ASE American Society of Echocardiography
Heart & Circulation Ultrasound Specialists

6th Annual

The Beat Goes On...

New for 2011

Registry Review
Learn Echo Pathology from 50 Illustrative Cases
Myocardial Mechanics – Contrast Enhanced Imaging – 3-D Imaging

Program Directors:

Pamela R. Burgess, BS, RDCS, RDMS, RVT, FASE
Bijoy K. Khandheria, M.D., FACC, FASE, FESC, FACP
Frederick W. Kremkau, Ph.D., FAIUM, FASA
Timothy E. Paterick, M.D., J.D.
Vinay Thohan, M.D., FASE

Presented at:

The JW Marriott Orlando Grande Lakes
Orlando, Florida

Co-sponsored by:

American Society of Echocardiography
and Wake Forest School of Medicine
In Collaboration With Aurora Health Care, Advanced Cardiovascular Services, Aurora/St. Luke Medical Center, Aurora/Sinai Medical Center

Aurora Health Care®

Wake Forest™ School of Medicine

General Information

OVERVIEW

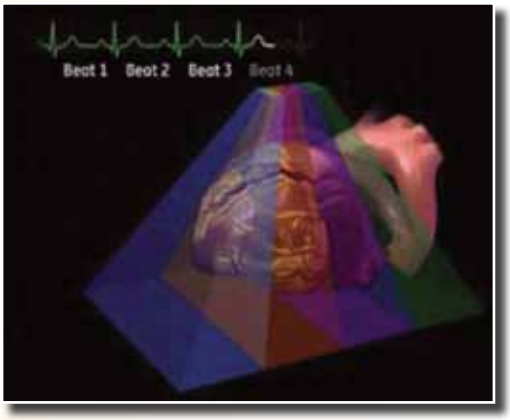
This program is designed for cardiologists, sonographers, sonography students, and residents/fellows in training who have practical knowledge of echocardiography and interpret cardiovascular ultrasound. This program is co-sponsored by the American Society of Echocardiography and Wake Forest School of Medicine in collaboration with Aurora Health Care, Advanced Cardiovascular Services, Aurora/St. Luke Medical Center.

Topics include quantitative echocardiography, valvular and ischemic heart disease, heart failure, stress echocardiography, advances in imaging in coronary disease, state-of-the-art and clinical applications of transesophageal echocardiography, diastology, physiological disease management, and myopericardial diseases. There will be sessions on contrast for left ventricular opacification, 3-D echocardiography, and CRT. A live scanning workshop will provide close interaction with faculty sonographers during image acquisition.

Unique Features:
- Faculty members are clinical sonographers and echocardiologists.
- Easy access to faculty members during the entire conference.
- Workshops which encourage one-on-one interaction.

OBJECTIVES

Upon completion of this CME activity, attendees should be better able to:
- Review and integrate essential physical principles of cardiac ultrasound in practice.
- Explain the technique and pitfalls of contrast echocardiography.
- Summarize proper techniques and clinical applications of stress echocardiography.
- Describe the application of echocardiography in heart failure.
- Integrate the ASE standard document for quantification of the left and right ventricles.
- Apply information that will enhance image acquisition and data measurement skills.
- Illustrate the appropriate use of Doppler echocardiography.
- Utilize the proper cardiovascular ultrasonic technique for the assessment of valvular heart disease.
- Formulate the use of cardiac resynchronization therapy in the treatment of heart failure.
- Quantify myocardial function using standard M-mode and 2-D echocardiography as well as newer modalities such as strain imaging, vector velocity images, and speckle tracking.



General Information

CREDIT

The American Society of Echocardiography is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The American Society of Echocardiography designates this live activity for a maximum of 23.5 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

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

The American Society of Echocardiography 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 relationships that could possibly conflict with the educational value of the program be resolved prior to the educational session and disclosed to the audience.

REGISTRATION

Confirmations will be e-mailed with an attached receipt. Registration fee includes continental breakfasts, refreshment breaks, lunches and electronic syllabus access.

