

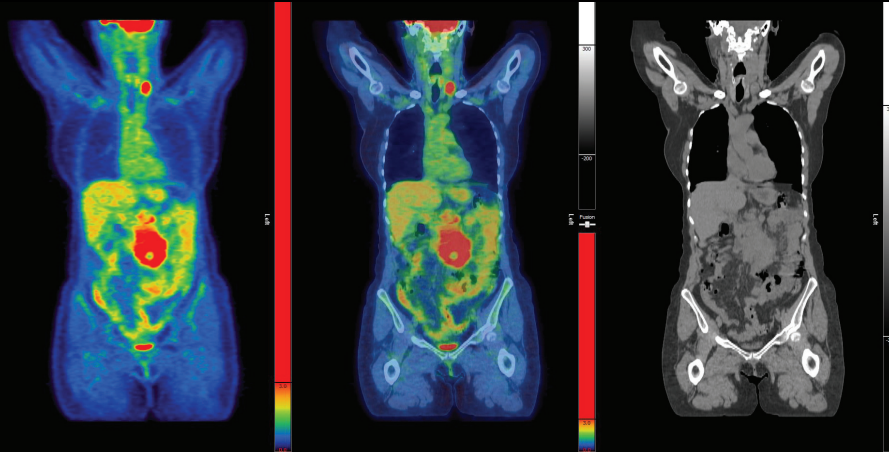


Harvard Medical School



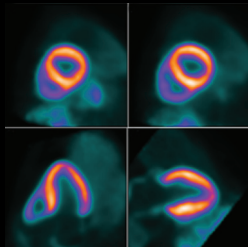
Joint Program in Nuclear Medicine  
Department of Radiology

# CLINICAL NUCLEAR MEDICINE PET-CT AND PET-MRI



## May 19-22, 2014

Boston Marriott Long Wharf  
Boston, Massachusetts, USA

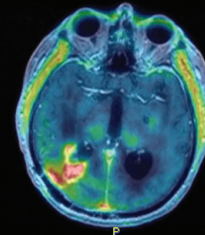


### PROGRAM DIRECTORS

Annick D Van den Abbeele, MD, FACR  
Marcelo F Di Carli, MD

Emeritus Program Director  
S Ted Treves, MD, FACNP

Program Committee  
Heather Jacene, MD  
Chris Sakellis, MD  
Chun Kim, MD



### COURSE DESCRIPTION

Clinical Nuclear Medicine, PET-CT and PET-MRI is a well-established multidisciplinary post-graduate course designed for health care professionals involved in the practice of nuclear medicine and molecular imaging including nuclear medicine physicians, radiologists, fellows, residents, medical students, physicists and technologists. The objective of the course is to provide continuing and up-to-date professional development through the review of established clinical applications as well as new and emerging ones within the specialty of nuclear medicine and molecular imaging. Through a combination of lectures on various topics with a focus on **CASE-BASED STUDIES** with interactive audience participation using an electronic audience response system, the participants will be able to review a broad scope of new and advanced clinical applications, learn about technology innovations, and participate in **Self-Assessment Modules (SAMs)** to fulfill yearly Maintenance of Certification (MOC) requirements.

\* This course is pending approval by the American Board of Nuclear Medicine and American Board of Radiology for Self Assessment Credits (SAM). As of this printing, we have not received approval.

\* Technologists - Pending approval for CE credit by the ASRT

## OBJECTIVES

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

- Apply newly-acquired competencies to the appropriate selection, implementation, acquisition/reconstruction and interpretation of nuclear medicine/molecular imaging studies to their clinical practice.
- Utilize the practical and clinically-oriented nuclear medicine/molecular imaging procedures to improve overall disease management and patient outcome.
- Describe the mechanisms of action of novel FDA-approved molecular-targeted drugs and immunotherapy and appraise their effects on cancer imaging.
- Apply novel therapeutic approaches to patient care when appropriate.
- Recognize and solve common technical problems and answer clinical questions encountered in routine nuclear medicine practices.

## WHO SHOULD ATTEND

This course is directed to nuclear medicine physicians, radiologists practicing nuclear medicine, fellows, residents, medical students and technologists.

