

20th Society of Pediatric Radiology Basic Course on Pediatric Cardiovascular MR

October 20-22, 2026

Children's Hospital of Philadelphia
Breakthroughs. Every day.

THE SOCIETY FOR PEDIATRIC RADIOLOGY

20th Society of Pediatric Radiology Basic Hands-on Course on Pediatric Cardiovascular MRI

October 20-22, 2026

Children's Hospital of Philadelphia

Buerger Ambulatory Center

Overview

The SPR Basic Cardiac MRI Course provides a comprehensive introduction to cardiovascular magnetic resonance (CMR) imaging children and adults with congenital heart disease. Designed for radiologists, cardiologists, fellows, and other healthcare professionals with limited or developing experience in pediatric cardiac MRI, the course emphasizes the fundamental principles of CMR acquisition, protocol design, image interpretation, and clinical applications.

Through expert-led lectures, interactive case reviews, and multidisciplinary discussions, participants will learn how to perform and interpret routine pediatric cardiac MRI examinations, understand normal cardiac anatomy and physiology, evaluate common congenital heart lesions, and recognize appropriate clinical indications for CMR. The course also introduces flow quantification, ventricular function analysis, tissue characterization, and the complementary role of MRI among other cardiovascular imaging modalities.

Participants will leave with the foundational knowledge and practical skills necessary to incorporate pediatric cardiac MRI into clinical practice and prepare for more advanced applications.

Objectives

1. Identify appropriate indications for pediatric cardiac MRI
2. Describe the fundamental principles of pediatric cardiac MRI acquisition and apply standardized imaging protocols to routine examinations.
3. Interpret normal and common abnormal pediatric cardiac MRI findings, including ventricular function and flow measurements.

October 20, 2026

7:30 am	Registration and Breakfast
	Buerger Center, 1st Floor, Room 1214
8-10 am	**Foundation I-** 1214
8 am	Welcome and Introduction
8:15 am	Anatomy
	Christopher Lam
8:45-9:45 am	Concurrent Sessions
8:45 am	Basic MRI Physics- 1214
	Suraj Serai
8:45 am	Rad: Segmental Approach, v Basic Cardiac Hemodynamics and Surgeries- 1212/1213
	Raj Krishnamurthy and Lamya Atweh
9:45 am	Cardiac MRI Physics: Applications- 1214
	Taylor Chung
10:30 am	Break
11 am-12:30 pm	**Foundation II: CMR** - 1212/1213/1214
11 am	CMR Ventricular Functional Assessment 101
	LaDona Malone
11:30 am	CMR Blood Flow Assessment 101
	Karen Lyons
Noon	Number Games with CMR Data
	Vivek Mutharangu
12:30 pm	Lunch
1:30-3:30 pm	**Foundation III: Optimization of Sequences-** 1212/1213/1214

1:30 pm	Tissue Characterization Sequences
	Kevin Whitehead
2 pm	Angiography for Cardiac Evaluations
	Cindy Rigsby
2:30 pm	Coronary Artery Imaging
	Prakash Masand
3 pm	Discussion
3:15 pm	Break
3:30-5 pm	**Foundation IV: Essentials-** 1212/1213/1214
3:30 pm	Coarctation and Aortopathies Essentials
	Andrew Powell
4 pm	Repaired TOF Essentials
	David Biko
4:30 pm	Fontan Essentials
	Mark Fogel
5-6 pm	Pathology Specimens
	Matthew Harris and Carlos Sisniega
6 pm	Adjourn

October 21, 2026

7:30 am	Continental Breakfast- 1212/1213/1214
8 am	Group Organization
	Mark Fogel and David Biko
8:30 am- Noon	**Concurrent Sessions**
	Group 1: Interactive MR Scanning (Novice) Buerger 5th Floor MRI
	Fogel, Biko, Powell
8:30 am- Noon	**Groups 2 & 3: Foundation V Part 1-** 1212/1213/1214
8:30 am	CMR Evaluation of Cardiomyopathies and Myocarditis
	Danish Vaiyani
9 am	MR Evaluation of Cardiac Masses
	Rebecca Beroukhim
9:30 am	Break-1212/1213/1214
10 am- Noon	**Groups 2 & 3: Foundation V Part 2-** 1212/1213/1214
10 am	MR of TGA
	Sean Lang
10:30 am	MR of Efficient Scanning/Speeding Things Up
	Josh Robinson
11 am	Disease Specific Protocols and Creating a Report
	Cara Morin
11:30 am	Discussion
Noon	Lunch- 1212/1213/1214
1-4 pm	**Groups 1-3: Hands-On**
	Group 1: Hands-On Post-Processing and Reporting (Novice)-
	HUB 1630
	Vaiyani, Krishnamurthy, Mutharangu