Reduced fee for American Society of Echocardiography (ASE) members. If you are not currently a member and wish to become one, please refer to *www.asecho.org*.

Cancellations must be submitted in writing by e-mail (cmu@wakehealth.edu) or fax (336-716-2447). Because of advance planning requirements, a full refund will be given if cancellation is received before Monday, August 22, 2011. After this date, a $100 processing fee will be assessed. No refund will be given for no-shows.

In the unlikely event that the program is cancelled, course registration fees will be refunded, less a $100 processing fee; however, the American Society of Echocardiography, Wake Forest School of Medicine, and Aurora Health Care are not responsible for any travel or hotel costs you may incur.

EDUCATIONAL GRANTS

This activity is supported in part by unrestricted educational grants from various commercial firms. Appropriate acknowledgement of support will be provided at the time of the activity.

General Information

LODGING

The JW Marriott Orlando Grande Lakes *http://jw-marriott.grandelakes.com/* provides all of the comfort and variety you could imagine. The Spanish style Marriott is beautifully located on 500 of central Florida's most coveted acres at the headwaters of the Everglades. You will be welcomed to this picturesque setting by immaculate facilities and unparalleled service creating a premier destination in Orlando, Florida.

The hotel is conveniently located 10 miles from Walt Disney World, 7 miles from Universal Studios/City Walk, and 2 miles from Sea World and Discovery Cove, as well as other exciting local attractions.

The JW Marriott features an outdoor Lazy River heated pool along with the resort 40,000 square foot spa and a Greg Norman designed championship golf course.

An array of dining options include Primo, featuring contemporary Italian cuisine; Citron, an American Brasserie; Café Bodega, eco-friendly grab and go breakfast/lunch, The Sushi Bar; and Quench, poolside grill/bar featuring casual cuisine and snacks.

Reservations: 800-576-5750 or 407-206-2300
Group Rate: $241 single/double Group Name: Echo Conference
The guaranteed group room block will be held until Monday, August 22, 2011. Reservations made after this date will be based on space and rate availability. Do not wait for conference registration confirmation to make travel arrangements. Registration is not limited.

We encourage participation by all individuals. If you have a disability, advance notification of any special needs will help us better serve you.

TRANSPORTATION

Airport - The Orlando International Airport is located 15 minutes from The JW Marriott Grande Lakes and is serviced by all major carriers. For further information refer to *www.orlandoairports.net*.

Rental Cars - The following companies have on-site pickup counters located on Level 1 of the main airport terminal.: Advantage, Alamo, Avis, Budget, Dollar, Enterprise, E-Z, Hertz, L and M, National and Thrifty.

Ground Shuttle Reservations - Mears Transportation, *www.mearstransportation.com* or 407-423-5566, is the primary ground transportation for this conference. Discount round-trip shuttle fares from the airport are $27 for adults and $21 for children. Access to the special fares is available at *www.WakeHealth.edu/ultrasound* as well as through your conference confirmation e-mail. Theme park transportation is also available through Mears. Shuttle fees vary depending upon your attraction destination.

Upon arrival in Orlando, follow the signs to baggage claim. The airline concourses are connected to the main terminal via an elevated train. Exit the train, and continue to follow signs to baggage by taking the escalator or elevator down to baggage claim on Level 2.

After claiming your luggage, go to a Mears Motor Shuttle service counter. You may use either of two service counter locations: Level 2 – Outside from baggage claim or Level 1 – Inside across from elevators.

Simply present your on-line ticket confirmation to the Mears representative and they will give you a shuttle pass and direct you to the appropriate shuttle boarding area.