## GUEST FACULTY

**Kent P Friedman, MD:** Assistant Professor of Radiology; Nuclear Medicine Section Chief Department of Radiology, Langone Medical Center, NYU, New York, NY

**Jamshid Maddahi, MD, FACC, FASNC:** Professor of Medicine (Cardiology) and Molecular and Medical Pharmacology (Nuclear Medicine), UCLA School of Medicine; Director of the Biomedical Imaging Institute, UCLA, Los Angeles, CA

**Christopher J Palestro, MD:** Professor of Radiology, Hofstra North Shore-LIJ School of Medicine; Chief of Nuclear Medicine and Molecular Imaging, North Shore Long Island Jewish Health System, Manhasset and New Hyde Park, NY

**Mark Tulchinsky, MD, FACNM:** Professor of Radiology and Medicine, Penn State University; Associate Director, Nuclear Medicine, Milton S. Hershey Medical Center, Hershey, PA

## HARVARD MEDICAL SCHOOL FACULTY

**Ron Blankstein, MD:** Instructor in Medicine; Co-Director, Non-Invasive Cardiovascular Imaging Training Program, Cardiovascular Division and Department of Radiology, Brigham and Women's Hospital

**Scott Britz-Cunningham, MD, PhD:** Instructor in Radiology; Division of Nuclear Medicine, Brigham and Women's Hospital

**Marcelo F Di Carli, MD, FACC:** Associate Professor of Radiology and Medicine; Chief, Division of Nuclear Medicine and Molecular Imaging, Director of Noninvasive Cardiovascular Imaging Program, Brigham and Women's Hospital

## HARVARD MEDICAL SCHOOL FACULTY

**Kevin J Donohoe, MD:** Assistant Professor of Radiology; Associate Director, Radiology Residency Program, Division of Nuclear Medicine, Beth Israel Deaconess Medical Center

**Sharmila Dorbala, MD, FACC:** Assistant Professor of Radiology; Director of Nuclear Cardiology; Brigham and Women's Hospital

**Frederic H Fahey, DSc:** Associate Professor of Radiology; Director of Physics in Nuclear Medicine and Molecular Imaging, Children's Hospital Boston

**Victor H Gerbaudo, PhD, MSHCA:** Assistant Professor of Radiology; Director, Nuclear Medicine and Molecular Imaging Program; Senior Administrative Director, Noninvasive Cardiovascular Imaging, Associate Director, Center for Pulmonary Functional Imaging, Brigham and Women's Hospital

**Frederick D Grant, MD:** Assistant Professor of Radiology and Pediatrics; Division of Nuclear Medicine and Molecular Imaging, Children's Hospital Boston

**Thomas H Hauser, MD, MMSc, MPH, FACC:** Assistant Professor of Medicine; Director of Nuclear Cardiology, Beth Israel Deaconess Medical Center

**Laura L Horky, MD, PhD:** Instructor in Radiology; Division of Nuclear Medicine, Brigham and Women's Hospital

**Heather A Jacene, MD:** Assistant Professor of Radiology; Clinical Director, Division of Nuclear Medicine, Department of Imaging, Dana-Farber Cancer Institute, Staff Radiologist, Brigham and Women's Hospital

**Chun K Kim, MD:** Associate Professor of Radiology; Clinical Director, Division of Nuclear Medicine and Molecular Imaging, Brigham and Women's Hospital

**Ellen Marqusee, MD:** Assistant Professor of Medicine; Division of Endocrinology/Thyroid, Brigham and Women's Hospital

**Keisha C McCall, PhD:** Instructor in Radiology; Clinical Nuclear Medicine-PET/CT Physicist, Department of Imaging, Dana-Farber Cancer Institute

**J Anthony Parker, MD, PhD:** Associate Professor of Radiology; Division of Nuclear Medicine, Beth Israel Deaconess Medical Center

**Rachel A Powsner, MD:** Lecturer on Radiology; Associate Professor of Radiology, Boston University Medical School; Section Head, Division of Nuclear Medicine, Department of Radiology, VA Boston Healthcare System

**Christopher G Sakellis, MD:** Instructor in Radiology; Staff Radiologist, Department of Imaging, Dana-Farber Cancer Institute and Brigham and Women's Hospital

