

# State-of-the-Art ECHOCARDIOGRAPHY™

# 37<sup>th</sup> ANNUAL



## FINAL PROGRAM

**February 14–17, 2025**

*Optional Preconference Learning Lab*

February 14–15, 2025

**The Westin Kierland Resort & Spa  
Scottsdale, Arizona**

### Course Director

**Sunil V. Mankad, MD, FASE**

Mayo Clinic  
Rochester, MN

### Course Co-Director

**G. Burkhard Mackensen, MD, PhD, FASE**

University of Washington  
Seattle, WA

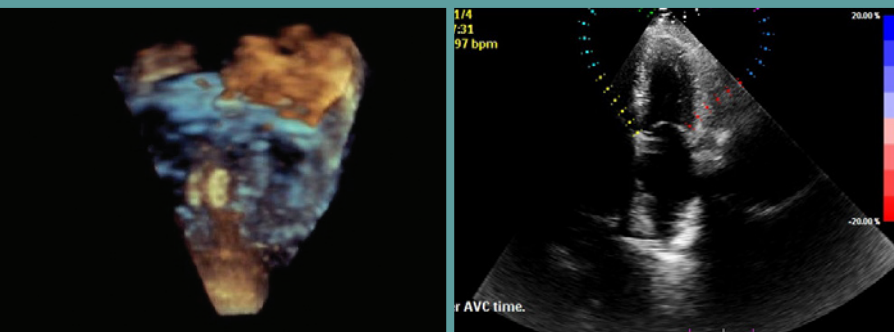
### The Bijoy Khandheria Echocardiography Learning Lab Co-Directors

**Roberto M. Lang, MD, FASE**

Past President, ASE  
University of Chicago Medical Center  
Chicago, IL

**Matt M. Umland, ACS, RDCS, FASE**

Aurora Health Care  
Milwaukee, WI



Welcome to the 37th Annual State-of-the-Art Echocardiography™ conference, a premier program organized by Echo education enthusiasts within the ASE. Past attendee feedback is invaluable, and we've modified the program to reflect participant suggestions. Valvular, structural heart, and hemodynamic workshops have been added in addition to case-based reviews incorporating new echocardiographic technologies for physicians and sonographers. We will continue to follow a condensed 2.5 day main program to allow maximum learning within a short period of time. In keeping with past tradition, we continue to have elite physicians and sonographers presenting a broad range of echo-related topics designed to enhance your clinical practice. Upon completion of this course, you should have a "state-of-the-art" knowledge of clinical echocardiography including 3D, contrast-enhanced ultrasound, and myocardial strain imaging. A specific focus will be the ability to incorporate their practical application in clinical practice including for structural heart interventions.

The blue skies, sunshine, and first-class education awaits you at SOTA in Scottsdale, Arizona.

Welcome to the 37th Annual State-of-the-Art Echocardiography conference.



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



**Course Co-Director**  
**G. Burkard Mackensen, MD, PhD, FASE**  
University of Washington  
Seattle, WA



## SAVE THE DATE

38th Annual State of the Art Echocardiography  
February 13–16, 2026, Scottsdale, AZ

## Course Director

**Sunil V. Mankad, MD, FASE**  
Mayo Clinic  
Rochester, MN

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University of Chicago Medical Center  
Chicago, IL

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

## Faculty

**Theodore Abraham, MD, FASE**  
University of California  
San Francisco, CA

**Kiran Belani, MD, FASE**  
Northwestern Memorial Hospital  
Chicago, IL

**Nicholas Enger, RDCS, ACS**  
Mayo Clinic  
Rochester, MN

**Joshua Fosland, RDCS, ACS**  
Mayo Clinic  
Rochester, MN

**Linda Gillam, MD, FASE**  
Morristown Medical Center  
Morristown, NJ

**Denise Ignatowski, BS, RDCS, FASE**  
Aurora Health Care  
Milwaukee, WI

**Renuka Jain, MD, FASE**  
Aurora Health Care  
Milwaukee, WI

**Omar Kalique, MD, FASE**  
Catholic Health Long Island  
Long Island, NY

**Noreen Kelly, MD, MBA, FASE**  
Sanger Heart and Vascular Institute  
Charlotte, NC

**Christopher Kramer, RDCS, FASE**  
Aurora Health Care  
Milwaukee, WI

**Eric Kruse, BS, ACS, RDCS, FASE**  
University of Chicago Medicine  
Chicago, IL

**Brianna Madalinski, BS, RDCS, RVT, FASE**  
Aurora St. Luke's Medical Center  
Milwaukee, WI

**Akhil Narang, MD, FASE**  
Northwestern Medicine  
Chicago, IL

**Michael Picard, MD, FASE**  
Massachusetts General Hospital  
Boston, MA

**Nishath Quader, MD, FASE**  
Washington University in St. Louis  
St. Louis, MO

**Vera Rigolin, MD, FASE**  
Northwestern Medicine  
Chicago, IL

**Lucy Safi, DO, FASE**  
Mount Sinai  
New York, NY

**Muhamed Saric, MD, FASE**  
New York University  
New York, NY

**Vincent Sorrell, MD, FASE**  
University of Kentucky Gill Heart & Vascular Institute  
Lexington, KY

**Megan Yamat, RDCS, RCS**  
University of Chicago Medical Center  
Chicago, IL

# Program Information

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

The 2025 program follows the themes of structural heart disease, myocardial and pericardial disease, coronary artery disease, and interventional echocardiography. During the course, presentations will 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 one-on-one in the preconference, computer-based Learning Lab and during the question-and-answer sessions.

### NEW in 2024!

- **Expanded Learning Lab:** New topics include advanced hemodynamics, myocardial strain, and structural heart disease. Participants will perform 3D cropping, measurements such as left ventricular and right ventricular strain, left atrial strain, critical measurements for TAVR, TMVR, TEER, and left atrial appendage occluder.
- **Case-based Learning:** The course will include a special focus on hemodynamics, structural heart disease, interventional echocardiography, and advanced diastolic.
- More opportunities to directly interact with faculty during and after the meeting.
- **Glimpse of the Future:** Learn about the impact of artificial intelligence and machine learning in the field of echocardiography.

