COURSE OBJECTIVES

The format of this program will include didactics, workshops, and interactive small-group case discussions to review the role of perioperative echocardiography in diagnosing cardiac and great vessel pathology in patients undergoing cardiac and noncardiac procedures or interventions in surgical or other clinical settings.

**Fundamentals of Echocardiography**

Upon completion of this course, the participant will understand the application of echocardiographic principles, including the physics of ultrasound and Doppler echocardiography, and hemodynamic quantification. Course participants will have a better understanding of the pathophysiology of valvular heart disease, cardiac function and dysfunction, and diseases of the great vessels.

Upon completion of this educational activity, the participant should be able to

- apply the essential principles of 2D echocardiography and spectral and color Doppler echocardiography in clinical settings
- recognize the components of the comprehensive perioperative echocardiographic examination
- identify cardiac and great vessel anatomy, and evaluate the function of the ventricles and heart valves
- describe common artifacts and misinterpretations of normal cardiac anatomy
- perform echocardiographic measurements essential for clinical decision making
- recognize the role of echocardiography in the identification of diastolic dysfunction in heart failure
- diagnose the basic congenital cardiac anomalies.

*Designated for a maximum of 26.25 AMA PRA Category 1 Credits™.*

**Porcine Heart Wet Lab: Hands-On Dissection**

Upon completion of this educational activity, the participant should be able to

- identify cardiac and great vessel anatomy in the porcine heart
- correlate porcine anatomical structures to 2D and 3D echocardiographic images
- correlate porcine anatomical structures to surgical anatomic landmarks.

*Designated for a maximum of 3.0 AMA PRA Category 1 Credits™.*

**Fundamentals of 3D Echocardiography**

This program will review the role of new and innovative imaging techniques in perioperative decision making. The participant will gain a better understanding of how to incorporate innovative imaging into daily practice.

Upon completion of this educational activity, the participant should be able to

- describe a complete 3D echocardiographic examination
- describe an approach to acquiring a complete 3D echocardiographic examination
- describe alternative views and tips to expedite a 3D echocardiographic examination
- describe the principles of 3D Multi-Planar Reconstruction (MPR)
- describe orientations and manipulation of the various planes in MPR
- describe how to make various measurements using MPR and potential clinical application.

*Designated for a maximum of 1.0 AMA PRA Category 1 Credits™.*
Application of Echocardiography

Upon completion of this educational activity, the participant should be able to

• assess types, establish severity, and determine etiology of various types of mitral regurgitation
• recognize the role of echocardiography in the identification of diastolic dysfunction in heart failure
• delineate the role of perioperative echocardiography in guiding surgical decision making for cardiac patients undergoing valve repair or replacement, thoracic aortic repair, and mechanical circulatory support
• describe the approach to echocardiographic assessment of unexpected valve lesions in patients undergoing valve repair and replacement
• explain the echocardiographic evaluation of ventricular assist devices to support the separation from cardiopulmonary bypass

• list the role of perioperative echocardiography in percutaneous procedures commonly performed in the catheterization lab or hybrid operating room
• describe the interaction between the different specialists—surgeons, cardiologists, and anesthesiologists—in complex decision-making processes involved in the perioperative care of surgical patients with cardiovascular disease
• list the essential elements for obtaining training and certification to establish competence in basic and advanced perioperative echocardiography.

Designated for a maximum of 15.75 AMA PRA Category 1 Credits™.

CME ACCREDITATION

The Society of Cardiovascular Anesthesiologists (SCA) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education (CME) for physicians. SCA designates the following live activities for a maximum of 46.0 AMA PRA Category 1 Credits™.

• Fundamentals of Echocardiography: 26.25 AMA PRA Category 1 Credits™
• Porcine Heart Wet Lab: Hands-On Dissection: 3.0 AMA PRA Category 1 Credits™
• Fundamentals of 3D Echocardiography: 1.0 AMA PRA Category 1 Credits™
• Application of Echocardiography: 15.75 AMA PRA Category 1 Credits™

Physicians should only claim credit commensurate with the extent of their participation in the activity.

