# 10th Annual Symposium INNOVATIONS IN IMAGING

Impact on Outcomes in Congenital Heart Disease:
Fetus through Adult

## MAY 4-5, 2019

## Icahn School of Medicine at Mount Sinai Goldwurm Auditorium

1425 Madison Avenue, New York, NY

#### **COURSE DIRECTOR**

### Shubhika Srivastava, MBBS, FASE, FACC

Professor Pediatrics Icahn School of Medicine Director, Non Invasive Imaging Director, Advanced Imaging Fellowship Children's Heart Center The Mount Sinai Medical Center New York, NY

### **CO-DIRECTORS**

#### Robert H. Pass, MD

Professor of Pediatrics Icahn School of Medicine at Mount Sinai Director, Pediatric Cardiology Kravis Children's Hospital The Mount Sinai Medical Center New York, NY

#### Miwa K. Geiger, MD

Assistant Professor, Pediatrics Icahn School of Medicine at Mount Sinai Division of Pediatric Cardiology Director, Fetal Heart Program The Mount Sinai Medical Center New York, NY

#### Peter Pastuszko, MD

Professor, Department of Cardiovascular Surgery Icahn School of Medicine at Mount Sinai Chief of Pediatric Cardiac Surgery Director of Pediatric Cardiovascular Services Mount Sinai Health System New York, NY

#### Kenan Stern, MD

Assistant Professor of Pediatrics and Radiology Icahn School of Medicine at Mount Sinai Director, Pediatric and Congenital Cardiac MRI Director, Quality Initiatives Mount Sinai Children's Heart Center New York, NY

#### **FEATURING HANDS-ON WORKSHOP**

Day 1 • Saturday, May 4 • 2:45-4:00pm

12th Floor, Annenberg Building 1468 Madison Avenue at 100th Street, New York, NY

**Guest Faculty From:** 

Canada, Colorado, Illinois, Maryland, Ohio, New York and Pennsylvania



Kravis Children's Hospital

#### Jointly Provided by

Department of Pediatrics at the Icahn School of Medicine New York Pediatric Echo Society

Online Registration: https://mssm.cloud-cme.com

# 10th Annual Symposium INNOVATIONS IN IMAGING

Impact on Outcomes in Congenital Heart Disease: Fetus through Adult

#### PROGRAM DESCRIPTION

This CME activity will focus on a comprehensive review of current knowledge, standards and advances in imaging in the field of fetal cardiology, pediatric cardiology and adult congenital heart disease.

The focus for fetal cardiovascular assessment will be inclusive of detection of fetal cardiac malformation, function, hemodynamics, rhythm and management. This will be done through lectures and case-based discussions and interactive panel discussions. The section on innovations in imaging will focus on assessment of complex congenital heart disease with two dimensional, three dimensional, 3D segmentation models, virtual reality, coronary and blood flow assessment using various imaging modalities. Advances in angiography imaging techniques and interventions in the catheterization laboratory will also be covered.

The workshops will focus on standard fetal cardiac and hemodynamic assessment as well as transthoracic imaging, simulation, advanced myocardial deformation techniques and 3D imaging.

### **EDUCATIONAL OBJECTIVES**

At the conclusion of this activity, participants will be able to:

- Identify current barriers in diagnosis and planning postnatal management for prenatal detection of congenital heart defects
- Describe recent innovations in understanding placental contribution to fetal cardiovascular outcomes
- Describe innovations in advanced and multimodality imaging applications of three dimensional echocardiography, rotational angiography, virtual imaging and fusion imaging to understand complex morphology
- Describe use of maternal hyperoxygenation in diagnosis and treatment of prenatal cardiovascular disease
- Explain how the application of these innovative methods can improve perinatal management.

#### WHO SHOULD ATTEND

Physicians, trainees, sonographers, nurse practitioners and physician assistants in the fields of congenital cardiology, obstetrics, perinatal medicine and radiology.