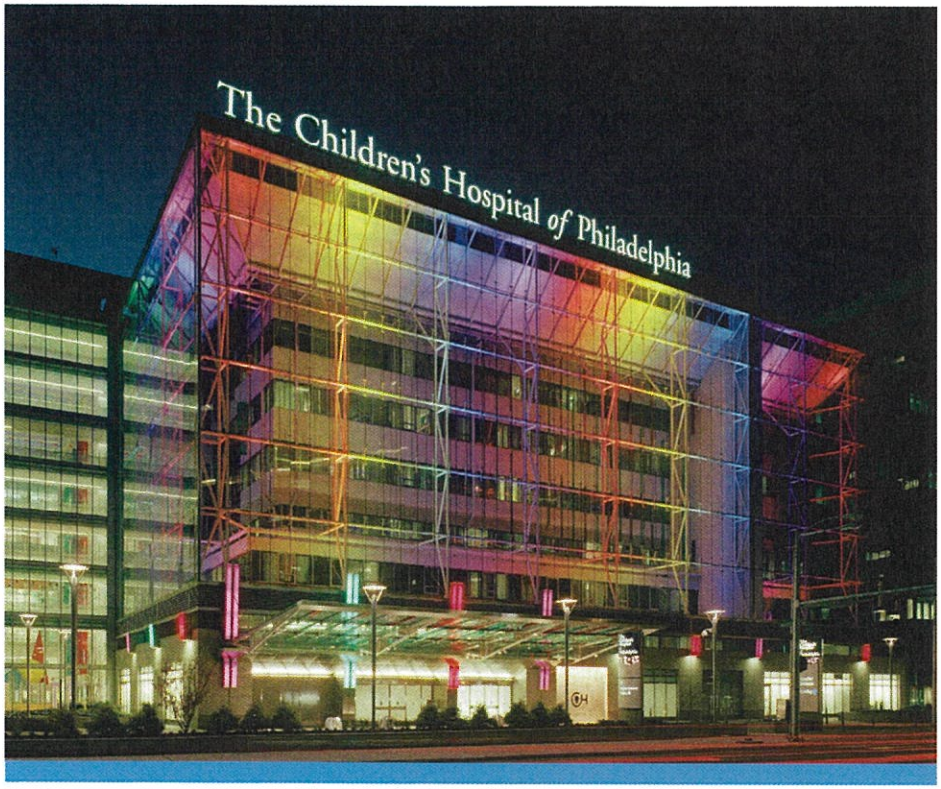
	Group 2: Interactive MR Scanning (Intermediate)-Buerger 5th Floor MRI *Morin, Biko, Fogel* Group 3: Case Studies (Advanced) followed by Guided Fireside Chat-1212/1213/1214 *Culham, Robinson, Lam*
4 pm	How I Brought Basic CMR Course to Practice- 1212/1213/1214 *Mike Francavilla*
4:30 pm	End of Day Discussion
5 pm	Adjourn
7 pm	Basic Course Dinner- Panorama, 14 N Front St, Philadelphia, Pennsylvania, 19106

October 22, 2026

8 am	Breakfast- HUB 1632
8:30 am-Noon	**Groups 1-3: Hands-On**
	Group 1: Case Studies (Basic) followed by Guided Fireside Chat- HUB 1632
	Culham, Francavilla, Lam
	Group 2: Hands-On Post-Processing and Reporting (Intermediate)- HUB 1630
	Rigsby, Masand, Powell
	Group 3: Interactive MR Scanning (Advanced)- Buerger 5th Floor, MRI
	Fogel, Krishnamurthy, Chung
Noon	Lunch- HUB 1632
1-4:30 pm	Concurrent Sessions
	Groups 1: Foundation V Part 1-1212/1213/1214
1 pm	CMR Evaluation of Cardiomyopathies and Myocarditis
	Danish Vaiyani
1:30 pm	MR Evaluation of Cardiac Masses
	Rebecca Beroukim
2 pm	Break
	Groups 2-3: Hands-On-
	Group 2: Case Studies (Intermediate) then Fireside Chat-HUB 1632
	Culham, Atweh, Browne, Lam
	Group 3: Hands-On Post-processing and Reporting (Advanced)- HUB 1630
	Whitehead, Lyons, Mutharangu
2 pm	Break

Groups 1: Foundation V Part 2-1212/1213/1214

2:30 pm	MR of TGA
	Sean Lang
3 pm	Efficient Scanning/Speeding Things Up
	Josh Robinson
3:30 pm	Disease Specific Protocols and Creating a Report
	Cara Morin
4-5 pm	Groups 1-3 Round up
4 pm	Extended Discussion and Q/A
	All Attendees and Faculty
4:30 pm	Evaluation and Feedback on the Course /Adjourn
	All Attendees and Faculty
5 pm	Core Faculty Review of Basic Course
	All Faculty
5:15 pm	3D Modeling
	Matt Jolley and Kevin Whitehead
6 pm	Adjourn



20th Society of Pediatric Radiology Advanced Course on Pediatric Cardiovascular MR

October 23-25, 2026

Children's Hospital of Philadelphia
Breakthroughs. Every day.

