# ECHO FLORIDA





## FINAL PROGRAM October 9-11, 2016

Disney's Grand Floridian Resort and Spa Walt Disney World<sup>®</sup>, FL

#### **Course Director**

Rebecca T. Hahn, MD, FASE Columbia University New York, NY

#### **Course Co-Director**

Gerard P. Aurigemma, MD, FASE University of Massachusetts Worcester, MA

#### **Learning Lab Director**

Deborah A. Agler, ACS, RDCS, FASE Cleveland Clinic Cleveland, OH





## Welcome Message and Faculty

### Welcome Message

Welcome to our 5th Annual Echo Florida course, an educational offering from the American Society of Echocardiography (ASE). The goal of Echo Florida is to introduce the newest applications of echocardiography, while still reviewing the established uses of our technique. There will be numerous case examples highlighting the use of echocardiography for clinical decision making in your practice.

This course is divided into several sections. Saturday we will have two preconference sessions. The first session is a new all-day, interactive learning lab which focuses on measurements of chamber quantitation, systolic and diastolic function, and valvular function. The morning sessions cover basic measurement techniques recommended by the most recent ASE guidelines. The afternoon sessions cover more advanced measurement techniques including tissue Doppler, strain, and 3D modalities.

The second Saturday session, the new 3D Workshop, will be a combination of live scanning with computer based sessions focusing on 3D acquisition techniques, as well as cropping and image display. After introductory lectures and live scanning, the session will break into two separate workshops with different 3D vendors. The workshops will be repeated so attendees can learn the capabilities of these products. These workshops will cover 3D quantification of ventricular size and function, as well as valvular morphology and function.

Our main course, Sunday through Tuesday, will focus on utilization of echocardiography in valve disease, coronary artery disease, heart failure, and a variety of clinical scenarios. We start with a review of general echocardiography, covering the recent guidelines published by ASE. During the valvular heart disease sessions we will cover the hemodynamic assessment of valve disease and also introduce attendees to the role of echocardiography in structural heart disease interventions. The final day will cover important clinical areas in echocardiography with relevant topics such as congenital heart disease, athlete's heart, cardio-oncology, and pulmonary hypertension. Casebased sessions throughout the conference will help highlight the teaching points of the lecture-based presentations. In addition, our Chalk Talks with master teachers will again be offered to those who just cannot get enough. Join award winning ASE educators in an informal session where they will take questions from the audience and discuss any topics that are of interest.

Orlando is a great place to bring your family for fun and entertainment. We hope that Echo Florida will become one of your favorite ASE courses. We welcome your suggestions for future speakers and topics.

Welcome to Orlando. Please plan to join us and the other Echo Florida Faculty at the Networking Reception on Sunday, October 9 at 5:00 PM.



Course Director Rebecca T. Hahn, MD, FASE Columbia University New York, NY



Course Co-Director Gerard P. Aurigemma, MD, FASE University of Massachusetts Worcester, MA



Learning Lab Director **Deborah A. Agler, ACS, RDCS, FASE** Cleveland Clinic Cleveland, OH

## Faculty

Linda D. Gillam, MD, FASE Morristown Medical Center Morristown, NJ

#### Steven A. Goldstein, MD, FASE

MedStar Washington Hospital Center Washington, DC

#### John Gorcsan III, MD, FASE

University of Pittsburgh Pittsburgh, PA

Omar K. Khalique, MD, FASE

Columbia University Medical Center New York, NY

#### Allan L. Klein, MD, FASE

President, ASE Cleveland Clinic Cleveland, OH

Mark J. Monaghan, PhD

King's College Hospital London, United Kingdom

Philippe Pibarot, DVM, PhD, FASE Quebec Heart and Lung Institute

Quebec City, Quebec, Canada

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

Vincent L. Sorrell, MD, FASE University of Kentucky Lexington, KY

Karen Stout, MD University of Washington Seattle, WA

Wendy Tsang, MD University of Toronto Toronto, Ontario, Canada

## **Program Information**

## Overview of Echo Florida

The Echo Florida course is a comprehensive review of cardiovascular ultrasound in clinical practice. The faculty is composed of experts who will discuss the strengths and limitations of established and emerging technologies and illustrate how these technologies can be used to improve and streamline patient care in a cost-conscious manner.

