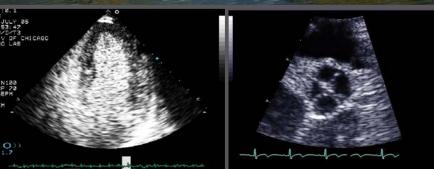
State-of-the-Art ECHOCARDIOGRAPHY: ECHO SOUTHWEST







FINAL PROGRAM February 13-16, 2016

Preconference Sessions February 12-13, 2016

Hilton Tucson El Conquistador Golf & Tennis Resort, Tucson, AZ

Course Director

Steven J. Lester, MD, FASE Mayo Clinic Scottsdale, AZ

Co-Director & Learning Lab Director Bijoy K. Khandheria, MD, FASE Past President, ASE Aurora Healthcare Milwaukee, WI

Learning Lab Co-Director

Roberto M. Lang, MD, FASE Past President, ASE University of Chicago Chicago, IL





Faculty

Welcome Message

Welcome to the 29th Annual State-of-the Art Echocardiography conference, a premier program organized by the American Society of Echocardiography.

In keeping with past tradition, we continue to have first-rate physicians and sonographers presenting a broad range of echo-related topics to enhance your clinical practice. Upon completion of this course you should have a "state-of-the-art" knowledge of clinical echocardiography including 3D and myocardial or strain imaging and their practical applications. Unique this year will be live scanning where you will be able to view both the images acquired while simultaneously viewing the ultrasound machine. This will allow you to gain an understanding not only of why, but how one acquires "state-of-the-art" 3D and strain images. There will be a symposium where cardiologists, surgeons and sonographers discuss medical, percutaneous, and surgical options for patients with valve disorders. You will have the opportunity to view some of these procedures being done and gain an understanding of what may be required during the procedure and to review how we should be following these patients after their procedure. Although the American Board of Internal Medicine has made changes to their Maintenance of Certification (MOC) requirements, participating physicians need to take and pass an exam every 10 years, earn 100 MOC points every five years, and complete some MOC activity every two years. Therefore, as in the past, there will be a Maintenance of Certification (MOC) session that will allow for credit towards ABIM recertification.

Arizona is beautiful this time of year allowing for outdoor activities in a comfortable environment. The location for our conference, the Hilton Tucson El Conquistador Golf & Tennis Resort, is a magnificent property which offers numerous indoor and outdoor activities for you and your family to enjoy.



Welcome to Tucson and the 29th Annual State-of-the-Art: Echo Southwest conference!

Steven Lester, MD, FASE

Course Director Mayo Clinic Arizona Scottsdale, AZ

Course Director

Steven J. Lester, MD, FASE Mayo Clinic Scottsdale, AZ

Co-Director & Learning Lab Director

Bijoy K. Khandheria, MD, FASE

Past President, American Society of Echocardiography Aurora Healthcare Milwaukee, WI

Learning Lab Co-Director

Roberto M. Lang, MD, FASE

Past President, American Society of Echocardiography University of Chicago Chicago, IL

Faculty

Robert Bonow, MD Northwestern University Chicago, IL

Keith A. Collins, MS, RDCS University of Chicago Medical Center Chicago, IL

William K. Freeman, MD, FASE Mayo Clinic Rochester, MN

Christopher J. Kramer, BA, RDCS, FASE Aurora Healthcare Milwaukee, WI

Sunil Mankad, MD, FASE Mayo Clinic Rochester, MN

Patrick McCarthy, MD Northwestern University Chicago, IL Vera H. Rigolin, MD, FASE Northwestern University Chicago, IL

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

Sanjiv J. Shah, MD Northwestern University Chicago, IL

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

Susan Wilansky, MD, FASE Mayo Clinic Scottsdale, AZ



Program Information

Overview of State-of-the-Art Echocardiography

The 29th Annual State-of-the-Art Echocardiography: Echo Southwest is not only in a fantastic new location for 2016, but the content has also been revitalized to focus on new technologies and techniques. The faculty will provide expertise on strain imaging, 3D echocardiography, valve disease, and intervention. Live imaging will allow attendees to watch experts perform these new imaging techniques. Particular attention will be paid to knobology and how to incorporate these techniques into practice.

This course will allow participants to spend time viewing a recorded case and reviewing complications. As patients become more familiar with valve disease and intervention and more centers are performing these complicated procedures, it is important for practitioners to become more comfortable with diagnosis, intervention, and monitoring.

Target Audience

State-of-the-Art Echocardiography: Echo Southwest's 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

- 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 perivalvular leak closure
- Perform a 3D acquisition and measurement of biventricular size and function; and have a better understanding of the "knobology"
- Assess left ventricular function with state-of-the-art echocardiographic technology including strain imaging

Preconferences (Additional fees required for the Learning Lab and Maintenance of Certification sessions. Please visit the ASE Registration Desk to check availability.)

Learning Lab (additional fee required)

A learning lab will be offered a full day on Friday, February 12 and a half day on Saturday, February 13, 2016. This workshop requires separate registration and is a part of the total hours of educational content offered at the course.

This intimate workshop features easy access to faculty members. Individual computer workstations are provided for an interactive learning experience. Participants will get hands on experience manipulating images and learning how to quantitate fundamental aspects of clinical echocardiography. The small group environment allows the opportunity for nearly private instruction from top practitioners in the field. This program is intended for those with a basic knowledge of echocardiography, not beginners.

