FRIDAY, JANUARY 17, 2020

7:15 AM  
Registration, Breakfast & Exhibits

7:45 AM  
Course Overview and Objectives
Daniel S. Berman, MD

SESSION 1: INTERPRETING AND REPORTING SPECT/PET MPI CASES IN DAILY PRACTICE
Daniel S. Berman, MD, Presiding

8:00 AM  
Integrating Visual and Quantitative Analyses: Improving Your Scan Interpretation—Case Illustrations
Sean W. Hayes, MD

8:40 AM  
Stress-only SPECT: Reducing Radiation and Increasing Efficiency
John Mahmarian, MD

9:00 AM  
Reducing the False Positive Rate: Artifacts on SPECT and PET MPI: Case Illustrations
Sean W. Hayes, MD

9:20 AM  
CAC Scanning in Patients Undergoing SPECT/PET MPI: Integrated Reporting of MPI
Daniel S. Berman, MD

9:40 AM  
Pharmacologic Stress: Combined with Exercise or Alone: What You Need to Know
Sean W. Hayes, MD

10:15 AM  
Break/Exhibits/Break-Out Session #1
Sean W. Hayes, MD

SESSION 2: THE FUTURE OF NUCLEAR CARDIOLOGY
Daniel S. Berman, MD, Presiding

10:30 AM  
The Emergence of Competing Risk Factor Trends in the 21st Century: Its Implications for Cardiac Testing
Alan Rozanski, MD

10:55 AM  
Patients’ Capability to Exercise and Exercise Performance at the Time of Cardiac Testing: The Variables that Still Get No Respect
Alan Rozanski, MD

11:25 AM  
KEYNOTE ADDRESS: The Future of SPECT/PET MPI in the Era of Expanding CT
John Mahmarian, MD
12:00 PM  
Panel Discussion  
Faculty: Drs. Rozanski, Mahmarian, and Hayes  
Moderator: Daniel S. Berman, MD

12:15 PM  
Lunch and Exhibits

12:30 PM  
Optional CSMC Cardiac Imaging Laboratories Site Visit (No CME/CE credit)

**SESSION 3: RADIOPHARMACEUTICALS, CAMERAS, SOFTWARE, RADIATION**  
Daniel S. Berman, MD, Presiding

1:00 PM  
SPECT Imaging of Ventricular Function  
Serge Van Kriekinge, PhD

1:15 PM  
F-18 Flurpiridaz: The Ideal MPI Radiopharmaceutical  
Jamshid Maddahi, MD

1:35 PM  
Latest Hardware and Software Developments in SPECT and PET: The Emergence of Machine Learning  
Piotr Slomka, PhD

**SESSION 4: CARDIAC AMYLOIDOSIS: THE MOST RAPIDLY GROWING NUCLEAR CARDIOLOGY APPLICATION**  
Daniel S. Berman, MD, Presiding

2:00 PM  
Clinical Overview of Cardiac Amyloidosis: Pathophysiology, Phenotypes, Treatment  
Jignesh Patel, MD

2:15 PM  
Role of Multimodality Imaging in Cardiac Amyloidosis: 2019 ASNC/AHA/ASE/EANM/HFSA/SCMR/SNMMI Consensus Recommendations: Sharmila Dorbala, MD

2:30 PM  
Tc-99m Pyrophosphate (PYP) Imaging: Acquisition, Processing, Interpretation  
Panithaya Chareonthaitawee, MD

2:50 PM  
Role of Tc-99m PYP and F-18 Amyloid Tracers in Monitoring Therapy  
Sharmila Dorbala, MD

3:05 PM  
Amyloidosis: Case Presentations/Interpretation: CMR and PYP  
Presenter: Panithaya Chareonthaitawee, MD  
Discussants: Sharmila Dorbala, MD and Balaji Tamarappoo, MD, PhD

3:25 PM  
Panel Discussion  
Faculty: Drs. Dorbala, Chareonthaitawee, Patel, and Tamarappoo  
Moderator: Daniel S. Berman, MD

3:40 PM  
Break/Exhibits/Break-Out Session #2  
Sharmila Dorbala, MD; Panithaya Chareonthaitawee, MD
Daniel S. Berman, MD, Presiding

3:45 PM Imaging for Myocardial Viability: Status in 2020
Robert Beanlands, MD

4:05 PM Myocardial Viability: Multimodality Assessment with SPECT, PET, and MRI: Classic Cases
Jamshid Maddahi, MD

4:35 PM READ WITH THE EXPERTS: Challenging Cases with SPECT and PET
Presenter: John Friedman, MD
Discussants: Drs. Beanlands, Berman, Chareonthaitawee, DORBala, Maddahi, and Hayes