### Target Audience

This course is designed for adult and pediatric cardiologists, cardiovascular surgeons, cardiovascular anesthesiologists, cardiac radiologists, fellows in training, cardiovascular sonographers, cardiovascular nurse specialists, internists, intensivists, and emergency physicians with special interest in clinical cardiology and echocardiography.

### Learning Objectives

#### Learning Lab (Preconference)

Upon completion of these sessions, participants will be better able to:

- 1. Apply ASE guidelines during echocardiography interpretation.
- 2. Demonstrate ability to crop and display 3D echocardiographic data sets.

#### **Main Conference**

Upon completion of these sessions, participants will be better able to:

- 1. Analyze and quantify systolic and diastolic function by echocardiography.
- 2. Recognize indications for echocardiographic contrast agents.
- 3. Interpret stress echocardiograms.
- 4. Appropriately utilize echocardiography in infective endocarditis.
- 5. Quantify valvular regurgitation.
- 6. Classify cardiomyopathies by echocardiography.
- 7. Identify eligible patients for transcatheter aortic valve replacement.
- 8. Recognize and assess the function of percutaneous cardiac devices by echocardiography.
- 9. Describe echocardiographic features of common complex congenital lesions found in adults.
- 10. Explain normal and abnormal findings of prosthetic valve function.

#### Preconferences

## (Additional fees required for the Learning Lab and 3D Workshop. Please visit the ASE Registration Desk to check availability.)

On Saturday, October 8, two preconferences will be offered. The Learning Lab and 3D Workshop run simultaneously.

#### Learning Lab (Saturday 7:45 AM - 5:45 PM)

The Learning Lab is a hands on, computer-based session. The morning sessions will show attendees exactly how to make measurements to assess chamber quantification, systolic and diastolic function, and valvular function. The afternoon sessions will concentrate on advanced imaging techniques of strain imaging and 3D.

#### 3D Workshop (Saturday 1:00 PM - 5:15 PM)

The 3D Workshop is a combination of live scanning and computer based sessions focusing on 3D acquisition techniques as well cropping and image display. After introductory lectures and live scanning, there will be workshops with different 3D vendors. Both vendors will be supplying limited numbers of laptops pre-loaded with 3D examples for hands-on learning. These workshops will cover 3D quantification of ventricular size and function, as well as valvular morphology and function.

#### 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 (ACCME) 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 **30.25** *AMA PRA Category 1 Credits*<sup>™</sup> for attending both the Main Conference and Learning Lab and a maximum of **25.25** *AMA PRA Category 1 Credits*<sup>™</sup> for attending both the Main Conference and the 3D Workshop session. Attendees should claim only the credit commensurate with the extent of their participation in the activity.

ASE designates the Echo Florida Learning Lab for maximum of 8.75 hours, the 3D Workshop for 3.75 hours, and a maximum of 21.5 hours for the for the Main Conference. Attendees must be registered for the Learning Lab to claim full credit.

#### Daily breakdown of CME credits:

Saturday, October 8 Learning Lab = 8.75 hours 3D Workshop = 3.75 hours Sunday, October 9 = 7.25 hours Monday, October 10 = 6.75 hours Tuesday, October 11 = 7.5 hours

## Program Information

Successful completion of this CME activity enables the participant to earn a up to **30.25 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 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.

### 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.

## Commercial Support Disclosure Statement

In-Kind Donations: This activity is supported in part by in-kind donations of devices or software from GE Healthcare, Philips, TOMTEC IMAGING SYSTEMS GMBH, and Siemens Healthineers.