Topics to be covered include:

- Basic Hemodynamics
- Advanced Hemodynamics
- ASE Guidelines on 2D
- ASE Guidelines on Valvular Regurgitation, Valvular Stenosis. Cases on which to do measurements with the instructors. Learn the potential sources of errors and, how to avoid them.
- The Right Ventricle
- Cardio-Oncology
- Diastolic Function
- Basic and Advanced 3D Imaging
- Myocardial Mechanics with Speckle Tracking
- Measurements for TAVR, MitraClip
- Cases to Interpret with the Faculty
- Simulation of Being in a Reading Room Sonographer Physician Team

Maintenance of Certificaiton Session: Case-based Learning (additional fee required)

This session is a case-based cardiovascular ultrasound activity, which highlights several key topic areas through a study of clinical patient scenarios provided and analyzed by field experts. Topics covered will include new technology, artifacts, valvular heart disease, ventricular size and function, coronary artery disease, cardiomyopathies, congenital heart disease, Doppler, diastolic function, pericardial disease, stress echocardiography, and cardiac masses. Registrants will be given access to an online module to claim MOC credit after the live session.

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.

Disclosure

ASE is committed to ensuring that its educational mission, and all sponsored educational programs are not influenced by the special interests of any corporation or individual, and its mandate is to retain only those speakers whose financial interests can be effectively resolved to maintain the goals and educational integrity of the program. While a monetary or professional affiliation with a corporation does not necessarily influence a speaker's presentation, the Essential Areas and policies of the ACCME require that any relationship that could possibly conflict with the educational value of the program be resolved prior to the educational session and disclosed to the audience. In accordance with these policies, ASE implemented mechanisms prior to the planning and implementation of this CME activity to identify and resolve conflicts of interest for all individuals in a position to control content. Disclosure information is referenced and can be found beginning on page 11 of this program.

Accreditation and Designation

This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing



Medical Education through the joint providership of the American Society of Echocardiography and the American Society of Echocardiography Education and Research Foundation. The American Society of Echocardiography is accredited by the ACCME to provide continuing medical education for physicians.

The American Society of Echocardiography designates State-of-the-Art Echocardiography: Echo Southwest for a maximum of **38.75** *AMA PRA Category 1 Credits*[™] for attending both the Main Conference and Learning Lab and a maximum of **29.5** *AMA PRA Category 1 Credits*[™] for attending both the Main Conference and the Maintenance of Certification session. Attendees should claim only the credit commensurate with the extent of their participation in the activity.

ASE designates the State-of-the-Art Echocardiography: Echo Southwest Learning Lab for maximum of 13 hours, the Maintenance of Certification session for 3.75 hours, and a maximum of 25.75 hours for the for the Main Conference. Attendees must be registered for the Learning Lab to claim full credit.

Daily breakdown of CME credits:

February 12, 2016=8.25February 13, 2016=9February 14, 2016=8.5February 15, 2016=9February 16, 2016=4

Successful completion of this CME activity enables the participant to earn a up to **38.75 MOC points in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program**. Participants will earn

MOC points equivalent to the amount of CME credits claimed for the activity. It is the CME activity provider's responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

ARDMS, CCI, and 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 American Society of Echocardiography is committed to ensuring that its educational mission and all educational programs are not influenced by the special interests of any corporation or individual, and its mandate is to retain only those speakers whose financial interests can be effectively resolved to maintain the goals and educational integrity of the program. While a monetary or professional affiliation with a corporation does not necessarily influence a speaker's presentation, the Essential Areas and policies of the ACCME require that any relationships that could possibly conflict with the educational value of the program be resolved prior to the educational session and disclosed to the audience.

Commercial Support Disclosure

Educational Grants: This activity is supported in part by unrestricted educational grants from Abbott Vascular, Actelion, Edwards Life Sciences, GE Healthcare, Lantheus Medical Imaging, and Medtronic.

In-Kind Donations: This activity is supported in part by in-kind donations from: FUJIFILM, GE Healthcare, Hitachi Aloka Medical America, Philips Healthcare, and Siemens Healthcare.



Registration Location and Hours

Attendee registration is located in the Presidio Foyer.

Friday, February 1	2, 2016	6:00 am – 5	5:00 pm

Saturday, February 13, 2016...... 6:30 am - 6:10 pm

Sunday, February 14, 2016, through Tuesday, February 16, 2016, the registration desk will be open during all session hours.

How to Obtain CME

To claim your CME for State-of-the-Art, 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 18, 2016**.

- 1. **ASE Members:** Go to ASEcho.org and log on to the Member Portal with your username (email) and password.
 - a. Click on **ASEUniversity and CME Credits** (This will take you directly to your ASEUniversity profile).
- 2. **Non-Members:** Go to ASEUniversity.org and create a new account or log into your existing account.
- 3. Once logged into ASEUniversity, the top of the page should say, "Hello, ____." Click "Your Account."
- 4. Under "Your Account" click on "Add Access Code" and enter the code "SOTA2016"
- 5. Verify your registration information. Please be sure to use information that you used to register for the event.
- 6. Once verified, click "**Take Evaluation**" to claim your CME credit. CME credits are not earned until the entire evaluation has been completed.
- 7. Your certificate will be available for immediate download and can also be found under "Your Account" in the "CE Transcript."

Food Functions

ASE will provide breakfast and coffee breaks for registered attendees in the Turquoise Ballroom from 6:30 am until the start of the session each morning.

