

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

- 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 and 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
- 1:20 PM Pathogenesis of Atherosclerosis: Potential Targets for Plaque Molecular Imaging
PK Shah, MD
- 1:40 PM F-18 Fluoride Cardiovascular Imaging: The Coronary Arteries and Beyond
Jacek Kwiecinski, MD, PhD

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
- 4:20 PM 2019 ESC Guidelines on Chronic Coronary Syndromes: Changes Regarding
Recommendations for Coronary CTA and Functional Testing
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

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: FFR _{CT} 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**