



Harvard Medical School

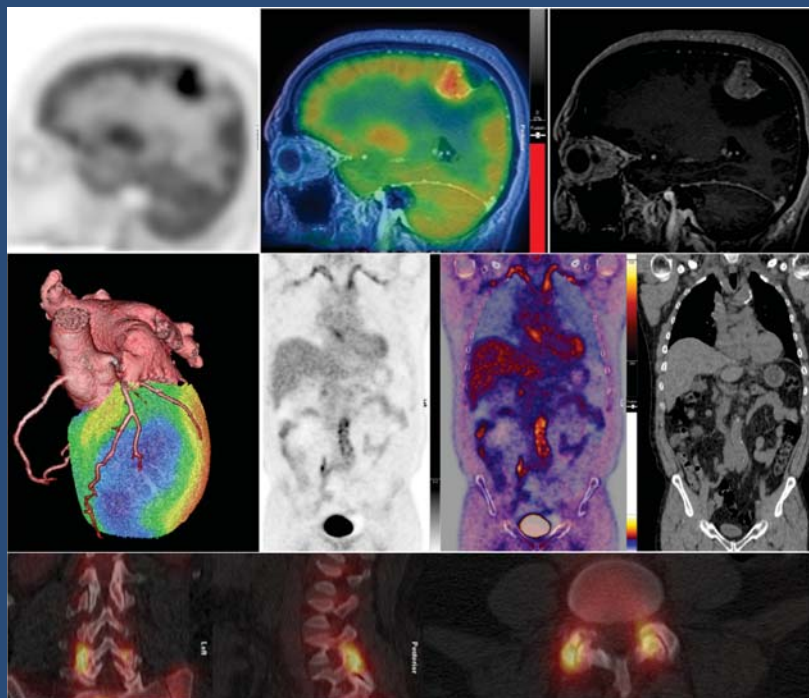


Brigham and Women's Hospital



Dana-Farber Cancer Institute

# CLINICAL NUCLEAR MEDICINE PET-CT AND PET-MRI: Case Review with Experts



## October 20-22, 2016

*Fairmont Copley Plaza  
Boston, Massachusetts, USA*

### COURSE DIRECTORS

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

**Emeritus Program Director**  
*S Ted Treves, MD, FACNP*

### Program Committee

*Sharmila Dorbala, MD, FACC  
Victor H. Gerbaudo, PhD, MSHCA  
Frederick D. Grant, MD*

*Hyewon Hyun, MD  
Heather A. Jacene, MD  
Chun K. Kim, MD  
Barbara McNeil, MD*

*J. Anthony Parker, MD, PhD  
Rachel A. Powsner, MD  
Christopher G. Sakellis, MD*

### COURSE DESCRIPTION

Clinical Nuclear Medicine, PET-CT and PET-MRI: Case review with the experts 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 specialists, radiologists, physicists, clinicians, fellows, residents, medical students, and technologists. The objective of the course is to provide up-to-date professional development through the review of established and emerging clinical applications of nuclear medicine and molecular imaging. Through a combination of interactive case-based presentations and focused didactic lectures, 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.