## Who Should Attend

ASE's State-of-the-Art Echocardiography program is designed for adult and pediatric cardiologists, cardiovascular surgeons, anesthesiologists, radiologists, physician assistants, 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, mitral clip, and left atrial appendage closure
- Perform a 3D acquisition and measurement of biventricular size and function; and have a better understanding of the “knobology”
- Explain the new diastolic function guidelines
- Assess right and left ventricular function with state-of-the-art echocardiographic technology including strain imaging

## The Bijoy Khandheria Echocardiography Learning Lab

*(Additional Fee Required. Please visit the ASE registration desk to check availability.)*

A learning lab will be offered for a full day on Friday, February 14, and a half day on Saturday, February 15, 2025. Separate registration is required, and

this session is included in the total hours of educational content offered at the course.

Limited to 90 registrants, this intimate workshop allows easy access to faculty members. Computer workstations are provided to teach each participant how to quantitate fundamental aspects of clinical echocardiography. Expert faculty will demonstrate advanced hemodynamics, 3D, and myocardial strain imaging. Each participant will have plenty of case studies to practice demonstrated techniques. The small group environment allows the opportunity for nearly private instruction from top practitioners in the field.

## Disclaimer

The information provided during this CME activity is for continuing education purposes only and is not meant to substitute for the independent medical judgment of a healthcare provider relative to diagnostic and treatment options of a specific patient's condition.

## Accreditation and Designation

ASE is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide accredited continuing education for physicians.

ASE designates this live course for a maximum of **30.25 AMA PRA Category 1 Credits™**. To claim all 30.25 CME credits, you must register for both the pre-conference Learning Lab and main conference. The main conference will offer a total of 18.25 CME credits.

In addition to offering CME credits, this activity has been developed and registered with ACCME to provide MOC and MOCA 2.0 credits in alignment with *AMA PRA Category 1 Credit™*.

Successful completion of this CME activity enables the participant to earn up to 30.25 MOC points in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program, the American Board of Pediatrics (ABP) MOC program, and/or the American Board of Anesthesiology's (ABA) Maintenance of Certification in Anesthesiology Program® or MOCA 2.0®. It is ASE's responsibility to submit participant completion information to ACCME for the purpose of granting ABIM and ABP MOC points and/or ABA MOCA 2.0®.

Participants should claim only the credit commensurate with the extent of their participation in the activity. Physicians will earn MOC and/or MOCA 2.0 points equivalent to the amount of CME credits claimed for the activity.

ARDMS, CCI, and Sonography Canada recognize ASE's certificates and have agreed to honor the CME credit hours toward their registry requirements for sonographers.

ASE's 37th Annual State-of-the-Art Echocardiography has been reviewed by the British Society of Echocardiography and is approved for BSE Points.



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



# Program Information

## Daily breakdown of CME credits:

### Learning Lab

Friday, February 14, 2025 = 8.25 hours

Saturday, February 15, 2025 = 2.75 hours

## Main Conference

Saturday, February 15, 2025 = 4.5 hours

Sunday, February 16, 2025 = 8.0 hours

Monday, February 17, 2025 = 5.75 hours

The **American Osteopathic Association (AOA)** automatically recognizes *AMA PRA Category 1 Credit™* as AOA Category 2 credit. The ACCME and the **European Board of Accreditation in Cardiology (EBAC)** recognize each other's accreditation systems as substantially equivalent.

To obtain EBAC credit for participation in this activity, submit evidence of participation directly to EBAC ([www.ebac-cme.org](http://www.ebac-cme.org)).

The **European Union of Medical Specialists (UEMS)-European Accreditation Council for Continuing Medical Education (EACCME)** has an agreement of mutual recognition of continuing medical education (CME) credit with the American Medical Association (AMA). European physicians interested in converting *AMA PRA Category 1 Credit™* into European CME credit (ECMEC) should contact the UEMS ([www.uems.eu](http://www.uems.eu)).

**Sonography Canada** recognize ASE's certificates and have agreed to honor the credit hours toward their registry requirements for sonographers.

All or a portion of this educational activity may meet the CME requirement for IAC Echocardiography accreditation.

This activity is eligible for Section 1 credits in the **Royal College of Physicians and Surgeons of Canada's Maintenance of Certification (MOC)** Program. Participants must log into MAINPORT to claim this activity.

The **National Commission on Certification of Physician Assistants (NCCPA)** accepts *AMA PRA Category 1 Credit™* from organizations accredited by ACCME.

## Disclosure

ASE is committed to ensuring that its educational mission, and all accredited continuing educational programs provide a protected space to learn, teach, and engage in scientific discourse free from influence from organizations that may have an incentive to insert commercial bias into education.

While a monetary or professional affiliation with an ineligible company does not necessarily influence a speaker's presentation, the Standards for Integrity and Independence in Accredited Continuing Education and policies of the ACCME require that all financial relationships with ineligible companies be identified and mitigated prior to engaging in an accredited CE activity. In accordance with these policies, ASE actively identified relevant financial relationships between faculty in control of this accredited CE activity and ineligible companies, and implemented mitigation strategies to eliminate any potential influence from persons or organizations that may have an incentive to insert commercial bias in this activity. Disclosure information is referenced and can be found on page 14 of this program.

## Commercial Support Disclosure Statement

**Educational Grants:** This activity is supported in part by unrestricted educational grants from BridgeBio, Boston Scientific, and Medtronic.

**In-Kind Donations:** This activity is supported in part by in-kind donations from FujiFilm, GE Healthcare, and Philips.

## How to Obtain CME

To claim your CME for State-of-the-Art Echocardiography, please follow the steps below using your Mozilla Firefox, Google Chrome, or Safari browser. **Internet Explorer will not work.** The deadline to claim credit is **March 17, 2025.**

An email will be sent to you on Monday, February 17 at 3:00 PM ET with instructions on how to complete the evaluation and claim your CME credits. Be sure to enter your specialty board number (ABIM, ABA, ABP, ARDMS, CCI) in order for your credits to be transferred.