THE SOCIETY FOR PEDIATRIC RADIOLOGY

20th Society of Pediatric Radiology Advanced Course on Pediatric Cardiovascular MRI

October 23-25, 2026

Morgan Center for Pediatric Research

Overview

The SPR Advanced Cardiac MRI Course provides an in-depth educational experience for physicians and imaging professionals who wish to advance their clinical expertise. Designed around challenging cases and current best practices, the course focuses on the evolving role of cardiac MRI in the diagnosis and management of congenital and acquired heart disease. Topics include advanced imaging techniques, quantitative assessment, myocardial tissue characterization, 4D flow imaging, postoperative imaging, and emerging clinical applications. Expert faculty will present practical approaches to protocol development, image interpretation, multidisciplinary collaboration, and program implementation through lectures and interactive case-based discussions.

Advanced Course Objectives

- Describe the indications for cardiac MRI in pediatric and congenital heart disease and apply guideline-based imaging protocols to common clinical scenarios.
- Interpret advanced CMR techniques and integrate these findings into clinical decision-making.
- Develop strategies to optimize pediatric cardiac MRI workflows, strengthen multidisciplinary collaboration, and incorporate advanced imaging techniques into clinical practice to improve patient care

Advanced Program

October 23, 2026

7:30 am	Registration and Continental Breakfast- 2nd Floor, Morgan Center
8-10 am	**Advanced Cardiac MR**
	Moderators: David Biko and Raj Krishnamurthy
8 am	Welcome and Introduction
	Kassa Darge and Joseph Rossano
8:10 am	Advancing Low-Field MRI: Innovation, Applications, and What's Next
	Raj Krishnamurthy
8:30 am	Free Running 5D Flow MRI
	Christopher Roy
8:50 am	Advanced Cardiac MRI: 4D Flow and Beyond
	Ali Syed
9:10 am	Fingerprinting and Radiomics: Ready for Prime Time?
	Nicole Seiberlich
9:30 am	Discussion
10 am	Break
10:30 am-Noon	**Single Ventricle**
	Moderators: Mark Fogel and Julieta Rancati
10:30 am	CMR for routine pre-Glenn and Pre-Fontan Planning: Is That all That's Needed?
	Christopher Lam
10:50 am	Advanced Ventricular Function and Hemodynamic Metrics in Single Ventricles: Are We Getting Anywhere?
	Rahul Rathod
11:10 am	Fibrosis in Fontan Palliation
	Mark Fogel

11:30 am	Single RV vs LV: The Lowdown in Single Ventricles
	Gerald Greil
11:50 am	Discussion
12:15-1:30 pm	Lunch
1:30-3 pm	**Controversies 1**
	Moderators: *Gerald Greil and Ammie White*
1:30 pm	To Coil or Not to Coil? Managing Systemic–Pulmonary Collaterals in Single-Ventricle Patients
	Kevin Whitehead
1:50 pm	CMR for Intervention in Repaired Tetralogy of Fallot: Beyond Ventricular Volumes
	Andrew Powell
2:10 pm	CMR with Implantable Devices: Updates on Safety
	Ammie White
2:30 pm	Discussion
3 pm	Break
3:30-5 pm	**Controversies 2**
	Moderators: *Abass Noor and David Biko*
3:30 pm	Update on Anesthesia Considerations in Congenital Heart Imaging
	John J. McCloskey
3:50 pm	Pediatric Cardiac CT: Comprehensive Diagnostic Risks
	Cindy Rigsby
4:10 pm	DEBATE: Optimal Imaging of Pediatric Pulmonary Vein Stenosis: MRI or CT?
	Prakash Masand vs Mark Fogel
4:40 pm	Pulmonary Vein Stenosis: Do You Need Non-Invasive Imaging When We Have Cath?
	Ryan Callahan
5 pm	Discussion

5:20 pm	Adjourn
7-10 pm	**Welcome Reception- Mutter Museum at the College of Physicians**