# THURSDAY, OCTOBER 20

SAM 1	7:00	Registration / Continental Breakfast	
	7:50	Welcome to CNM 2016	Marcelo Di Carli, MD
	<b>NEW PARADIGMS AND EVOLVING CLINICAL APPLICATIONS IN CANCER IMAGING</b>		
	Moderator: <i>Dr. Van den Abbeele</i>		
	8:00	Novel Cancer Therapies and Implications for Imaging	Geoffrey Shapiro, MD, PhD
SAM 2	8:30	<i>The Nuclear Oncology Consultation: Welcome to our Reading Room</i>	Christopher Sakellis, MD
	9:00	<i>Lung Cancer: Case-based Approach</i>	Eric Rohren, MD, PhD
	9:30	<i>Lymphoma and Myeloma: Evolving role of PET/CT and Integrating New Response Criteria</i>	Heather Jacene, MD
	10:00	BREAK - Consultation Desk: Eric Rohren, MD, PhD and Heather Jacene, MD	
	<b>NEW DEVELOPMENTS IN CANCER IMAGING - Moderator: Dr. Jacene</b>		
SAM 3	10:20	<i>Challenging Oncology Cases I: Molecularly Targeted Therapies</i>	Eric Rohren, MD, PhD
	11:00	<i>Multimodality Pediatric Tumor Imaging</i>	Ruth Lim, MD
	11:30	<i>Updates in Neuroendocrine Tumors and Non-PET Tracers for Oncology</i>	Christopher Sakellis, MD
	12:00	LUNCH RECESS	
	<b>NOVEL CANCER THERAPIES AND IMAGING INTERPRETATION - Moderator: Dr. Gerbaudo</b>		
SAM 3	1:00	<i>Challenging Oncology Cases II: Immunotherapy</i>	Annick Van den Abbeele, MD
	1:30	<i>Head and Neck Cancer: Interpreting Difficult Cases</i>	Eric Rohren, MD, PhD
	2:00	<i>A Practical Approach to Radionuclide Therapy</i>	Heather Jacene, MD
	2:30	<i>Problem Solving: Mis-understood and Under-Recognized Findings in PET/CT</i>	Chun Kim, MD
	3:00	BREAK - Consultation Desk: Christopher Sakellis, MD and Annick Van den Abbeele, MD	
SAM 3	<b>PRECISION MEDICINE and the CHANGING PRACTICE OF NUCLEAR MEDICINE</b>		
	Moderator: <i>Dr. Parker</i>		
	3:20	Cancer Imaging and Precision Medicine: How to Apply Them to Our Daily Nuclear Medicine Practice	Annick Van den Abbeele, MD
	3:50	<i>Challenging Oncology Cases III: Cancer Imaging and Therapeutic Potpourri</i>	Faculty
	5:00	Questions and Answers	
	5:15	Adjourn	

# FRIDAY, OCTOBER 21

SAM 4	7:00	Continental Breakfast	
	7:55	Welcome	Marcelo F Di Carli, MD
	<b>MYSTERY CASE OF DAY TWO: SOLVE IT AND WIN A PRIZE</b>		
	<b>IMAGING and THERAPY of THYROID and PARATHYROID DISORDERS - Moderator: Dr. Kim</b>		
	8:00	<i>Thyroid Cancer: Diagnosis and Management</i>	Ellen Marqusee, MD
SAM 5	8:40	<i>Benign Thyroid Diseases</i>	Frederick Grant, MD
	9:10	<i>Parathyroid Imaging</i>	Christopher Palestro, MD
	9:30	<i>Lymphoscintigraphy Update: New Radiotracer and Use of SPECT/CT</i>	Chun Kim, MD
	9:50	BREAK - Consultation Desk: Chun Kim, MD and Christopher Palestro, MD	
	<b>NEW DEVELOPMENTS and CLINICAL APPLICATIONS of NUCLEAR MEDICINE</b>		
SAM 5	Moderator: <i>Dr Treves</i>		
	10:10	<i>Pediatric Dose Optimization</i>	Frederic Fahey, DSc
	10:30	<i>Evaluation of Febrile UTI</i>	Neha Kwatra, MD
	11:00	<i>Imaging of Renal Function</i>	Hyewon Hyun, MD
	11:20	<i>Infection/Inflammation</i>	Christopher Palestro, MD
SAM 6	12:00	LUNCH RECESS	
	<b>CLINICAL APPLICATIONS OF NUCLEAR MEDICINE IN MUSCULOSKELETAL DISORDERS</b>		
	Moderator: <i>Dr. Hyun</i>		
	1:00	Rapid Fire Cases	Faculty
	1:40	<i>Benign Bone Disorders</i>	Christopher Palestro, MD
SAM 6	2:10	<i>Role of Nuclear Medicine in Diagnosis and Management of Sports Injuries</i>	Katherine Zukotynski, BAsC, MD, FRCP(C)
	2:40	BREAK - Consultation Desk: Hyewon Hyun, MD and Frederick Grant, MD	

# FRIDAY, OCTOBER 21 (cont.)

## ROLE of PET AND SPECT in NEUROLOGY - Moderator: Dr. Grant

3:00	Dementia	Kevin Donohoe, MD
3:30	Epilepsy and Dopamine Transporter Imaging	S Ted Treves, MD, FACNP and Hyewon Hyun, MD
4:00	Case Review Face-off	Faculty
5:00	Questions and Answers	
5:15	Adjourn	