# Attendee Information & Regulations

## Registration Location and Hours

Attendee registration is located outside of the Herberger Ballroom.

Friday, February 14, 2025..... 7:00 AM – 5:15 PM  
Saturday, February 15, 2026..... 7:00 AM – 5:00 PM  
Sunday, February 16, 2025..... 7:00 AM – 5:15 PM  
Monday, February 17, 2025 ..... 7:00 AM – 4:00 PM

## Food Functions

ASE will provide breakfast and coffee breaks for registered attendees in Herberger Ballroom 1 & 2.

Lunch will be provided for registered attendees on the following days: for Learning Lab attendees on Friday, February 14 – Saturday, February 15, and for main conference attendees on Sunday, February 16 – Monday, February 17. Lunch times vary. Please refer to the program schedule for times.

Refer to the program schedule for the times of the daily coffee breaks. The Westin Kierland Resort & Spa offers their guests a variety of dining options. Please see Location Information on page 7 for more details.

## Welcome Reception “Questions and Answers: Ask Anything You Want” Sponsored by Visura

ASE cordially invites you to the State-of-the-Art Echocardiography Welcome Reception on Saturday evening, February 15, 5:00 – 6:00 PM in the Exhibit

Hall Herberger Ballroom 1 & 2. The casual reception includes light appetizers and drinks. We look forward to welcoming you and providing you the perfect opportunity to meet faculty, friends, and colleagues.

## Mobile Device Use

We encourage you to use your mobile device to download Whova, the new app ASE is using for live courses. Whova will give you access to the entire meeting program at your fingertips. You can also use the app to ask questions during the sessions you attend. Search “Whova” in the Google Play and Apple Stores to download. For more details on the Whova app and using it at State-of-the-Art Echocardiography, see page 6. **Please remember to turn your mobile device to silent or vibrate mode.**

## Internet Access

Any attendee staying at the Westin Kierland Resort & Spa receives propertywide complimentary internet access as part of the resort fee. Log in using your guest room number and last name to access. If you are a local attendee or not staying at the Westin Kierland Resort & Spa, please visit the Registration desk to receive login details for internet access.

## FedEx Office

The FedEx Office Print & Ship Center, located inside the Westin Kierland Resort & Spa, offers many services such as packing and shipping, office supplies, copying, and printing services. The FedEx office is conveniently open seven days a week.



# Attendee Information & Regulations

## Safety

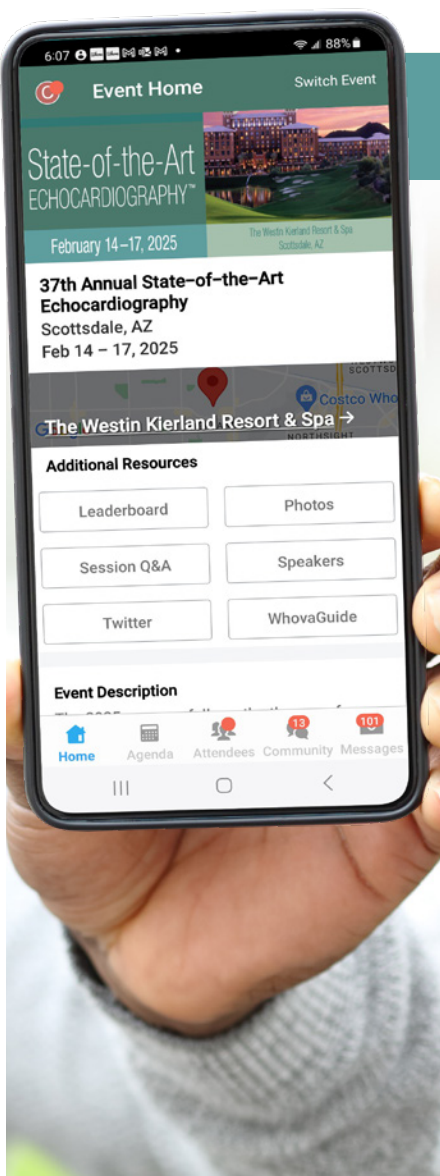
Audience seating is on a first come, first served basis. According to fire code, a session must be closed if the room fills to capacity. Inappropriate behavior or undesirable conduct, including, but not limited to, verbal or physical abuse, whether threatened or performed, will not be permitted or tolerated. You must wear your name badge at all times when attending the session or events.

## Photography/AV Policy

No person may record any portion of the 37th Annual State-of-the-Art Echocardiography, either by video, still or digital photography, audio or any other recording or reproduction mechanism. This includes recording of presentations and supporting audio visual materials and of poster presentations and supporting poster materials.

Taking photos of, or recording the content of, presentation slides is also prohibited and is considered intellectual piracy. Attendees who ignore this policy will be asked to leave the educational session and are at risk of losing their name badge and attendance privileges. Photographs taken for the purpose of sharing on social media is allowed, but should avoid showing presentation slides. Please use **#EchoSOTA** when posting on social media.

ASE reserves the rights to all recordings or reproductions at ASE meetings. Please be aware that during the 37th Annual State-of-the-Art Echocardiography, attendees, vendors, guests and exhibitors may be photographed or videotaped by ASE staff capturing the event. Some of these photographs or videos may be displayed by ASE in future publication or other materials. By virtue of your attendance, you agree to allow ASE to use photographs of you in its promotional materials.



## Download Whova, ASE's Live Course App

ASE is using the online platform Whova as its new live courses app. Whova will give you access to the entire meeting program at your fingertips. You can also use the app to ask questions during the sessions you attend. Search "Whova" in the Google Play and Apple Stores to download.

Whova allows for more interaction among participants at the meeting including:

- Finding others who are attending State-of-the-Art Echocardiography and reaching out to them at any time.
- Planning social activities such as a morning run, coffee hours, or meet-ups with your fellow attendees.

Important course information like:

- The event agenda and planning your personal schedule.
- Access to documents and slides shared by organizers or speakers.
- Updates like possible last minute session changes from the organizers.

