Chest Imaging 2018

October 1-3, 2018

Fairmont Copley Plaza
Boston, MA

Course Directors:
Jo-Anne O. Shepard, MD
Andetta R. Hunsaker, MD
Subba R. Digumarthy, MD

Earn up to 22.25 AMA PRA Category 1 Credits™ and SAM Credits available
Course Description:

The chest is the most commonly imaged part of the body and accounts for a significant workload in a radiology practice. There is an exponential increase in utilization of thoracic imaging, with an even greater emphasis on treatment decisions based on imaging patterns and findings. This intensive 3-day CME course is designed as both a refresher course and an update in recent concepts and advances in thoracic imaging. The modalities covered in this course include radiography, CT, MRI, PET and image-guided interventions. The attendees will acquire a comprehensive working knowledge in all facets of thoracic imaging ranging from essentials, critical care imaging, interstitial lung disease, tumor imaging and lung cancer screening, image-guided interventions and emerging technologies. The sessions are organized for practical and comprehensive coverage with an emphasis on integrated multi-modality approach and clinical relevance. The topics in each session are distinct yet interconnected and reflect the patterns in clinical practice. The case-based discussions will capture the concepts in lectures and will stimulate the attendees to test their knowledge. The multidisciplinary case conferences in lung cancer and interstitial lung diseases involving other medical specialists will focus on current practice and the role of imaging in patient management.

Key Topics:

1. Diffuse Lung Disease and HRCT
2. Lung Cancer Imaging: Screening, Detection, Staging and Image Guided Treatment
3. Pulmonary Nodule Detection and Management
4. Pulmonary Infections
5. Critical Care Imaging in Chest
6. Airways Disease
7. Fundamentals of Cardiac and Aortic Pathology
8. Dual Energy Applications in the Thoracic Imaging
9. MRI: Problem Solving Tool in Chest and Newer Techniques

Objectives:

Upon completion of this activity, participants will:

- Summarize the basics in Chest Imaging, covering both common and uncommon diseases encountered in the clinical practice following a comprehensive multi-modality review
- Identify the current concepts of imaging-based guidelines and treatment strategies
- Recognize the role of multidisciplinary conferences in lung cancer diagnosis and management and evaluation of interstitial lung diseases
- Define the current and future role of newer imaging technologies for diagnosis and management of chest diseases

Target Audience:

This course is targeted to general radiologists, thoracic radiologists and radiologists-in-training. This course may also be of interest to chest, primary care, emergency medicine, infectious diseases, internal medicine, and pulmonary medicine physicians and other health care providers who interpret chest imaging.
Accreditation:

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

The Harvard Medical School designates this live activity for a maximum of 22.25 AMA PRA Category 1 Credits™. Physicians should claim only credit commensurate with the extent of their participation in the activity.

This activity provides Self-Assessment Credits toward Part 2 of the ABS MOC Program.

Registration Information:

Physicians: $830*  Residents/Fellows in Training: $550*  Allied Health Professionals: $550*

*This includes a non-refundable service fee of $5.00 and all fees shown in USD.

Each participant will receive a USB drive of the syllabus within your registration packet. Please bring your laptop or tablet to view the course materials. Registration by credit card or check (VISA, MasterCard or American Express) can be made through Harvard Medical School’s secure online registration system at:  https://cmeregistration.hms.harvard.edu/chestimaging2018

Registration by check (draft on a US bank), please make payable to Harvard Medical School. Learners who choose to pay by check will be prompted to download an online form to send in with a payment. Telephone or fax registration is not accepted. Registration with cash payment is not permitted. Upon receipt of your paid registration, you will receive an email confirmation. 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.

Disclaimer:

CME activities accredited 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.

Inquires:

By phone: (617-384-8600), Monday-Friday, 9:00am-5:00pm (ET) or by e-mail at: ceprograms@hms.harvard.edu

Disclosure Policy:

Harvard Medical School (HMS) adheres to all ACCME Accreditation Criteria 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:

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 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.

Course Location:

All sessions will be held at the Fairmont Copley Plaza, 138 St. James Avenue, Boston, MA 02116. Hotel rooms in Boston are limited. You are urged to make your reservations early. A limited number of rooms have been reserved at the Fairmont Copley Plaza (phone 1-800-441-1414) until Wednesday, September 5, 2018. Please specify that you are enrolled in the Chest Imaging course to receive a reduced room rate of $359 per night Single/Double.

Reservations can also be made online at https://aws.passkey.com/go/chestimaging.

Please do not purchase nonrefundable airline ticket(s) until you have received an e-mail from our office confirming your paid registration.