October 24, 2026

7:30 am	Continental Breakfast-2nd Floor Morgan Center
8-10 am	**Valve Imaging**
	Moderators: *Danish Vaiyani and Josh Robinson*
8 am	Comprehensive MRI Assessment of Cardiac Valve Morphology and Function
	Danish Vaiyani
8:20 am	Congenital Aortic Valve Disease: Pediatric Evaluation from Infancy through Adolescence
	Josh Robinson
8:40 am	Atrioventricular Valve Disease in Children: Quantification of Regurgitation and Ventricular Response
	Karen Lyons
9 am	Surgical Decision-Making for Congenital Valve Disease Across Childhood: Balancing Growth, Repair, and Reintervention
	Mahammad Nuri
9:20 am	Discussion
10 am	Break
10:30 am-Noon	**The Ventricles and the Lungs**
	Moderators: *Maryann Mahani and Christy Pomeranz*
10:30 am	Lung Imaging: MRI of Ventilation and Perfusion in Congenital Heart Disease
	Jason Woods
10:50 am	Right Ventricular Mechanics and Modeling
	Thomas Loke
11:10 am	Ventriculopulmonary Interactions
	Vivek Muthurangu
11:30 am	Discussion
Noon	Lunch

1:30-3 pm	**WIPS**
	Moderators: David Biko and Mark Fogel
1:30 pm	Lurie
	Nazia Husain
2 pm	Texas
	Shagun Sachdeva
2:30 pm	Cincinnati
	Cara Morin
3 pm	Break
3:30-5:30 pm	**Abstracts and CT Discussion and Debate**
	Moderators: Gordon Culham and Cindy Rigsby
3:30 pm	Abstracts
	Right Ventricular Cardiac Fibroma: Diagnosis and Treatment
	Carmen R Cerron Vela
	Phase-Resolved Functional Lung (PREFUL) MRI Identifies Regional Pulmonary Dysfunction in Pediatric Pulmonary Hypertension
	Carlos Sisniega
	Entrustable Professional Activities for Pediatric and Congenital Cardiac MRI training
	Elizabeth Carter
4:30 pm	Photon Counting CT: Basic Concepts and Advantages
	Kelly Horst
6:45 pm	DEBATE: Photon Count: Optimal kV Selection for Photon-Counting CTA on Pediatric CHD: High Energy or Low Energy?
	Erica Riedesel vs LaDonna Malone
7:15 pm	Adjourn

October 25, 2026

7:30 am	Continental Breakfast- 2nd floor Morgan Center
8-10 am	**Concurrent Sessions**
	Breakout Session 1A: Lymphatic Imaging and Access
	Moderators: *Chris Smith and Erica Riedesel*
8 am	Lymphatic Access: First Step to Imaging and Intervention
	Ganesh Krishnamurthy
8:20 am	Central Lymphatic Imaging
	Ankita Chauhan
8:45 am	Peripheral Lymphatic Imaging
	Andreas Loening
9:10 am	Intrathoracic and Central Venous Pressure: Effect on Fontan Lymphatic Circulation
	Christopher Smith
9:35 am	Genetic Drivers of Pediatric Lymphatic Disease
	Sarah Sheppard
9:50 am	Discussion
10 am	Break
	Breakout Session 1B: Image Guided Surgical Interventions
	Moderators: *Lorna Browne and Mark Fogel*
8 am	Surgical Planning Using Computational Modeling
	Mark Fogel
8:30 am	Forget All the Fancy Imaging for Surgical Planning - A Plain Ol' Echo Will Do
	Laura Mercer-Rosa
9 am	Imaging Branch Pulmonary Arteries for Unifocalization Planning
	Lorna Browne
9:30 am	Advanced Valve Imaging and Modeling for Surgical Planning
	Danish Vaiyani

10 am	Discussion
10:30 am	Break
11 am-12:30 pm	**Concurrent Sessions**
	Breakout Session 2A: Lymphatic Cardiac Complications and Interventions
	Moderators: *Mudit Gupta and Ankita Chauhan*
11 am	Abdominal Lymphatic Pathology in Congenital Heart Disease
	Mudit Gupta
11:25 am	Catheter Based Interventions in Lymphatics: Procedures and Managing Complications
	Abhay (Finn) Srinivasan
11:50 am	Lymphatic Venous Bypass and Anastomosis
	Jonathan Chen
12:15 pm	Discussion
11 am- 12:30 pm	**Breakout Session 2B: CMR Nuances to Guide Management of Specific Diseases**
	Moderators: *Adam Dorfman and Laurie Sena*
11 am	Double Outlet Right Ventricle - Surgical Considerations
	Aaron Dorfman
11:20 am	Transposition of the Great Arteries After Arterial Switch - Are We Now Totally Fixed?
	Nazia Husain
11:40 am	The Maligned Atrioventricular Canal - How Malaligned Is Too Malaligned?
	Rebecca Beroukhim
Noon	The Systemic RV in A Dual Chambered Circulation - What Do We Do Now?
	Tarek Alsaied

12:20 pm	Discussion
12:30 pm	Closing Remarks
12:45 pm	Adjourn