# SATURDAY, OCTOBER 22

	7:00	Continental Breakfast	
	7:55	Welcome	Marcelo Di Carli, MD
SAM 7		<b>CLINICAL APPLICATIONS OF NUCLEAR MEDICINE - Moderator: Dr. Jacene</b>	
	8:00	<i>Diagnostic Approaches to the Patient with Suspected PE</i>	Andetta Hunsaker, MD
	8:30	<i>Lung Scan Interpretation</i>	J Anthony Parker, MD, PhD
	8:55	<i>Hepatobiliary and Spleen Imaging</i>	Chun Kim, MD
	9:20	<i>Gastric Emptying</i>	Kevin Donohoe, MD
	9:40	<i>GI Bleeding</i>	Rachel Powsner, MD
SAM 8	10:00	<b>BREAK - Consultation Desk: Kevin Donohoe, MD and Rachel Powsner, MD</b>	
		<b>MYOCARDIAL PERFUSION/FUNCTION SPECT and PET - Moderator: Dr Blankstein</b>	
	10:20	<i>SPECT/PET MPI - Patient Centered Protocols</i>	Sharmila Dorbala, MD, FACC
	10:45	<i>Pharmacologic Stress: Alone or Combined with Exercise</i>	Thomas Hauser, MD, MMSc, MPH, FACC
	11:05	<i>The Nuclear Cardiology Consultation: Interpretation and Reporting of SPECT/PET MPI</i>	Marcelo Di Carli, MD
	11:30	<i>Integrating Coronary Flow Reserve and Calcium Scoring with SPECT/PET MPI: What does it add?</i>	Timothy Bateman, MD
SAM 9	12:00	<b>LUNCH RECESS</b>	
		<b>NEW OPPORTUNITIES FOR NUCLEAR CARDIOLOGY and its RELATIONSHIP TO MULTIMODALITY IMAGING - Moderator: Dr Taqueti</b>	
	1:00	<i>SPECT/PET MPI Artifacts: How to Accurately Read Through Them</i>	Sharmila Dorbala, MD, FACC
	1:30	<i>Assessing Myocardial Viability with SPECT and PET</i>	Marcelo Di Carli, MD
	2:00	<b>Assessing Cardiac Inflammation/Infection</b>	Ron Blankstein, MD
	2:30	<i>New SPECT/PET Applications of Nuclear Cardiology: Cardiac Amyloidosis and MIBG</i>	Sharmila Dorbala, MD, FACC
	3:00	<b>BREAK - Consultation Desk: Sharmila Dorbala and Marcelo Di Carli, MD</b>	
		<b>CLINICAL PRACTICE OF NUCLEAR CARDIOLOGY - Moderator: Dr. Dorbala</b>	
	3:20	Challenges for SPECT and PET in 2016: Reducing Radiation and Costs	Timothy Bateman, MD
	3:50	Improving Safety in Nuclear Cardiology: ECG Interpretation for Nuclear Medicine Physicians	Hicham Skali Lami, MD, MSc
	4:10	SPECT and PET Face-off on Challenging Unknown Cases	Faculty
	5:00	Questions and Answers	
	5:15	Adjourn	

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

TO REGISTER or View Activity Information Online,  
visit: <https://www.hmscmeregistration.org/nuclearmedicine2016>

## 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 22.50 *AMA PRA Category 1 Credits*<sup>™</sup>. Physicians should claim only the 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.

Through an agreement between the American Medical Association and the European Union of Medical Specialists, physicians may convert *AMA PRA Category 1 Credit*<sup>™</sup> to an equivalent number of European CME Credits<sup>®</sup> (ECMECs<sup>®</sup>). Information on the process of converting *AMA PRA Category 1 Credits*<sup>™</sup> to ECMECs<sup>®</sup> can be found at: [www.eaccme.eu](http://www.eaccme.eu).

## SAM CREDIT

This course is pending approval by the American Board of Nuclear Medicine and American Board of Radiology for Self Assessment Credits (SAM).

## TECHNOLOGIST CREDIT

Technologists - Pending approval for CE credit by the ASRT

## ABMS/ACGME COMPETENCIES

This course is designed to meet one or more of the following American Board of Medical Specialties and Accreditation Council of Graduate Medical Education competencies: Patient care and procedural skills, and medical knowledge

## IOM COMPETENCIES

This course is designed to meet the following Institute of Medicine (IOM) Competencies: Employ Evidences-Based Practice

## REGISTRATION INFORMATION

Physicians	\$825
Residents/Fellows in Training/Technologist	\$600
Allied Health Professionals	\$600

*\*Processing \$5 (non-refundable service fee) \*All fees shown in USD.*

Registrations for Harvard Medical School CME programs are made via our secure online registration system. To register for this course, please visit <https://www.hmscmeregistration.org/nuclearmedicine2016>. At the end of the registration process, a Processing (non-refundable service fee) \$5 will be added to your registration, and you will have the choice of paying by check or credit card (Visa, MasterCard, or American Express). If you are paying by check, the online registration system will provide you with instructions and a printable form for remitting your course fees by check. Postal, telephone, fax, and cash-payment registrations are not accepted. 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), Mon - Fri, 9 am to 5 pm (ET) or by email at: [ceprograms@hms.harvard.edu](mailto:ceprograms@hms.harvard.edu).

