) until you have received an email from our office confirming your paid registration. For airline reservations contact the HMS Travel Desk toll free 1-877-4-HARVMD (1-877-442-7863) Monday - Friday 9 AM - 8 PM (EST). From outside the US, Canada and Virgin Islands, please call 617-559-3764.

MRI/CT UPDATE

COURSE # 331050

October 7-11, 2013

Tuition Fee

Full Course (October 7-11)

Physicians /electronic syllabus only	\$925 (USD)
Physicians /electronic and Paper syllabus	\$1,000 (USD)
Residents/Fellows in Training/Allied Health Professionals:	
Electronic syllabus only	\$625 (USD)
Electronic and Paper syllabus	\$700 (USD)

Body Imaging/MSK Imaging (October 7-9)

Physicians /electronic syllabus only	\$695 (USD)
Physicians /electronic and Paper syllabus	\$770 (USD)
Residents/Fellows in Training/Allied Health Professionals:	
Electronic syllabus only	\$495 (USD)
Electronic and Paper syllabus	\$570 (USD)

MSK Imaging/Neuro Imaging (October 9-11)

Physicians /electronic syllabus only	\$695 (USD)
Physicians /electronic and Paper syllabus	\$770 (USD)
Residents/Fellows in Training/Allied Health Professionals:	
Electronic syllabus only	\$495 (USD)
Electronic and Paper syllabus	\$570 (USD)

Print Name Clearly – All Fields Required

Full Name _____

Mailing Address _____

Daytime Phone (____) _____ Fax Number (____) _____

PLEASE NOTE: Your email address is used for critical information about the course including: registration confirmation, course evaluation and certificate. Please be sure to include an email address you check daily or frequently.

Email Address _____

Please check if you wish to be excluded from receiving email notices of future Harvard Medical School - Department of Continuing Education programs

Profession _____ Degree _____

Primary Specialty (Physicians Only) _____

Board Certified: Yes No

Professional School Attended (Physicians Only)

Harvard Medical School U.S. Medical School International

Year of Graduation _____

Online Registrants - add the first three characters of the source code found here:

Source Code: ABCDEXZZZ