Online Registration:

To register or view activity information online visit:

https://cmeregistration.hms.harvard.edu/chestimaging2018

Course Directors:

Jo-Anne O. Shepard, MD
Professor of Radiology, Harvard Medical School
Director, Thoracic Imaging and Intervention, Department of Radiology, Massachusetts General Hospital

Andetta R. Hunsaker, MD
Associate Professor of Radiology, Harvard Medical School
Chief, Division of Thoracic Imaging, Brigham and Women’s Hospital

Subba R. Digumarthy, MD
Assistant Professor of Radiology, Harvard Medical School
Radiologist, Division of Thoracic Imaging and Intervention Massachusetts General Hospital
Guest Faculty:

Phillip M. Boiselle, MD
Professor and Dean of Charles E. Schmidt College of Medicine, Florida Atlantic University, Boca Raton, Florida
Visiting Professor, Harvard Medical School

Jane P. Ko, MD
Professor of Radiology, NYU School of Medicine
Attending, NYU Langone Health, Director, Thoracic and Cardiac Fellowship

David Lynch, MB, BCH
Professor of Radiology, National Jewish Health, Denver, Colorado

Harvard Medical School Faculty and Others:

Gerald F. Abbott, MD
Associate Professor of Radiology, Harvard Medical School
Radiologist, Division of Thoracic Imaging and Intervention, Massachusetts General Hospital

Jeanne B. Ackman, MD, FACR
Assistant Professor of Radiology, Harvard Medical School
Radiologist, Division of Thoracic Imaging and Intervention, Massachusetts General Hospital

Maria F. Barile, MD
Instructor in Radiology, Harvard Medical School
Division of Thoracic Imaging, Brigham and Women's Hospital

Suzanne Byrne, MD
Clinical Assistant Professor of Radiology, Memorial University of Newfoundland
Radiologist, Health Sciences Center, Eastern Health, St. John's, Newfoundland

Florian J. Fintelmann, MD
Assistant Professor of Radiology, Harvard Medical School
Radiologist, Division of Thoracic Imaging and Intervention, Massachusetts General Hospital

Efren J. Flores, MD
Instructor in Radiology, Harvard Medical School
Radiologist, Division of Thoracic Imaging and Intervention, Massachusetts General Hospital

Matthew D. Gilman, MD
Assistant Professor of Radiology, Harvard Medical School
Associate Director and Radiologist, Division of Thoracic Imaging and Intervention, Massachusetts General Hospital

Mark M. Hammer, MD
Instructor in Radiology, Harvard Medical School
Division of Thoracic Imaging, Brigham and Women's Hospital

Lida P. Hariri, MD, PhD
Instructor in Pathology, Harvard Medical School
Department of Pathology, Massachusetts General Hospital

Hiroto Hatabu, MD, PhD, FACR
Professor of Radiology, Harvard Medical School
Medical Director, Center for Pulmonary Functional Imaging, Brigham and Women's Hospital

Francine L. Jacobson, MD, MPH
Assistant Professor of Radiology, Harvard Medical School
Division of Thoracic Imaging, Director of Lung Cancer Screening, Brigham and Women's Hospital
Florence K. Keane, MD  
Instructor in Radiation Oncology, Harvard Medical School  
Assistant Physician in Radiation Oncology, Massachusetts General Hospital

Michael Lanuti, MD  
Associate Professor of Surgery, Harvard Medical School  
Director, Thoracic Oncology, Division of Thoracic Surgery, Massachusetts General Hospital

Inga T. Lennes, MD, MPH, MBA  
Instructor in Medicine, Harvard Medical School  
SVP Practice Improvement and Service Excellence, MGPO, Thoracic Oncologist, Massachusetts General Hospital

Brent P. Little, MD  
Member of the Faculty of Radiology, Harvard Medical School  
Radiologist, Division of Thoracic Imaging and Intervention, Department of Radiology, Massachusetts General Hospital

Rachna Madan, MD  
Instructor in Radiology, Harvard Medical School  
Division of Thoracic Imaging, Brigham and Women’s Hospital

Shaunagh McDermott, MD  
Assistant Professor in Radiology, Harvard Medical School  
Radiologist, Division of Thoracic Imaging and Intervention, Massachusetts General Hospital

Theresa McLoud, MD  
Professor of Radiology, Harvard Medical School  
Vice Chair of Education, Massachusetts General Hospital  
Manorama and Virender Saini Endowed Chair in Radiology Education, Massachusetts General Hospital

Mark Michalski, MD  
Instructor in Radiology, Harvard Medical School  
Executive Director, MGH & BWH Center for Clinical Data Science

Sydney B. Montesi, MD  
Instructor in Medicine, Harvard Medical School  
Assistant Physician, Pulmonary and Critical Care, Massachusetts General Hospital

Victorine V. Muse, MD  
Assistant Professor of Radiology, Harvard Medical School  
Radiologist, Division of Thoracic Imaging and Intervention, Massachusetts General Hospital