How to Claim Your CME

To claim CME credit, visit www.scahq.org/2016echoweek to complete your 2016 Echo Week evaluations. You must complete the evaluations to claim credit.
Disclosures of Relevant Financial Relationships: Echo Week attendees are urged to review general continuing medical education (CME) information for the course, including disclosures of relevant financial relationships for all persons that affected the content of CME, by downloading and reading this information available at www.scahq.org/2016echoweek.

Program Committee

Fábio De Vasconcelos Papa, MD FASE
St. Michael’s Hospital
São Paulo, Brazil

Jonathan D. Leff, MD
Associate Professor
Montefiore Medical Center
New York, NY

Feroze Mahmood, MD
Associate Professor, Anesthesiology
Harvard Medical School
Boston, MA

Alina Nicoara, MD FASE
Assistant Professor, Anesthesiology
Duke University Medical Center
Durham, NC

Kent H. Rehfeldt, MD FASE
Associate Professor, Anesthesiology
Mayo Clinic
Rochester, MN

Roman M. Sniecinski, MD FASE
Associate Professor, Anesthesiology
Emory University School of Medicine
Atlanta, GA

Mark A. Taylor, MD FASE
Vice Chair and Chief, Anesthesiology
Associate Professor, Temple University
Allegheny Health Network
Pittsburgh, PA

Annemarie Thompson, MD
Professor, Anesthesiology
Duke University School of Medicine
Durham, NC

Christopher A. Troianos, MD FASE
Chair, Anesthesiology Institute
Cleveland Clinic
Cleveland, OH

Annette Vegas, MD MDCM FRCP FASE
Associate Professor, Anesthesiology
Toronto General Hospital
Toronto, ON, Canada

Program Directors

Douglas C. Shook, MD FASE
Program Director, Cardiothoracic Anesthesia Fellowship
Brigham and Women’s Hospital
Harvard Medical School
Boston, MA

Nikolaos J. Skubas, MD FASE
Professor, Clinical Anesthesiology
Director, Cardiac Anesthesiology
Weill Cornell Medical College
New York, NY

Madhav Swaminathan, MD FASE
Professor of Anesthesiology
Clinical Director, Cardiothoracic Anesthesiology
Duke University Medical Center
Durham, NC

Faculty

Michael N. Andrawes, MD
Instructor
Massachusetts General Hospital
Boston, MA

Bruce A. Bollen, MD
Missoula Anesthesiology/International Heart Institute of Montana
Missoula, MT

Daniel H. Drake, MD
Director, MSTCVS Mitral Initiative
Cardiothoracic Surgeons of Grand Traverse
 Traverse City, MI

Sidney K. Edelman, PhD
Director
ESP Ultrasound
The Woodlands, TX

Stephen A. Esper, MD MBA
Assistant Professor
University of Pittsburgh
Pittsburgh, PA

Amanda Fox, MD MPH
Associate Professor, Division Chief
Cardiothoracic Anesthesia
University of Texas Southwestern Medical Dallas, TX

Kathryn E. Glas, MD MBA FASE
Associate Professor, Anesthesiology
Emory University School of Medicine
Atlanta, GA

Gregg S. Hartman, MD
Professor, Anesthesiology
Dartmouth Hitchcock Medical Center
Lebanon, NH

Lori B. Heller, MD
Acting Instructor, University of Washington Staff Anesthesiologist, Swedish Hospital
Seattle, WA

G. Burkhard Mackensen, MD PhD FASE
Professor, Anesthesiology
University of Washington
Seattle, WA

Andrey D. Maslow, MD
Associate Professor, Anesthesiology
Warren Alpert Medical School
Brown University
Providence, RI