Lunch will be provided for registered attendees of the main conference in the Turquoise Ballroom on Sunday, February 14 and Monday, February 15. Lunch times vary. Please refer to the program schedule for times.

Please join us for the Celebrating the Southwest Member Reception Sunday evening, February 14 from 5:30 – 6:30 pm, and enjoy drinks and hors d'oeuvres. ASE will also hold the 29th Annual State-of-the-Art Echocardiography: Echo Southwest Networking Reception on Monday evening, February 15 from 5:30 – 6:30 pm.

Please refer to the program schedule for the times of the daily coffee breaks. The Hilton Tucson El Conquistador Golf & Tennis Resort offers their guests a variety of dining options. Please see Location Information (page 7) for more details.

Internet Access

Attendees of the course receive complimentary internet in their guest rooms at the Hilton El Conquistador. There is no Internet access in the meeting room.

Business Center

The Hilton Tucson El Conquistador's Business Center is furnished with up-tothe-minute technology including computers, printers, photocopiers, and high speed wireless internet access. Additional services include faxing, courier, and secretarial assistance.

Cell Phone Use

Cell phones should not be used in the educational sessions. For consideration of faculty and other attendees, please remember to turn your cell phones and other electronic devices off or set to vibrate mode.

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 29th Annual State-of-the-Art Echocardiography: Echo Southwest, 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.

ASE reserves the rights to all recordings or reproductions at ASE meetings. Please be aware that during the 29th Annual State-of-the-Art Echocardiography: Echo Southwest, 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.

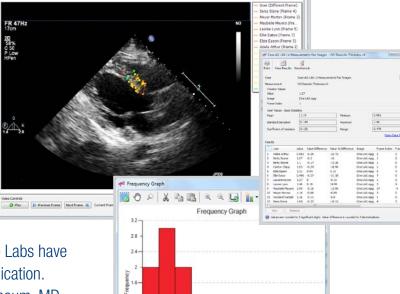
Children

ASE does not offer childcare services. Due to limited seating capacity and the highly technical nature of this program, children are not allowed to attend the educational session. For their safety, children must be accompanied by an adult at all times when attending the course events.

Echo Test and Teach Application

The American Society of Echocardiography (ASE) and Ke Labs have collaborated to co-develop the Echo Test and Teach Application. Designed through the expert guidance of Harvey Feigenbaum, MD, FASE, and founder of ASE, this tool was produced to ensure quality and consistency of cardiac ultrasound image review as well as to educate users on interesting cases and new techniques. Features and benefits:

- Serves as a training tool to enhance the skills of sonographers and physicians in the measurement and interpretation of cardiac ultrasound images (echocardiograms)
- » Supports quality improvement standards, including variability and correlation between different modalities in the measurement and interpretation of cardiac ultrasound images
- » Facilitates and enhances patient care



» Offers a hands-on, real-world training experience without being tied to an imaging device

0.8

0.4

» User results can be analyzed and viewed individually or as a group

14

- Includes preloaded case studies covering multiple areas created by experts in the field
- » New case studies can be added by an institution
- » Includes analytic tools to enable administrators to analyze collective results
- » Supports the fulfillment of accreditation requirements
- » Can be applied to any area of medical imaging
- » Cloud-based so users can access the software anytime and anywhere

Visit ASEcho.org/Echo-Test-and-Teach for more information or to schedule a FREE demo.

> American Society of Echocardiography 919-297-7166 etat@asecho.org ASEcho.org



Tucson

Tucson is surrounded by five mountain ranges, and the resort rests in the shadow of the Santa Catalina Mountains under the warm southwestern sun. What makes the city so special is that despite being a growing metropolis, it still retains its friendly, typically Arizonan, western charm. Discover 19th century architecture, or visit local Tucson attractions like Tohono Chul Park, Catalina State Park, or Biosphere 2.

Delve into the wonder of the natural world at Arizona-Sonora Desert Museum, enjoy a narrated tram ride through the Sabino Canyon, or hike one of the many trails at Saguaro National Park. And don't forget, however you choose to spend your visit, the concierge team will be delighted to assist and ensure your stay is unforgettable.

Networking and Social Opportunities

Celebrating the Southwest Member Reception: Join us for drinks and hors d'oeuvres on Sunday evening, February 14 from 5:30 – 6:30 pm, in the Sundance Cafe & Courtyard while enjoying this wonderful location in the Southwest.

Networking Reception: ASE cordially invites you and your guests to the 29th Annual State-of-the-Art Echocardiography: Echo Southwest Networking Reception on Monday evening, February 15 from 5:30 – 6:30 pm in the Turquoise Ballroom. This casual reception offers you the perfect opportunity to meet faculty, and visit with exhibitors, friends, and colleagues.

Hilton Tucson El Conquistador Golf & Tennis Resort Dining Options

Conquistador Lounge: With one of the most impressive views in Tucson, the Conquistador Lounge proudly serves Starbucks coffee favorites in the mornings while serving as the perfect spot to enjoy a cocktail in the evening.

Epazote Kitchen and Cocktails: Epazote (pronounced 'e - puh - zo - tay') is a herb used in Southwestern cuisine to add a spicy, earthy flavor. At Epazote Chef de Cuisine Jonathan Kupper delivers fresh, simple and yet robustly flavored dishes featuring ingredients from the finest local growers, ranchers, vintners, and brewers every evening from 4:00 - 10:00 pm. There are also breathtaking views of the 5,300 foot cliffs of Pusch Ridge from the Epazote dining room and patio.

