



Houston Methodist CMR

A Cardiac MRI Immersion Workshop

SEPT. 12-16, 2022

Houston Methodist Outpatient Center
6445 Main St., 16th Floor ▪ Houston, TX 77030

Visit learn.houstonmethodist.org/cmr-2022 for more information and to register.

FEATURING

- Topics include basic MRI principles, cardiac anatomy, cardiac functional imaging, late gadolinium enhancement, stress imaging and valvular heart disease
- Limited group sizes to better facilitate lectures and hands-on experiences
- Opportunity to review up to 50 clinical MRI cases

PROGRAM DIRECTOR

Dipan J. Shah, MD, FACC

Beverly B. and Daniel C. Arnold Distinguished
Centennial Chair, Department of Cardiology
Professor of Cardiology
Houston Methodist
Weill Cornell Medical College



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AGENDA

MONDAY

- 7:30 a.m. **Breakfast and Check-In**
- 8:30 **Basics of MRI Physics**
Mohamed G. Ghosn, PhD, MBA
- 9:30 **CMR Safety: Magnetic Fields, Contrast Agents and Contraindications**
Carlos El-Tallawi, MD
- 10 **Cardiovascular Anatomy and Cardiac Imaging Planes**
Dipan J. Shah, MD, FACC
- 10:30 **Basic CMR Pulse Sequences to Assess Morphology, Structure and Flow**
Maan Malahfji, MD, FACC
- 11 **Assessing LV and RV Function**
Dipan J. Shah, MD, FACC
- Noon Lunch
- 1 p.m. **CMR Assessment of Cardiac Masses**
Faisal Nabi, MD, FACC
- 1:45 **CMR Assessment of Pericardial Disease**
Faisal Nabi, MD, FACC
- 2:30-5 **Hands-on CMR Image Processing**
Each participant will have individual workstation to practice "hands-on" image processing.
Dipan J. Shah, MD; CMR Technologists

TUESDAY

- 7:30 a.m. **Breakfast and Check-In**
- 8:30 **Cardiac Viability Technique and Clinical Applications**
Dipan J. Shah, MD, FACC
- 10:30 **CMR Imaging of Patients with Implant Devices**
Andrei P. Chin, BSN, RN, CMSRN
- 11 **Small Group Sessions**
Live Scanning or Hands-on Post Processing
Dipan J. Shah, MD, FACC; CMR Technologists
- Noon Lunch
- 1-5 p.m. **Clinical Case Interpretation**
Attendees will have their own workstation and will independently review and interpret each study, followed by a group discussion of the interpretation approach and findings.
Faisal Nabi, MD, FACC; Dipan J. Shah, MD, FACC

HOUSTON METHODIST DEBAKEY CV EDUCATION

Building on Dr. Michael E. DeBakey's commitment to excellence in education, Houston Methodist DeBakey CV Education was created, and today, offers globally accessible, comprehensive cardiovascular education, including hands-on training, for health professionals at every level. Visit debakeycvedu@houstonmethodist.org or call **713.441.6507** for more information.

WEDNESDAY

- 7:30 a.m. **Breakfast and Check-In**
- 8:30 a.m. **CMR Assessment of Valvular Heart Disease (Stenosis and Regurgitation)**
Dipan J. Shah, MD, FACC
- 10:30 **Small Group Sessions**
Live Scanning or Hands-on Post Processing
Dipan J. Shah, MD, FACC; CMR Technologists
- Noon Lunch
- 1-5 p.m. **Clinical Case Interpretation**
Attendees will have their own workstation and will independently review and interpret each study, followed by a group discussion of the interpretation approach and findings.
Maan Malahfji, MD, FACC; Dipan J. Shah, MD, FACC

THURSDAY

- 7:30 a.m. **Breakfast and Check-In**
- 8:30 **CMR in Cardiomyopathies I: Nonischemic Cardiomyopathies**
Dipan J. Shah, MD, FACC
- 9:15 **CMR in Cardiomyopathies II: Amyloid and Other Infiltrative Cardiomyopathies**
Dipan J. Shah, MD, FACC
- 9:45 **CMR for Ischemia Detection and Risk Stratification**
Mouaz H. Al-Mallah, MD, MSc
- 10:30 **Small Group Sessions**
Live Scanning or Hands-on Post Processing
Dipan J. Shah, MD, FACC; CMR Technologists
- Noon Lunch
- 1-5 p.m. **Clinical Case Interpretation**
Attendees will have their own workstation and will independently review and interpret each study, followed by a group discussion of the interpretation approach and findings.
Carlos El-Tallawi, MD; Dipan J. Shah, MD, FACC