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



## How to Obtain Credit

To claim your CME for Echo Florida, 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 **November 14, 2016**.

- 1. **ASE Members:** Go to ASEcho.org and log on to the Member Portal with your ASE member e-mail and password. If you forget your password, simply click "Retrieve" under the login.
  - a. Click on **ASEUniversity and CME Credits** (This will take you directly to your ASEUniversity member profile).
- 2. **Nonmembers:** Go to ASEUniversity.org and create a new account or log into your existing ASEUniversity 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 " **FLORIDA2016** "
- 5. Verify your registration information. Please be sure to use the same 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**.

## Attendee Information and Regulations

## Registration Location and Hours

The ASE Registration desk is located in the Grand Foyer, located on the main floor of the hotel. ASE staff will be happy to renew your ASE membership or discuss the wide variety of educational products available to you. ASE Members receive a significant discount on DVD's, books, and more. The Registration desk will be staffed during the following hours:

Saturday, October 8, 2016	6:30 AM – 5:45 PM
Sunday, October 9, 2016	6:30 AM – 5:00 PM
Monday, October 10, 2016	6:30 AM – 4:30 PM
Tuesday, October 11, 2016	6:30 AM – 4:00 PM

### Food Functions

ASE will provide breakfast and coffee breaks for all registered attendees in Salons 1-4. Please refer to the program schedule beginning on page 7 for the times.

ASE will provide lunch to all registered Learning Lab attendees on Saturday, October 8 in Salons 1-4. Lunch will be provided to all registered attendees of the main conference Sunday-Tuesday in Salons 1-4.

Disney's Grand Floridian Resort & Spa offers their guests a variety of dining options. Please see page 6 for more details.

### Welcome Reception

ASE cordially invites you to the 5th Annual Echo Florida Attendee Reception on Sunday evening, October 9 from 5:00 - 6:00 PM in Salons 1-4. This is a great opportunity to network with faculty and fellow attendees, while visiting exhibitors.

#### Internet Access

There is complimentary wireless internet available throughout the Disney's Grand Floridian Resort & Spa. Attendees of this course also receive complimentary wireless internet in their guest rooms.

### **Business Center**

The Business Center is located in the Convention Center and is open daily. It offers fax, photo-copier, mail, and computer services.

## 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/or 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 ASE Echo Florida Course, 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. 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 ASE Echo Florida Course, 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.

## Location Information

## Disney's Grand Floridian Resort & Spa

Victorian elegance meets modern sophistication at this bayside Resort hotel. Relax in the lobby as the live orchestra plays ragtime, jazz and popular Disney tunes. Bask on the white-sand beach, indulge in a massage and watch the fireworks light up the sky over Cinderella Castle. Just one stop to Magic Kingdom park on the complimentary Resort Monorail, this timeless Victorian-style marvel evokes Palm Beach's golden era.

Special features include a beach pool with waterslide and kids play area as well as a courtyard pool, a fitness center and jogging paths, a world-class Spa & Health Club, watercraft rentals and fishing excursions at the Marina, a business center, Wi-Fi access throughout convention center and lobby common areas, in-room high speed internet access, monorail service to *Magic Kingdom*<sup>®</sup> Park and *Epcot*<sup>®</sup> and *Magic Kingdom*<sup>®</sup> Resorts, and access to championship golf courses.

### Make Time for the Magic!

As a Disney Resort Guest, you will enjoy special benefits that make your Walt Disney World<sup>®</sup> stay easier and more relaxing than ever. These benefits provide everything from extra time in the Theme Parks and convenient transportation to more magic all around.

#### Purchase Theme Park Tickets in Advance

Available only to meeting attendees, their guests, and family members, Disney's multi-day and half-day Meeting/Convention tickets are designed to fit any agenda and can't be purchased at the Theme Park gates. To receive these special Theme Park tickets, you must purchase online at DisneyURL.com/ef16.

