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<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:15 AM</td>
<td>Registration, Breakfast &amp; Exhibits</td>
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<tr>
<td>7:45 AM</td>
<td>Course Overview and Objectives Daniel S. Berman, MD, FACC</td>
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<tr>
<td>8:00 AM</td>
<td>The Comprehensive Nuclear Cardiology Report Daniel S. Berman, MD, FACC</td>
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<td>8:20 AM</td>
<td>Integrating Visual and Quantitative Analyses: Improving Your Scan Interpretation-Case Illustrations Sean W. Hayes, MD</td>
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<td>9:00 AM</td>
<td>Artifacts on SPECT and PET MPR: How to Recognize and Address- Case Illustrations Sean W. Hayes, MD</td>
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<td>9:20 AM</td>
<td><strong>KEYNOTE ADDRESS:</strong> The Future of Myocardial Perfusion Imaging John Mahmarian, MD</td>
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<td>9:40 AM</td>
<td>Panel Discussion Faculty: John Mahmarian, MD and Sean W. Hayes, MD Moderator: Daniel S. Berman, MD, FACC</td>
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<tr>
<td>9:55 AM</td>
<td><strong>Break/Exhibits/Break-out session#1 (TBD faculty)</strong></td>
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<td><strong>SESSION 2:</strong> Integrating All Available Information from the Stress Imaging Test Daniel S. Berman, MD, FACC, Presiding</td>
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<td>10:10 AM</td>
<td>The Emergence of Competing Risk Factor Trends in the 21st Century: Its Implications for Cardiac Testing Alan Rozanski, MD</td>
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<td>10:30 AM</td>
<td>Pharmacologic Stress: Combined with Exercise or Alone: What You Need to Know Sean W. Hayes, MD</td>
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<tr>
<td>11:00 AM</td>
<td>CAC Scanning in Patients Undergoing SPECT/PET MPI John Mahmarian, MD</td>
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<tr>
<td>11:20 AM</td>
<td>Patients’ Capability to Exercise and Exercise Performance at the Time of Cardiac Testing: The Variables that Still Gets No Respect Alan Rozanski, MD</td>
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</table>
11:40 AM  Stress-only SPECT  
John Mahmaman, MD

12:00 PM  Panel Discussion  
Faculty: Alan Rozanski, MD, John Mahmaman, MD and Sean W. Hayes, MD  
Moderator: Daniel S. Berman, MD, FACC

12:15 PM  Lunch and Exhibits

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

1:00 PM  Solid-state SPECT Cameras for Myocardial Perfusion SPECT  
Piotr Slomka, PhD, FACC

1:20 PM  F-18 Flurpiridaz: The Ideal MPI Radiopharmaceutical  
Jamshid Maddahi, MD, FACC

1:40 PM  Latest Software Developments in SPECT, PET, and MRI: Comparison of the Various Software Packages  
Piotr Slomka, PhD, FACC

SESSION 4: CARDIAC AMYLOIDOSIS: THE MOST RAPIDLY GROWING ARENA IN NUCLEAR CARDIOLOGY  
Daniel S. Berman, MD, FACC, Presiding

2:00 PM  Clinical Overview: Pathophysiology, Phenotypes, Diagnostic Pathways, Treatment  
Sharmila Dorbala, MD

2:20 PM  Tc-99m Pyrophosphate Imaging: Acquisition, Processing, Quantitation, Interpretation  
Panithaya Chareonthaitawee, MD

2:40 PM  Role of Tc-99m PYP and F-18 amyloid tracers in monitoring therapy  
Sharmila Dorbala, MD

2:55 PM  Amyloidosis: Case Presentation/Interpretation  
Panithaya Chareonthaitawee, MD and Sharmila Dorbala, MD

3:15 PM  Panel Discussion  
Faculty: Sharmila Dorbala, MD; Panithaya Chareonthaitawee, MD; Sean W. Hayes, MD  
Moderator: Daniel S. Berman, MD, FACC

3:30 PM  Break/Exhibits/Break-out session #2 (TBD)
SESSION 5: READ WITH THE EXPERTS
Daniel S. Berman, MD, FACC, Presiding