5:30 PM Panel Discussion
Faculty: Drs. Beanlands, Berman, Chareonthaitawee, DORBala, Maddahi, Hayes, and Friedman
Moderator: Daniel S. Berman, MD

5:45 PM Adjourn

SATURDAY, JANUARY 18, 2020

7:30 AM Breakfast and Exhibits

SESSION 6: MYOCARDIAL BLOOD FLOW (MBF) and MYOCARDIAL FLOW RESERVE (MFR) WITH PET, SPECT and CMR
Daniel S. Berman, MD, Presiding

8:00 AM Clinical Value of MBF/MFR Measurements
Robert Beanlands, MD

8:20 AM MBF/MFR with PET: How to Perform, Quality Control, Interpret and Report
Timothy Bateman, MD

8:40 AM MFR with SPECT: Ready for Prime Time?
Piotr Slomka, PhD

8:55 AM MBF/MFR with CMR: As Accurate as PET?
Behzad Sharif, PhD

9:10 AM MFR and FFR: Clinically Relevant Similarities and Differences
Robert Beanlands, MD

9:30 AM Case Presentations: Myocardial Flow Reserve with PET
Timothy Bateman, MD
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:50 AM</td>
<td>How to Report MBF/MFR Measurements</td>
<td>Robert Beanlands, MD</td>
</tr>
<tr>
<td>10:10 AM</td>
<td>Panel Discussion</td>
<td>Faculty: Drs. Beanlands, Bateman, Slomka, and Sharif, Daniel S. Berman, MD</td>
</tr>
<tr>
<td>10:25 AM</td>
<td><strong>Break/Exhibits/Break-Out Session #3</strong></td>
<td>Robert Beanlands, MD</td>
</tr>
</tbody>
</table>

**SESSION 7: SARCOIDOSIS and INFECTION**
Daniel S. Berman, MD, Presiding

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:40 AM</td>
<td>Cardiac Sarcoidosis: Clinical Overview of the Disease and Role of Imaging with</td>
<td>Sharmila Dorbala, MD</td>
</tr>
<tr>
<td></td>
<td>PET and MRI</td>
<td></td>
</tr>
<tr>
<td>11:00 AM</td>
<td>Cardiac Sarcoidosis: Imaging with FDG PET: Practical Considerations</td>
<td>Panithaya Chareonthaitawee, MD</td>
</tr>
<tr>
<td>11:20 AM</td>
<td>Assessing Valvular, Vascular, and Device Infections with F-18 FDG PET, Indium-</td>
<td>Louise Thomson, MBChB</td>
</tr>
<tr>
<td></td>
<td>111 WBC's, and CT Angiography</td>
<td></td>
</tr>
<tr>
<td>11:40 AM</td>
<td><strong>READ WITH THE EXPERTS: PET and CMR for Cardiac Sarcoidosis</strong></td>
<td>John Friedman, MD, Sharmila Dorbala, Panithaya Chareonthaiawee, MD</td>
</tr>
<tr>
<td>12:00 PM</td>
<td>Panel Discussion</td>
<td>Faculty: Chareonthaitawee, Dorbala, Thomson, Friedman, Daniel S. Berman, MD</td>
</tr>
<tr>
<td>12:15 PM</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>12:30 PM</td>
<td>Optional CSMC Cardiac Imaging Laboratories Site Visit (No CME/CE credit)</td>
<td>Mina Sadeghi</td>
</tr>
</tbody>
</table>

**SESSION 8: NEW AND FUTURE DEVELOPMENTS IN PET AND SPECT**
Daniel S. Berman, MD, Presiding

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:00 PM</td>
<td>Imaging in Cardiac Transplantation with PET, SPECT, and CMR</td>
<td>Robert Miller, MD</td>
</tr>
<tr>
<td>1:20 PM</td>
<td>Pathogenesis of Atherosclerosis: Potential Targets for Plaque Molecular Imaging</td>
<td>PK Shah, MD</td>
</tr>
<tr>
<td>1:40 PM</td>
<td>F-18 Fluoride Cardiovascular Imaging: The Coronary Arteries and Beyond</td>
<td>Jacek Kwiecinski, MD, PhD</td>
</tr>
</tbody>
</table>
SESSION 9: IMPACT OF NEW TRIALS AND GUIDELINES
Daniel S. Berman, MD, Presiding

2:00 PM KEYNOTE ADDRESS: The ISCHEMIA Trial - A Deep Dive into the Results: Implications for Stress Testing, Coronary CT Angiography and Invasive Coronary Angiography
Leslee Shaw, PhD

2:30 PM 2020 Realities of Coverage and Reimbursement: SPECT/PET/CMR/Echo
Timothy Bateman, MD

2:50 PM “2020 Vision”: The Future of Cardiac Imaging from a Healthcare System Perspective
Jack Ziffer, MD