## REFUND POLICY

Refunds, less an administrative fee of \$75, will be issued for all cancellations received two weeks prior to the start of the course. Refund requests must be received by postal mail or email. No refund will be issued should cancellation occur less than two weeks prior. "No shows" are subject to the full course fee and no refunds will be issued once the conference has started.

## 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.

## COURSE LOCATION / ACCOMMODATIONS / TRAVEL

All sessions for this activity will be held at The Fairmont Copley Plaza, 138 St James Avenue, Boston, Massachusetts 02116 (Telephone: 617-267-5300). A limited number of rooms have been reserved at the Fairmont Copley Plaza, (800) 441-1414 until September 27, 2016. Please specify that you are enrolled in this activity to receive a reduced room rate of \$409/\$439 per night. Hotel arrangements can also be made online at <https://resweb.passkey.com/go/clinicalnuclear>. Please do not purchase nonrefundable airline ticket(s) until you have received an email from our office confirming your paid registration.

## DISCLAIMER

CME activities sponsored by Harvard Medical School are offered solely for educational purposes and do not constitute any form of certification of competency. Practitioners should always consult additional sources of information and exercise their best professional judgment before making clinical decisions of any kind.

For more information and registration: <https://www.hmscmeregistration.org/nuclearmedicine2016>

## LEARNING 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

## TARGET AUDIENCE

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

## GUEST FACULTY

**Timothy M. Bateman, MD:** Professor of Medicine and Radiology, University of Missouri, Kansas City School of Medicine, Co-director, Cardiovascular Radiologic Imaging Saint Luke's Health System St Luke's Health Systems, Kansas City, MO

**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

**Eric Rohren, MD, PhD:** Professor and Chair of Radiology, Baylor College of Medicine, Houston, TX

## HARVARD MEDICAL SCHOOL FACULTY

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

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

**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:** Associate Professor of Radiology; Director of Nuclear Cardiology; Brigham and Women's Hospital

**Frederic H. Fahey, DSc:** 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; Senior Director, Nuclear Medicine and Molecular Imaging and Cardiovascular Imaging Administration, Associate Director, Center for Pulmonary Functional Imaging, Brigham and Women's Hospital

## HARVARD MEDICAL SCHOOL FACULTY

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

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

**Andetta R. Hunsaker, MD:** Associate Professor of Radiology; Director, Division of Thoracic Radiology, Brigham and Women's Hospital

**Hyewon Hyun, MD:** Assistant Professor of Radiology, Division of Nuclear Medicine and Molecular Imaging, 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

**Neha Kwatra, MD:** Instructor in Radiology; Boston Children's Hospital

**Ruth Lim, MD:** Assistant Professor of Radiology, Division of Pediatric Radiology and Division of Nuclear Medicine and Molecular Imaging; Massachusetts General Hospital

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

**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

**Geoffrey Shapiro, MD, PhD:** Associate Professor of Medicine; Director, Early Drug Development Center Clinical Director, Center for DNA Damage and Repair, Dana-Farber Cancer Institute

**Hicham Skali Lami, MD, MSc:** Instructor in Medicine, Division of Cardiovascular Medicine and Cardiovascular Imaging Program, Brigham and Women's Hospital

**Viviany R. Taqueti, MD, MPH:** Assistant Professor of Radiology; Cardiovascular Imaging Program, Brigham and Women's Hospital

**S. Ted Treves, MD, FACNP:** Professor of Radiology; Division of Nuclear Medicine and Molecular Imaging at 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

**Katherine Zukotynski, B.A.Sc., MD, FRCP(C):** Visiting Assistant Professor Radiology; Research Associate, Brigham and Women's Hospital, Assistant Professor Medical Imaging, University of Toronto, Division of Nuclear Medicine, Sunnybrook Hospital, Toronto, Ontario