## **DAY 1 • SATURDAY, May 4, 2019**

### Goldwurm Auditorium - 1425 Madison Avenue, New York, NY

7:15 – 7:45 am **REGISTRATION AND CONTINENTAL BREAKFAST** 

7:45 – 8:00 **Welcome** 

Shubhika Srivastava, MBBS, FASE, FACC

#### **SESSION I: Cardiovascular Imaging in the Fetus and Outcomes**

Chairs: Stephanie Levasseur, MD, FRCPC and Miwa K. Geiger, MD

8:00 – 8:20 Improving Prenatal Detection of Congenital Heart Disease

Lindsay R. Freud, MD, FASE

8:20 – 8:40 Maternal Hyperoxygenation: Testing and Treatment

Jack Rychik, MD

8:40 – 9:00 Modifying Outcomes of Congenital Heart Disease – In Utero Interventions

Aimee K. Armstrong, MD

9:00 – 9:20 The Maternal-Fetal Environment and The Future of Prenatal Heart Care

Jack Rychik, MD

9:20 – 9:40 Challenges of Neonatal Surgery In Preterm and Low Birth Weight Infants:

How Small Is Too Small?

Peter Pastuszko, MD

9:40 – 10:00 Q & A 10:00 – 10:30 BREAK

## SESSION II: Fetal Diagnosis of Congenital Heart Disease - Lesion Specific and Case Based Discussion

Chairs: Stephanie Levasseur, MD, FRCPC and Jeffrey Dayton, MD, FASE

10:30 – 10:45 Follow-up, Timing and Counselling Following Initial Diagnosis of Congenital Heart

Disease In Fetus Miwa K. Geiger, MD

Moderators: Stephanie Levasseur, MD, FRCPC and Jeffrey Dayton, MD Panelists: Miwa K. Geiger, MD; Jack Rychik, MD; Aimee K. Armstrong, MD; Jeffrey Dayton, MD, FASE, Lindsay R. Freud, MD, FASE; Peter Pastuszko, MD;

Kathleen Walsh-Spoonhower, MD

12:00 – 1:00 **LUNCH** 

#### SESSION III: Fetal Cardiovascular Function and Rhythm Disorders

Chairs: Preeta Dhanantwari, MD and Nadine Choueiter, MD

1:00 – 1:20 Assessment of Fetal Cardiovascular Function

Jennifer Cohen, MD

1:20 – 1:40 Fetal Heart Block and Therapeutics

Deborah M. Friedman, MD, FAAP, FACC

1:40 – 2:20 Case Discussion – Fetal Arrhythmia

Moderators: Preeta Dhananwatri, MD and Nadine Choueiter, MD

Panelists: Deborah M. Friedman, MD, FAAP, FACC; Stephanie Levasseur, MD, FRCPC;

Miwa K. Geiger, MD

2:20 – 2:45 **BREAK** 

#### Session III: Hands-On Workshops

12th Floor Annenberg Building, 1468 Madison Avenue, New York, NY Chairs: Sangeeta Sharma, MBBS, MRCP; Rajesh U. Shenoy, MD; Jen Lie Yau, BS, RDCS

2:45 – 4:00 pm Workshop 1: Hands-on Fetal Imaging

Melanie Tan, BS, RDCS, RDMS; Allen Kan, RVT, RDCS; Sangeeta Sharma, MBBS, MRCP;

Kenan Stern, MD; Miwa K. Gieger, MD

Workshop 2: 3D Imaging
Nee Scze Khoo, MBChB, FRACP

Workshop 3: Strain Imaging

Shubhika Srivastava, MBBS, FASE, FACC; Hari Rajagopal, MBBS; Jen Lie Yau, BS, RDCS