General Information

FACULTY

PROGRAM DIRECTORS:

Pamela R. Burgess, BS, RDCS, RDMS, RVT, FASE
Clinical Manager, Cardiac Ultrasound and Stress Testing Lab, Wake Forest University/NC Baptist Hospital, Winston-Salem, NC

Bijoy K. Khandheria, M.D., FACC, FASE, FESC, FACP
Past President, American Society of Echocardiography; Director, Echocardiography Services, Aurora Health Care, Advanced Cardiovascular Services, Aurora/St. Luke Medical Center, Aurora/Sinai Medical Center, Milwaukee, WI

Frederick W. Kremkau, Ph.D., FAIUM, FASA
Past President, American Institute of Ultrasound in Medicine; Professor and Director, Program for Medical Ultrasound, Wake Forest University School of Medicine, Winston Salem, NC

Timothy E. Paterick, M.D., J.D.
Consultant, Aurora Health Care, Advanced Cardiovascular Services, Aurora Sinai/St. Luke's Medical Centers, Milwaukee, WI

Vinay Thohan, M.D., FASE
Associate Professor of Internal Medicine-Cardiology, Director of Heart Failure and Cardiac Transplantation, Wake Forest School of Medicine, Winston-Salem, NC

GUEST FACULTY:

Susan Hamrick, RDCS, RDMS, RVT
Clinical Sonographer, Cardiac Ultrasound and Stress Testing Lab, Wake Forest Baptist Health, Winston-Salem, NC

Rick A. Henderson, M.D.
Assistant Professor of Internal Medicine-Cardiology, Wake Forest University School of Medicine, Winston-Salem, NC

Paul M. Kirkman, M.D., FACC, FACP
Associate Professor of Internal Medicine-Cardiology, Wake Forest School of Medicine, Winston-Salem, NC

Christopher J. Kramer, BA, RDCS
Clinical Sonographer, Cardiovascular Ultrasound Imaging and Hemodynamic Laboratory, Aurora Medical Group, Advanced Cardiovascular Services, Aurora Sinai/St. Luke's Medical Centers, Milwaukee, WI

Matt M. Umland, RDCS, FASE
Echocardiography Quality Coordinator, Advanced Clinical and Research Sonographer, Cardiovascular Ultrasound Imaging and Hemodynamic Laboratory, Aurora Medical Group, Advanced Cardiovascular Services, Aurora Sinai/St. Luke's Medical Centers, Milwaukee, WI

Mani A. Vannan, MBBS, FACC
Professor of Clinical Medicine; Director, Cardiovascular Imaging; Joseph Ryan Chair in Cardiovascular Medicine, The Ohio State University, Columbus, OH

Program Schedule

The Beat Goes On...

All sessions will be held in the Conference Center of the JW Marriott Orlando Grande Lakes, 4040 Central Florida Parkway, Orlando, FL 32837;
Phone: 407-206-2300

Views expressed in this program are those of the individual speaker and do not necessarily reflect the views of the American Society of Echocardiography, Wake Forest School of Medicine, or Aurora Health Care.

THURSDAY, SEPTEMBER 22, 2011

8:00 a.m. Registration – Continental Breakfast

FUNDAMENTALS OF CARDIOVASCULAR ULTRASOUND

8:30 a.m. Principles and Instrumentation of Echocardiography
Frederick W. Kremkau, Ph.D.

9:30 a.m. Echocardiography Artifacts
Frederick W. Kremkau, Ph.D.

10:00 a.m. Stretch Break

10:15 a.m. Doppler Principles
Frederick W. Kremkau, Ph.D.

11:15 a.m. Self-Assessment Review
Questions and Answers
Frederick W. Kremkau, Ph.D.

11:45 a.m. Lunch Provided

1:00 p.m. **REGISTRY REVIEW FOR SONOGRAPHERS**
Matt M. Umland, RDCS; Pamela R. Burgess, RDCS, RDMS, RVT; Christopher J. Kramer, RDCS; Susan Hamrick, RDCS, RDMS, RVT

4:30 p.m. Adjourn

FRIDAY, SEPTEMBER 23, 2011

7:30 a.m. Continental Breakfast – Visit Exhibits

CONTRAST ENHANCED ECHOCARDIOGRAPHY
Ms. Pamela R. Burgess, presiding

8:00 a.m. Contrast Enhanced Imaging: Guidelines and Recommendations
Mani A. Vannan, MBBS

