# State-of-the-Art ECHOCARDIOGRAPHY™ VIRTUAL EXPERIENCE



## FINAL PROGRAM February 19–20, 2022

Course Director William A. Zoghbi, MD, FASE Past President, ASE Houston Methodist Hospital Houston, TX

Course Co-Director Sunil V. Mankad, MD, FASE Mayo Clinic Rochester, MN







Jointly Provided by ASE and the ASE Foundation

## Program Information

### Overview of State-of-the-Art Echocardiography Virtual Experience

The 34th Annual State-of-the-Art Echocardiography<sup>™</sup> course will be held as a virtual online course on February 19 and 20, 2022.

The 2022 program follows the themes of structural heart disease, myocardial and pericardial disease, coronary artery disease, and interventional echocardiography. During the course cases will be presented by the expert faculty to highlight what echo brings to each theme, help clinicians recognize and avoid common errors and pitfalls, and learn how to apply the guidelines in a practical manner.

The faculty consists of recognized leaders in the field of echocardiography acclaimed for their teaching abilities. Participants will have the opportunity to interact with the faculty during the live question and answer sessions.

### Who Should Attend

ASE's State-of-the-Art Echocardiography program is designed for adult and pediatric cardiologists, cardiovascular surgeons, anesthesiologists, radiologists, nurses, sonographers, and fellows in training. Participants should have a practical knowledge of echocardiography.

### **Learning Objectives**

Upon completion of this course, participants will be better able to:

- Incorporate state-of-the-art clinical applications of echocardiography and Doppler ultrasound into clinical decision-making
- Utilize echocardiography in valvular heart disease
- Evaluate patients prior to, during, and following various structural heart disease procedures such as TAVR, transcatheter edge-to-edge repair, and left atrial appendage closure
- Perform a 3D acquisition and measurement of biventricular size and function
- Explain the new diastolic function guidelines
- Assess right and left ventricular function with state-of-the-art echocardiographic technology including strain imaging

### **Course Registration**

Registration fees include access to live broadcast, access to the recorded content, and CME/ MOC credit. ASE members receive reduced registration fees as a benefit of membership. The deadline to register is March 6, 2022. Register online today at **ASEcho.org/SOTA**.

The live broadcast will begin at 9:00 AM ET on Saturday, February 19, 2022. During the Question and Answer sessions, faculty will be joining live to answer participant questions. Questions can be submitted during the session in the Q&A box.

All of the live session presentations, including the Q&A sessions, will be recorded and available in the ASE Learning Hub beginning March 7, 2022 until May 20, 2022.

### Accreditation and Designation

ASE is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. ASE designates this live course for a maximum of **15** *AMA PRA Category 1 Credits*<sup>™</sup> pending approval. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Successful completion of this CME activity enables the participant to earn up to 15 MOC points (pending approval) in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program and/or The American Board of Anesthesiology® (ABA) Maintenance of Certification in Anesthesiology Program® or MOCA®. Participants will earn MOC and/or MOCA points equivalent to the amount of CME credits claimed for the activity. It is ASE's responsibility to submit participant completion information to ACCME for the purpose of granting ABA MOCA® and/or ABIM MOC points. ARDMS, CCI, and Sonography Canada recognize ASE's certificates and have agreed to honor the credit hours toward their registry requirements for sonographers.



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Maintenance of Certification in Anesthesiology Program<sup>®</sup> and MOCA<sup>®</sup> are registered certification marks of the American Board of Anesthesiology<sup>®</sup>. MOCA 2.0® is a trademark of the American Board of Anesthesiology<sup>®</sup>.

## Facuty

#### Course Director

William A. Zoghbi, MD, FASE @WilliamZoghbi Past President, ASE Houston Methodist Hospital Houston, TX

#### Faculty

Clara Angulo, MBA, CLSSGB, ACS, FASE @ci\_angulo Houston Methodist Hospital Houston, TX

Cara Bergeron, RDCS, RVT, FASE Houston Methodist Hospital Houston, TX

Marissa Christensen, RDCS Houston Methodist Hospital Houston, TX

Nadeen Faza, MD, FASE @NadeenFaza Houston Methodist Hospital Houston, TX

Hailee Hayes, RDCS, RVT Aurora Health Care Milwaukee, WI

Judy Hung, MD, FASE @JudyHungMD ASE Immediate Past President Massachusetts General Hospital Boston, MA

