

Northwestern University
Feinberg School of Medicine
Department of Radiology

www.radiology.northwestern.edu

CMR Northwestern

October 2nd to 4th, 2024

Learning Objectives:

At the conclusion of this activity participants should be able to:

- Review the indications of, contraindications to, and potential side effects of CMR
- Demonstrate practical knowledge in technical aspects of the CMR examination during small group post-processing sessions
- Describe the basic principles of MR angiography and its applications
- Recognize and minimize important image artifacts
- Utilize images post-processing techniques in clinical practice
- Correlate CMR with other imaging modalities (echocardiography, nuclear cardiology, CT, and interventional angiography) as well as with medical history, physical examination, laboratory, and hemodynamic data.

Acknowledgements:

Thank you to Circle Cardiovascular Imaging for generously offering their time and expertise in support of this course

Accreditation Statement

The Northwestern University Feinberg School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Credit Designation Statement

The Northwestern University Feinberg School of Medicine designates this live activity for a maximum of *18.75 AMA PRA Category 1 Credit(s)*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.



M Northwestern Medicine[®]
Feinberg School of Medicine

Course Director:
Bradley Allen, MD, MS
Chief of Cardiovascular & Thoracic Imaging

Wednesday, Oct. 2nd, 2024

- 7:45 am Breakfast and Registration
8 am Welcome and Introduction
Bradley Allen, MD, MS
- 8:30 am Patient Preparation
Rachel Davids, B.S.R.T.(R)(MR)MRSO(MRSC) (No CME Accreditation)
- 8:50 am CMR Anatomy
Rachel Davids, B.S.R.T.(R)(MR)MRSO(MRSC) (No CME Accreditation)
- 9:15 am Break
- 9:30 am Basic CV MRI Physics for Physicians
Michael Markl, PhD
- 10 am Group 1: Live Scan – Pulse Sequences for Viability/
Group 2: Post Processing Analysis
Donny Nieto, RT(R)(MR)(CT) / Tugce Agirlar Trabzonlu, MD
- 11:30 pm Lunch
- 12:30 pm Group 2: Live Scan – Pulse Sequences for Viability/
Group 1: Post Processing Analysis
Donny Nieto, RT(R)(MR)(CT) / Amir Rahsepar, MD
- 2:00 pm Gadolinium-Based Contrast Agent Safety
Richard Linchango, MD
- 2:30 pm Pulse Sequences for Perfusion
Daniel Kim, PhD
- 3:00 pm CMR in Patients with Devices
Daniel Kim, PhD
- 3:30 pm Break
- 3:45 pm 2D and 4D Flow Imaging Quantification
Michael Markl, PhD
- 4:15 pm Interactive Discussion: MR Artifacts
Michael Markl, PhD

Thursday, Oct. 3rd, 2024

- 8:00 am MRA: Current and Emerging Techniques
Bradley Allen, MD, MS
- 8:30 am MRA: Clinical Applications
Bradley Allen, MD, MS
- 9:00 am Pre-Op Evaluation of the Aortic Valve & Thoracic Aorta
Preeti Kansal, MD
- 9:30 am Non-Ischemic Cardiomyopathy
Ryan Avery, MD
- 10:00 am Group 1: Live Scan – Pulse Sequences for Viability/
Group 2: Post Processing Analysis
Donny Nieto, RT(R)(MR)(CT) / Brad Allen, MD, MS
- 11:30 pm Lunch
- 12:30pm Group 1: Live Scan – Pulse Sequences for Viability/
Group 2: Post Processing Analysis
Donny Nieto, RT(R)(MR)(CT) / Ryan Avery, MD
- 2:00 pm Hypertrophic Cardiomyopathy
Lubna Choudhury, MD
- 2:30 pm Cardiac Masses
Richard Linchango, MD
- 3:00 pm Break
- 3:15pm Congenital Heart Diseases
Joshua Robinson, MD
- 3:45pm CMR in the Evaluation of Patients with RV Enlargement
Ben Freed, MD

Friday, Oct. 4th, 2024

- 8:00 am Ischemic Heart Disease: Delayed Enhanced Imaging
Korosh Sharain, MD
- 8:30 am Myocardial Perfusion Imaging
Dan Lee, MD
- 9:00 am *Break*
- 9:15 am CMR Imaging of the Challenging Patient
Bradley Allen, MD
- 10:00 am Group 1: Live Scan – Pulse Sequences for Viability/
Group 2: Post Processing Analysis
Donny Nieto, RT(R)(MR)(CT) / Alan Chiu, MD
- 11:30 am Lunch
- 12:30 pm Group 1: Live Scan – Pulse Sequences for Viability/
Group 2: Post Processing Analysis
Donny Nieto, RT(R)(MR)(CT) / Akhil Narang, MD
- 2:00 pm Quantitative Mapping Techniques and Emerging Applications
Kelvin Chow, PhD (No CME Accreditation)
- 2:30 pm Closing Remarks with Brad Allen