Sundance Café: Sundance Café features a Southwestern style menu for breakfast and lunch from 6:30 am - 1:30 pm daily. The café features two lifesize copper saguaro cacti, as well as live cacti and vivid green ivy plants. It offers casual dining and friendly service in a comfortable setting. Breakfast ranges from traditional American favorites to regional Southwestern specialties.

Desert Springs Grill: Located poolside at the resort, this casual, seasonal restaurant serves lunch and a large variety of tropical drinks. Swimsuits welcome! Inquire upon check-in for hours of operation.

Hilton Tucson El Conquistador Golf & Tennis Resort Ammenities

ASE attendees staying at the Hilton Tucson El Conquistador Resort have access to the following amenities at no charge:

- Daily use of fitness facilities and fitness center
- 1 hour use of putting green per day
- 1 hour use of driving range per room per day
- 1 hour of tennis court usage per room per day
- 2 hours of mountain bike usage per room per day
- Expanded shuttle service to Oro Valley Marketplace shipping and dining district



FRID	AY,	FEBI	RUARY	12,	2016

Coronado Ballroom	
6:30 am	Registration
6:30 am	Breakfast
	AB (additional fee required)
Coronado Ball	room
7:00 am	Introduction to Learning Lab and Software R. Lang, B. Khandheria, M. Ulmland
7:30 am	ASE Guidelines on Chamber Quantification. What is New? Measuring LV Dimensions, LA Volume, Aorta R. Lang, M. Ulmland
8:30 am	Aortic Stenosis, Mitral Stenosis: Essential Measurements B. Khandheria, C. Kramer
9:30 am	Mitral Regurgitation, Aortic Regurgitation: Assess Morphology, Calculating Severity Using 2D, 3D, Doppler, and Color Flow <i>R. Lang, K. Collins</i>
10:30 am	Refreshment Break
10:45 am	Advanced Hemodynamics: Diastology B. Khandheria, C. Kramer
11:45 am	The Right Heart: Measurements and Hemodynamics <i>R. Lang, K. Collins</i>
12:45 pm	Lunch for Learning Lab Attendees
1:45 pm	Prosthetic Valve: Listen, Look, Learn B. Khandheria, M. Ulmland
2:45 pm	Myocardial Strain Imaging: Taking the Stress Out R. Lang, C. Kramer
3:45 pm	Refreshment Break
4:00 pm	Click, Crop, Slice, and Dice: 3D for Advanced Imagers R. Lang, K. Collins
5:00 pm	Question and Answer All faculty
5:15 pm	Adjourn



SATURDAY, FEBRUARY 13, 2016

6:30 am	Registration		
6:30 am	Breakfast		
	LEARNING LAB (additional fee required) Coronado Ballroom		
7:00 am	Cases, Cases, Cases: Some You See, Some You Miss But Should Not Pathognomonic Features, Technical Errors, Unusual Presentation, Artifacts B. Khandheria, R. Lang, M. Umland, C. Kramer, K. Collins		
9:45 am	Refreshment Break		
10:00 am	Unforgettable Mysteries B. Khandheria, R. Lang, M. Umland, C. Kramer, K. Collins		
11:30 am	Question and Answer All faculty		
12:00 pm	Adjourn		

MAINTENANCE OF CERTIFICATION
Presidio Ballroor8:00 amCase-Based Learning MOC — Part 1
S. Shah, M. Saric, V. Rigolin10:00 amRefreshment Break10:15 amCase-Based Learning MOC — Part 2
S. Shah, M. Saric, V. Rigolin12:00 pmAdjourn

MAIN CONFERENCE Presidio Ballroom	
1:00 pm	Welcome S. Lester
1:05 pm	President's Welcome S. Wiegers
MITRAL RE	GURGITATION
Moderator, S	. Lester
1:15 pm	Echocardiographic Evaluation of Degenerative Mitral Regurgitation <i>R. Lang</i>
1:40 pm	Get with the Guidelines: When Should I Refer to a Surgeon? R. Bonow
2:05 pm	Surgery for Degenerative Mitral Valve Disease: What Should Be Done? What Can Robots Do? <i>P. McCarthy</i>
2:30 pm	Classic Debate: Chronic Primary Mitral Regurgitation Early Surgical Intervention vs. Watchful Waiting Early Intervention, <i>W. Freeman</i> Watchful Waiting, <i>R. Bonow</i>
3:00 pm	Case-based Review of Secondary Mitral Regurgitation: How Do I Define the Severity? When Should I Refer for an Intervention? V. Rigolin, R. Bonow, P. McCarthy
3:50 pm	Refreshment Break and Visit Exhibits

4:10 pm	The Mitral Clip: For Whom and What Do I as an Echocardiographer Need to Do to Support the Decision? <i>B. Khandheria</i>
4:35 pm	Case: Mitral Valve Repair Intervention: Why Was the Clip Procedure Chosen? I Have Never Seen a MitraClip Procedure, Show Me What Happens and What is the Echocardiographer's Role? <i>B. Khandheria, S. Mankad</i>
5:10 pm	What Do I as an Echocardiographer Need to Do Post MitraClip? How Do I Quantitate the Severity of Residual Regurgitation? V. Rigolin
5:30 pm	Cases: Why is the Valve Leaking and What Should I Do: Surgery, Clip, or Watchful Waiting? S. Mankad, B. Khandheria, V. Rigolin
6:10 pm	Adjourn