Milena Petranovic, MD  
Instructor in Radiology, Harvard Medical School  
Radiologist, Division of Thoracic Imaging and Intervention, Massachusetts General Hospital

Melissa C. Price, MD  
Instructor in Radiology, Harvard Medical School  
Assistant Radiologist, Massachusetts General Hospital

Eric J. Schmidlin, MD  
Instructor in Radiology, Harvard Medical School  
Division of Thoracic Imaging, Brigham and Women’s Hospital

Amita Sharma, MD  
Assistant Professor of Radiology, Harvard Medical School  
Radiologist, Division of Thoracic Imaging & Intervention, Massachusetts General Hospital

Alice T. Shaw, MD, PhD  
Professor of Medicine, Harvard Medical School  
Director, Center for Thoracic Cancers, Massachusetts General Hospital
### Monday, October 1, 2018

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00-7:50am</td>
<td>Registration/Continental Breakfast</td>
</tr>
<tr>
<td>7:50-8:00</td>
<td>Welcome and announcements</td>
</tr>
</tbody>
</table>
| 8:00-8:30     | **Session 1** Interstitial Lung Disease  
Moderator: J Shepard
  
HRCT: Anatomic Basis and Patterns  
A Sharma  
SAM |
| 8:30-8:50     | High Confidence Diagnosis of Diffuse Lung Disease  
D Lynch |
| 8:50-9:10     | HRCT: Micronodular Pattern  
P Boiselle |
| 9:10-9:30     | Patterns of Fibrotic Lung Disease: UIP vs Others  
D Lynch |
| 9:30-9:50     | Non-Fibrotic Lung Disease: Approach with CT  
D Lynch |
| 9:50-10:00    | Break                                                                     |
| 10:00-10:30   | **Session 2** Interstitial Lung Disease  
Moderator: A Sharma
  
Cystic Lung Disease  
A Hunsaker  
SAM |
| 10:30-10:50   | Imaging Environmental Lung Disease Old and New  
D Lynch |
| 10:50-11:10   | Interstitial Lung Disease in Autoimmune Conditions  
A Sharma |
| 11:10-12:10   | Case Panel  
Panelists: S. Montesi, D. Lynch and L. Hariri  
Moderator: A Sharma |
| 12:10-12:20   | Q & A                                                                     |
| 12:20-1:20    | Lunch (On Your Own)                                                       |
| 1:20-1:40     | **Session 3** Essentials  
Moderator: A Hunsaker
  
Normal Anatomy CXR/CT  
M Price |
| 1:40-2:00     | Congenital Lung Disease  
M Gilman |
| 2:00-2:20     | Approach to Mycobacterial Disease  
S Digumarthy |
| 2:20-2:50     | Approach to Atelectasis  
G Abbott  
SAM |
| 2:50-3:00     | Q & A                                                                     |
| 3:00-3:10     | Break                                                                     |
| 3:10-3:40     | Imaging of Mediastinum  
M Barile  
SAM |
| 3:40-4:00     | Imaging of Pleura  
G Abbott |
| 4:00-4:20     | Case Based Review of Mediastinum and Pleura:CT/MRI  
J Ackman |
| 4:20-5:20     | Interesting Cases: Learn with the Experts  
Moderator: J Shepard
  Panelists: A Sharma, S Digumarthy, D Lynch, A Hunsaker |
| 5:20-5:30     | Q & A                                                                     |
| 5:30          | Adjourn                                                                   |
Tuesday, October 2, 2018

7:15-8:00am Continental Breakfast

**Session 1** Lung cancer
Moderator: J Shepard

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00-8:30</td>
<td>Imaging Based TNM Staging of Lung Cancer 8th Edition</td>
<td>T McLoud</td>
<td>SAM</td>
</tr>
<tr>
<td>8:30-8:50</td>
<td>State of the Art Surgical Staging of Lung Cancer</td>
<td>M Lanuti</td>
<td></td>
</tr>
<tr>
<td>8:50-9:10</td>
<td>Adenocarcinoma: Rad-Path Correlation</td>
<td>J Ko</td>
<td></td>
</tr>
<tr>
<td>9:10-9:30</td>
<td>Post Treatment Changes in Lung Cancer</td>
<td>J Ko</td>
<td></td>
</tr>
<tr>
<td>9:30-9:50</td>
<td>Lung Cancer Mimics</td>
<td>M Petranovic</td>
<td></td>
</tr>
<tr>
<td>9:50-10:00</td>
<td>Q&amp;A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00-10:10</td>
<td>Break</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Session 2** Lung Cancer
Moderator: S Digumarthy