Timothy M. Maus, MD FASE
Associate Clinical Professor
University of California–San Diego
San Diego, CA

Matt Maxwell, MD
Head, Cardiovascular Surgery
International Heart Institute of Montana
Missoula, MT

Massimiliano Meineri, MD
Associate Professor, Anesthesia
University of Toronto
Toronto, ON, Canada

Peter J. Panzica, MD
Vice Chair Clinical Anesthesia BIDMC System
Beth Israel Deaconess Medical Center
Boston, MA

Andrew D. Pitkin, MBBS FRCA MRCP
Department of Anesthesiology
University of Florida
Gainesville, FL

Lisa Rong, MD
Instructor, Anesthesiology
Weill Cornell Medicine
New York, NY

Stanton K. Shernan, MD FAHA FASE
Professor, Anesthesia
Brigham and Women’s Hospital
Boston, MA

Sasha K. Shillcutt, MD FASE
Associate Professor, Anesthesiology
University of Nebraska Medical Center
Omaha, NE

Michele Sumler, MD
Assistant Professor
Emory University
Atlanta, GA

Vinod Thourani, MD FACS FACC
Professor, Surgery
Emory University Hospital Midtown
Atlanta, GA

George B. Whitener, MD
Assistant Professor
Medical University of South Carolina
Charleston, SC
SCHEDULE

Fundamentals of Echocardiography
Sunday, May 1–Wednesday, May 4 (Includes Porcine Heart Wet Lab: Hands-On Dissection and Fundamentals of 2D and 3D Echocardiography)

Sunday, May 1

5–8 pm  Registration Open

7–8:30 pm  Image Optimization Workshop: 2D Echocardiography*
  Moderators: Fabio De Vasconcelos Papa, MD FASE; Mark A. Taylor, MD FASE; Annemarie Thompson, MD
  Speakers: Gregg S. Hartman, MD; Lori B. Heller, MD; Jonathan D. Leff, MD; Massimiliano Meineri, MD; Sasha K. Shillcutt, MD FASE; Douglas C. Shook, MD FASE; Nikolaos J. Skubas, MD FASE; Roman M. Sniecinski, MD FASE; Michele Sumler, MD
  (A separate registration fee is required for this session.)
  *Room locations can be found in the Echo Week Supplement

Monday, May 2

6:30 am–5:30 pm  Registration Open

6:45–7:15 am  Continental Breakfast

7:15–7:30 am  Overview and Announcements
  Speakers: Douglas C. Shook, MD FASE; Nikolaos J. Skubas, MD FASE; Madhav Swaminathan, MD FASE

7:30–9:30 am  Image Creation and Views
  Moderator: Douglas C. Shook, MD FASE
  7:30–8:50 am  Vibrations: Physics Update and Review  Sidney K. Edelman, PhD
  8:50–9:10 am  Image Optimization: You Are the Artist  Gregg S. Hartman, MD
  9:10–9:30 am  Blood Flow and Cardiovascular Evaluation: Doppler Essentials  Nikolaos J. Skubas, MD FASE

9:30–9:50 am  Coffee Break

9:50–11:50 am  The Views and Function
  Moderator: Jonathan D. Leff, MD
  9:50–10:10 am  The Comprehensive TEE Exam: How to Get All the Views Efficiently  Gregg S. Hartman, MD
  10:10–10:30 am  LV Systolic Function I: Visual Estimation vs. Quantification  Lisa Rong, MD
  10:30–10:50 am  LV Systolic Function II: Assessment of Ischemia and Structural Disease  Mark A. Taylor, MD FASE
  10:50–11:10 am  Relaxation Matters: The Basis of Diastolic Function Assessment  Annemarie Thompson, MD
  11:10–11:30 am  Right Heart Function: Simplified Approach to Estimating RV Function  Sasha K. Shillcutt, MD FASE
  11:30–11:50 am  Panel Discussion and Audience Q & A