SUNDAY, FEBRUARY 14, 2016	
6:30 am	Registration
6:30 am	Breakfast and Visit Exhibits
SUNRISE SE	SSION: ECHO IN SYSTEMIC DISEASE
Moderator, M	I. Saric
7:00 am	Carcinoid M. Saric
7:15 am	Sarcoid V. Rigolin
7:30 am	Amyloidosis S. Shah
7:45 am	Mystery V. Rigolin
8:00 am	Adjourn

AORTIC VALVE DISEASE

Moderator, S. Lester

8:00 amEchocardiographic Evaluation of Aortic Stenosis S. Lester8:25 amWhat You Should Know: When Should We Refer for Valve Replacement? R. Bonow8:55 amAortic Stenosis: Area Gradient Mismatch S. Lester9:20 amEchocardiographic Evaluation of Aortic Regurgitation W. Freeman9:45 amWhat You Should Know: When Should I Refer to a Surgeon? R. Bonow10:10 amSurgical Considerations for Aortic Valve Disease: What is the Best Operation? P. McCarthy10:40 amRefreshment Break and Visit Exhibits	,.	
Valve Replacement? R. Bonow8:55 amAortic Stenosis: Area Gradient Mismatch S. Lester9:20 amEchocardiographic Evaluation of Aortic Regurgitation W. Freeman9:45 amWhat You Should Know: When Should I Refer to a Surgeon? R. Bonow10:10 amSurgical Considerations for Aortic Valve Disease: What is the Best Operation? P. McCarthy	8:00 am	01
S. Lester9:20 amEchocardiographic Evaluation of Aortic Regurgitation W. Freeman9:45 amWhat You Should Know: When Should I Refer to a Surgeon? R. Bonow10:10 amSurgical Considerations for Aortic Valve Disease: What is the Best Operation? P. McCarthy	8:25 am	Valve Replacement?
W. Freeman 9:45 am What You Should Know: When Should I Refer to a Surgeon? R. Bonow 10:10 am Surgical Considerations for Aortic Valve Disease: What is the Best Operation? P. McCarthy	8:55 am	
Surgeon? <i>R. Bonow</i> 10:10 am Surgical Considerations for Aortic Valve Disease: What is the Best Operation? <i>P. McCarthy</i>	9:20 am	
What is the Best Operation? P. McCarthy	9:45 am	Surgeon?
10:40 am Refreshment Break and Visit Exhibits	10:10 am	What is the Best Operation?
	10:40 am	Refreshment Break and Visit Exhibits

11:00 am	How Do I Evaluate a Patient Being Considered for TAVR? <i>M. Saric</i>
11:25 am	I Have Never Seen a TAVR Being Done: Show Me What Happens and What is the Echocardiographer's Role? S. Mankad
11:50 am	Post TAVR: What Do I Need to Do for Long-Term Follow-up? How Do I Assess the Severity of Residual Regurgitation if Any? S. Mankad
12:15 pm	Cases: TAVR Complications, What Should I Be Looking for? <i>M. Saric</i>
12:30 pm	Lunch and Visit Exhibits
PROSTHETI	C VALVES
PROSTHETI Moderator, V	
Moderator, V.	<i>Rigolin</i> Echocardiographic Evaluation of an Aortic Valve Prosthesis

	V. Rigolin
2:35 pm	The Evaluation of Mitral Periprosthetic Regurgitation: When to Intervene? What Does the Echocardiographer Need to Do to Determine if it Can Be Repaired Percutaneously? S. Mankad
3:00 pm	I Have Never Seen a Percutaneous Repair of a Periprosthetic Leak, Show Me How They Do This, Show Me What Happens and What is the Echocardiographer's Role? <i>R. Lang</i>
3:20 pm	Refreshment Break and Visit Exhibits
3:45 pm	Cases of Abnormal Prosthetic Valves S. Mankad, V. Rigolin, S. Wilansky
4:30 pm	Endocarditis: You Wrote the Chapter in Branuwald.

4:30 pm	Tell Us What We Need to Know? W. Freeman
5:00 pm	Question and Answer All faculty
5:20 pm	Adjourn

5:20 pm	Adjourn
5:30 pm	Celebrating the Southwest Member Reception Sundance Cafe & Courtyard

MONDAY, FEBRUARY 15, 2016

6:30 am	Registration				
6:30 am	Breakfast and Visit Exhibits				
SUNRISE SESSION: CONTRAST ECHOCARDIOGRAPHY					
Moderator, M. Umland					
7:00 am	What Echocardiographic Contrast Agents Are There? C. Kramer				
7:15 am	How Should it Be Administered and How Do I Optimize My Machine Settings? K. Collins				
7:30 am	I Hear Contrast is Not Safe, Is That True? R. Lang				
7:40 am	How Should I Set Up My Lab So That Contrast Can Be Used Efficiently? <i>M. Umland</i>				
7:55 am	Adjourn				

