State-of-the-Art ECHOCARDIOGRAPHY: ECHO SOUTHWEST

FINAL PROGRAM
February 18-21, 2017

Optional Learning Lab Session
February 17-18, 2017

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 Medical Center, Chicago, IL

NEW FOR 2017
- Breakout sessions covering new diastolic function guidelines
- TAVR Workshop
- More cases during Learning Lab
Welcome Message

Welcome to the 30th 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 a focused TAVR workshop where you will be immersed in the echo images and measurements required pre-, post-, and intra-procedure. There is a symposium where cardiologists and surgeons discuss medical, percutaneous, and surgical options for patients with valve disorders. You will gain an understanding of what may be required during the procedure and learn how we should be following these patients after their procedure. We have added the ECHO Jeopardy “game show,” a fun and exciting way to review cases and learn.

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 30th Annual State-of-the-Art: Echo Southwest conference!

Faculty

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Steven J. Lester, MD, FASE
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Scottsdale, AZ

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Robert Bonow, MD
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Eric Kruse, RDCS, RVT, FASE
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Sunil Mankad, MD, FASE
Mayo Clinic
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Patrick McCarthy, MD
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Vera H. Rigolin, MD, FASE
President Elect, ASE
Northwestern University
Chicago, IL

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

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

Susan Wilansky, MD, FASE
Mayo Clinic
Scottsdale, AZ
Overview of State-of-the-Art Echocardiography

The 30th Annual State-of-the-Art Echocardiography: Echo Southwest content will focus on new technologies and techniques. The faculty will provide expertise on strain imaging, 3D echocardiography, valve disease, and intervention.

A transcatheter aortic valve replacement workshop on Sunday afternoon offers an in depth exploration of the use of echocardiographic imaging in valve disease. 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

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 left ventricular function with state-of-the-art echocardiographic technology including strain imaging

Learning Lab Session

(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 17 and a half day on Saturday, February 18, 2017. This workshop requires separate registration and is included in the total hours of educational content offered at the course.

This intimate workshop, which is limited to 80 registrants, allows easy access to faculty members. Individual computer workstations are provided to teach each participant 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.

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

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCMER) 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 this live activity for a maximum of 38.25 AMA PRA Category 1 Credits™ for attending the learning lab and main conference. Attendees may receive 29.75 AMA PRA Category 1 Credits™ for attendance of the main conference only. 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 38.25 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 ASE’s responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

Daily breakdown of CME credits:

- Friday, February 17 = 8.50 hours
- Saturday, February 18
  - Learning Lab = 4.50 hours
  - Main Session = 7.75 hours
- Sunday, February 19 = 8.75 hours
- Monday, February 20 = 8.75 hours
- Tuesday, February 21 = 4.50 hours

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).

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).

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.
Disclosure

ASE 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. 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.

Commercial Support Disclosure Statement

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

**In-Kind Donations:** This activity is supported in part by in-kind donations from Epsilon Imaging, FUJIFILM Medical Systems, GE Healthcare, Philips Healthcare, and Siemens Healthineers.

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 23, 2017.

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. **Nonmembers:** 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 “SOTA2017”

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.”

Download the ASE Meetings App!

Stay up-to-date on State-of-the-Art Echocardiography: Echo Southwest and all of ASE’s live educational courses by downloading the free ASE Courses App. Use the app to create your event schedule and receive notifications of special activities and sessions while on-site. You can download it by searching for “ASE Courses.”
Attendee Information & Regulations

Registration Location and Hours

Attendee registration is located in the Presidio Foyer.

Friday, February 17, 2017 ................................................ 6:00 AM – 6:00 PM
Saturday, February 18, 2017........................................... 7:00 AM – 5:30 PM
Sunday, February 19, 2017, through Tuesday, February 21, 2017, the registration desk will be open during all session hours.

Food Functions

ASE will provide breakfast and coffee breaks for registered attendees in the Turquoise Ballroom.