11:50 am–1 pm  Lunch

Lunch
1–3 pm
Aortic and Mitral Valve Structure and Function
Moderator: Nikolaos J. Skubas, MD FASE

- 1–1:20 pm  Assessment of Valve Structure and Function: What Should I Look For?  
  Douglas C. Shook, MD FASE
- 1:20–1:40 pm  Mitral Regurgitation: Establishing Severity and Etiology  
  Annette Vegas, MDCH FRCPC FASE
- 1:40–2 pm  Mitral Stenosis: Qualitative and Quantitative Assessment of Severity  
  Lori B. Heller, MD
- 2–2:20 pm  Aortic Regurgitation: Establishing Severity and Etiology  
  Jonathan D. Leff, MD
- 2:20–2:40 pm  Aortic Stenosis: Imaging Approach and Hemodynamic Principles  
  Roman M. Sniecinski, MD FASE
- 2:40–3 pm  Panel Discussion and Audience Q & A

3–3:20 pm
Coffee Break

3:20–5:20 pm
Potpourri
Moderator: Roman M. Sniecinski, MD FASE

- 3:20–3:40 pm  Tricuspid and Pulmonic Valves: Imaging Approach and Assessment of Pathology  
  Massimiliano Meineri, MD
- 3:40–4 pm  Assessment of the Thoracic Aorta: TEE and Epiaortic Views  
  Michele Sumler, MD
- 4–4:20 pm  Prosthetic Valves: Types and Echo Assessment of the Newly Seated Valve  
  Sasha K. Shillcutt, MD FASE
- 4:20–4:40 pm  Assessment of Right-Sided Vessels  
  Amanda Fox, MD MPH
- 4:40–5 pm  The Married Couple: Ventricular Interdependence in Pericardial Disease  
  Timothy M. Maus, MD FASE
- 5–5:20 pm  Panel Discussion and Audience Q & A

5:20–7 pm
Dinner on Your Own

6:45–8:45 pm
Registration Open

7–8:30 pm
Physics and Cases
Moderator: Nikolaos J. Skubas, MD FASE

- 7–7:45 pm  Physics and Artifacts: Test Your Knowledge  
  Sidney K. Edelman, PhD
- 7:45–8:30 pm  Cases: Apply What We Reviewed Today  
  Fabio De Vasconcelos Papa, MD FASE; Andrew D. Maslow, MD; Timothy M. Maus, MD FASE; Michele Sumler, MD

Tuesday, May 3

6:30 am–9 pm
Registration Open

6:45–7:25 am
Continental Breakfast with Exhibitors

7:25–7:30 am
Overview and Announcements
Speakers: Douglas C. Shook, MD FASE; Nikolaos J. Skubas, MD FASE; Madhav Swaminathan, MD FASE
7:30–11 am

Case-Based Small Groups with Interactive Discussions*
Moderators: Nikolaos J. Skubas, MD FASE

This session will be divided into seven 45-minute sessions, during which seven topics will be covered concurrently. Please visit the registration desk if you have any questions about your room assignment.

- Mitral Regurgitation: Determine the Severity
  
  **Gregg S. Hartman, MD; Annette Vegas, MDCM FRCPC FASE**

- Mitral Stenosis: What is the Best Indicator of Severity?
  
  **Amanda Fox, MD MPH; Lori B. Heller, MD**

- Aortic Stenosis: Gradients vs. Valve Area
  
  **Roman M. Sniecinski, MD FASE; Michele Sumler, MD**

- Aortic Regurgitation: Pitfalls in Assessment
  
  **Jonathan D. Leff, MD; Timothy M. Maus, MD FASE**

- Ischemia & Function: The Best Assessment Tools to Use in a Complicated Case
  
  **Lisa Rong, MD; Mark A. Taylor, MD FASE**

- The Right Side and Pulmonary Circulation: Evaluating Right-Side Dysfunction
  
  **Massimiliano Meineri, MD; Sasha K. Shillcutt, MD FASE**

- Diastology: Cases Where It Made a Difference
  
  **Madhav Swaminathan, MD FASE; Annemarie Thompson, MD**

*Room locations can be found in the Echo Week Supplement.