LEFT AND RIGHT VENTRICLE WITH LIVE SCANNING

Moderator, S. Lester

8:00 am	The Left Ventricle: What and How Should We Quantify its Size and Function? <i>R. Lang</i>
8:25 am	Myocardial Imaging: Strain in the Assessment of Left Ventricular Function S. Lester
9:00 am	Strain Imaging: Show Me How You Do it; Live Scanning with Step by Step Approach <i>M. Umland, S. Lester</i>
9:50 am	Cases: How Did Advanced Echocardiographic Imaging (Strain) Help in the Diagnosis and/or Management of This Patient <i>B. Khandheria</i>
10:05 am	3D Imaging of the LV: Show Me How You Do it; Live Scanning with Step by Step Approach <i>R. Lang, C. Kramer</i>
10:45 am	Refreshment Break and Visit Exhibits
11:00 am	How Should I Evaluate Right Ventricular Size and Function? R. Lang
11:25 am	Echocardiography: A PA Catheter in a Box S. Lester
11:50 am	3D Imaging of the Right Ventricle: Show Me How You Do it; Live Scanning with Step by Step Approach <i>K. Collins, R. Lang</i>
12:30 pm	Lunch and Visit Exhibits
Moderator, R	R. Lang
1:30 pm	Tricuspid Valve: Why is it Leaking and How Much? <i>B. Khandheria</i>
1:55 pm	3D Imaging of the Tricuspid Valve: Does it Really Help Me? <i>R. Lang</i>
2:20 pm	3D Imaging of the Tricuspid Valve: Show Me How You Do It; Live Scanning with Step by Step Approach

3:00 pm	Live Scanning Questions: What Would You Like To See Again R. Lang, B. Khandheria, K. Collins			
3:30 pm	Refreshment Break and Visit Exhibits			
Moderator, S	. Wilansky			
3:50 pm	The Echocardiographic Evaluation of Left Ventricular Diastolic Function <i>S. Wilansky</i>			
4:15 pm	Heart Failure with a Preserved Ejection Fraction: A Clinician's Perspective S. Shah			
4:40 pm	Diastolic Function: Case Studies S. Shah, S. Wilanksy			
5:30 pm	Adjourn			
5:30 pm	Networking Reception Turquoise Ballroom			

TUESDAY, FEBRUARY 16, 2016

Moderator, S. Lester				
6:30 am	Registration			
7:30 am	Breakfast and Visit Exhibits			
8:00 am	The Watchman Device: For Whom and What Images Will the Interventionalist Ask Me For? <i>B. Khandheria</i>			
8:25 am	I Have Never Seen A Watchman Device Implanted, Show Me How They Do This, Show Me What Happens and What is the Echocardiographer's Role? <i>B. Khandheria</i>			
SPECIAL TO	PICS IN ECHOCARDIOGRAPHY			
8:50 am	Acute Aortic Syndromes W. Freeman			
9:15 am	The Role of Stress Testing in Valvular Heart Disease <i>S. Wilansky</i>			
9:40 am	Mitral Stenosis: Evaluation and Management; I Am Interested In Knowing How You Manage Stenosis When it is Secondary to Annular Calcification? S. Mankad			
10:05 am	Pericardial Disease: Tamponade and Constriction S. Shah			
10:30 am	Refreshment Break and Visit Exhibits			
10:45 am	Cardio-Oncology: What is the Role of the Echo Lab, and How Does the Echo Help in Management Decisions B. Khandheria			
11:10 am	A Clinician's Perspective on Pulmonary Hypertension S. Shah			
11:35 am	Hypertrophic Cardiomyopathy: Evaluation and Differential Diagnosis W. Freeman			
12:00 pm	Questions and Summary All Faculty			
12:15 pm	Adjourn			

Exhibit Location and Hours

Exhibits are located in the Turquoise Ballroom during the dates and hours listed below.

Saturday, February 13 1	:00 pm – 6:10 pm
Sunday, February 14 6	::30 am – 5:30 pm
Monday, February 15 6	:30 am – 6:30 pm
Tuesday, February 16 6	:30 am – 12:15 pm

Exhibitor Descriptions



Mastering the art of interpretation

Digisonics 3701 Kirby Drive Houston, TX 77098 United States Phone: 713-529-7979 digisonics.com

For over 40 years, Digisonics has provided a standards-based and vendorneutral cardiovascular information system solutions for all cardiovascular modalities. Digisonics solutions maximize efficiency by integrating and automating the entire complex workflow resulting in maximum productivity.



Epsilon Imaging 3917 Research Park Drive Suite B7 Ann Arbor, MI 48108 United States Phone: 734-369-5100 epsilon-imaging.com

As a provider of workflow enhancing visualization and analysis software with strain imaging, Epsilon Imaging is transforming cardiac diagnostic workflow with a vendor neutral suite of applications designed for clinical echocardiography. Echolnsight assists clinicians with innovative visualization and analysis that enhances, standardizes, and streamlines analysis, interpretation and monitoring of echo. Learn more at www.epsilon-imaging.com.



Freeland Systems 12850 Hwy 9 N, Suite 600-443 Alpharetta, GA 30004 United States Phone: 888-615-1888 freelandsystems.com

AccessPoint Suite of products offer traditional in-house PACS products along with cloud-based storage, disaster recovery, and our browserbased PACS solution – cPac Pro. Additionally, AccessPoint BacPac serves as a network gateway integrating disparate products, directing data traffic to local or cloud-based storage devices, and providing a Nuance Powerscribe 360 reporting interface.



GE Healthcare 9900 Innovation Drive Wauwatosa, WI 53226 United States Phone: 570-861-0782

gehealthcare.com

GE's "healthymagination" vision for the future invites the world to join us on our journey as we continuously develop innovations focused on reducing costs, increasing access and improving quality and efficiency around the world. GE Healthcare is committed to serving healthcare professionals and their patients.