3:45 PM  Myocardial Viability: Multimodality Assessment with SPECT, PET, and MRI: Concepts and Classic Cases
         Jamshid Maddahi, MD, FACC

4:15 PM  READ WITH THE EXPERTS - SPECT and PET
         Challenging Unknown Cases from Clinical Practice
         Presenter: John Friedman, MD, FACC

5:15 PM  Panel Discussion
         Faculty: Jamshid Maddahi, MD, FACC and John Friedman, MD, FACC
         Moderator: Daniel S. Berman, MD, FACC

5:30 PM  Adjourn

SATURDAY, JANUARY 18, 2020

7:30 AM  Breakfast and Exhibits

SESSION 6: MYOCARDIAL FLOW RESERVE (MFR) WITH PET AND SPECT
Daniel S. Berman, MD, FACC Presiding

8:00 AM  Clinical Value of MFR Measurements
          Tim Bateman, MD

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

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

8:55 AM  Ischemia with No Obstruction CAD (INOCA): Fact or Fiction
          Noel Bairey Merz, MD, FACC

9:10 AM  Assessment of Microvascular Dysfunction using Myocardial Flow Reserve with PET and MRI: Is There a Clinical Application?
          Rob Blankstein, MD

9:25 AM  Case Presentation: MFR
          Tim Bateman, MD

9:45 AM  Panel Discussion
          Faculty: Tim Bateman, MD; Piotr Slomka, PhD, FACC; Noel Bairey Merz, MD, FACC; Rob Blankstein, MD
          Moderator: Daniel S. Berman, MD, FACC
SESSION 7: SARCOIDOSIS and INFECTION
Daniel S. Berman, MD, FACC, Presiding

10:15 AM Cardiac Sarcoidosis: Clinical Overview of the Disease and Role of Imaging with PET and MRI
Sharmila Dorbala, MD

10:35 AM Cardiac Sarcoidosis: Imaging with FDG PET: Practical Considerations
Panithaya Chareonthaitawee, MD

10:55 AM Assessing Device and Valvular Infections with F-18 FDG PET:
Indium-111, WBC’s and CT
Louise Thomson, MBChB

11:15 AM READ WITH THE EXPERTS
PET and CMR for Cardiac Sarcoidosis
Presenter: John Friedman, MD, FACC

11:40 AM Challenges for SPECT and PET in 2019
Tim Bateman, MD

12:00 PM Panel Discussion
Faculty: Sharmila Dorbala, MD; Panithaya Chareonthaitawee, MD; Louise Thomson, MBChB; John Friedman, MD, FACC; Tim Bateman, MD
Moderator: Daniel S. Berman, MD, FACC

12:15 PM Lunch

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

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

1:00 PM Pathogenesis of Atherosclerosis: Potential Targets for Plaque Molecular Imaging
PK Shah, MD, MACC

1:20 PM F-18 Fluoride Cardiovascular Imaging: The Coronary Arteries and Beyond
Jacek Kwiecinski, MD

1:40 PM Imaging in Cardiac Transplantation with PET, SPECT, and MRI
Robert Miller, MD
SESSION 9: IMPACT OF NEW TRIALS AND GUIDELINES
Daniel S. Berman, MD, FACC, 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

2:20 PM  Cardiac Imaging in 2020 as Viewed from a Healthcare System Perspective
Jack Ziffer, MD

2:40 PM  Panel Discussion
Faculty: Leslee Shaw, PhD and Jack Ziffer, MD
Moderator: Daniel S. Berman, MD, FACC

2:55 PM  Break/Exhibits/Break-out session#4 (TBD faculty)

SESSION 10: NUCLEAR CARDIOLOGY AND CARDIAC CT
Daniel S. Berman, MD, FACC, Presiding

3:10 PM  Coronary CTA in the Asymptomatic Patient
Rob Blankstein, MD

3:30 PM  Radiation Dose Reduction in SPECT, PET and Cardiac CT
Damini Dey, PhD

3:50 PM  Coronary CTA and SPECT Imaging in Patients with Chest Pain in the ED
John Mahmarian, MD

SESSION 11: CARDIAC MRI: CURRENT AND FUTURE POTENTIAL
Daniel S. Berman, MD, FACC, Presiding