#### Enhanced! Extra Magic Hour Benefit

Each day one of the Theme Parks opens an hour early or stays open up to three hours after regular Park hours for guests staying at select Disney Resorts, giving you even more time to enjoy select attractions before and after your meetings. *Valid Theme Park admission and Walt Disney World*<sup>®</sup> *Resort ID are reguired.* 

#### Convenient Walt Disney World® Transportation

*Disney's Magical Express*<sup>®</sup> is an exclusive complimentary shuttle and luggage delivery service conveniently takes you from the airport directly to your Disney Resort and back again when it's time to return. To book, call 407-827-6777 or visit DisneyURL.com/trans for more information.

During your stay, enjoy the convenience of Disney transportation throughout the Walt Disney World<sup>®</sup> Resort. Just steps from your door, boats and motor coaches are waiting to take you to and from the Theme Parks, Water Parks, the Downtown Disney<sup>®</sup> area, and more.

## **Dining Options**

There are many dining options available at the Grand Floridian Resort & Spa. You will find a variety of styles and price ranges to suit your tastes. Many other options are available on the Walt Disney World Resort via monorail, ferry, or a short bus ride.

1900 Park Fare – Breakfast and dinner in a relaxed atmosphere.

**Citricos** – Simple and sophisticated American cuisine infused with Mediterranean flavors, such as seafood, steaks, pasta, and vegetarian options.

**Gasparilla Island Grill** – Casual dining restaurant serving hot breakfast daily, and made-to-order grill items until 11:30 PM.

 ${\bf Grand}\ {\bf Floridian}\ {\bf Café}$  – This casual, light-filled restaurant serves American fare and overlooks the lovely gardens and pool.

**Narcoossee's** – Seafood and steaks with grand views of the shimmering lakeshore.

**Victoria & Albert's** – Disney's premier restaurant, Victoria & Albert's is a five-diamond masterpiece, featuring a custom menu that changes daily.

Mizner's Lounge, Citricos Lounge, Courtyard Pool Par, and Beaches Pool Bar – full service lounges.



## Schedule of Events

Saturday,	October 8, 2016	
Learning I	Lab (additional fee required)	
St. Augustine	D	
7:00 AM	Breakfast	
7:45 AM	Introduction to the Learning Lab D. Agler	
8:15 AM	Basic Measurements: Left Ventricular Dimensions, Volume, Ejection Fraction, Left Atrial Volume, Mitral Valve Planimetry J. Gorcsan	
9:15 AM	Basic Doppler: Aortic Stenosis Continuity, Mitral Stenosis, Pressure Half-time, Stroke Volume, Cardiac Output, Right Ventricular Systolic Pressure L. Gillam	
10:15 AM	Refreshment Break	
10:45 AM	Basic Diastology D. Agler, G. Aurigemma	
11:45 AM	<b>Quantitation of Regurgitation: Vena Contracta,</b> <b>Proximal Isovelocity Surface Area</b> <i>D. Agler, O. Khalique</i>	
12:15 PM	Lunch	
1:15 PM	Diastolic Cases and Hemodynamics D. Agler, G. Aurigemma	
2:15 PM	<b>3D: Cropping, Quantifying Volume, and Depicting Pathologies</b> <i>O. Khalique</i>	
3:30 PM	Refreshment Break	
3:45 PM	<b>Strain</b> D. Agler, J. Gorcsan	
4:45 PM	Final Exam: Interpret, Quantify, and Prepare a Full Report D. Agler, G. Aurigemma	
5:45 PM	Adjourn	
<b>3D Workshop: From Basic to Advanced</b> (additional fee required) Salons 5-9		
1:00 PM	Cardiac Anatomy Learning the Basics for 3D R. Hahn	
1:30 PM	Introduction to 3D Acquisition: Live Demo W. Tsang	
2:00 PM	Vendor Specific 3D Solutions for Valvular Disease W. Tsang	
2:30 PM	Vendor Specific 3D Solutions for Valvular Disease R. Hahn	