If you have already used the Whova app, just double-check what is installed on your phone, tablet, or computer, and log in using your existing account email and password.

### First Time Whova User?

#### MOBILE APP

After downloading Whova, you will be prompted to create an account. We suggest that you use the email address you used when registering for State-of-the-Art Echocardiography and create a strong password. By using the email address you used when registering for State-of-the-Art Echocardiography, the platform will automatically associate you with the event and take you to your event page automatically.

#### WEB PORTAL

Simply use the web portal link <https://whova.com/portal/webapp/7RQ-jb-lhfMiAoSxEtej/>. Login using the same email and password as your mobile device.

If you are not automatically connected to the event and you are prompted for an event code, please reference the email you were sent on Wednesday, February 12, from Christina LaFuria at [event-noreply@whova.io](mailto:event-noreply@whova.io), on the back of your name badge, or visit the registration desk outside the Herberger Ballroom.



# Location Information

## Scottsdale, Arizona

Make time to stretch your legs on a wildflower hike and possibly catch a spring training baseball game. The nearby McDowell Sonoran Preserve is an other-worldly landscape of rugged mountains, towering saguaros, and whimsically shaped cacti. By day, this lush landscape is ideal for sunrise hikes, hot air ballooning, and other desert adventures. After dark, the desert continues to delight with stargazing excursions and technicolor sunsets.

Old Town Scottsdale is full of public art installations, galleries, boutiques, spas, and restaurants. It also boasts award-winning craft breweries and wine-tasting rooms, as well as two of the city's most popular museums, the Western Spirit: Scottsdale's Museum of the West and the Scottsdale Museum of Contemporary Art.

Other sights you won't want to miss are Taliesin West, architect Frank Lloyd Wright's former home and studio, and a stroll among thousands of colorful species at Butterfly Wonderland. You will not go hungry in Scottsdale as it is home to more than 800 restaurants citywide.

## The Westin Kierland Resort & Spa

Just steps from upscale shopping, dining, and entertainment in Kierland Commons, the resort features three golf courses at Kierland Golf Club. Enjoy a relaxing massage at Agave, The Arizona Spa that offers treatments inspired by traditional practices handed down through many of Arizona's native cultures as well as therapies infused with healing traditions from the best practices all over the world. Reenergize in the WestinWORKOUT® Fitness Studio, open 24 hours with room card access which includes a hot tub, steam room, and sauna. One of the resort's biggest attractions is the Adventure Water Park, which offers the iconic Kierland FlowRider flow-board simulator for surfing in the desert, a lazy river, a 110-foot-long waterslide, and more! Rent a family-friendly poolside cabana to relax in shaded luxury or enjoy your very own Tommy Bahama Relaxation Reef private island. The Aguamiel pool is the heated adult pool and is a quiet retreat that features lap lanes for fitness swimming, a hot tub, and private cabanas.

## Westin Kierland Resort & Spa Dining and Beverage Options

**Brittlebush Bar & Grill:** After a round of golf, visit Brittlebush Bar & Grill, the resort's gastropub restaurant. Sip on local craft beer, microbrews, and signature label, "Piper's Pale Ale." Relax in a lodge-like setting with copper accents and wood beams. Open 11:00 AM – 5:00 PM daily.

**Coffee Flats:** Offering Starbucks® coffees, pastries, and hot breakfast sandwiches. At lunch, grab a salad, wrap, or snack from a selection of to-go items. Open 6:00 AM – 8:00 PM daily.

**J. Swilling's Poolside Bar & Grill:** Eat well with a casual menu after drifting in the lazy river or boarding the Kierland FlowRider. Reenergize with salads, sandwiches, and snacks. Open 10:00 AM – 5:00 PM Monday – Thursday and Sunday. Open 10:00 AM – 6:00 PM Friday and Saturday.

**The Rim:** Take in serene views of Dreamweavers Canyon at The Rim. This lobby lounge includes premium tequilas and an award-winning selection of wines and vintage cigars. Unwind with live, local music. Serving food 4:00–9:00 PM; casual dress.

**The Scotch Library:** Let the Scotch Library Ambassadors guide you through more than 300 whiskey labels. Aficionados and first-timers find something to love with invigorating single malts and blended selections.

**Antidote: New Bar Experience:** With an exquisite mountain view, Antidote is a hub for cocktails & craveable food. Food Service 11:00 AM – 10:00 PM. Beverage Service 11:00 AM to 12:00 AM.

**Faro & Brag:** Through an imaginative menu curated with your well-being in mind, fresh, seasonal, and local ingredients combine to showcase unique flavors and presentations. Open 6:30 AM – 2:00 PM and 5:00 – 10:00 PM.