9–9:30 am

Coffee Break with Exhibitors

11 am–Noon

Congenital Heart Disease
Moderator: Madhav Swaminathan, MD FASE

- 11–11:30 am
  
  The Holes in Your Heart: ASDs, VSDs, PFOs
  
  **Andrew D. Pitkin, MBBS**

- 11:30 am–Noon
  
  Complex Congenital Anomalies: One Ventricle or Two
  
  **Andrew D. Pitkin, MBBS**

Noon–1 pm

Lunch
Dessert with Exhibitors

1–3:15 pm

Case-Based Small Groups with Interactive Discussions*
Moderator: Nikolaos J. Skubas, MD FASE

This session will be divided into seven 45-minute sessions, during which seven topics will be covered concurrently. Please visit the registration desk if you have any questions about your room assignment.

- Mitral Regurgitation: Determine the Severity
  
  **Gregg S. Hartman, MD; Annette Vegas, MDCM FRCPC FASE**

- Mitral Stenosis: What is the Best Indicator of Severity?
  
  **Amanda Fox, MD MPH; Lori B. Heller, MD**

- Aortic Stenosis: Gradients vs. Valve Area
  
  **Roman M. Sniecinski, MD FASE; Michele Sumler, MD**

- Aortic Regurgitation: Pitfalls in Assessment
  
  **Jonathan D. Leff, MD; Timothy M. Maus, MD FASE**

- Ischemia & Function: The Best Assessment Tools to Use in a Complicated Case
  
  **Lisa Rong, MD; Mark A. Taylor, MD FASE**

- The Right Side and Pulmonary Circulation: Evaluating Right-Side Dysfunction
  
  **Massimiliano Meineri, MD; Sasha K. Shillcutt, MD FASE**

- Diastology: Cases Where It Made a Difference
  
  **Madhav Swaminathan, MD FASE; Annemarie Thompson, MD**

*Room locations can be found in the Echo Week Supplement.

3:15–3:40 pm

Coffee Break with Exhibitors

3:15–4:15 pm

Poster Session #1: Original Research
Moderators: Douglas C. Shook, MD FASE; Nikolaos J. Skubas, MD FASE; Madhav Swaminathan, MD FASE

4:20–5:20 pm

Tissue Doppler and Cardiac Kinetics
Moderator: Feroze Mahmood, MD

- 4:20–4:40 pm
  
  Tissue Doppler: Assessment of Tissue Velocity
  
  **Madhav Swaminathan, MD FASE**

- 4:40–5 pm
  
  Success with E’ and S’
  
  **George Burke Whitener, MD**

- 5–5:20 pm
  
  Speckle Tracking: Assessment of Tissue Deformation
  
  **Nikolaos J. Skubas, MD FASE**
5:30–7 pm
**Welcome Reception with Exhibitors**
Meet the vendors and learn about your ultrasound system. Food and beverages will be provided.

7–9 pm
**Who Wants to Be an Echo Millionaire?**
Moderators: Feroze Mahmood, MD; Peter J. Panzica, MD
Review of the First Two Days **Andrew Maslow, MD**

### Wednesday, May 4

6–7:30 am
**Registration Open**

6–7:45 am
**Continental Breakfast with Exhibitors**

6:15–7:45 am
**Image Optimization Workshop: 3D Echocardiography***
Moderators: Fabio De Vasconcelos Papa, MD FASE; Douglas C. Shook, MD FASE; Madhav Swaminathan, MD FASE
Speakers: Gregg S. Hartman, MD; Jonathan D. Leff, MD; G. Burkhard Mackensen, MD PhD FASE; Feroze Mahmood, MD; Charles B. Nyman, MBChB; Stanton K. Sherman, MD FAHA FASE; Nikolaos J. Skubas, MD FASE; Mark A. Taylor, MD FASE; Annemarie Thompson, MD; Annette Vegas, MDCM FRCPC FASE; George Burke Whitener, MD
*Room locations can be found in the Echo Week Supplement.