Lunch will be provided for registered attendees of the main conference on Saturday, February 18 – Monday, February 20. Lunch times vary. Please refer to the program schedule for times.

Please join us for a networking reception on Monday evening, February 20 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 6) for more details.

Internet Access

Attendees of the course receive complimentary internet in their guest rooms and meeting space at the Hilton El Conquistador.

Access the internet using the following log in information:

Network: American Society of Echocardiography
Access Code: asecho17

Business Center

The Hilton Tucson El Conquistador’s Business Center is furnished with 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 30th 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. 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 30th 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.
Tucson

Tucson is surrounded by five mountain ranges making it a perfect place to spend some time off the beaten path exploring the wide-open wonder of the Southwest. Wander through the cascades of Seven Falls at Sabino Canyon, discover the beauty of the majestic cacti of Saguaro National Parks, hike the high-pine and aspen forests of Mt. Lemmon, and explore the otherworldly depths of Colossal Cave or Kartchner Caverns.

What makes the city so special is that despite being a growing metropolis, it still retains its friendly, typically Arizonan, western charm. Feed your spirit in the city’s museums and galleries, or travel through time discovering Tucson’s unique cultural legacy. From the masterful 1700s art and architecture of Mission San Xavier del Bac to 300 vintage-to-modern aircraft illuminating a century of military and aerospace history at the Pima Air & Space Museum there is bound to be something of interest to everyone.

Two local events happening in Tucson during Echo Southwest 2017 are:

The Frida Kahlo: Art, Garden, Life exhibition at the Tucson Botanical Gardens. Designed by one of the world’s premier botanical gardens, the New York Botanical Gardens, the Tucson Botanical Gardens was selected as the only institution to receive this extraordinary exhibition. This exhibit examines Kahlo’s work through the lens of the plants and nature in her paintings and her personal gardens. TucsonBotanical.org

The 92nd Annual Tucson Rodeo — La Fiesta de los Vaqueros (Celebration of the Cowboy), is one of the top 25 professional rodeos in North America. Events are scheduled February 18–26, 2017. TucsonRodeo.com.

Networking and Social Opportunities

Networking Reception: ASE cordially invites you and your guests to the 30th Annual State-of-the-Art Echocardiography: Echo Southwest Networking Reception on Monday evening, February 20 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

Colibri Lobby Lounge: Sip on one of the signature cocktails while enjoying a selection of gastropub favorites. Open daily from 11:00 AM – 12:00 Midnight. Social hour 4:00 – 6:00 PM daily.

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 the chef delivers fresh, simple and yet robustly flavored dishes featuring ingredients from the finest local growers, ranchers, vintners, and brewers every evening from 5:00 – 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 life-size 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.

Grab & Go: For a morning Starbucks, breakfast sandwich or anytime salad or sandwich, try our new lobby outlet for a quick bite, snack or beverage. Wine and beer also available. Open daily 6:00 AM – 8:00 PM.

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 Amenities

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 shopping and dining district
# Schedule of Events

## FRIDAY, FEBRUARY 17, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>6:00 AM</td>
<td>Registration</td>
</tr>
<tr>
<td>6:30 AM</td>
<td>Breakfast</td>
</tr>
</tbody>
</table>
| 7:30 AM  | Fundamental/Basic 3D, Myocardial Strain Imaging, Learn Acquisition Techniques, Knobology  
|          | C. Kramer, R. Lang, M. Umland                                          |
| 10:30 AM | Refreshment Break                                                     |
| 11:00 AM | Diastology 101 and Beyond                                             |
|          | B. Khandheria, M. Umland                                              |
| 12:30 PM | Lunch for Learning Lab Attendees                                     |
| 1:30 PM  | Valve Stenosis: Look, Learn, Do                                       |
|          | B. Khandheria, C. Kramer, R. Lang, M. Umland                          |
| 3:30 PM  | Refreshment Break                                                     |
| 4:00 PM  | Valve Regurgitation                                                   |
|          | E. Kruse, R. Lang                                                     |
| 6:00 PM  | Adjourn                                                               |