Simulation: Trans Thoracic Echo

Jeffrey Dayton, MD, FASE

## DAY 2 • SUNDAY, May 5, 2019

Welcome

7:30 - 7:50 am

7:50 - 8:00

## Goldwurm Auditorium - 1425 Madison Avenue, New York, NY

REGISTRATION AND CONTINENTAL BREAKFAST

	Shubhika Srivastava, MBBS, FASE, FACC
	nsight into Innovations in Imaging Morphology and Function Nielsen, MD and Nilanjana Misra, MBBS, FAAP, FSCMR
8:00 – 8:20	Straddling Valves and Complex Congenital Heart Disease Ira A. Parness, MD
8:20 – 8:40	3D Imaging of Valves In Complex Congenital Heart Disease and Single Ventricles Nee Scze Khoo, MBChB, FRACP
8:40 – 8:55	Visualization of Blood Flow – By Echocardiography Shubhika Srivastava, MBBS, FASE, FACC
8:55 – 9:15	Advanced Imaging of Single Ventricle Shelby Kutty, MD, PhD, MHCM
9:15 – 9:35	4D Flow – CMR - Understanding the Blood Flow Dynamics  Joshua D. Robinson, MD
9:35 – 9:55	Role of CT in Imaging Anomalous Coronary Arteries Rajesh Krishnamurthy, MD
9:55 – 10:15	Challenges of Establishing Imaging Standards and Quality In the Era of Multimodality Imaging Kenan Stern, MD
10:15 – 10:30	Panel Discussion – Multimodality Imaging in Congenital Heart Disease Moderators: James C. Nielsen, MD and Nilanjana Misra, MBBS, FAAP, FSCMR Panelists: Ira A. Parness, MD; Nee Scze Khoo, MBChB, FRACP; Shelby Kutty, MD, PhD, MHCM; Joshua D. Robinson, MD; Shubhika Srivastava, MBBS, FASE, FACC; Rajesh Krishnamurthy, MD; Kenan Stern, MD
10:30 – 11:00	BREAK
	novations In Non-Invasive and Invasive Imaging In
Congenital H Chairs: Robert H. I	Pass, MD and Alejandro J. Torres, MD
11:00 – 11:20	3D Rotational Angiography and Interventions in Cath Lab  Aimee K. Armstrong, MD

11:20 - 11:40 Minimizing Radiation Exposure in Cath Lab

Robert H. Pass, MD

Identifying the Right Candidate for Pulmonary Valve Replacement in the Cath Lab 11:40 - 12:00 Noon

Alejandro J. Torres, MD

12:00 - 12:20 Role of 3D Fusion Imaging in the Cath Lab

Pei-Ni Jone, MD

Challenges in Identifying the Right Candidate for Cath Closure of Large ASD with 12:20 - 12:40

Diminutive Rims Barry A. Love, MD

Panel Discussion - Non-Invasive and Invasive Imaging 12:40 - 12:55

Moderators: Robert H. Pass, MD and Alejandro J. Torres, MD

Panelists: Aimee K. Armstrong, MD; Barry A. Love, MD; Pei-Ni Jone, MD

12:55 - 1:40 LUNCH

	<b>Multimodality Imaging for Congenital Heart Disease</b> Srivastava, MBBS, FASE, FACC and Ali N. Zaidi, MD
1:40 – 2:00	Vascular Rings – Imaging and Management  James C. Nielsen, MD
2:00 – 2:20	Current Applications of 3D Printing in Congenital Heart Disease Kanwal M. Farooqi, MD
2:20 – 2:40	Beyond 3D Printing - VR Imaging  David Ezon, MD
2:40 – 3:00	Role of Finite Element Analysis in Transcatheter Valve Implantation Puneet Bhatla, MD
3:00 – 3:20	Evaluation for VAD Implantation in Adults with Congenital Heart Disease Ali N. Zaidi, MD
3:20 – 3:45	Panel Discussion - Multimodality for Congenital Heart Disease Moderators: Shubhika Srivastava, MBBS, FASE, FACC and Ali N. Zaidi, MD

Panelists: Puneet Bhatla, MD; David Ezon, MD; Kanwal M. Farooqi, MD; James C. Nielsen, MD; Kenan Stern, MD

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#### KENAN STERN, MD

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#### **GUEST FACULTY**

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New York, NY

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#### JENNIFER COHEN, MD

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#### **GENERAL INFORMATION**