## Westin Kierland Resort & Spa Address

6902 E. Greenway Parkway, Scottsdale, AZ 85254  
Phone: (480)-624-1000.

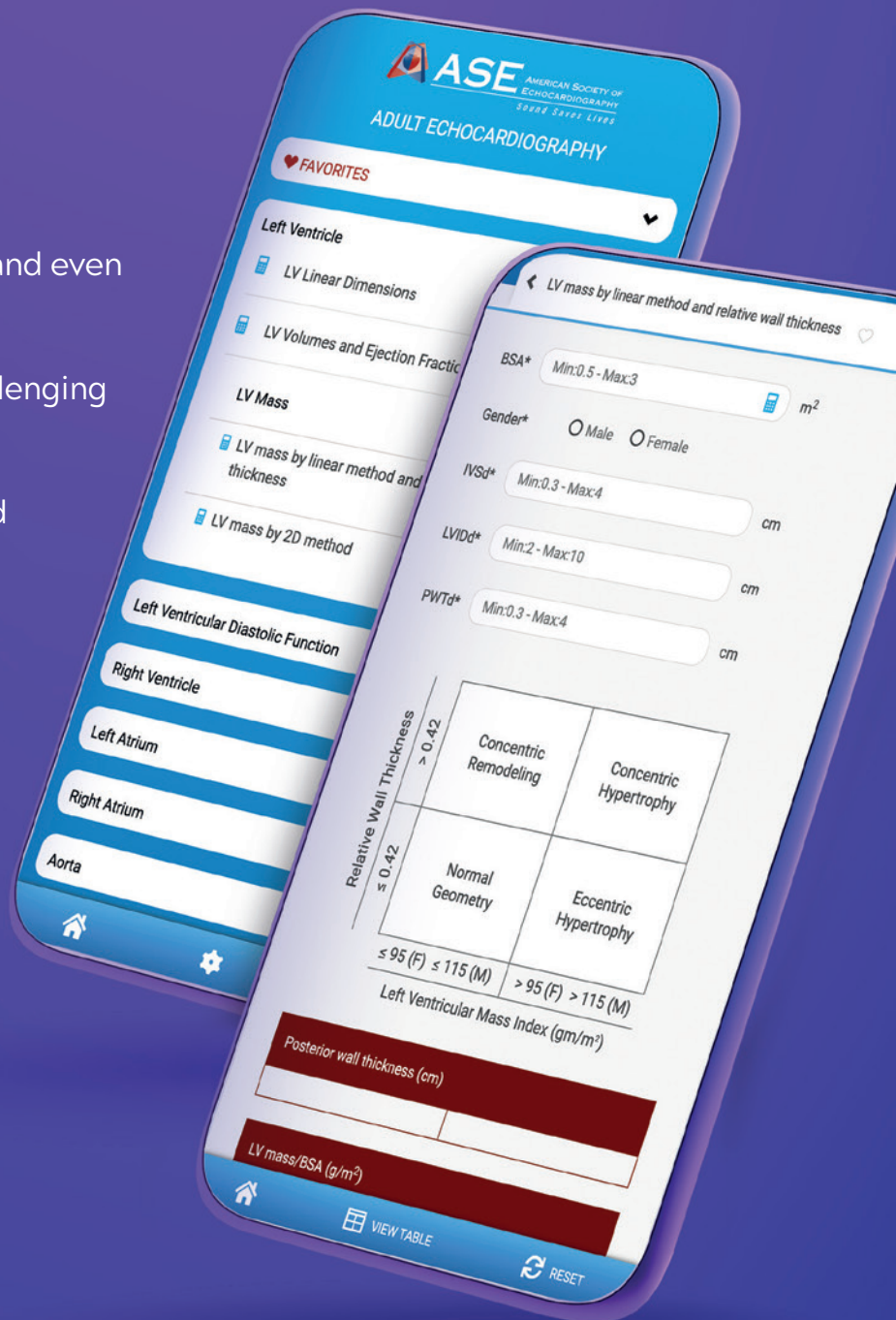
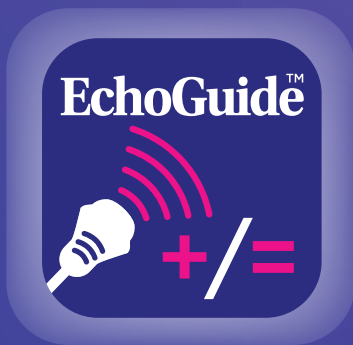


# DOWNLOAD THE NEW ASE GUIDELINE CALCULATOR AND ALGORITHM APP.

Available now for FREE in the Apple and Google Play app stores

## EchoGuide™

- Works on smartphones, tablets, and even includes a web-based interface.
- Quick access to common and challenging echo measurements and values.
- Calculators and algorithms based on the most popular guidelines published by ASE.





# Schedule of Events

## FRIDAY, FEBRUARY 14, 2025

### LEARNING LAB: DAY 1 (additional fee required)

Moderators: J. Betz, S. Mankad

Herberger Ballroom 3

7:00 AM	<b>Registration, Breakfast, and Visit Exhibits</b> Herberger Foyer West and Herberger Ballroom 1 & 2
7:50 AM	<b>Welcome, Objectives, and Introductions</b> <i>R. Lang, M. Umland</i>
8:00 AM	<b>Introduction to Computers and Software</b> <i>M. Umland</i>
8:15 AM	<b>2D Assessment of Left Ventricular Systolic Function, Left Atrium, and Introduction to 3D</b> <i>E. Kruse, R. Lang, M. Yamat</i>
9:00 AM	<b>Basic Left Ventricular Diastolic Function and Cases</b> <i>D. Ignatowski, R. Jain, B. Madalinski, M. Umland</i>
9:45 AM	<b>3D Echo for Left Ventricular Systolic Function</b> <i>E. Kruse, R. Lang, M. Yamat</i>
10:30 AM	<b>Refreshment Break and Visit Exhibits</b> Herberger Ballroom 1 & 2
10:45 AM	<b>Conventional Measurements of Right Ventricular Systolic Function Including Right Ventricular Strain</b> <i>N. Enger, J. Fosland, S. Mankad</i>
11:30 AM	<b>Basic Left Ventricular Strain Measurements</b> <i>D. Ignatowski, R. Jain, C. Kramer, M. Umland</i>
12:15 PM	<b>Lunch Break and Visit Exhibits</b> Herberger Ballroom 1 & 2
1:15 PM	<b>Quantification of Aortic and Mitral Regurgitation</b> <i>N. Enger, J. Fosland, C. Kramer, S. Mankad</i>
2:00 PM	<b>3D Echocardiography for Mitral Disease</b> <i>E. Kruse, R. Lang, M. Yamat</i>
2:45 PM	<b>Aortic Stenosis: Measurements for Native and Prosthetic Valves</b> <i>N. Enger, J. Fosland, S. Mankad</i>
3:30 PM	<b>Refreshment Break and Visit Exhibits</b> Herberger Ballroom 1 & 2
3:45 PM	<b>Advanced Diastolic Cases, Including Constriction vs. Restriction</b> <i>D. Ignatowski, R. Jain, C. Kramer, B. Madalinski</i>
4:30 PM	<b>Crop 'til You Drop I: 3D Cases 1</b> <i>E. Kruse, R. Lang, M. Yamat</i>
5:15 PM	<b>Adjourn</b>