## OPENING SESSION: VALVE DISEASE

### Moderator: S. Lester

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>8:15 AM</td>
<td>President’s Welcome</td>
</tr>
<tr>
<td></td>
<td>A. Klein</td>
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<tr>
<td>8:30 AM</td>
<td>Course Director’s Welcome</td>
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<tr>
<td></td>
<td>S. Lester</td>
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<tr>
<td>9:00 AM</td>
<td>Echocardiographic Evaluation of the Tricuspid Valve</td>
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<tr>
<td></td>
<td>M. Saric</td>
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<tr>
<td>9:25 AM</td>
<td>When Should We Intervene on the Tricuspid Valve and How?</td>
</tr>
<tr>
<td></td>
<td>P. McCarthy</td>
</tr>
</tbody>
</table>
| 9:55 AM  | Valvular Heart Disease: Uncommon Etiologies (Radiation, Systemic Diseases, and Drugs)  
|          | W. Freeman                                                            |
| 10:20 AM | Refreshment Break and Visit Exhibits                                  |
|          | Turquoise Ballroom                                                   |
| 10:35 AM | Intraoperative Echocardiography                                       |
|          | S. Mankad                                                             |
| 11:00 AM | Read With the Experts: Review Interesting and Complex Cases from Across the Country  
|          | W. Freeman, S. Mankad, M. Saric, S. Wilansky                          |
| 12:00 PM | Lunch and Visit Exhibits                                              |
|          | Turquoise Ballroom                                                   |

## SATURDAY, FEBRUARY 18, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:00 AM</td>
<td>Registration and Breakfast</td>
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</tbody>
</table>
| 8:00 AM  | Cardiomyopathy: Hypertrophic Cardiomyopathy, Left Ventricular Non-Compaction  
|          | B. Khandheria, C. Kramer, M. Umland                                   |
| 10:00 AM | Applying Strain Imaging                                               |
|          | B. Khandheria, C. Kramer, M. Umland                                   |
| 11:00 AM | Refreshment Break                                                     |
| 11:30 AM | 3D Imaging                                                            |
|          | E. Kruse, R. Lang                                                     |
| 1:00 PM  | Adjourn                                                               |

## SATURDAY, FEBRUARY 18, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>1:00 PM</td>
<td>Echocardiographic Evaluation of Primary Mitral Regurgitation</td>
</tr>
<tr>
<td></td>
<td>R. Lang</td>
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<tr>
<td>1:25 PM</td>
<td>When Is It Time to Intervene?</td>
</tr>
<tr>
<td></td>
<td>R. Bonow</td>
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<tr>
<td>1:50 PM</td>
<td>Surgical Treatment for Primary Mitral Regurgitation: What Can Be Done?</td>
</tr>
<tr>
<td></td>
<td>What Does the Surgeon Want to Do?</td>
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<tr>
<td></td>
<td>P. McCarthy</td>
</tr>
</tbody>
</table>
| 2:15 PM  | When Should We Intervene on a Patient Who Has Secondary Mitral Regurgitation?  
|          | R. Bonow                                                              |
| 2:35 PM  | Surgery for Secondary Mitral Regurgitation: When to Repair vs. Replace  
|          | P. McCarthy                                                           |
| 2:55 PM  | Case-based Review of Mitral Regurgitation: Cases Shown and Discussed  
|          | R. Bonow, W. Freeman, P. McCarthy, V. Rigolin                        |
| 3:30 PM  | Refreshment Break and Visit Exhibits                                  |
|          | Turquoise Ballroom                                                   |
THE MITRACLIP AND WATCHMAN DEVICES
Moderator: B. Khandheria
Presidio Ballroom

3:50 PM  Echo Before the Clip: What Should the Echo Report Include?
M. Saric

4:10 PM  Cases of the MitraClip: Why Was the Clip Chosen? Show Me What I Need to Do During the Procedure?
S. Mankad, V. Rigolin