8:20 a.m. Consenting a Patient, Administration, and Monitoring: Getting It Right
Pamela R. Burgess, RDCS, RDMS, RVT

8:40 a.m. Case Studies in Contrast Enhanced Imaging – LV function, 3D and Contrast, Wall Motion Abnormalities, Stress Echocardiography and More
Christopher J. Kramer, RDCS; Susan Hamrick, RDCS, RDMS, RVT; Pamela R. Burgess, RDCS, RDMS, RVT; Mani A. Vannan, MBBS

Program Schedule

9:40 a.m. Reimbursement for Contrast Enhanced Imaging – Tips, Pitfalls
Matt M. Umland, RDCS

9:50 a.m. Panel Discussion
Dr. Vannan, Mr. Kramer, Mr. Umland, Ms Hamrick; Ms Burgess, moderator

10:00 a.m. Refreshment Break – Visit Exhibits

ISCHEMIC HEART DISEASE, HEART FAILURE
Dr. Vinay Thohan, presiding

10:30 a.m. Stress Echocardiography: Case Examples of Single Vessel, Multi Vessel, Left Main, False Positive
Paul M. Kirkman, M.D.

10:55 a.m. Echocardiography in Heart Failure: When to Use, When Not to Use. AUC Guidelines
Vinay Thohan, M.D.

11:20 a.m. Case Studies in Systolic Heart Failure:
High Output Heart Failure – *Vinay Thohan, M.D.*
Cardiomyopathy from Chemotherapy – *Timothy E. Paterick, M.D.*
Myocarditis – *Christopher J. Kramer, RDCS*

11:40 a.m. Left Ventricular Assist Device: Bridge and Destination Therapy
Vinay Thohan, M.D.

12:00 p.m. How to Evaluate Patients with LVAD – Sonographer
Matt M. Umland, RDCS
How to Interpret Results Obtained – Physician
Vinay Thohan, M.D.

12:30 p.m. Lunch Provided
SPECIAL LUNCH SESSION (Optional)
Are You Ready? How to Ace ICAEL Certification
Pamela R. Burgess, RDCS, RDMS, RVT

RIGHT VENTRICLE
Dr. Rick A. Henderson, presiding

1:45 p.m. Evaluation of the Right Heart – Anatomy and Physiology
Timothy E. Paterick, M.D.

2:05 p.m. The Tricuspid Valve: What Can Go Wrong? Illustrative Cases
Rick A. Henderson, M.D.

2:25 p.m. Broken Right Heart – Illustrative Examples
Paul M. Kirkman, M.D.

2:35 p.m. Panel Discussion
Drs. Kirkman and Paterick; Dr. Henderson, moderator

Program Schedule

ECHOCARDIOGRAPHY AND DOPPLER ECHOCARDIOGRAPHY
What Does ICAEL Want in Your Report? What do ASE Guidelines Say?
Common Errors
Mr. Christopher J. Kramer, presiding

2:45 p.m. A Practical Guide for What and How to Measure – Illustrative Cases
- LV Dimensions By M-mode and 2-D Echo – *Pamela R. Burgess, RDCS, RDMS, RVT*
- LV Volumes and EF (2-D/3-D Echo) – *Matt M. Umland, RDCS*
- LA Volume (2-D/3-D Echo) – *Christopher J. Kramer, RDCS*
- Right Heart Dimensions – *Susan Hamrick, RDCS, RDMS, RVT*

3:45 p.m. Refreshment Break – Visit Exhibits

4:15 p.m. Doppler Hemodynamics: Illustrative Cases
Cardiac Output, Cardiac Index - *Rick A. Henderson, M.D.*
dP/dt, RIMP, Pulmonary Artery Pressure - *Matt M. Umland, RDCS*

4:45 p.m. Mitral Valve Regurgitation: Mild, Moderate or Severe? ERO, Vena Contracta. Wrong and Right
Christopher J. Kramer, RDCS