## SATURDAY, FEBRUARY 15, 2025

### LEARNING LAB: DAY 2 (additional fee required)

Moderators: R. Lang, M. Umland

Herberger Ballroom 3

7:00 AM	<b>Registration, Breakfast, and Visit Exhibits</b> Herberger Foyer West and Herberger Ballroom 1 & 2
8:00 AM	<b>Advanced Left Ventricular Strain: Amyloid, Hypertrophic Cardiomyopathy, and Other Thick Walls</b> <i>N. Enger, J. Fosland, C. Kramer, S. Mankad</i>
8:45 AM	<b>3D Echocardiography for Tricuspid Valve Disease</b> <i>E. Kruse, R. Lang, M. Yamat</i>
9:30 AM	<b>Refreshment Break and Visit Exhibits</b> Herberger Foyer

9:45 AM	<b>Structural Heart Cases and Measurements</b> <i>D. Ignatowski, R. Jain, B. Madalinski, M. Umland</i>
10:45 AM	<b>Crop 'til You Drop I: 3D Cases 2</b> <i>E. Kruse, R. Lang, S. Mankad, M. Yamat</i>
11:45 AM	<b>Wrap Up, Question and Answer</b> <i>R. Lang, S. Mankad, M. Umland</i>
12:00 PM	<b>Adjourn – Lunch Break and Visit Exhibits</b> Herberger Ballroom 1 & 2

## MAIN CONFERENCE

### GENERAL ECHO TOPICS

Moderators: N. Enger, S. Mankad

Herberger Ballroom 3

1:00 PM	<b>Welcome and Course Introduction</b> <i>B. Mackensen, S. Mankad</i>
1:05 PM	<b>Presidential Address: State of ASE</b> <i>T. Abraham</i>
1:10 PM	<b>Echo Assessment of Left Ventricular Systolic Function in 2025</b> <i>M. Picard</i>
1:25 PM	<b>Important Role of Contrast Enhanced Echocardiography: Case Based Learning</b> <i>S. Mankad</i>
1:45 PM	<b>Echocardiography for Diastolic Function: Shifting Paradigms, Going Beyond the Guidelines</b> <i>M. Saric</i>
2:05 PM	<b>POCUS: Focus on Lung Ultrasound and Determining Fluid Responsiveness</b> <i>S. Mankad</i>
2:25 PM	<b>Question and Answer: Panel Discussion</b>
2:45 PM	<b>Refreshment Break and Visit Exhibits</b> Herberger Ballroom 1 & 2

### GENERAL TOPICS II

Moderators: J. Fosland, V. Rigolin

Herberger Ballroom 3

3:00 PM	<b>Echocardiography for Right Ventricular Function: Basic and Advanced Methods</b> <i>R. Lang</i>
3:25 PM	<b>Stress Echocardiography for Valvular Heart Disease: Go with the Flow!</b> <i>L. Gillam</i>
3:45 PM	<b>Stress Echocardiography Cases: Read with a Master</b> <i>V. Sorrell</i>
4:05 PM	<b>Multimodality Imaging in Cardiomyopathies of Varying Etiologies</b> <i>S. Lester</i>
4:25 PM	<b>Question and Answer: Panel Discussion</b>
4:45 PM	<b>Adjourn</b>
5:00 PM	<b>Welcome Reception with Faculty Ask Anything You Want!</b> <i>Sponsored by Visura</i> Light appetizers and drinks in Herberger Ballroom 1 & 2

# Schedule of Events

## SUNDAY, FEBRUARY 16, 2025

7:00 AM **Registration, Breakfast, and Visit Exhibits**  
Herberger Foyer West and Herberger Ballroom 1 & 2

### VALVULAR HEART DISEASE: PART I

Moderators: *L. Gillam, C. Kramer*  
Herberger Ballroom 3

7:30 AM **Aortic Stenosis: Tips and Tricks in the Assessment of Severity in Different Hemodynamic Subsets**  
*V. Rigolin*

7:50 AM **Imaging for TAVR: How to Assess Paravalvular Leak and Complications**  
*R. Jain*

8:10 AM **Echo/Doppler for Identification of Aortic Prosthetic Valve Dysfunction**  
*M. Saric*

8:30 AM **Image Guidance for Transcatheter Treatment for Dysfunctional Aortic Prosthesis**  
*G. Mackensen*

8:50 AM **Question and Answer: Panel Discussion**

### VALVULAR HEART DISEASE: PART II

Moderators: *B. Madalinski, M. Picard*  
Herberger Ballroom 3

9:05 AM **Assessment of Aortic Regurgitation**  
*V. Sorrell*

9:25 AM **Mitral Regurgitation: Understanding Mechanisms and Pitfalls of Quantification**  
*L. Gillam*

9:45 AM **Echocardiography Guidance for MitraClip Procedures: Simple and Complex Cases**  
*K. Belani*

10:05 AM **Paravalvular Leak: Identification and Guidance of Closure**  
*N. Kelly*

10:25 AM **Question and Answer**

10:40 AM **Refreshment Break and Visit Exhibits**  
Herberger Ballroom 1 & 2

### VALVULAR HEART DISEASE: PART III

Moderators: *E. Kruse, S. Mankad*  
Herberger Ballroom 3

11:10 AM **Echocardiography for Mitral Stenosis**  
*S. Mankad*

11:30 AM **Assessment for Mitral Prosthetic Dysfunction**  
*V. Rigolin*

11:50 AM **Imaging for Mitral Valve-in-Valve Procedures**  
*G. Mackensen*

12:10 PM **Echo for Tricuspid Valve Pathology, Including Pacemaker Lead Impingement and Quantification of Regurgitation Severity**  
*R. Lang*

12:30 PM **Question and Answer**

12:45 PM **Lunch Break and Visit Exhibits**  
Herberger Ballroom 1 & 2

### IMAGING POTPOURRI: PART I

Moderators: *R. Lang, M. Yamat*  
Herberger Ballroom 3

1:45 PM **Multimodality Imaging in Valvular Heart Disease**  
*N. Kelly*

2:15 PM **Echocardiography for Complications of Myocardial Infarction**  
*S. Mankad*