Hitachi Aloka Medical 10 Fairfield Blvd. Wallingford, CT 06492 United States Phone: 203-269-5088 hitachi-aloka.com

We are proud of the reputation we have built as an industry leader in diagnostic ultrasound. Known for our unparalleled image quality, superior system reliability and intuitive use of cutting edge technology, we remain the ideal choice for exceptional diagnostic ultrasound imaging in the field of cardiovascular medicine.





Lantheus Medical Imaging, Inc. 331 Treble Cove Road North Billerica, MA 01862 United States Phone: 800-362-2668 lantheus.com

Lantheus Medical Imaging, a global leader in developing, manufacturing, selling and distributing innovative diagnostic imaging agents primarily used for the diagnosis of cardiovascular diseases, is headquartered in North Billerica, Massachusetts, with offices in Puerto Rico, Canada and Australia.

PHILIPS

Philips Healthcare 22100 Bothell Everett Highway Bothell, WA 98031 **United States** Phone: 425-487-7000 philips.com/epiq

Philips is one of the world's leading healthcare technology companies. We are committed to understanding the technological and human needs of patients and caregivers and to delivering solutions that enable more confident diagnoses, more efficient delivery of care, and more positive user experiences.

SIEMENS

Siemens Medical Solutions, USA **40 Liberty Boulevard** Malvern, PA 19355 **United States** Phone: 888-826-9702 usa.healthcare.siemens.com/ultrasound

Siemens is one of the world's largest suppliers to the healthcare industry. It is a renowned medical solutions provider with competence and innovative strength in diagnostic and therapeutic technologies. Siemens Healthcare delivers solutions across the entire continuum of care from prevention and early detection, to diagnosis, therapy and care.



Wolters Kluwer 3013 E. South Fork Drive Phoenix, AZ 85048 **United States** Phone: 480-390-2613 wolterskluwer.com

Wolters Kluwer is the proud publisher of the Journals of the American Heart Association, including Circulation: Cardiovascular Imaging. We offer a full range of specialized books, journals and electronic media. Visit us today.

American Society of Echocardiography (ASE) 2100 Gateway Centre Boulevard, Suite 310, Morrisville, NC 27560, United States Phone: 1-919-861-5574, Fax: 1-919-882-9900, ASEcho.org



Stay up-to-date

with ASE

connect.asecho.org



asecho



American Society of Echocardiography

Faculty Disclosures

The following faculty members do not have any relationships with industry/commercial supporters to disclose:

Robert Bonow, MD Keith Collins, MS, RDCS, FASE William Freeman, MD, FASE Bijoy Khandheria, MD, FASE Chris Kramer, BA, RDCS, FASE Steven Lester, MD, FASE Sunil Mankad, MD, FASE Vera Rigolin, MD, FASE Partho Sengupta, MBBS, MD, DM, FASE Sanjiv Shah, MD, FASE Matt Umland, RDCS, FASE Susan Wilansky, MD, FASE

The following faculty members do have financial relationships with industry/commercial supporters to disclose:

Roberto Lang, MD, FASE- Philips Medical Systems (Consultant, Advisor; Research Grant Support (including PI); Speaker / Speaker's Bureau)

Patrick McCarthy- Abbott Vascular (Consultant/ Advisor); Edwards Lifesciences (Consultant, Advisor; Royalty, Patents)

Muhamed Saric, MD, PhD, FASE- Medtronic (Speaker/ Speaker's Bureau); Philips (Speaker/ Speaker's Bureau)

The following members of the ASE CME Committee, Education Committee and Board of Directors (not serving as faculty) do not have any relationships with industry/commercial supporters to disclose:

Karima Addetia, MD, Deborah Agler, RCT, RDCS, FASE, Gerard Aurigemma, MD, FASE, Jeanne Marie Baffa, MD, FASE, Daniel Bourque, MS, RCS, FASE, Renee Bullock-Palmer, MD, FASE, Sheila Carroll, MD, Hollie Carron, RDCS, FASE, Faroog Chaudhry, MD, FASE, Karen Chin, BS, RCS, FASE, Patrick Coon, RCCS, RDCS, FASE, Amanda Dillon, RDCS, Benjamin Eidem, MD, FASE, Kymberly Glyde, RDCS, FASE, Aasha Gopal, MD, FASE, Brooke Harland, MEd, RDCS, RVT, FASE, Brandy Hattendorf, MD, FASE, Judy Hung, MD, FASE, Soo Hyun Kim, MD, MPH, RPVI, FASE, Joe Kreeger, RCCS, RDCS, FASE, Shelby Kutty, MD, FASE, Georgeanne Lammertin, MBA, RCS, RDCS, FASE, Melissa LeFevre, RDCS, Jennifer Liu, MD, FASE, Leo Lopez, MD, FASE, Praveen Mehrotra, MD, FASE, Raymond Musarra, RDCS, RCS, FASE, Alina Nicoara, MD, FASE, Maryellen Orsinelli, RN, RDCS, FASE, Kim Connors Pace, BS, RDCS, RVT, FASE, Andy Pellett, PhD, RDCS, FASE, Sue Phillip, RCS, FASE, Juan Carlos Plana, MD, FASE, Brad Roberts, RCS, FASE, Zainab Samad, MD, MHS, Elaine Shea, APS, RCS, FASE, Sasha Shillcutt, MD, FASE, Jeffrey Silbiger, MD, FASE, Timothy Slesnick, MD, FASE, Gbemigan Sofowora, MD, Raymond Stainback, MD, FASE, Cynthia Taub, MD, FASE, Ellen Thompson, MD, FASE, Juan Villafane, MD, FASE, Jennifer Warmsbecker, RDCS, FASE, Ronald Wharton, MD, FASE, Timothy Woods, MD, FASE, Danita Yoerger-Sanborn, MD, FASE