4:45 PM  The Watchman Device: Who Is This For? What Images and Measurements Do We Need to Provide for the Interventionalist?
B. Khandheria

5:10 PM  Cases: Intraprocedural Echo Guidance, What Do I Need to Do?
B. Khandheria, S. Mankad

5:30 PM  Adjourn

SUNDAY, FEBRUARY 19, 2017

6:30 AM  Registration
Breakfast and Visit Exhibits

AORTIC VALVE DISEASE
Moderator: S. Lester
Presidio Ballroom

7:30 AM  Echocardiographic Evaluation of Aortic Stenosis
S. Lester

7:55 AM  When Should We Refer for Valve Replacement?
R. Bonow

8:30 AM  Aortic Stenosis: Area Gradient Mismatch
S. Lester

9:00 AM  Echocardiographic Evaluation of Aortic Regurgitation
W. Freeman

9:30 AM  Refreshment Break and Visit Exhibits
Turquoise Ballroom

9:45 AM  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

10:35 AM  Question and Answer
All Faculty

PROSTHETIC VALVES
Moderator: S. Lester
Presidio Ballroom

11:00 AM  Echocardiographic Evaluation of an Aortic Prosthesis
S. Wilansky

11:25 AM  Echocardiographic Evaluation of a Mitral Prosthesis
V. Rigolin

11:50 AM  Question and Answer
All Faculty

12:00 PM  Lunch and Visit Exhibits
Turquoise Ballroom

1:00 – 4:30 PM  TAVR Workshop: Echo Measurements Pre-, Post-, and Intra-Procedure
B. Khandheria, C. Kramer, M. Saric, M. Umland

4:30 PM  Refreshment Break and Visit Exhibits
Turquoise Ballroom

4:45 – 5:45 PM  Echo Jeopardy
Chair: S. Mankad
Team 1: S. Lester, V. Rigolin
Team 2: R. Lang, S. Wilansky
Team 3: B. Khandheria, M. Saric

MONDAY, FEBRUARY 20, 2017

6:30 AM  Registration
Breakfast and Visit Exhibits

SUNRISE SESSION: CONTRAST ECHOCARDIOGRAPHY
Moderator: C. Kramer
Presidio Ballroom

7:00 AM  What Is Echocardiographic Contrast? What Agents Are There?
C. Kramer

7:15 AM  How Should it be Administered and How Do I Optimize My Machine Settings
M. Umland

7:30 AM  I Hear Contrast is Not Safe. Is That True?
M. Saric

7:40 AM  How Should I Set Up My Lab So That Contrast Can Be Used Efficiently?
M. Umland

7:55 AM  Adjourn

LEFT AND RIGHT VENTRICLE
Moderator: R. Lang
Presidio Ballroom

8:00 AM  The Left Ventricle: How Should We Quantify Its Size and Function; Is It Time for 3D in Everyone?
R. Lang

8:30 AM  Myocardial Imaging: Strain in the Assessment of Left Ventricular Function
S. Lester

8:55 AM  Echocardiographic Evaluation of Left Ventricular Diastolic Function
S. Wilansky