2:25 PM **Echocardiography for Constriction and Tamponade**  
*M. Picard*

2:45 PM **Malignant Mitral Valve Prolapse: Echo Features and Management**  
*R. Jain*

3:05 PM **Question and Answer**

3:20 PM **Refreshment Break and Visit Exhibits**  
Herberger Ballroom 1 & 2

### VALVULAR HEART DISEASE: PART II

Moderators: *C. Kramer, S. Mankad*  
Herberger Ballroom 3

3:35 PM **Echocardiography for Infective Endocarditis**  
*R. Jain*

3:55 PM **Echo for Guidance of Left Atrial Appendage Closure**  
*K. Belani*

4:15 PM **Echocardiography for Tricuspid Valve Structural Procedures**  
*N. Kelly*

4:35 PM **Question and Answer**

4:45 PM **Structural Heart Disease Cases: Read with the Experts**  
Panelists: *L. Gillam, R. Jain, V. Rigolin, M. Saric, N. Kelly, G. Mackensen*

5:15 PM **Adjourn**



## MONDAY, FEBRUARY 17, 2025

7:00 AM **Registration, Breakfast, and Visit Exhibits**  
Herberger Foyer West and Herberger Ballroom 1 & 2

### MYOCARDIAL MECHANICS AND CARDIOMYOPATHY I

Moderators: *J. Fosland, L. Safi*  
Herberger Ballroom 3

7:30 AM **Strain Imaging: Basics, Quality Control, and Precision**  
*S. Mankad*

7:50 AM **Clinical Applications of Strain Imaging, including Cardio-Oncology and Valve Disease**  
*A. Narang*

8:10 AM **Echocardiography for Cardiac Amyloidosis and other Restrictive Cardiomyopathies**  
*V. Sorrell*

8:30 AM **Left Atrial Strain: What is it? How to Measure? Added Value?**  
*R. Lang*

8:50 AM **Question and Answer**  
*All Presenters*

### CARDIOMYOPATHY II AND MISCELLANEOUS TOPICS

Moderators: *N. Enger, N. Quader*  
Herberger Ballroom 3

9:00 AM **Echocardiography for Hypertrophic Cardiomyopathy**  
*R. Jain*

9:20 AM **Cardiac Masses**  
*M. Picard*

9:40 AM **Echocardiography: Name that Systemic Disease!**  
*L. Safi*

10:00 AM **Echo for Cardiac Source of Embolism**  
*M. Saric*

10:20 AM **Refreshment Break and Visit Exhibits**  
Herberger Ballroom 1 & 2

10:40 AM **Challenging Structural Heart Disease Cases**  
Moderators: *J. Forsland, B. Mackensen*  
Panelists: *R. Jain, N. Kelly, M. Saric, S. Mankad, A. Narang, N. Quader*

11:40 AM **Lunch Break and Visit Exhibits**  
Herberger Ballroom 1 & 2

12:30 PM **Discover AMVUTTRA® (vutrisiran): A Treatment Option for the Polyneuropathy of hATTR Amyloidosis**  
*Provided by Alnylam*  
Herberger Ballroom 3  
*R. Ghashghaei*

1:30 PM **Break**

2:00 PM **Challenging Valve Cases**  
Herberger Ballroom 1 & 2  
Moderator: *S. Mankad*  
Panelists: *L. Gillam, M. Saric, R. Jain*  
Speakers: *N. Enger, J. Fosland, D. Ignatowski, C. Kramer, B. Madalinski, M. Umland*

### MISCELLANEOUS TOPICS

Moderators: *C. Kramer, V. Sorrell*  
Herberger Ballroom 3

3:00 PM **Artificial Intelligence (AI) in Echocardiography: "I Think, Therefore I Am"**  
*A. Narang*

3:20 PM **Imaging for Acute Aortic Syndromes**  
*N. Quader*

3:40 PM **Perioperative Echocardiography: Case Studies of the Unexpected**  
*K. Belani, G. Mackensen*

3:45 PM **Closing Remarks**  
*B. Mackensen, S. Mankad*

4:00 PM **Adjourn**





# Exhibitor Information

## Exhibit Location and Hours

Exhibits are located in Herberger Ballroom 1 & 2 during the dates and hours listed below.

Friday, February 14..... 7:00 AM – 3:45 PM

Saturday, February 15..... 7:00 AM – 6:00 PM

Sunday, February 16..... 7:00 AM – 3:35 PM

Monday, February 17 ..... 7:00 AM – 2:00 PM

## Exhibitor Descriptions

### Alnylam Pharmaceuticals

300 Third Street  
Cambridge, MA 02142  
617-551-8200  
Alnylam.com  
Amvuttra.com



Since its founding, Alnylam has led the translation of RNA interference (RNAi) into a new class of approved and investigational medicines for rare genetic, cardio-metabolic, hepatic infectious, and central nervous system (CNS)/ocular diseases. Based on Nobel Prize-winning science, RNAi therapeutics are a clinically validated approach for the treatment of rare diseases with unmet medical need and prevalent diseases. Alnylam is headquartered in Cambridge, MA. For more information, please visit [Alnylam.com](http://Alnylam.com).

### AstraZeneca

1800 Concord Pike  
Wilmington, DE 19850  
AstraZeneca.com



### Bristol Myers Squibb

3401 Princeton Pike  
Lawrenceville, NJ 08648  
800-332-2056  
BMS.com



Bristol Myers Squibb is a leading global biopharma company focused on discovering, developing and delivering innovative medicines for patients with serious diseases in areas including oncology, hematology, immunology, cardiovascular, fibrosis and neuroscience.

### Canon Medical Systems USA

2441 Michelle Drive  
Tustin, CA 92780  
815-341-8875

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Canon Medical Systems USA, Inc. is a global leader in medical imaging technology, offering CT, MR, X-Ray, Ultrasound, and Healthcare IT products and solutions. The company markets, sells, distributes, and services radiology and cardiovascular systems equipment. Canon Medical provides integrated diagnostic solutions through long-term, customer-focused partnerships to improve the quality of life for all people.