3:10 PM Panel Discussion
Faculty: Drs. Shaw, Bateman, and Ziffer
Moderator: Daniel S. Berman, MD

3:25 PM Break/Exhibits/Break-Out Session #4
Timothy Bateman, MD

SESSION 10: RADIATION REDUCTION AND ED APPLICATIONS
Daniel S. Berman, MD, Presiding

3:40 PM Radiation Dose Reduction in SPECT, PET and Cardiac CT
Damini Dey, PhD

4:00 PM Coronary CTA and SPECT/SPECT Imaging in Patients with Chest Pain in the ED
John Mahmarian, MD

Leslee Shaw, PhD

4:40 PM Break/Exhibits/Break-Out Session #5
John Mahmarian, MD

SESSION 11: CMR: CURRENT APPLICATIONS AND FUTURE POTENTIAL
Daniel S. Berman, MD, Presiding

4:50 PM When is CMR the Test of Choice? A Case-based Approach
Louise Thomson, MBChB

5:10 PM CMR for Myocardial Fibrosis, Edema, and Infarction
Rohan Dharmakumar, PhD

5:25 PM A Game-changer in Performance of CMR: No Breath-holds, no ECG, no “Scouts” in a Comprehensive 30 Minute Study
Anthony Christodoulou, PhD
ADVANCES IN NUCLEAR CARDIOLOGY, CARDIAC CT AND CARDIAC MRI:
35th ANNUAL CASE REVIEW WITH THE EXPERTS

5:40 PM  Cardio-oncology: Broadening the Clinical Applications of Multimodality Imaging
Balaji K. Tamarappoo, MD, PhD

6:00 PM  Adjourn

SUNDAY, JANUARY 19, 2020

7:30 AM  Breakfast and Exhibits

SESSION 12: CARDIAC CT: CURRENT STATUS and FUTURE APPLICATIONS
James K. Min, MD, Presiding

8:00 AM  Coronary CTA: Interpretation and Reporting CTA
Todd C. Villines, MD

8:20 AM  Pitfalls in Coronary CTA: Problematic Cases
Koen Niemen, MD

8:40 AM  Coronary Artery Calcium (CAC) Scanning: Role in Asymptomatic and Symptomatic Patients
Matt Budoff, MD

9:00 AM  Central Role of Coronary CTA in Clinical Practice
Tracy Callister, MD

9:20 AM  Ischemia Evaluation with Coronary CTA: FFRct
Jonathon Leipsic, MD

9:40 AM  Ischemia Evaluation with Coronary CTA: CT Perfusion
Koen Niemen, MD

10:00 AM  Quantification of Coronary Plaque: Prediction of Risk-Prediction, Ischemia and Monitoring Therapy
Damini Dey, PhD

10:20 AM  Whole-Heart Atherosclerosis Characterization: A New Way to Predict Risk and Guide Revascularization
James K. Min, MD

10:40 AM  Panel Discussion
Faculty: Drs. Villines, Niemen, Budoff, Callister, Leipsic, Dey, and Min
Moderator: Daniel S. Berman, MD

10:55 AM  Break/Exhibits/Break-Out Session #6
Todd C. Villines, MD
SESSION 13: BEST PAPERS AND BEST CASES
James K. Min, MD, Presiding

11:10 AM  Top Ten Imaging Papers of the Year
James K. Min, MD

11:30 AM  **BATTLE OF THE EXPERTS**
**Challenging Unknown Coronary Cases from Clinical Practice**
Presenter: Todd C. Villines, MD
Reading Teams: Drs. Leipsic, Nieman, and Callister vs Drs. Budoff, Min, and Friedman

12:30 PM  **Game-Show Jeopardy: Cardiac CT, Nuclear, and CMR**
Presenter: James K. Min, MD
Attendee Participation. Prize awarded to winner!

SESSION 14: CARDIAC CT IN AORTIC STENOSIS AND NON-CORONARY HEART DISEASE
Daniel S. Berman, MD, Presiding

12:50 PM  “Incidental” Non-Cardiac Findings on Cardiac CT: A Simple, Standardized Approach
Johnathan Leipsic, MD

1:05 PM  Assessments of CABG and Stents in Coronary CTA
Matt Budoff, MD

1:25 PM  Eight Cardiac Applications Beyond the Coronary Arteries
   1) TAVR
   2) TMV repair/replacement
   3) LAA occlusion devices
   4) LAA thrombus
   5) Pulmonary vein mapping
   6) Cardiac masses
   7) The “triple rule out” and “double rule-out”
   8) Shunts
Jonathon Leipsic, MD

1:50 PM  Putting It All Together: Multimodality Cardiac Imaging in the Era of Value-based Imaging
Daniel S. Berman, MD

2:10 PM  Adjourn