3:30 PM	Vendor Specific 3D Solutions for the Left Ventricle O. Khalique
4:00 PM	Vendor Specific 3D Solutions for the Left Ventricle R. Hahn
4:30 PM	How to Incorporate 3D Into Your Lab W. Tsang
4:45 PM	Advances in 3D: What to Expect in the Future R. Hahn
5:00 PM	Question & Answer
5:15 PM	Adjourn
Sunday. O	ctober 9, 2016
Salons 5-9	
7:00 AM	Breakfast and Visit Exhibits
	Salons 1-4
7:45 AM	Welcome R. Hahn
7:50 AM	President's Address A. Klein
General E	chocardiography: All the Tools You Need
8:00 AM	Chamber Quantification Guidelines Update I:
0.007	L. Gillam
8:25 AM	Chamber Quantification Guidelines Update II: Right Heart Measurements S. Goldstein
8:50 AM	Strain, Strain Rate, and Torsion: Myocardial Mechanics Simplifi ed and Applied J. Gorcsan
9:10 AM	<b>2016 ASE Diastolic Function Guidelines: Relax!</b> <i>G. Aurigemma</i>
9:40 AM	Echo Hemodynamics: Stroke Volume, Intracardiac Pressure and Vascular Resistance L. Gillam
10:00 AM	Question and Answer
10:15 AM	Refreshment Break and Visit Exhibits
	Salons 1-4
10:45 AM	<b>3D Echo: Acquisition, Cropping and Display</b> <i>W. Tsang</i>
11:10 AM	Have a Little Bubbly: Essentials of Contrast L. Gillam
11:30 AM	<b>TEE: The 28 Essential Views and More</b> <i>R. Hahn</i>
11:50 AM	Cases: Strain and Contrast
TT.50 AIM	A. Klein, M. Saric
12:10 PM	

## Schedule of Events

New ASE Guidelines Review		
1:10 PM		
TTU PIN	Multimodality Imaging of Diseases of the Thoracic Aorta in Adults S. Goldstein	
1:30 PM	Guidelines for the Use of Echocardiography in the Evaluation of a Cardiac Source of Embolism <i>M. Saric</i>	
1:50 PM	Echocardiography in the Management of Patients with LVADs <i>R. Hahn</i>	
2:10 PM	ASE Clinical Recommendations for Multimodality Cardiovascular Imaging of Patients with Pericardial Disease A. Klein	
2:30 PM	Guidelines for the Echocardiographic Assessment of Atrial Septal Defect and Patent Foramen Ovale <i>M. Saric</i>	
2:45 PM	Expert Consensus for Multimodality Imaging Evaluation of Adult Patients During and After Cancer V. Sorrell	
3:00 PM	Refreshment Break and Visit Exhibits	
	Salons 1-4	
Coronary	Artery Disease	
3:30 PM	Myocardial Infarction Complications: Case Illustrations W. Tsang	
3:45 PM	Stress Echo: Basics and Interpretation Tips V. Sorrell	
4:05 PM	Hemodynamic Stress Testing A. Klein	
4:20 PM	Stress Echo Cases: Are You As Good As the Experts? M. Saric, V. Sorrell	
4:50 PM	Question and Answer	
5:00 PM	Adjourn	
5:00-6:00 PM	Networking Reception	
Monday, October 10, 2016 Salons 5-9		
Valvular Heart Disease I		
7:00 AM	Breakfast and Visit Exhibits	
	Salons 1-4	
7:45 AM	Update on the Pathophysiology of Aortic Stenosis P. Pibarot	
8:05 AM	Basic and Advanced Assessment of Aortic Stenosis R. Hahn	
8:25 AM 8	Low Gradient, Severe Aortic Stenosis P. Pibarot	

