

**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. Alan Rozanski, Mahmarian, and Hayes, MD  
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 Krieking, 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. Patel, Dorbala, Chareonthaitawee, and Tamarappoo  
Moderator: Daniel S. Berman, MD

3:40 PM      **Break/Exhibits/Break-Out Session #2**  
**Sharmila Dorbala, MD; Panithaya Chareonthaitawee, MD**

## SESSION 5: MYOCARDIAL VIABILITY AND NUCLEAR CARDIOLOGY CASES

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

- 9:50 AM      How to Report MBF/MFR Measurements  
Robert Beanlands, MD
- 10:10 AM      Panel Discussion  
Faculty: Drs. Beanlands, Bateman, Slomka, and Sharif  
Moderator: Daniel S. Berman, MD
- 10:25 AM      **Break/Exhibits/Break-Out Session #3**  
**Robert Beanlands, MD**

### **SESSION 7: SARCOIDOSIS and INFECTION**

Daniel S. Berman, MD, Presiding

- 10:40 AM      Cardiac Sarcoidosis: Clinical Overview of the Disease and Role of Imaging with PET and MRI  
Sharmila Dorbala, MD
- 11:00 AM      Cardiac Sarcoidosis: Imaging with FDG PET: Practical Considerations  
Panithaya Chareonthaitawee, MD
- 11:20 AM      Assessing Valvular, Vascular, and Device Infections with F-18 FDG PET, Indium-111 WBC's, and CT Angiography  
Louise Thomson, MBChB
- 11:40 AM      **READ WITH THE EXPERTS: PET and CMR for Cardiac Sarcoidosis**  
Presenter: John Friedman, MD  
Discussants: Sharmila Dorbala, MD; Panithaya Chareonthaitawee, MD
- 12:00 PM      Panel Discussion  
Faculty: Drs. Chareonthaitawee, Dorbala, Thomson, and Friedman  
Moderator: Daniel S. Berman, MD
- 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, Presiding

- 1:00 PM      Imaging in Cardiac Transplantation with PET, SPECT, and CMR  
Robert Miller, MD
- 1:15 PM      Pathogenesis of Atherosclerosis: Potential Targets for Plaque Molecular Imaging  
PK Shah, MD
- 1:30 PM      F-18 Fluoride Cardiovascular Imaging: The Coronary Arteries and Beyond  
Jacek Kwiecinski, MD, PhD

### **SESSION 9: THE ISCHEMIA TRIAL: IMPLICATIONS FOR CLINICAL PRACTICE**

Daniel S. Berman, MD, Presiding

- 1:45 PM      **KEYNOTE ADDRESS: The ISCHEMIA Trial** - A Deep Dive into the Results  
Leslee Shaw, PhD
- 2:15 PM      Trial Strengths and Limitations  
Robert Beanlands, MD
- 2:30 PM      Implications for Coronary CTA  
John Mahmarian, MD
- 2:45 PM      Implications for Clinical Practice and Stress Imaging:  
Timothy Bateman, MD
- 3:00PM      Panel Discussion  
Faculty: Drs. Shaw, Beanlands, Mahmarian, and Bateman  
Moderator: Daniel S. Berman, MD
- 3:30 PM      **Break/Exhibits/Break-Out Session #4 (Timothy Bateman, MD)**

### **SESSION 10: NUCLEAR CARDIOLOGY AND CARDIAC CT**

Daniel S. Berman, MD, Presiding

- 3:45 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
- 4:20 PM      “2020 Vision”: The Future of Cardiac Imaging from a Healthcare System  
Perspective  
Jack Ziffer, MD

### **SESSION 11: CMR: CURRENT AND FUTURE POTENTIAL**

Daniel S. Berman, MD, Presiding

- 4:45 PM      When is CMR the Test of Choice? A Case-based Approach  
Louise Thomson, MBChB
- 5:00 PM      CMR for Myocardial Fibrosis, Edema, and Infarction  
Rohan Dharmakumar, MD, PhD
- 5:15 PM      A Game-changer in Performance of CMR: No Breath-holds, No ECG, No “Scouts”  
in a Comprehensive 30 Minute Study  
Anthony Christodoulou, PhD
- 5:30 PM      Cardio-oncology: Broadening the Clinical Applications of Multimodality Imaging  
Balaji K. Tamarappoo, MD, PhD

5:45 PM      Panel Discussion  
Faculty: Drs. Thomson, Dharmakumar, Christodoulou, and Tamarappoo  
Moderator: Daniel S. Berman, MD

6:00 PM      **Adjourn**

<b>SUNDAY, JANUARY 19, 2020</b>
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7:30 AM      **Breakfast and Exhibits**

**SESSION 12: CARDIAC CT: CURRENT STATUS and FUTURE APPLICATIONS**

James K. Min, Presiding

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

8:20 AM      Pitfalls in Coronary CTA: Problematic Cases  
Victor Cheng, MD

8:40 AM      Whole-Heart Atherosclerosis Characterization: A New Way to Predict Risk and  
Guide Revascularization  
James K. Min, MD

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

9:20 AM      Ischemia Evaluation with Coronary CTA: CT-FFR and CT Perfusion  
Koen Nieman, MD

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

10:00 AM      Coronary Artery Calcium (CAC) Scanning: Role in Asymptomatic and Symptomatic  
Patients  
Matt Budoff, MD

10:20 AM      Panel Discussion  
Faculty: Drs. Villines, Nieman, Budoff, Callister, Dey, and Cheng  
Moderator: James K. Min, MD

10:35      **Break/Exhibits/Break-Out Session #6**  
**Todd C. Villines, MD**

**SESSION 13: BEST PAPERS AND BEST CASES**

James K. Min, MD, Presiding

- 10:50 AM Top Ten Imaging Papers of the Year  
James K. Min, MD
- 11:20 AM **BATTLE OF THE EXPERTS**  
**Challenging Unknown Coronary Cases from Clinical Practice**  
Presenter: Todd C. Villines, MD  
Reading Teams: Drs. Min, Nieman, and Callister vs Drs. Budoff, Cheng, and Friedman
- 12:20 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, Presiding

- 12:40 PM Cardiac Applications in Structural Heart Disease  
Raj Makkar, MD
- 1:00 PM Cardiac CT for Left Atrial Appendage Thrombus and Closure Devices, Pulmonary Veins, Cardiac Masses, and Shunts  
Louise Thomson, MBChB
- 1:20 PM Assessments Known CAD with Coronary CTA  
Matt Budoff, MD
- 1:40 PM "Incidental" Non-Cardiac Findings on Cardiac CT: A Simple, Standardized Approach  
Tracy Callister, MD
- 2:00 PM Putting It All Together: Multimodality Cardiac Imaging in the Era of Value-based Imaging  
Daniel S. Berman, MD
- 2:20 PM **Adjourn**