The following members of the ASE ACCME/CME Committee, Education Committee and Board of Directors (not serving as faculty) have relationships with industry/commercial supporters to disclose:

Federico Asch, MD, FASE- Medtronic (Research Grant Support); St. Jude Medical (Research Grant Support); Biotronik (Research Grant Support); Sorin Group (Research Grant Support); Boston Scientific (Research Grant Support); Edwards Lifesciences (Research Grant Support); Abbott Vascular (Research Grant Support); Mitralign (Research Grant Support); Direct Flow (Research Grant Support); Xaltis (Research Grant Support)

Meryl Cohen, MD, FASE- Johnson & Johnson (Stock Ownership), Pfizer (Stock Ownership)

Allan Klein, MD, FASE- Bayer (Steering Committee)

Abhay Laddu, MD- Quintiles (Consultant/ Advisor)

Stephen Little, MD, FASE- St. Jude Medical (Research Grant Support); Abbott Structural (Research Grant Support); Medtronic (Research Grant Support)

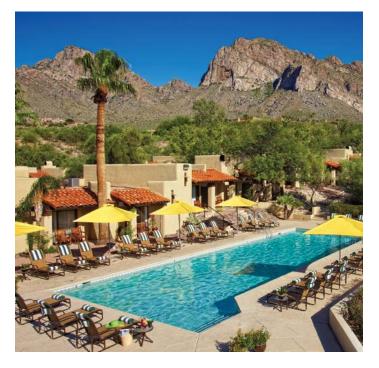
Tasneem Naqvi, MD, FASE- Adagio (Stock Ownership); Panasonic CardioHealth Station (Research Grant Support)

Roman Sniecinski, MD, FASE- Grifols Therapeutics (Heparin sensitivity advisory board)

Susan Wiegers, MD, FASE- Merck (Stock Ownership); Covance (Spouse Employment)

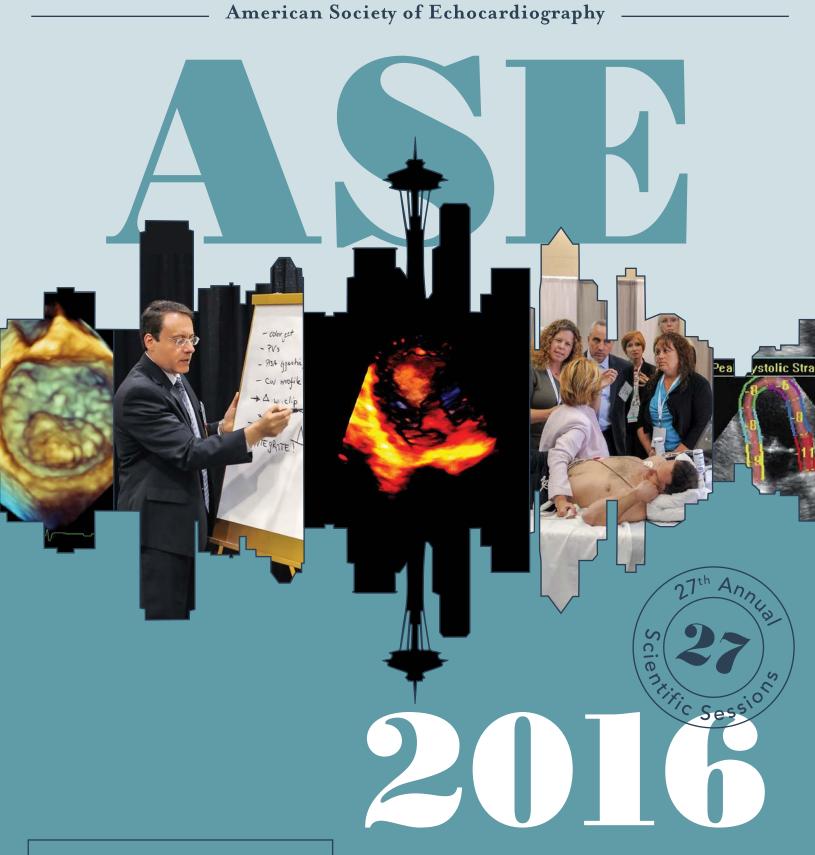
All members of the ASE staff who were involved in the planning and implementation of this activity do not have any relationships with industry/commercial supporters to disclose:

Erin McClure, Meeting Planner Hilary Lamb MPA, Chief Operating Officer Robin Wiegerink MNPL, Chief Executive Officer Ronna Yates, M.Ed., Education and CME Manager



Please save the date!

30th Annual State-of-the-Art Echocardiography: Echo Southwest February 18–21, 2017 Hilton Tucson El Conquistador Golf & Tennis Resort Tucson, AZ



JUNE 10-14

Washington State Convention Center | Seattle, WA

Registration now open!

asescientificsessions.org

GOOD COMPANIES. GOOD WORKS.

ASE would like to thank our Industry Roundtable members.









PHILIPS SIEMENS