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:10-10:30</td>
<td>Imaging Guided Biopsy and Localization</td>
<td>J Shepard</td>
<td></td>
</tr>
<tr>
<td>10:30-11:00</td>
<td>Imaging Guided Tumor Ablation</td>
<td>F Fintelmann</td>
<td>SAM</td>
</tr>
<tr>
<td>11:00-12:00</td>
<td>Tumor Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:00-12:10</td>
<td>Q &amp; A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:10-1:10</td>
<td>Lunch (On Your Own)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Session 3** Nodule Management and Lung Cancer Screening
Moderator: T McLoud

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:10-1:40</td>
<td>Incidental Lung Nodules: Fleishner Society Guidelines</td>
<td>J Ko</td>
<td>SAM</td>
</tr>
<tr>
<td>1:40-2:10</td>
<td>Screening Detected Lung Nodules: Lung-RADS Lexicon</td>
<td>J Shepard</td>
<td>SAM</td>
</tr>
<tr>
<td>2:10-2:30</td>
<td>Lung Cancer Screening: Risk Prediction Models</td>
<td>P Boiselle</td>
<td></td>
</tr>
<tr>
<td>2:30-2:50</td>
<td>Integrated Lung Nodule Clinic: Is this the Solution?</td>
<td>I Lennes</td>
<td></td>
</tr>
<tr>
<td>2:50-3:00</td>
<td>Q &amp; A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:00-3:10</td>
<td>Break</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Session 4** Airways and COPD
Moderator: F Jacobson

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:10-3:40</td>
<td>Large Airway disease</td>
<td>P Boiselle</td>
<td>SAM</td>
</tr>
<tr>
<td>3:40-4:00</td>
<td>COPD</td>
<td>F Jacobson</td>
<td></td>
</tr>
<tr>
<td>4:00-4:20</td>
<td>Small Airway Disease</td>
<td>P Boiselle</td>
<td>SAM</td>
</tr>
<tr>
<td>4:20-5:00</td>
<td>Unknown Case Discussion</td>
<td>M Petranovic &amp; M Price</td>
<td></td>
</tr>
<tr>
<td>5:00-5:10</td>
<td>Q &amp; A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:10</td>
<td>Adjourn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Event</td>
<td>Speaker(s)</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------</td>
<td>---------------------------------</td>
<td></td>
</tr>
<tr>
<td>7:15-8:00am</td>
<td>Continental Breakfast</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:00-8:30</td>
<td>Support Lines and Tubes</td>
<td>M Gilman</td>
<td></td>
</tr>
<tr>
<td>8:30-9:00</td>
<td>Post-Operative Chest</td>
<td>R Madan</td>
<td></td>
</tr>
<tr>
<td>9:00-9:20</td>
<td>Immunocompromised Host</td>
<td>M Hammer</td>
<td></td>
</tr>
<tr>
<td>9:20-9:40</td>
<td>Chest Trauma</td>
<td>E Flores</td>
<td></td>
</tr>
<tr>
<td>9:40-10:10</td>
<td>Cardiac Disease on Chest CT</td>
<td>B Little</td>
<td></td>
</tr>
<tr>
<td>10:10-10:20</td>
<td>Q &amp; A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:20-10:30</td>
<td>Break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:30-11:00</td>
<td>Pulmonary Embolism and Other Vascular Diseases</td>
<td>S McDermott</td>
<td></td>
</tr>
<tr>
<td>11:00-11:30</td>
<td>Diseases and Work up of Aorta</td>
<td>B Little</td>
<td></td>
</tr>
<tr>
<td>11:30-11:50</td>
<td>Imaging of Post-Operative Aorta</td>
<td>J Ko</td>
<td></td>
</tr>
<tr>
<td>11:50-12:20</td>
<td>Unknown Case Discussion</td>
<td>E Schmidlin and S Byrne</td>
<td></td>
</tr>
<tr>
<td>12:20-12:30</td>
<td>Q &amp; A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:30-1:30</td>
<td>Lunch (On Your Own)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:30-1:50</td>
<td>Computer-Aided Detection</td>
<td>J Ko</td>
<td></td>
</tr>
<tr>
<td>1:50-2:10</td>
<td>Machine Learning and Artificial Intelligence</td>
<td>M Michalski</td>
<td></td>
</tr>
<tr>
<td>2:10-2:30</td>
<td>Dual Energy CT in Chest</td>
<td>S Digumarthy</td>
<td></td>
</tr>
<tr>
<td>2:30-3:00</td>
<td>Tissue Characterization by Thoracic MRI</td>
<td>J Ackman</td>
<td></td>
</tr>
<tr>
<td>3:00-3:20</td>
<td>Functional MRI</td>
<td>H Hatabu</td>
<td></td>
</tr>
<tr>
<td>3:20-3:30</td>
<td>Q &amp; A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:30</td>
<td>Adjourn</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>