5:00 p.m. Aortic Valve Regurgitation: Mild, Moderate or Severe? ERO, Vena Contracta. Wrong and Right
Pamela R. Burgess, RDCS, RDMS, RVT

5:15 p.m. Aortic Stenosis – What to Measure. What Can Go Wrong? How to Fix It.
Matt M. Umland, RDCS

5:30 p.m. Mitral Stenosis – All the Information a Sonographer Should Obtain. ASE Recommendations
Susan Hamrick, RDCS, RDMS, RVT

5:45 p.m. Adjourn

SATURDAY, SEPTEMBER 24, 2011

7:30 a.m. Continental Breakfast – Visit Exhibits

STRUCTURAL HEART DISEASE: From Data to Knowledge
AORTIC VALVE
Dr. Paul M. Kirkman, presiding

8:00 a.m. Epidemic of Valvular Heart Disease is Upon Us
Bijoy K. Khandheria, M.D.

8:20 a.m. Aortic Regurgitation: What Information Should Echocardiography Provide? Timing of Operation
Paul M. Kirkman, M.D.

8:40 a.m. Rapid Fire Cases: Aortic Regurgitation
Aortic Dissection and AR – *Christopher J. Kramer, RDCS*
Endocarditis and AR – *Bijoy K. Khandheria, M.D.*
Marantic Endocarditis and AR – *Rick A. Henderson, M.D.*
Aortic Valve Prolapse and AR – *Pamela R. Burgess, RDCS, RDMS, RVT*

Program Schedule

9:00 a.m. Comprehensive Evaluation of Aortic Stenosis. What Do You Need for TAVI?
Bijoy K. Khandheria, M.D.

9:20 a.m. Rapid Fire Cases: Aortic Stenosis
Supravalvular Aortic Stenosis – *Matt M. Umland, RDCS*
Subvalvular Ridge and AS – *Christopher J. Kramer, RDCS*
Low Output, Low Gradient AS – *Timothy E. Paterick, M.D.*
Quadricuspid Aortic Valve – *Susan Hamrick, RDCS, RDMS, RVT*
Bicuspid Aortic Valve: Morphologic Variants – *Vinay Thohan, M.D.*
Bicuspid Aortic Valve and Endocarditis – *Bijoy K. Khandheria, M.D.*

9:50 a.m. Panel Discussion
Drs. Khandheria and Paterick, Ms. Burgess, Ms. Hamrick. Mr. Umland, Mr. Kramer; Dr. Kirkman, moderator

10:00 a.m. Refreshment Break – Visit Exhibits

MITRAL VALVE
Dr. Timothy E. Paterick, presiding

10:30 a.m. My Patient Has Severe MR. What Should I Do?
Bijoy K. Khandheria, M.D.

10:55 a.m. Mitral Clip Procedure: 2-D/3-D Echocardiography
Mani A. Vannan, MBBS

11:20 a.m. Prosthetic Valve: 2011
Bijoy K. Khandheria, M.D.

11:45 a.m. Panel Discussion
Drs. Vannan and Khandheria; Dr. Paterick, moderator

12:00 p.m. Lunch

CARDIAC RESYNCHRONIZATION THERAPY
Dr. Rick A. Henderson, presiding

1:15 p.m. CRT: State of the Art 2011
Rick A. Henderson, M.D.

1:35 p.m. CRT: Sonographer to Acquire
Matt M. Umland, RDCS

1:55 p.m. CRT: How Do I Interpret
Rick A. Henderson, M.D.