8:45 AM	Mitral Stenosis: Pitfalls of Pressure Halftime R. Hahn	
9:05 AM	Assessing Prosthetic Valve Function: Differentiating Normal from Stenotic or Regurgitant P. Pibarot	
9:30 AM	Question and Answer	
9:50 AM	Refreshment Break and Visit Exhibits Salons 1-4	
Valvular H	leart Disease II	
10:20 AM	<b>Primary Versus Secondary Mitral Regurgitation:</b> <b>What the Guidelines Say and Why</b> <i>L. Gillam</i>	
10:40 AM	Strengths and Weaknesses of Mitral Regurgitation Quantification R. Hahn	
11:00 AM	Quantifying Aortic Regurgitation L. Gillam	
11:20 AM	Role of Echo in the Management of Asymptomatic Disease P. Pibarot	
11:40 AM	Question and Answer	
12:00 PM	Lunch and Visit Exhibits	
	Salons 1-4	
Heart Failure		
1:00 PM	Role of Echo for Heart Failure Prognosis J. Gorcsan	
1:20 PM	Hypertrophic Cardiomyopathy V. Sorrell	
1:40 PM	<b>Restrictive and Infiltrative Cardiomyopathy:</b> <b>Recognition By Echo</b> <i>G. Aurigemma</i>	
2:00 PM	Cardiac Transplant: The Role of Echo J. Gorcsan	
2:20 PM	Question and Answer	
2:40 PM	Refreshment Break and Visit Exhibits Salons 1-4	
3:10 PM	Cases: Discrepant Valvular Quantification L. Gillam, O. Khalique	
3:30 PM	Cases: Diastology Sucks (Really!) G. Aurigemma	
3:50 PM	Echo Clinical Conundrums I: What's in the Heart? S. Goldstein, M. Saric, V. Sorrell	
4:15 PM	Question and Answer	

## Schedule of Events

## Exhibit Information

#### Tuesday, October 11, 2016 Salons 5-9 **Early Bird Session** 7:00 AM **Breakfast and Visit Exhibits** Salons 1-4 7:00 AM **Chalk Talks With the Master Teachers** G. Aurigemma, R. Hahn **Clinical Echocardiography** 8:00 AM **TAVR: Procedure Guidance by Echo** M. Monaghan 8:25 AM The Forgotten Valve: New Tricuspid Interventions R. Hahn 8:50 AM **Percutaneous Mitral Valve Repair** S. Goldstein 9:10 AM Post-TAVR and MitraClip Echo Assessment: What the TVT Registry Requires R. Hahn 9:30 AM Left Atrial Appendage Closure Devices M. Monaghan 9:50 AM **Refreshment Break and Visit Exhibits** Salons 1-4 10:20 AM **Cases: Interventional Imaging** R. Hahn, M. Monaghan 10:40 AM **Congenital Heart Disease Part I:** The Unrepaired Adult K. Stout 11:00 AM **Congenital Heart Disease Part II:** The Repaired Adult K. Stout 11:20 AM Infectious Endocarditis S. Goldstein 11:45 PM Athlete's Heart: How Can We Recognize It? K. Stout 12:00 PM **Ouestion and Answer** 12:30 PM **Lunch and Visit Exhibits** Salons 1-4 1:30 PM The Role of Echo in Pulmonary Hypertension S. Goldstein 1:50 PM Pregnancy and Heart Disease: The Role of Echo K. Stout 2:10 PM Cardiac Masses M. Saric 2:30 PM **Cases: Adult Congenital Heart Disease** K. Stout 2:50 PM Echo Clinical Conundrums II: Echo Saves the Day! G. Aurigemma, S. Goldstein, J. Gorcsan 3:45 PM **Ouestion and Answer**

4:00 PM

Adjourn

### Exhibit Location and Hours

Exhibits are located in Salons 1-4 during the dates and hours listed below:

Saturday, October 8 7:00 AM - 3:45 PM

**Sunday, October 9** 7:00 AM - 6:00 PM

## Exhibit Descriptions

Bracco Diagnostics 1765 Oakland Drive Kannapolis, NC 28081 United States Phone: 1-704-956-6543 usa.braccoimaging.com Monday, October 10 7:00 AM - 4:30 PM

**Tuesday, October 11** 7:00 AM - 4:00 PM





Bracco Diagnostics Inc., a U.S.-based subisidiary of Bracco Imaging SpA, is a worldwide provider of diagnostic imaging solutions for use in CT, MR, Nuclear, and most recently for Ultrasound.