9:25 AM  The Silent Epidemic: Diastolic Function and Clinical Outcome
S. Lester

9:45 AM  Cases: Evaluation of Diastolic Function
S. Lester, S. Wilansky

10:30 AM  Refreshment Break and Visit Exhibits
Turquoise Ballroom

10:50 AM  Pericardial Disease: Constriction and Tamponade
B. Khandheria

11:15 AM  How Should I Evaluate Right Ventricular Size and Function?
R. Lang
### TUESDAY, FEBRUARY 21, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
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<tbody>
<tr>
<td>7:00 AM</td>
<td>Registration</td>
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<tr>
<td>7:30 AM</td>
<td>Breakfast and Visit Exhibits</td>
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<tr>
<td>8:00 AM</td>
<td>Stress Echocardiography: Indications, Interpretation, and Prognostication</td>
<td>S. Lester</td>
</tr>
<tr>
<td>8:25 AM</td>
<td>The Role of Stress Testing in Valvular Heart Disease</td>
<td>S. Wilansky</td>
</tr>
<tr>
<td>8:50 AM</td>
<td>Read with the Experts: Cases in Stress Echocardiography</td>
<td>S. Mankad, S. Wilansky</td>
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<tr>
<td>9:45 AM</td>
<td>Hypertrophic Cardiomyopathy: Diagnosis and Management</td>
<td>W. Freeman</td>
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<tr>
<td>10:15 AM</td>
<td>Hypertrophic Cardiomyopathy or Phenocopy?</td>
<td>S. Lester</td>
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<tr>
<td>10:40 AM</td>
<td>Question and Answer</td>
<td>All Faculty</td>
</tr>
<tr>
<td>11:00 AM</td>
<td>Refreshment Break and Visit Exhibits</td>
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<tr>
<td>11:40 AM</td>
<td>Complications of Myocardial Infarction</td>
<td>S. Wilansky</td>
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<tr>
<td>12:05 AM</td>
<td>Acute Aortic Syndromes</td>
<td>W. Freeman</td>
</tr>
<tr>
<td>12:30 PM</td>
<td>Questions and Summary</td>
<td>All Faculty</td>
</tr>
<tr>
<td>12:45 PM</td>
<td>Adjourn</td>
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### BREAK OUT SESSIONS: SMALL GROUPS REVIEWING THE MACHINES AND TECHNIQUES

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
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<tbody>
<tr>
<td>2:30 – 3:20 PM</td>
<td>Strain Imaging: B. Khandheria, M. Umland</td>
<td>Coronado Ballroom</td>
</tr>
<tr>
<td>2:30 – 3:20 PM</td>
<td>Valve Disease: How to Acquire and Crop the Images: S. Mankad, C. Kramer</td>
<td>Joshua Tree Room</td>
</tr>
<tr>
<td>2:30 – 3:20 PM</td>
<td>3D Evaluation of the Left Ventricle: R. Lang, E. Kruse</td>
<td>Presidio Ballroom</td>
</tr>
<tr>
<td>3:30 – 4:20 PM</td>
<td>Group A</td>
<td>Coronado Ballroom</td>
</tr>
<tr>
<td>3:30 – 4:20 PM</td>
<td>Group C</td>
<td>Joshua Tree Room</td>
</tr>
<tr>
<td>3:30 – 4:20 PM</td>
<td>Group B</td>
<td>Presidio Ballroom</td>
</tr>
<tr>
<td>4:30 – 5:20 PM</td>
<td>Group C</td>
<td>Coronado Ballroom</td>
</tr>
<tr>
<td>4:30 – 5:20 PM</td>
<td>Group B</td>
<td>Joshua Tree Room</td>
</tr>
<tr>
<td>4:30 – 5:20 PM</td>
<td>Group A</td>
<td>Presidio Ballroom</td>
</tr>
<tr>
<td>5:30 PM</td>
<td>Networking Reception</td>
<td>Coronado Ballroom</td>
</tr>
<tr>
<td>5:30 PM</td>
<td>Refreshment Break and Visit Exhibits</td>
<td>Joshua Tree Room</td>
</tr>
<tr>
<td>5:30 PM</td>
<td>Refreshment Break and Visit Exhibits</td>
<td>Presidio Ballroom</td>
</tr>
</tbody>
</table>

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Morrisville, NC 27560, United States
Phone: 1-919-861-5574
Fax: 1-919-882-9900
ASEcho.org
Exhibit Location and Hours

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

Saturday, February 18 ........................................ 8:30 AM – 5:30 PM
Sunday, February 19 ............................................ 6:30 AM – 5:45 PM
Monday, February 20 ........................................... 6:30 AM – 6:30 PM
Tuesday, February 21 ........................................... 7:00 AM – 12:45 PM

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