**Ahmed A Tawakol, MD:** Assistant Professor of Medicine, Co-Director, Cardiac MR PET CT Program, Massachusetts General Hospital

**S Ted Treves, MD, FACNP:** Professor of Radiology; Director, Joint Program in Nuclear Medicine, Brigham and Women's Hospital

**Annick D Van den Abbeele, MD, FACR:** Associate Professor of Radiology; Chief, Department of Imaging and Founding Director, Center for Biomedical Imaging in Oncology, Dana-Farber Cancer Institute; Co-Director, Tumor Imaging Metrics Core, Dana-Farber/Harvard Cancer Center

## MONDAY, MAY 19

	7:00	Registration / Continental Breakfast	
	7:55	Welcome and Introduction	<i>Annick D Van den Abbeele, MD</i>
		<b>MYSTERY CASE OF DAY ONE: SOLVE IT AND WIN A PRIZE</b>	
<b>SAM 1</b>		<b>PET/CT Cancer Imaging Techniques and Practical Issues - Keisha McCall, PhD</b>	
	8:00	PET/CT: Cancer Imaging Techniques and Practical Issues	<i>Keisha McCall, PhD</i>
	8:30	PET/CT: Practical Clinical Aspects	<i>Heather Jacene, MD</i>
	9:00	Assessing and Minimizing Radiation Dose	<i>Frederic Fahey, MD</i>
	9:30	Questions and Answers	
	9:35	<b>COFFEE BREAK</b> - Mix and Mingle with Speakers	
<b>SAM 2</b>		<b>PET/MRI: Basic Principles, Technology, and Practical Aspects - Kent Friedman, MD</b>	
	9:55	PET/MRI: A Luxury or a Necessity?	<i>Kent Friedman, MD</i>
	10:55	PET/MRI: Case-Based Review	<i>Kent Friedman, MD</i>
	11:25	Questions and Answers	
<b>SAM 3</b>		<b>Lymphoma - Heather Jacene, MD</b>	
	11:30	Hodgkin and Non-Hodgkin Lymphomas: Case-Based Review	<i>Heather Jacene, MD</i>
	12:30	<b>LUNCH RECESS</b>	
<b>SAM 4</b>		<b>Solid Tumors I - Victor Gerbaudo, PhD, MSHCA</b>	
	1:30	Lung Cancer: Case-Based Review	<i>Kent Friedman, MD</i>
	2:00	Colorectal Cancer: Case-Based Review	<i>Chun Kim, MD</i>
	2:30	Implementing a New Therapy Program: Radium-223 Chloride	<i>Chris Sakellis, MD</i>
	3:00	Questions and Answers	
	3:05	<b>COFFEE BREAK</b> - Mix and Mingle with Speakers	
<b>SAM 5</b>		<b>Solid Tumors II - Annick D Van den Abbeele, MD, MSHCA</b>	
	3:25	Imaging Findings Related to Cancer Therapy: Case-Based Review	<i>Annick D Van den Abbeele, MD</i>
	3:55	Neuroendocrine Tumors: Case-Based Review	<i>Chris Sakellis, MD</i>
	4:25	Gynecologic Malignancies: Case-Based Review	<i>Scott Britz-Cunningham, MD, PhD</i>
	5:05	Questions and Answers	
	5:10	Adjourn	