#### **REGISTRATION FEES**

	Day 1 Only	Day 2 Only	Day 1 Workshop Only (after lunch)	Both Days
Physicians	\$190	\$190	\$ 75	\$360
Sonographers	\$130	\$130	\$ 75	\$230
RN/PA	\$130	\$130	\$ 75	\$230
Fellows/Residents	\$ 90	\$ 90	\$ 50	\$150

#### **CONFERENCE LOCATION**

#### **Goldwurm Auditorium**

1425 Madison Avenue, New York, NY

#### **WORKSHOP LOCATION**

#### Icahn School of Medicine at Mount Sinai

12th Floor, Annenberg Building

1468 Madison Avenue @ 100th Street, New York, NY

#### **Directions and Parking**

#### www.mountsinai.org/about-us/visiting-us/directions

Discounted parking is available on East 99th Street between Madison & Park Avenues. Parking ticket will be validated at the Registration Desk.

#### **Hotel Accommodations**

Please contact our Housing Manager,

Denise Newman, Email: dnew229@aol.com or Phone: 718-835-4911

Fax: 718-835-8661.

## REGISTER ONLINE: https://mssm.cloud-cme.com

#### **Accreditation**

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of Icahn School of Medicine at Mount Sinai and the New York Pediatric Echo Society. Icahn School of Medicine at Mount Sinai is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

#### **Credit Designation Statement**

The Icahn School of Medicine at Mount Sinai designates this live activity for a maximum of 12.50 AMA PRA Category 1 Credits<sup>TM</sup>. Physicians should only claim credit commensurate with the extent of their participation in the activity.

#### **Verification of Attendance**

Will be provided to all professionals.

#### **Special Needs**

The Icahn School of Medicine at Mount Sinai is in full compliance with provisions of the Americans with Disabilities Act (ADA) and is accessible for individuals with special needs. If you require special accommodations, call the Office of CME, 212-731-7950.

#### Cancellation

A \$50 administrative fee will be deducted from all refunds/cancellations issued. All refund and cancellation requests must be emailed to the CME Office at cme@mssm.edu by Monday, April 15, 2019. No refunds will be made after this date or for "no-shows."

#### **Faculty Disclosure**

It is the policy of the Icahn School of Medicine at Mount Sinai to ensure objectivity, balance, independence, transparency, and scientific rigor in all CME-sponsored educational activities. All faculty participating in the planning or implementation of a sponsored activity are expected to disclose to the audience any relevant financial relationships and to assist in resolving any conflict of interest that may arise from the relationship. Presenters must also make a meaningful disclosure to the audience of their discussions of unlabeled or unapproved drugs or devices. This information will be available as part of the course material.

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## Saturday & Sunday, May 4-5, 2019



#### Icahn School of Medicine at Mount Sinai

Conference Location: Goldwurm Auditorium 1425 Madison Avenue

New York, NY

Workshop Location: 12th Floor, Annenberg Building

1468 Madison Avenue at 100th Street New York, NY

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Icahn School of Me	edicine at Mo	ount Sinai, At	tn: CME Office					
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One Gustave L. Levy Place, Box 1193								
New York, NY 10029-6574								
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REGISTRATION FEES								
	Day 1 Only	Day 2 Only	Day 1 Workshop Only (after lunch)	/ Both Days				
Physicians	□ \$190	<b>□</b> \$190	<b>□</b> \$ 75	<b>□</b> \$360				
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RN/PA	<b>□</b> \$130	<b>□</b> \$130	<b>□</b> \$ 75	<b>□</b> \$230				
Fellows/Residents	□ \$ 90	□ \$ 90	□ \$ 50	\$150				
Last Name		First N	lame					
Credentials □ MD □ RN □ NP	■PA ■ Other (	Specify)						
Mailing Address								
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Phone								
E-mail	Specialty							
Institution/Affiliation								

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#### Icahn School of Medicine at Mount Sinai

The Page and William Black Post-Graduate School One Gustave L. Levy Place, Box 1193 New York, NY 10029-6574

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