## **COURSE ORGANIZERS:**

Rangasamy Ramanathan, MD – Course Director Chief, Neonatology Cedars Sinai Guerin Children's PIH Health, Good Samaritan Hospital Professor of Pediatrics Director, Division of Neonatology

Shahab Noori, MD, MS CBTI, RDCS - Co-Director Professor of Clinical Pediatrics Keck School of Medicine, University of Southern California

Yogen Singh, MD, MA (Cantab), FRCPH – Co-Director Professor of Pediatrics-Neonatology, UC Davis Children's Hospital, University of California

Mahmood "Mac" Ebrahimi, RDCS - Co-Director Instructor of Clinical Pediatrics Keck School of Medicine, University of Southern California

#### **FACULTY:**

Ruben Acherman, MD Professor of Pediatrics, Cardiology University of Nevada, Las Vegas, Nevada

Ruchira Garg, MD.

Professor of Pediatrics, Cedars Sinai Guerin Children's Director, Congenital Non-Invasive Cardiology Cedars Sinai-Cardiology Department

Merujan Uzunyan, MD Associate Professor of Clinical Pediatrics Keck School of Medicine, University of Southern California Director, Division of Cardiology, LAC+USC Medical Center

Jennifer Shepherd, MD Assistant Professor of Pediatrics Keck School of Medicine, University of Southern California

Belinda Chan, MD Associate Professor of Pediatrics UC Davis Children's Hospital, University of California

Tai-Wei Wu, MD Associate Professor of Pediatrics Keck School of Medicine, University of Southern California







CHILDREN'S HOSPITAL







Neonatal Echo Simulator Neonatal Echo Simulation Training (NEST)

Registration fee for 5 days including course material \$1500. For those in training the registration fee is \$1000

For program information please contact: Dr Mahmood Ebrahimi (Mac), Program Coordinator at <a href="macebrahimi@yahoo.com">macebrahimi@yahoo.com</a> or <a href="macebrahimi@cshs.org">mahmood.ebrahimi@cshs.org</a> or Call mobile: 818-462-3851

Space is limited - Please register prior to July 31,2025. Your registration (and confirmation of place) wouldn't be complete until full payment is received.

Registration form available via website: https://neoechosim.com/echo-courses

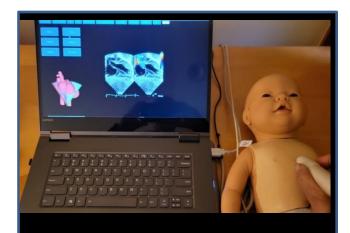
## Simulator Instructors including

Rangasamy Ramanathan, MD Mahmood Ebrahimi, RDCS Shahab Noori, MD, Yogen Singh, MD Tai Wei Wu, MD Belinda Chan, MD Jennifer Shepherd, MD Ivonne Sierra-Strum, MD

#### **Recommended Book for the course:**

Practical Neonatal Echocardiography, Mc Graw Hill, 2019

Website for the course material and echo simulator: www.neoechosim.com



**The 22nd Annual Echo Course** 

Point of care
Echocardiography in the
Neonate

Sept 8-12, 2025

PIH Health Good Samaritan Hospital Los Angeles, California



## **Course Highlights**

### Hands-on training on fifteen echo simulators:

- Obtain complete set of images from all cardiac windows and recognize various structures of a normal heart
- Recognition of spatial relationship of cardiac structures obtained from cutting planes through a 3dimensional heart image
- Assessment of cardiac function and estimation of flow using calculation package
- Differentiating abnormal cardiac structures from a normal heart
- Opportunity to perform echocardiography on volunteers

## **Course Objectives**

Upon completion of this course, the participants are expected to:

- · Understand basic principles of ultrasonography
- · Identify correctly basic echocardiographic views
- Evaluate blood flow direction and velocity by pulse and continuous wave and color flow Doppler
- Identify correctly shunts through patent ductus arteriosus and foramen ovale
- Understand application of indices used in measurements of systolic and diastolic function of the heart
- Be able to do quantitative measurements of blood flow through aortic valve, pulmonary valve.
- Evaluate presence of pulmonary hypertension.
- Recognize presence of hypertrophic cardiomyopathy in infants of diabetic mothers
- know echocardiographic findings of pericardial effusion and early signs of cardiac tamponade
- · Be able to suspect presence of CHD.

Basic Point of Care Echocardiography is part of core curriculum during neonatal fellowship at USC + LAG Medical Center, and Cedars Sinai Guerin Children's.. The participants are introduced to some elements of this training. However, development of competence to independently obtain quality echocardiograms requires training under supervision in our or any other Neonatal echocardiography laboratory.

## Presented by:

Divisions of Neonatology, Cedars Sinai Guerin Children's, University of California Davis, CHLA and PIH Health Good Samaritan Hospital

#### Course Presentation Schedule

#### Monday, Sept 8, 2025

08:00	Introductory remarks
	Rangasamy Ramanathan, MD
08:20	Basic physical principles of ultrasonography: 2D and Color flow
	Merujan Uzunyan, MD
09:00	Basic physical principles of ultrasonography: M-mode and Doppler
	Merujan Uzunyan, MD
10:00	Standard echocardiographic views Mahmood "Mac" Ebrahimi, RDCS

## 11:00 11:00-11:20 Introduction to Simulator & Test

## 12:00 Lunch

13:00	Echo simulation and hands on practice (3 Hours)
	Mac Ebrahimi and staff

#### 16:00 Adjourn

#### Tuesday, Sept 9, 2025

09:00	Assessment of systolic, diastolic and global cardiac function in
	Neonates
	Shahab Noori, MD
10:00	Severe myocardial dysfunction, heart failure and shock in term
	and preterm neonates
	Yogen Singh, MD
11:00	Assessment of aortic, pulmonary and intestinal, renal and
	cerebral blood flows.

#### 12:00 Lunch

Tai-Wei Wu, MD

13:00	Echo simulation and hands on practice (3 Hours)
	Mac Ebrahimi and staff

## 16:00 Adjourn

Website for the course material and echo simulator:

# www.neoechosim.com

#### Wednesday, Sept 10, 2025

09:00 Assessment of pulmonary hypertension in term and preterm neonates
Yogen Singh, MD

10:00 Assessment of hemodynamic significance of patent ductus arteriosus in premature neonates

Shahab Noori, MD

11:00 Effect of assisted ventilation on cardiovascular function
Rangasamy Ramanathan, MD

#### 12:00 Lunch

13:00 Echo simulation and hands on practice (3 Hours)

Mac Ebrahimi and staff

16:00 Adjourn

## Thursday, Sept 11, 2025

09:00 Screening for CHD for the neonatologist Yogen Singh, MD

10:00 Contraindications of transcatheter PDA Closure: neonatal echo findings

Ruchira Garg, MD

11:00 Recognition and early management of critical CHDs Yogen Singh, MD

12:00 Lunch

13:00 Echo simulation and hands on practice (3 Hours)

Mac Ebrahimi and staff

16:00 Adjourn

## Friday, Sept 12, 2025

8:00 Cardiomyopathies

Ruben Acherman, MD

8:30 Fetal echocardiography and Doppler Ultrasonography in the diagnosis of Congenital Heart Disease :and non cardiac conditions leading to fetal distress

Ruben Acherman, MD

10:00 Break

10:30 Use of non-cardiac ultrasonography in assessment and management of neonates in the NICU Jennifer Shepherd, MD and Belinda Chan, MD

11:30 Echo simulation student test

12:00 Lunch with Faculty

13:00 Adjourn