8–11 am
**You Are the Surgeon: Hands-On Porcine Heart Dissection with Echocardiographic Correlation and Surgical Decision Making**
Moderator: Madhav Swaminathan, MD FASE
Porcine Heart Dissection **Matt Maxwell, MD; Douglas C. Shook, MD FASE**

11 am–12:30 pm
**Lunch on Your Own**

12:30–1:30 pm
**Fundamentals of 3D Echocardiography**
Moderator: Charles B. Nyman, MBChB
3D Echo: What Images Should I Get and When? **Douglas C. Shook, MD FASE**
Using MPRs to Your Advantage **Stanton K. Sherman, MD FAHA FASE**

1:30–2:30 pm
**Poster Session #2: Case Reports**
Moderators: Douglas C. Shook, MD FASE; Nikolaos J. Skubas, MD FASE; Madhav Swaminathan, MD FASE

2:30–3:30 pm
**Clinical Application of 3D Echocardiography**
Moderator: Alina Nicoara, MD FASE
Where 3D Made a Difference in the OR **Madhav Swaminathan, MD FASE**
Where 3D Made a Difference in the Cath/EP Lab **G. Burkhard Mackensen, MD PhD FASE**

3:30–4 pm
**Coffee Break with Exhibitors**

4–7 pm
**3D Imaging and Laptop Computer Workshop***
Moderators: Douglas C. Shook, MD FASE; Madhav Swaminathan, MD FASE
Mitral Valve Analysis 1 **Stanton K. Sherman, MD FAHA FASE; George Burke Whitener, MD**
Mitral Valve Analysis 2 **G. Burkhard Mackensen, MD PhD FASE; Feroze Mahmood, MD**
Application to Specific Cases **Michael N. Andrawes, MD; Charles B. Nyman, MBChB**
*Room locations can be found in the Echo Week Supplement.
**Application of Echocardiography**  
Thursday, May 5–Friday, May 6 (Includes Porcine Heart Wet Lab: Hands-On Dissection and Fundamentals of 3D Echocardiography)