4:10 PM  When is Cardiac MRI the Test of Choice? A Case-based Approach
Louise Thomson, MBChB

4:30 PM  Cardiac MRI for Myocardial Fibrosis, Edema, and Infarction
Rohan Dharmakumar, PhD

4:50 PM  A Game-changer in Performance of Cardiac MRI: No Breath-holds, no ECG, no “Scouts” in a Comprehensive 30 Minute Study
Anthony Christodoulou, PhD

5:10 PM  Cardio-oncology: Broadening the Clinical Applications of Multimodality Imaging
Balaji K. Tamarappoo, MD, PhD

5:30 PM  Panel Discussion
Faculty: Louise Thomson, MBChB; Rohan Dharmakumar, PhD; Anthony Christodoulou, PhD; Balaji K. Tamarappoo, MD, PhD
Moderator: Daniel S. Berman, MD, FACC

5:45 PM  Adjourn
SUNDAY, JANUARY 19, 2020

7:30 AM  Breakfast and Exhibits

SESSION 12: ADVANCES IN CARDIAC CT
James K. Min, Presiding

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

8:20 AM  Coronary Artery Calcium Scanning: Role in Asymptomatic and Symptomatic
          Patients
          Matt Budoff, MD, FACC

8:40 AM  Pitfalls in Coronary CTA: How to Reduce and Deal with Artifacts
          Todd C. Villines, MD

9:00 AM  CT Fractional Flow Reserve (FFRCT)
          Jon Leipsic, MD

9:20 AM  CT Perfusion
          Koen Nieman, MD

9:40 AM  Quantification of Coronary Plaque: Prediction of Ischemia and Monitoring
          Therapy
          Damini Dey, PhD

10:00 AM Machine Learning: The Future of Cardiac Imaging
          James Min, MD

10:20 AM  Panel Discussion
          Faculty: Todd C. Villines, MD; Matt Budoff, MD, FACC; Jon Leipsic, MD; Koen
          Nieman, MD; Damini Dey, PhD; and James Min, MD
          Moderator: Daniel S. Berman, MD, FACC

10:35 AM  Break/Exhibits/Break-out session#5 (TBD faculty)

SESSION 13: BEST PAPERS AND BEST CASES
James K. Min, MD, Presiding

10:50 AM  Cardiac CT
          In My Clinical Practice: Overview of 25 Years
          Tracy Callister, MD

11:10 am  Top Ten Imaging Papers of the Year
           James Min, MD
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<tr>
<td>11:30 AM</td>
<td><strong>BATTLE OF THE EXPERTS</strong></td>
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<tr>
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<td>Challenging Unknown Coronary Cases from Clinical Practice</td>
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<td>Presenter: Todd C. Villines, MD</td>
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<tr>
<td>12:30 PM</td>
<td>Test your knowledge! Game-Show Jeopardy: Cardiac CT, Nuclear, MRI</td>
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<td>Presenter: James K. Min, MD</td>
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<td>Attendee participation. Prize awarded to winner</td>
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<td><strong>SESSION 14: CARDIAC CT IN AORTIC STENOSIS AND NON-CORONARY HEART DISEASE</strong></td>
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<td>Daniel S. Berman, Presiding</td>
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<td>12:50 PM</td>
<td>Important “Incidental” Findings on Non-Cardiac Findings on Coronary Calcium and Attenuation Correction Scanning: A Simple, Standardized Approach</td>
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<td>Tracy Callister, MD</td>
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<td>1:10 PM</td>
<td>Role of Cardiovascular CT in Transcatheter Aortic Valve Replacement (TAVR)</td>
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<td>Jon Leipsic, MD</td>
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<td>1:30 PM</td>
<td>Putting It All Together: Multimodality Cardiac Imaging in the Era of Value-based Imaging</td>
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<td>Daniel S. Berman, MD, FACC</td>
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<td>1:50 PM</td>
<td>Panel Discussion</td>
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<td>Faculty: Tracy Callister, MD; Jon Leipsic, MD; and Daniel S. Berman, MD, FACC</td>
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<td>Moderator: James Min, MD</td>
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<td>2:10 PM</td>
<td>Adjourn</td>
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