Renuka Jain, MD, FASE @renujain19 Aurora Health Care Milwaukee, WI

Denise Ignatowski, BS, RDCS,

FASE @Deniselgnatows1 Aurora Health Care Milwaukee, WI

Abigail Kaminski, BS, RDCS, RVT, FASE Aurora Health Care

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Bijoy K. Khandheria, MD, FASE

@BijoyKhandheria ASE Past President Aurora Health Care Milwaukee, WI

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Eric Kruse, BS, ACS, RDCS, RVT, FASE University of Chicago Medical Center

#### Course Co-Director

Sunil V. Mankad, MD, FASE @MDMankad Mayo Clinic Rochester, MN

Roberto M. Lang, MD, FASE @robertomlang Past President, ASE University of Chicago Medical Center Chicago, IL

Steven J. Lester, MD, FASE @StevenLesterMD Mayo Clinic Phoenix, AZ

Stephen H. Little, MD, FASE @SLittleMD ASE President-Elect Houston Methodist Hospital Houston, TX

G. Burkhard Mackensen, MD, PhD, FASE @gb\_mackensen University of Washington Seattle, WA

Jae Oh, MD, FASE @JaeKOh2 Mayo Clinic Rochester, MN

Muhamed Saric, MD, PhD, FASE @saricmu New York University New York, NY

Raymond Stainback, MD, FASE @ray\_stainback ASE President Texas Heart Institute Houston, TX

Matt M. Umland, ACS, RDCS, FASE @EchoUmland Aurora Health Care Milwaukee, WI

Jennifer Warmsbecker, RDCS, BS, FASE Mayo Clinic Rochester, MN

Megan Yamat, RDCS, RCS, ACS, FASE University of Chicago Medical Center

Chicago, IL

## Schedule of Events in Eastern time

#### SATURDAY, FEBRUARY 19, 2022 **NEW TECHNOLOGY & CORONARY ARTERY DISEASE** Chairs: S. Mankad, W. Zoghbi **Welcome and Course Introduction** 9:00 AM S. Mankad, W. Zoghbi **Presidential Address: State of ASE** 9:15 AM R. Stainback 9:30 AM Artificial Intelligence and Echocardiography: Impact on **Sonographers and Echocardiographers** S. Lester **Quantitation of Ventricular Function: How to** 9:45 AM **Complement 2D with 3D in Your Laboratory** R. Lang 10:00 AM **Contrast Echocardiography: Impact on Diagnosis and Outcome** J. Oh 10:15 AM **Complications of Myocardial Infarction, Right Ventricle, Myocardial Rupture, and Pap Muscle Rupture** R. Jain 10:30 AM **Stress Echocardiography Is Still Alive** W. Zoghbi 10:45 AM **Question and Answers** All Presenters 11:00 AM Break

#### STRUCTURAL HEART DISEASE: AORTIC VALVE Chairs: *G. Mackensen, M. Yamat* **Cases to Illustrate When Aortic Stenosis Gradient and** 11:15 AM Area Do Not Match: What Should I Do M. Saric 11:30 AM What Should a Successful TAVR Look Like for **Echocardiographers** R. Jain **Examples of TAVR Complications Seen by** 11:45 AM **Echocardiographers** G. Mackensen 12:00 PM **Degenerated Bio Prosthesis, Valve-in-Valve: What Echocardiographers Should Look For** N. Faza **Ouestion and Answer** 12:15 PM All Presenters 12:30 PM Break 1:00 PM **Aortic Regurgitation Illustrative Cases: What Is the** Mechanism? R. Lang 1:15 PM Echo: Pathologic Correlation in Aortic Valve Disease, An Anesthesiologist's Perspective G. Mackensen 1:30 PM Case Examples of Quadricuspid, Bicuspid, Unicuspid **Aortic Valve** M. Umland 1:45 PM **Question and Answer** All Presenters