## TUESDAY, MAY 20

	7:15	Continental Breakfast	
	7:55	Welcome and Introduction	<i>Marcelo F Di Carli, MD</i>
		<b>MYSTERY CASE OF DAY TWO: SOLVE IT AND WIN A PRIZE</b>	
<b>SAM 6</b>		<b>Advances in Cardiac SPECT Imaging - Marcelo F Di Carli, MD</b>	
	8:00	Myocardial Perfusion SPECT: Physiologic Basis and Protocols	<i>Thomas H Hauser, MD</i>
	8:30	Pharmacologic Stress With and Without Adjunctive Exercise	<i>Sharmila Dorbala, MD</i>
	9:00	Patient-Centered Nuclear Cardiology Imaging for Managing Quality and Dose	<i>Marcelo F Di Carli, MD</i>
	9:30	How to Identify and Read through Artifacts in SPECT and PET	<i>Sharmila Dorbala, MD</i>
	10:00	<b>COFFEE BREAK</b>	
	10:20	MIBG imaging: How, When, and Why?	<i>Jamshid Maddahi, MD</i>
<b>SAM 7</b>		<b>PET and CT Imaging of the Heart - Marcelo F Di Carli, MD</b>	
	10:50	PET Myocardial Perfusion Imaging: The Old and the New	<i>Jamshid Maddahi, MD</i>
	11:20	Integrating Quantitative Myocardial Perfusion into Diagnosis and Management of CAD	<i>Marcelo F Di Carli, MD</i>
	11:50	<b>LUNCH RECESS</b>	
	1:00	Approaches to Ischemia and Viability Imaging with SPECT and PET	<i>Jamshid Maddahi, MD</i>
	1:30	Emerging Role of PET in Diagnosis and Management of Cardiac Sarcoidosis	<i>Ron Blankstein, MD</i>
	2:00	FDG-PET in Assessing Inflammation	<i>Ahmed Tawakol, MD</i>
	2:30	When Does CT Coronary Calcium or Angiography add to Myocardial Perfusion Imaging?	<i>Ron Blankstein, MD</i>
	3:00	<b>COFFEE BREAK</b>	
	3:20	Case Review	<i>All Speakers</i>
	4:55	Questions and Answers	
	5:00	Adjourn	

Lectures have been submitted for review and qualification by the ABNM and the ABR for SAM credit.

## WEDNESDAY, MAY 21

	7:15	Continental Breakfast		
	7:55	Welcome and Introduction		<i>Annick D Van den Abbeele, MD</i>
<b>SAM 8</b>	<b>MYSTERY CASE OF DAY THREE: SOLVE IT AND WIN A PRIZE</b>			
		<b>Endocrine - <i>Frederick Grant, MD</i></b>		
	8:00	Benign Thyroid Diseases: Case-Based Review		<i>Frederick Grant, MD</i>
	8:30	Thyroid Cancer: Diagnosis and Management		<i>Ellen Marqusee, MD</i>
	9:10	Thyroid Cancer: Case-Based Review		<i>J Anthony Parker, MD, PhD and Chun Kim, MD</i>
	9:40	Questions and Answers		
	9:45	<b>COFFEE BREAK</b> - Mix and Mingle with Speakers		
	10:05	Parathyroid Imaging: Case-Based Review		<i>Kevin Donohoe, MD</i>
	10:35	Neuroendocrine Imaging: Case-Based Review		<i>Frederick Grant, MD</i>
<b>SAM 9</b>	11:05	Questions and Answers		
		<b>Pediatric - <i>S Ted Treves, MD</i></b>		
	11:10	Pediatric Nuclear Medicine: Case-Based Review		<i>S Ted Treves, MD</i>
	12:10	Questions and Answers		
<b>SAM 10</b>	12:15	<b>LUNCH RECESS</b>		
		<b>Gastrointestinal/Liver - <i>Kevin Donohoe, MD</i></b>		
	1:30	Upper Gastrointestinal Functional Studies: Case-Based Review		<i>Mark Tulchinsky, MD</i>
	2:10	Evaluation of Gastrointestinal Bleeding: Case-Based Review		<i>Rachel Powsner, MD</i>
	2:45	Hepatobiliary Imaging: Case-Based Review		<i>Mark Tulchinsky, MD</i>
<b>SAM 11</b>	3:20	<b>COFFEE BREAK</b> - Mix and Mingle with Speakers		
		<b>Genitourinary/Miscellaneous - <i>Chun Kim, MD</i></b>		
	3:40	Renal Function and Imaging: Case-Based Review		<i>Scott Britz-Cunningham, MD, PhD / Chun Kim, MD</i>
	4:20	Lymphoscintigraphy: Case-Based Review		<i>Chun Kim, MD</i>
	4:50	Questions and Answers		
	5:00	Adjourn		