### Thursday, May 5

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30 am–5 pm</td>
<td>Registration Open</td>
<td>Ellington Foyer</td>
</tr>
<tr>
<td>6:45–7:25 am</td>
<td>Continental Breakfast with Exhibitors</td>
<td>Ellington Foyer</td>
</tr>
<tr>
<td>7:25–7:30 am</td>
<td>Overview and Announcements</td>
<td>Ellington</td>
</tr>
<tr>
<td></td>
<td><strong>Speakers:</strong> Douglas C. Shook, MD FASE; Nikolaos J. Skubas, MD FASE; Madhav Swaminathan, MD FASE</td>
<td></td>
</tr>
<tr>
<td>7:30–9:30 am</td>
<td>Decision Making in Mitral Valve Disease</td>
<td>Ellington</td>
</tr>
<tr>
<td></td>
<td><strong>Moderator:</strong> Bruce A. Bollen, MD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7:30–7:50 am Establishing the Type of MR with TEE Alina Nicoara, MD FASE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7:50–8:10 am Advances in 3D Assessment of Mitral Disease: How It Can Influence Surgery Stanton K. Shernan, MD FAHA FASE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8:10–8:30 am Ischemic MR: What Should I Use to Evaluate Severity? Christopher A. Troianos, MD FASE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8:30–8:50 am Surgical Options in Ischemic MR: What Does a Surgeon Need to Know? Daniel H. Drake, MD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8:50–9:10 am Failed Repair: When Should I Recommend Going Back on Bypass? Kathryn E. Glas, MD MBA FASE</td>
<td></td>
</tr>
<tr>
<td>9:10–9:30 am</td>
<td>Panel Discussion and Audience Q &amp; A</td>
<td></td>
</tr>
<tr>
<td>9:30–10 am</td>
<td>Coffee Break with Exhibitors</td>
<td></td>
</tr>
<tr>
<td>10 am–Noon</td>
<td>Decision Making in Aortic Valve Disease</td>
<td>Ellington</td>
</tr>
<tr>
<td></td>
<td><strong>Moderator:</strong> Bruce A. Bollen, MD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10–10:20 am Low Gradient AS: Which Measurements Should You Rely On? Madhav Swaminathan, MD FASE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10:20–10:40 am The Unexpected Calcific Aortic Valve—What Next? Kent H. Rehfeldt, MD FASE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10:40–11 am When Moderate AS Should Not Be Surgically Treated: Case Examples Feroze Mahmood, MD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11–11:20 am The Diseased Aortic Root: Can a Regurgitant Aortic Valve Be Spared? Michael N. Andrawes, MD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11:40 am–Noon Panel Discussion and Audience Q &amp; A</td>
<td></td>
</tr>
<tr>
<td>Noon–12:15 pm</td>
<td>Lunch Provided with Exhibitors</td>
<td></td>
</tr>
<tr>
<td>12:15–1 pm</td>
<td>9th Annual Arthur E. Weyman, MD, Lecture</td>
<td>Ellington</td>
</tr>
<tr>
<td></td>
<td><strong>Moderators:</strong> Douglas C. Shook, MD FASE; Nikolaos J. Skubas, MD FASE; Madhav Swaminathan, MD FASE</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Speaker:</strong> Gregg S. Hartman, MD</td>
<td></td>
</tr>
<tr>
<td>1–3 pm</td>
<td>Interventions for Structural Heart Disease</td>
<td>Ellington</td>
</tr>
<tr>
<td></td>
<td><strong>Moderator:</strong> Kent H. Rehfeldt, MD FASE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1–1:20 pm Updates from the TAVR World Vinod Thourani, MD FACS FACC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1:20–1:40 pm TAVR: Imaging and Anesthetic Approaches Douglas C. Shook, MD FASE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1:40–2 pm Percutaneous Approaches to Mitral Valve Disease Vinod Thourani, MD FACS FACC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2–2:20 pm How Echo Adds Value to Percutaneous Repair of Mitral Regurgitation G. Burkhard Mackensen, MD PhD FASE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2:20–2:40 pm Interventional Echocardiography in the Cath Lab Charles B. Nyman, MBBCh</td>
<td></td>
</tr>
</tbody>
</table>
3–3:30 pm
Coffee Break with Exhibitors

3:30–5 pm
Complex Imaging Dilemmas
Moderator: Christopher A. Troianos, MD FASE
- 3:30–3:50 pm Should the Tricuspid Be Repaired? On Which Echo Criteria Should You Rely? Alina Nicoara, MD FASE
- 3:50–4:10 pm Assessment of MR in a Patient Scheduled for AVR: Should This MV Be Repaired? Kent H. Rehfeldt, MD FASE
- 4:10–4:30 pm Immediate Complications After Prosthetic Valve Placement Stephen A. Esper, MD MBA
- 4:30–4:50 pm The Malfunctioning VAD: When Echo Can Be Critical Kathryn E. Glas, MD MBA FASE

5–6:30 pm
Dinner on Your Own

6:30–9:30 pm
3D Imaging and Laptop Computer Workshop*
Moderators: Douglas C. Shook, MD FASE; Nikolaos J. Skubas, MD FASE
- Mitral Valve Analysis 1 Stanton K. Shernan, MD FAHA FASE; George Burke Whitener, MD
- Mitral Valve Analysis 2 G. Burkhard Mackensen, MD PhD FASE; Feroze Mahmood, MD
- Application to Specific Cases Michael N. Andrawes, MD; Charles B. Nyman, MBBCh
*Room locations can be found in the Echo Week Supplement.