2:15 p.m. Illustrative Cases
Pamela R. Burgess, RDCS, RDMS, RVT and Matt M. Umland, RDCS

2:30 p.m. Case Studies
Systemic Disease and the Heart – *Timothy E. Paterick, M.D.*
Complications of Endocarditis – *Bijoy K. Khandheria, M.D.*
Disease of the Aorta – *Timothy E. Paterick, M.D.*
Artifacts, Regurgitant Lesions – *Bijoy K. Khandheria, M.D.; Susan Hamrick, RDCS, RDMS, RVT; Christopher J. Kramer, RDCS; Matt M. Umland, RDCS*

Program Schedule

3:30 p.m. Refreshment Break – Visit Exhibits

4:00 p.m. **LIVE SCANNING WORKSHOP**
Transthoracic 3-D Imaging
Speckle, Twist, Torsion, Strain
Unusual Windows
Pamela R. Burgess, RDCS, RDMS, RVT;
Susan Hamrick, RDCS, RDMS, RVT; Matt M. Umland, RDCS;
Christopher J. Kramer, RDCS

5:30 p.m. Adjourn

SUNDAY, SEPTEMBER 25, 2011

7:30 a.m. Continental Breakfast

DIASTOLIC FUNCTION, MYOCARDIAL, PERICARDIAL DISEASE
Dr. Bijoy K. Khandheria, presiding

8:00 a.m. Is It Constriction? Is It Restriction?
Bijoy K. Khandheria, M.D.

8:20 a.m. Myocardial Mechanics: Basic to Advanced. Vortex Imaging
Mani A. Vannan, MBBS

8:40 a.m. Diastolic Function: Why, How, When
Bijoy K. Khandheria, M.D.

9:00 a.m. LV Non-Compaction: State of the Art 2011
Timothy E. Paterick, M.D.

9:20 a.m. HOCM: State of the Art 2011
Bijoy K. Khandheria, M.D.

9;40 a.m. Athelete, Heart Disease, Echocardiography. Thoughts From the Athelete Echocardiographer
Timothy E. Paterick, M.D.

10:00 a.m. Panel Discussion
Drs. Paterick and Vannan; Dr. Khandheria, moderator

10:15 a.m. Program Evaluation and Closing Remarks – Adjourn

Registration Form

The Beat Goes On

September 22-25, 2011

Mail Form and Payment To:
Program for Medical Ultrasound
Wake Forest School of Medicine
Medical Center Blvd.
Winston-Salem, NC 27157-1039

Phone or Fax Application to:
Telephone: 336-716-4505
Fax: 336-716-2447
E-mail: cmu@wfubmc.edu

On-line Registration: *www.wakehealth.edu/ultrasound*

(Please print or type all information. You may duplicate this form for multiple registrations.)

Name_____
First Name *Middle Initial* *Last Name*

Degree ☐ MD ☐ DO ☐ PhD ☐ RN ☐ RCS ☐ RDCS ☐ Other_____

Institution _____

E-mail Address_____

Address below is: ☐ Work/Business ☐ Home

Street address:_____

City_____State/PV_____ZIP/Postal Code_____Country_____

Telephone (_____)_____ FAX (_____)_____

☐ If you need disability accommodations, please check here and advise us of your needs.

_____

Special Dietary Needs: _____

Fee Categories:

		Optional Printed Syllabus
☐ ASE Physician Member#_____	☐ $540	☐ $20
☐ Non-Member Physician	☐ $675	
☐ ASE Sonographer Member*#_____	☐ $380	
☐ Non-Member (Select from below)*	☐ $475	Total: $_____
☐ Fellow in Training ☐ Resident	☐ Nurse	
☐ Physician Assistant ☐ Sonographer	☐ Emeritus Staff	
☐ One-day Only (check which day you plan to attend)	☐ $250	
☐ Thursday ☐ Friday ☐ Saturday	☐ Sunday	

**Registrants in the lower fee categories are required to submit either a business card, proof of licensure, or a letter on official letterhead and signed by a supervisor to verify status.*

PAYMENT - Payment must accompany application.

☐ Check *(payable to Wake Forest School of Medicine-Ultrasound in U.S. dollars drawn on a U.S. bank)*
☐ Credit Card: ☐ Visa ☐ MasterCard

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Cardholder's Name

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Card Number Expiration Date

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Heart & Circulation Ultrasound Specialists

6th Annual

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Wake Forest School of Medicine
Medical Center Boulevard
Winston-Salem, NC 27157-1039

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