Expo Enterprise 3305 Spring Mountain Road Las Vegas, NV 89102 United States Phone: 1-702-272-2666 nano-ions.com

Support States

Gator Medical Books 10012 Newington Drive Orlando, FL 32836 United States Phone: 1-407-370-4648 gatormedicalbooks.com



Medical books from the world's leaders in publishing. Affiliate of Elsevier, Amirsys McGraw Hill, and others.

## Exhibit Information

**GE Healthcare** 9900 W. Innovation Drive Wauwatosa, WI 53226 **United States** Phone: 1-414-721-4354 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 guality and efficiency around the world. GE Healthcare is committed to serving healthcare professionals and their patients.

Hitachi Aloka Medical **10 Fairfield Boulevard** Wallingford, CT 06492 **United States** Phone: 1-203-269-5088 hitachi-aloka.com



Hltachi Aloka Medical is proud of the reputation we have built as an industry leader in diagnostic ultrasound. Known for unparalleled Doppler performance, superior system reliability and intuitive use of cutting edge technology, Hitachi Aloka Medical remains the ideal choice for exceptional diagnostic ultrasound imaging.

**Lantheus Medical** Imaging **331 Treble Cove Road** North Billerica, MA 01862 **United States** Phone: 1-800-599-5744 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.

Medtronic **3800 Annapolis Lane North** Plymouth, MN 55447 **United States** Phone: 1-941-201-2515



#### medtronic.com

To contribute to human welfare by application of biomedical engineering in the research, design, manufacture, and sale of instruments or appliances that alleviate pain, restore health, and extend life.



Philips is a technology company focused on improving people's lives through meaningful innovation across the health continuum, from healthy living and prevention to diagnosis, treatment, and home care. It's a unique perspective empowering us all to create a healthier future.

**Siemens Healthineers 40 Liberty Boulevard** Malvern, PA 19355 **United States** Phone: 1-713-352-9284 usa.siemens.com/precision usa.siemens.com/Healthineers



Siemens Healthineers is committed to becoming the trusted partner of healthcare providers worldwide, enabling them to improve patient outcomes while reducing costs. Driven by our long legacy of engineering excellence and our pioneering approach to developing the latest advancements, we are a global leader in medical imaging, laboratory diagnostics, clinical IT, and services.

**UltraLing Healthcare Solutions, Inc.** 236 West 30th Street New York, NY 10001 **United States** Phone: 1-919-360-2037 ultraling.com



UltraLing is a cloud-based image management service for evaluating, sharing, and archiving your imaging exams and reports.

Wolters Kluwer **891 Nonastone Run** Casselberry, FL 32707 **United States** Phone: 1-407-312-9523 lww.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.

## Faculty Disclosures

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

Gerard P. Aurigemma, MD, FASE Steven A. Goldstein, MD, FASE John Gorcsan III, MD, FASE Rebecca T. Hahn, MD, FASE Allan L. Klein, MD, FASE Mark J. Monaghan, PhD Philippe Pibarot, DVM, PhD, FASE Vincent L. Sorrell, MD, FASE Karen Stout, MD Wendy Tsang, MD