## STRUCTURAL HEART DISEASE: MITRAL VALVE

Unali 5. IV. I	aza, A. Kallilliski
2:00 PM	Mitral Regurgitation, Etiology, and Quantification W. Zoghbi
2:15 PM	Mitra Clip Measurements: It Worked and It Did Not Work N. Faza
2:30 PM	Measurements For Transcatheter Mitral Valve Repair, Sapiens In Degenerated Mitral Valve <i>M. Saric</i>
2:45 PM	Pathologies of Mitral Valve (Rheumatic, Eosinophilia, Degenerative) S. Lester
3:00 PM	Question and Answer All Presenters
3:15 PM	Break
READ WIT	H THE EXPERTS: OPTIMIZE YOUR SKILLS
3:30 PM	<b>3D Echocardiography</b> <i>R. Lang (Moderator)</i> <i>E. Kruse, S. Little, M. Yamat</i>
4:00 PM	<b>Quantitation of Chamber Volumes and Strain</b> <i>B. Khandheria (Moderator)</i> <i>D. Ignatowski, A. Kaminski, S. Mankad, J. Warmsbecker</i>
4:30 PM	Valvular Heart Disease W. Zoghbi (Moderator) C. Angulo, C. Bergeron, M. Christensen, M. Saric
5:00 PM	Diastology J. Oh (Moderator) H. Hayes, S. Lester, M. Umland

## Schedule of Events in eastern time

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STRUCTURAL HEART DISEASE: TRICUSPID & PROSTHETIC VALVES, LAA OCCLUDERS

Chairs: S. Little, J. Warmsbecker		
9:00 AM	Pathologies of Tricuspid Valve (Carcinoid, Flail, Vegetation) S. Mankad	
9:15 AM	Tricuspid Valve Repair: The New Frontier S. Little	
9:30 AM	Left Atrial Appendage Occluder Device, Measurement M. Saric	
9:45 AM	Measuring Normal Function of Prosthetic Valves S. Little	
10:00 AM	<b>Prosthetic Valve Endocarditis</b> <i>B. Khandheria</i>	
10:15 AM	Question and Answer All Presenters	
10:30 AM	Break	

### DIASTOLOGY AND CARDIOMYOPATHY

Chairs: C. Bergeron, J. Oh		
10:45 AM	Learn Clinical Diastology With Cases J. Oh	
11:00 AM	When It Does Not Fit: Examples in Clinical Practice S. Lester	
11:15 AM	Amyloid and Constriction J. Oh	
11:30 AM	<b>Cases: Variants of Hypertrophic Cardiomyopathy</b> J. Oh	
11:45 AM	<b>Stress Cardiomyopathy: Variants as Seen on Echo</b> <i>R. Stainback</i>	
12:00 PM	Question and Answer All Presenters	
12:15 PM	Break	

#### MYOCARDIAL MECHANICS AND LEFT ATRIAL STRAIN Chairs: *C. Angulo, S. Mankad* 12:45 PM Rasic Myocardial Strain Imaging

12:45 PM	Basic Myocardial Strain Imaging	
	S. Mankad	
1:00 PM	<b>Clinical Examples of Utility of Global Longitudinal</b>	
	Strain	
	S. Mankad	
1:15 PM	Where Strain Falls Apart S. Lester	
1:30 PM	Left Atrial Strain: How to Obtain This J. Oh	
1:45 PM	Utility of Left Atrial Strain: Case Examples R. Jain	
2:00 PM	Question and Answer All Presenters	

#### **RIGHT HEART, PULMONARY HYPERTENSION** Chairs: J. Hung, E. Kruse

2:15 PM	Evaluation of Right Ventricle: Learn by Cases R. Lang
2:30 PM	<b>Pulmonary Hypertension: Optimal Evaluation</b> J. Hung
2:45 PM	<b>Right Ventricular Strain: Cases to Illustrate How</b> S. Lester
3:00 PM	Question and Answer All Presenters
3:15 PM	Break
	NEOUS TOPICS: CASE STUDIES ain and M. Umland
3:30 PM	Cardio Oncology: Case Examples J. Hung
3:45 PM	Masses in the Left Heart C. Bergeron
4:00 PM	Masses in the Right Heart R. Jain
4:15 PM	Normal and Abnormal Left Ventricular Assist Device Cases
4:30 PM	M. Christensen Atrial Septal Defect: Secundum, Sinus Venosus, Anomalous Pulmonary Veins M. Saric
4:45 PM	<b>Abnormal Prosthetic Valve in Mitral Position</b> <i>C. Angulo</i>
5:00 PM	Abnormal Prosthetic Valve in Aortic Position S. Lester
5:15 PM	<b>Fusion Imaging</b> R. Jain
5:30 PM	Question and Answer All Presenters
5:45 PM	Closing Remarks S. Mankad, W. Zoghbi
6:00 PM	Adjourn