### Edwards Lifesciences

1 Edwards Way  
Irvine, CA 92614  
Edwards.com



Edwards Lifesciences is the leading global structural heart innovation company, driven by a passion to improve patient lives. Through breakthrough technologies, world-class evidence and partnerships with clinicians and healthcare stakeholders, our employees are inspired by our patient-focused culture to deliver life-changing innovations to those who need them most. Discover more at [Edwards.com](http://Edwards.com) and follow us on LinkedIn, Facebook, Instagram and YouTube.

### FUJIFILM Healthcare Americas Corporation

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Lexington, MA 02421  
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**Lantheus**  
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Bedford, MA 01730  
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**Medtronic**  
710 Medtronic Parkway  
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612-812-7477  
[Medtronic.com/us-en/index.html](http://Medtronic.com/us-en/index.html)



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Siemens Healthineers pioneers breakthroughs in healthcare. For everyone. Everywhere. Sustainably. Our mission is clear: to empower healthcare providers on their journey towards expanding precision medicine, transforming care delivery, and enhancing patient experiences through the digitalization of healthcare. We are passionately committed to revolutionizing the healthcare industry. Through our cutting-edge technologies and services we strive to enable healthcare providers to deliver superior patient care.

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[VisuraTechnologies.com](http://VisuraTechnologies.com)



Visura is delivering the world's first, FDA-cleared disposable camera that seamlessly connects to a transesophageal echocardiogram (TEE) probe, TEECAD providing physicians with real-time visualization during intubation and promoting more efficient and effective probe placement.

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Matt M. Umland, ACS, RDCS  
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Renuka Jain, MD, FASE (Medtronic: Consultant/Advisor)  
Brianna Madalinski, BS, RDCS, RVT, FASE (Medtronic)  
G. Burkhard Mackensen, MD, PhD, FASE (Abbott: Consultant/Advisor)  
Michael Picard, MD, FASE (Tectonics Therapeutics: Consultant/Advisor, Vertex Pharmaceuticals: Consultant/Advisor)  
Natesa Pandian, MD (Bristol Meyers Squibb: Speaker/Speaker's Bureau, Lantheus: Speaker/Speaker's Bureau)  
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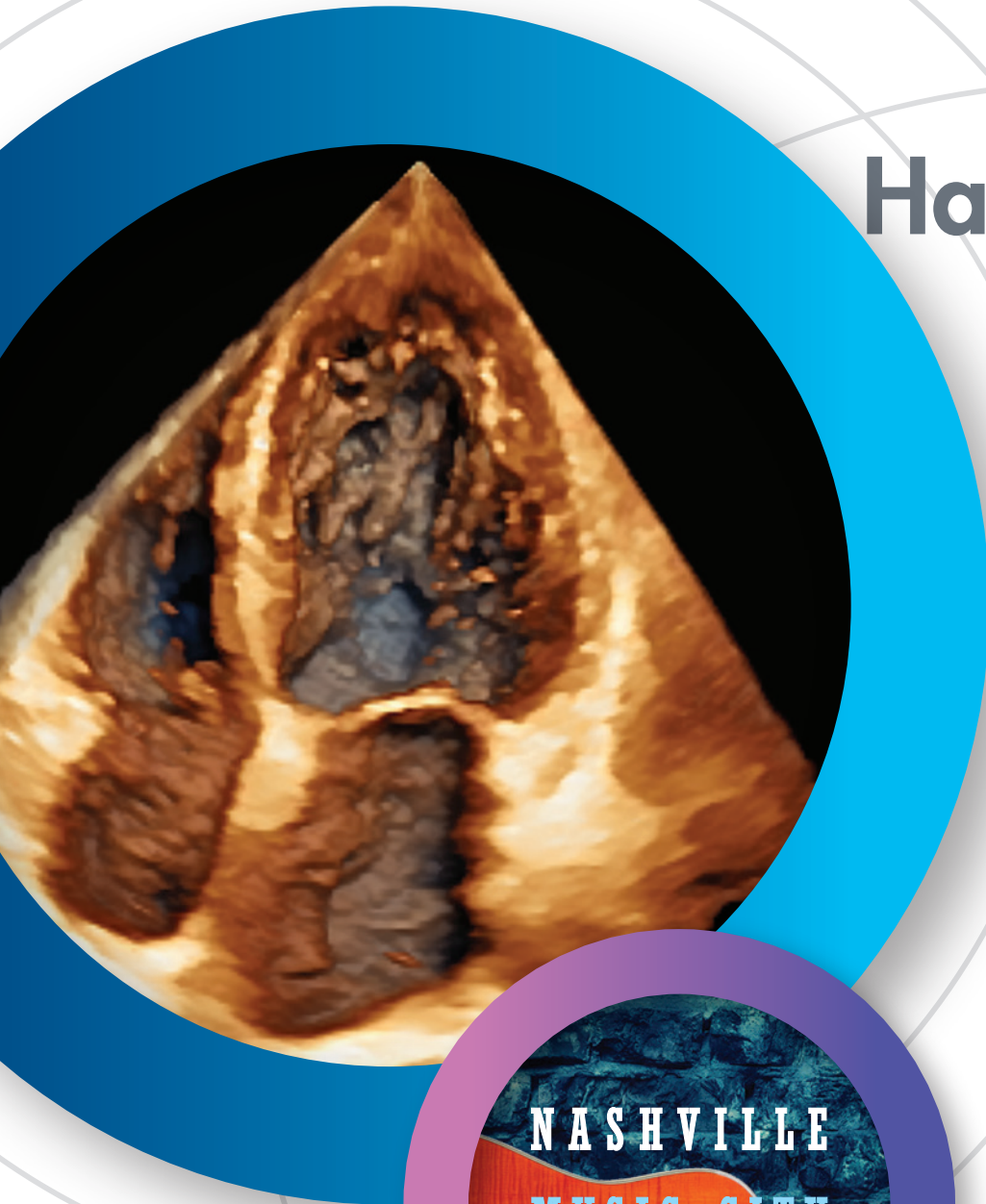
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