Friday, May 6

7 am–12:30 pm
Registration Open

7–7:25 am
Continental Breakfast

7:25–7:30 am
Overview and Announcements
Speakers: Douglas C. Shook, MD FASE; Nikolaos J. Skubas, MD FASE; Madhav Swaminathan, MD FASE

7:30–9:30 am
What Are the Echo Guidelines? Choosing Wisely
Moderator: Charles B. Nyman, MBBCh
- 7:30–7:50 am Accurate Assessment of a Newly Implanted Prosthetic Valve George Burke Whitener, MD
- 7:50–8:10 am Assessment of Filling Pressures in the Failing Heart Kent H. Rehfeldt, MD FASE
- 8:10–8:30 am TEE for Monitoring Hemodynamic Function: Basic or Advanced Training? Christopher A. Troianos, MD FASE
- 8:30–8:50 am Applying the Guidelines to Moderate AS Stephen A. Esper, MD MBA
- 8:50–9:10 am Applying the Guidelines to Moderate MR Alina Nicoara, MD FASE
- 9:10–9:30 am Panel Discussion and Audience Q & A

9:30–9:45 am
Coffee Break

9:45 am–12:15 pm
Test Yourself: A Comprehensive Review of Echo Week
Moderators: Douglas C. Shook, MD FASE; Nikolaos J. Skubas, MD FASE
Speakers: Feroze Mahmood, MD; Peter J. Panzica, MD
COMMERCIAL SUPPORT

At the time of the printing of this program, SCA would like to thank the following companies for providing an educational grant or in-kind support:

GE Healthcare
Philips Medical Systems

SPONSORS

Silver

Bronze

PHILIPS
SIEMENS
QGenda

EXHIBITORS

GE Healthcare
Mennen Medical
National Board of Echocardiography, Inc.
Philips Medical Systems
QGenda
Siemens Medical Solutions USA
THE ULTIMATE WARMING SOLUTION FOR TAVR & OFF/ON PUMP PROCEDURES

A Revolutionary Approach
Maintaining True Normothermia
Fast-Track Patients to the PACU

The evolution of premium ultrasound

The science of premium ultrasound continues to evolve with innovations that take image quality to a level never before possible. Philips EPIQ Evolution 1.0 unleashes the power of our #SIGHT Imaging architecture to optimize image quality on a wide range of cardiovascular patients. So you can reach a definitive diagnosis quickly. With our powerful xMATRIX and PureWave transducers, you can reveal extraordinary levels of resolution and penetration in 2D and Live 3D – even on your largest patients. Plus, Evolution 1.0 enhances Anatomical Intelligence for both 2D and Live 3D echo quantification.

innovation→you

Take a closer look at www.philips.com/EPIQ
True Volume Doppler and TEE. Simultaneous anatomy and blood flow in one 90° x 90° volume view – even in patients with arrhythmia.

Action-Oriented Design. Navigational guidance, automated measurements, and integrated protocols are tools that empower you to work better and more efficiently.

Breakthrough Valve Quantification. One-click automated aortic and mitral valve modeling and measurements within seconds from the eSie Valves™ advanced analysis package provide important clinical information for timely diagnosis and treatment.

Please Visit QGenda at Booth 3 to Learn How QGenda Can Save Time Building and Maintaining the Coverage Schedule

Visit: ww.QGenda.com
E: Sales@QGenda.com
P: 855-399-9945 Press 1
Ultrasound. Elevated.

Helping you rise above some of today’s complex healthcare challenges.

Combine the proven breadth and performance of the Vivid product line with cSound,™ GE’s powerful, software-based beamformer image reconstruction platform. The result is ultrasound at a whole new level – helping to reduce non-diagnostic exams and helping to lower the cost of care.

gehealthcare.com