FRIDAY

- 7:30 a.m. **Breakfast and Check-In**
- 8:30 **CMR Assessment of Central Vascular System (Aorta and Pulmonary Veins)**
Mohammed A. Chamsi-Pasha, MD
- 9 **Congenital Heart Disease**
Valeria Duarte, MD
- 10 a.m. - Noon **Clinical Case Interpretation**
Attendees will have their own workstation and will independently review and interpret each study, followed by a group discussion of the interpretation approach and findings.
Valeria Duarte, MD; Dipan J. Shah, MD, FACC
- 12:30 p.m. **Conference Adjournment / Box Lunch**



PROGRAM OVERVIEW

Cardiovascular magnetic resonance (CMR) is a unique imaging modality that is used in diagnosing — and subsequently managing — cardiovascular diseases in patients. CMR provides a robust, noninvasive means of assessing myocardial function, viability and morphology. Additionally, it can be useful in assessing valvular heart disease, cardiac tumors and the vascular system. There are many advantages to obtaining a CMR. With detailed images and quantitations, referring physicians can obtain one test to answer their questions regarding treatment for their patients. This technology holds tremendous promise in evaluating and treating cardiovascular diseases.

Associated with its robust nature, CMR is also a very complex technology with a steep learning curve. As a result, there are currently few centers performing CMR in routine clinical practice. The workshop covers the practical applications of cardiac MRI, including basic MRI principles, cardiac anatomy, late gadolinium enhancement, stress imaging, vascular imaging, case interpretations and troubleshooting image acquisitions.

This program emphasizes the development of practical skills and knowledge, therefore it is limited to small groups in order to better facilitate lectures and hands-on experiences. Designed for cardiologists, radiologists and technologists interested in gaining exposure to CMR, attendees can expect to review up to 50 clinical CMR cases during the workshop.

Proceeds from this course will be used to further cardiovascular imaging training, research and education at Houston Methodist.

TARGET AUDIENCE AND EDUCATIONAL OBJECTIVES

Cardiologists, Radiologists, MRI Technologists

Upon completion of this live activity, the participant should be able to:

- Apply the basics of MRI physics to CMR
- Demonstrate the appropriate use of CMR for cardiac and/or vascular imaging
- Describe assessment and principles of vascular imaging
- Demonstrate knowledge of case interpretations
- State the appropriate use of stress imaging

ACCREDITATION AND CREDIT DESIGNATION STATEMENTS

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

Houston Methodist designates this live activity for a maximum of 31.75 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

EDUCATIONAL METHODS

Didactic presentations, case studies and demonstrations of procedures

PROGRAM DIRECTOR

Dipan J. Shah, MD, FACC

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FACULTY

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Andrei P. Chin, BSN, RN, CMSRN

CMR Nurse
Houston Methodist DeBakey Heart & Vascular Center

Valeria Duarte, MD

Adult Congenital Heart Program
Advanced Cardiac Imaging
Pregnancy and Cardiovascular Disease
Houston Methodist DeBakey Heart & Vascular Center

Carlos El-Tallawi, MD

Assistant Professor of Cardiology
Houston Methodist

Mohamad G. Ghosn, PhD, MBA

Senior Clinical Affairs Manager
Becton Dickinson

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Assistant Professor of Cardiology
Clinical Scholar, Department of Cardiology
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Assistant Professor of Clinical Cardiology
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Felisa Bernardo

CMR Manager

CMR Nurses

Ndidi Ananaba, RN
Lloyd Cooper, RN
Kriselle Escoto, RN
Haydi Ethridge, RN

Farah Jabel, RN
Ellie Lahijani, RN
Melissa Reyneveld, RN
Bernadette Salvo, RN

CMR Technologists

Kyle Autry, RT(R), (CT), (MR)
Corinne Bontiff, RCS
Johnny Cheruvellil, RT(R), MR
Vi Dinh, RT(R), MR, MRSO
Mariana Elhage, RT(R), MR

Jeremy Hinojosa, RT (R),
ARDMS (AB), MR
Jasmine Jonse, RT(R), MR
Jessica Lowe, RT(R), MR
Jose Pedraza, RT(R), MR

HOUSTON METHODIST GLOBAL

Customized learning experiences are available, including clinical observation, leadership training and simulation courses. Visit globoleducation@houstonmethodist.org or call 1.713.441.8032.