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

Linda D. Gillam, MD, FASE – Medtronic (Research Grant Support, Including PI); Edwards Lifesciences (Research Grant Support, Including PI) Omar K. Khalique, MD, FASE – Edwards Lifesciences (Speaker/Speakers Bureau); Boston Scientific (Speaker/Speakers Bureau) Muhamed Saric, MD, PhD, FASE – Philips (Speaker/Speakers Bureau); Medtronic (Speaker/Speakers 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 A. Agler, ACS, RDCS. FASE: Federico M. Asch. MD. FASE: Jeanne M. Baffa, MD. FASE: Lori Blauwet. MD, FASE; Daniel Bourgue, MS, RCS, FASE: Renee P. Bullock-Palmer, MD, FASE: Benjamin F. Byrd III, MD, FASE; Sheila J. Carroll, MD; Hollie D. Carron RDCS, FASE; Keith A. Collins, MS, RDCS, FASE: Sabe K. De. MD. FRCPC, FASE: Benjamin W. Eidem. MD, FASE; Edward A. Gill, MD, FASE; Aasha S. Gopal, MD, FASE; Tia Gordon, RDCS; Brooke K. Harland, Med, RDCS, RVT, FASE; Brandy A. Hattendorf, MD, FASE; Judy W. Hung, MD, FASE: James N, Kirkpatrick, MD, FASE; Shelby Kutty, MD, FASE; Deborah Kwon, MD: Georgeanne Lammertin, MBA. RCS, RDCS, FASE; Jonathan R. Lindner, MD, FASE; Stephen H. Little, MD, FASE;

Praveen Mehrotra, MD, FASE; Carol K.C. Mitchell, PhD, RDMS, RDCS, RVT, RT(R), FASE: Raymond R. Musarra, RDCS, RCS, FASE; Alina Nicoara, MD, FASE; Maryellen H. Orsinelli, RN, RDCS, FASE; Matthew Parker, MD; Andrew Pellett, PhD, RCS, RDCS, FASE; William J. Perez, MD, MA, FASE; Sue D. Phillip, RCS, FASE; Juan Carlos Plana, MD, FASE; Nishath Quader, MD, FASE; Vera H. Rigolin, MD, FASE: Esther S.H. Kim, MD, MPH, RPVI, FASE; Kamal K. Sahgal, MD; Zainab Samad, MD; Liza Y. Sanchez, RCS, FASE; Fadi Shamoun, MD, FASE; Elaine A. Shea, ACS, RCS, RCCS, FASE; Nikolaos J. Skubas, MD, FASE; Timothy C. Slesnick, MD. FASE: Gbemiga Sofowora, MD. FASE: Shubhika Srivastava, MD, FASE; Cynthia Taub, MD, FASE; Carolyn Taylor, MD, FASE; Jennifer A. Warmsbecker, RDCS, BS, FASE; Richard Weiss, MD, FASE; Neil J. Weissman, MD. FASE, David H. Wiener, MD. FASE: Timothy D. Woods, MD, FASE; Danita M. Yoerger Sanborn, MD, FASE; Karen G. Zimmerman, BS, ACS, RDCS (AE, PE), RVT, FASE

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

Meryl S. Cohen, MD, FASE - Johnson and Johnson (Stockownership) Kymberly A. Glyde, RDCS, FASE - Lantheus Medical Imaging (Speaker/Speaker's Bureau) Abhay A. Laddu, MD – Lantheus Medical Imaging (Speaker/Speaker's Bureau); Quintiles (Speaker/Speaker's Bureau) Tasneem Z. Nagvi, MD, FASE – Edwards Lifesciences (Stockownership); St. Jude Medical (Consultant/Advisor) Patricia A. Pellikka, MD, FASE – Lexicon (Consultant/Advisor); lpsen (Consultant/ Advisor) Roman M. Sniecinski, MD, FASE - Grifols (Consultant/Advisor) Raymond F. Stainback, MD, FASE - GE (Stockownership) Susan E. Wiegers, MD, FASE - Merck (Stockownership); 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:

Hilary Lamb, MPA, Chief Operating Officer Jaclyn Levine, Meeting Planner Erin McClure, Meeting Planner Robin Wiegerink, MNPL, Chief Executive Officer Ronna Yates, BS, MEd, Education and CME Manager

# GOOD COMPANIES. GOOD WORKS.

ASE would like to thank our Industry Roundtable members.

