## THURSDAY, MAY 22

	7:15	Continental Breakfast		
	7:55	Welcome and Introduction		<i>Annick D Van den Abbeele, MD</i>
<b>SAM 12</b>	<b>MYSTERY CASE OF DAY FOUR: SOLVE IT AND WIN A PRIZE</b>			
		<b>Brain Imaging Part I: Neurodegenerative Diseases and Movement Disorders</b>		
		<i>Kevin Donohoe, MD</i>		
	8:00	Alzheimer Disease		<i>Kevin Donohoe, MD</i>
	9:00	Dementias: Case-Based Review		<i>Kevin Donohoe, MD</i>
	9:30	Dopamine Transporter Imaging of the Brain: Case-Based Review		<i>Rachel Powsner, MD</i>
	9:55	Questions and Answers		
	10:00	<b>COFFEE BREAK</b> - Mix and Mingle with Speakers		
<b>SAM 13</b>		<b>Brain Imaging Part II: Non-Neurodegenerative Diseases - <i>Laura Horky, MD</i></b>		
	10:20	Brain Tumors, Epilepsy, Brain Perfusion and CSF Flow: Case-Based Review		<i>Laura Horky, MD</i>
	11:20	Questions and Answers		
<b>SAM 14</b>		<b>Infection/Inflammation/Musculoskeletal - <i>Chris Palestro, MD</i></b>		
	11:25	Benign Bone Disease: Case-Based Review		<i>Chris Palestro, MD</i>
	11:55	Questions and Answers		
	12:00	<b>LUNCH RECESS</b>		
	1:30	Malignant Bone Disease: Case-Based Review		<i>Chris Palestro, MD</i>
	2:00	Infection and Inflammation: Case-Based Review		<i>Chris Palestro, MD</i>
	2:30	Questions and Answers		
<b>SAM 15</b>		<b>Lung - <i>J Anthony Parker, MD</i></b>		
	2:35	Lung Imaging		<i>J Anthony Parker, MD</i>
	3:05	Questions and Answers		
	3:10	<b>COFFEE BREAK</b> - Mix and Mingle with Speakers		
	3:30	Lung Scan Interpretation: Case-Based Review		<i>J Anthony Parker, MD and Chun Kim, MD</i>
	4:00	Questions and Answers		
		<b>Nuclear Medicine Potpourri - <i>Annick D Van den Abbeele, MD</i></b>		
4:05	A Collection of Interesting Questions From Patients, Providers, Industry, State and Federal Regulators: How Do We Answer Them?		<i>Faculty Panel and Audience Members</i>	
	5:00	Adjourn		

## ACCREDITATION

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

The Harvard Medical School designates this live activity for a maximum of 29 AMA PRA Category 1 Credits™. Physicians should claim only credit commensurate with the extent of their participation in the activity.

The Royal College of Physicians and Surgeons of Canada recognizes conferences and workshops held outside of Canada that are developed by a university, academy, hospital, specialty society or college as accredited group learning activities.

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TECHNOLOGISTS - Pending approval for CE credit by the ASRT.

## ACGME COMPETENCIES

This course is designed to meet one or more of the following Accreditation Council of Graduate Medical Education competencies: \* Patient care \* Medical knowledge

## REGISTRATION INFORMATION

### Tuition Fee:

Physicians	\$910 (USD)
Residents/Fellows in Training/Technologist	\$610 (USD)
Allied Health Professionals	\$610 (USD)

Course #342545

Registration by credit card (VISA, MasterCard or American Express) can be made at: [www.cme.hms.harvard.edu/courses/clinicalnuclear](http://www.cme.hms.harvard.edu/courses/clinicalnuclear). Registration by check (draft on a United States bank), please make payable 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.

*In an effort to "Go Green", each participant will receive an electronic syllabus only. We will no longer be providing paper versions.*

## INQUIRIES

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

## 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 / ACCOMMODATIONS / TRAVEL

All sessions will be held at The Boston Marriott Long Wharf Hotel, 296 State Street, Boston, MA, (617) 227-0800. A limited number of discount rooms have been reserved at the **Boston Marriott Long Wharf Hotel** until Friday, April 25, 2014. You can call the hotel directly at 800-228-9290 or 617-227-0800 to reserve a room at the rate of \$309 per night single/double. When contacting the hotel, be sure to specify that you are enrolled in this activity to receive a reduced room rate. You may also reserve your hotel reservation online at [www.marriott.com/boslw](http://www.marriott.com/boslw). When prompted, enter code cnmcnma under the group code box in the special rate section. Please do not purchase non-refundable airline ticket(s) until you have received an email from our office confirming your paid registration.

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