2nd Annual

Imaging Ventricular Function in Congenital and Acquired Heart Disease: From Doppler to Deformation – State-of-the-Art in 2012

October 19-20, 2012 – NEW DATES!
Marriott Hotel
Rochester, MN

Course Directors:
Benjamin W. Eidem, M.D., FACC, FASE
Mayo Clinic, Rochester, MN

Luc Mertens, M.D., Ph.D., FASE, FESC
The Hospital for Sick Children, Toronto, Canada

Mark K. Friedberg, M.D., FASE
The Hospital for Sick Children, Toronto, Canada

Register Online Today:
http://www.mayo.edu/cme/cardiovascular-diseases-2012r107
Course Description

Imaging Ventricular Function in Congenital & Acquired Heart Disease: From Doppler to Deformation – State of the Art in 2012, is designed to be a comprehensive and interactive review of the newest modalities available for ventricular functional assessment in non-invasive imaging. Internationally-recognized experts will provide in-depth lectures and hands-on sessions on tissue Doppler, Doppler- and speckle-based strain and strain rate imaging, as well as three-dimensional deformation analysis that will educate the course participants in all facets of image acquisition, functional analysis, and important clinical applications in both children and adults with congenital and acquired heart disease. A thorough review of the science and methodologies related to these technologies combined with practical imaging pearls and clinical management strategies will provide both the sonographer and echocardiographer with a comprehensive update on the most up-to-date knowledge and scientific advances in this exciting field.

Teaching Material/Syllabus

Attendees will be provided with a memory stick containing course materials. No paper syllabus will be provided. You are welcome to bring a computer during the learning session.

Course Learning Objectives

Upon conclusion of this program, participants should be able to:

• Demonstrate proficiency in the acquisition and analysis of tissue Doppler and deformation imaging parameters (strain, strain rate, rotation, torsion)
• Demonstrate basic knowledge of cardiac function and its assessment in the setting of congenital and acquired heart disease
• Interpret 2-D/Doppler/tissue Doppler/deformation imaging parameters in the setting of congenital and acquired heart disease
• Integrate these novel imaging parameters into appropriate clinical management strategies in patients with congenital and acquired heart disease
• Recognize important limitations of these novel echocardiographic parameters in applications to clinical patient management
• Use additional imaging tests more cost effectively

Attendance at this Mayo course does not indicate nor guarantee competence or proficiency in the performance of any procedures which may be discussed or taught in this course.

Intended Audience

This course is designed for pediatric and adult cardiologists, fellows in training, and cardiac sonographers. The emphasis is on novel modalities of tissue Doppler echocardiography and deformation imaging. Participants should have a good working knowledge of traditional modalities of echocardiography.

Credit

College of Medicine, Mayo Clinic, is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

College of Medicine, Mayo Clinic, designates this live activity for a maximum of 16.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Other Health Care Professionals

A certificate of attendance will be provided to other health care professionals for requesting credits in accordance with state nursing boards, specialty societies, or other professional associations.

Educational Grants

This course is supported, in part, by educational grants in accordance with ACCME Standards.

At the time of this printing, a complete listing of commercial supporters was not available. Appropriate acknowledgment will be given to all supporters at the time of the meeting.

Exhibits will be available for viewing at all scheduled breaks in the foyer.

Date and Location

The Imaging Ventricular Function in Congenital and Acquired Heart Disease symposium will be held Friday, October 19 - Saturday, October 20. Course headquarters will be located on the 2nd floor of the Marriott Hotel, 101 First Avenue SW, Rochester, Minnesota.

Meeting facilities are easily accessible by skyway and pedestrian subway, which connect Mayo Clinic to shops, restaurants, and hotels.

Registration

Registrations are accepted online at http://www.mayo.edu/cme/cardiovascular-diseases-2012r107 or via phone (800-283-6296 or 507-266-6703). The registration fee
includes tuition, comprehensive course electronic syllabus, continental breakfasts, lunch, and break refreshments. Although it is not Mayo School of Continuous Professional Development’s policy to limit the number of registrants for a course, conference room facilities may necessitate closing of enrollment; therefore, early registration is advised. A letter of confirmation will be sent upon receipt of payment and completed registration form. Please present the confirmation letter when checking in at the meeting registration desk.

For additional information, contact:
Mayo Clinic Cardiovascular Diseases
(Reference: Strain 2012)
200 1st Street SW /GO6-138SW
Rochester, MN 55905
Website: http://www.mayo.edu/cme/
cardiovascular-diseases-2012r107
E-mail: cvcme@mayo.edu
Phone: 800-283-6296 or 507-266-6703
Fax: 507-266-7403

Cancellation Policy
If you cancel your participation in this course, your registration fee, less a $75 administrative fee, will be refunded when written notification is received by Mayo School before Friday, October 5, 2012, (cvcme@mayo.edu or fax#: 507-266-7403). No refunds will be made on or after Friday, October 5, 2012. Canceled registrations are non-transferable.

Mayo School of Continuous Professional Development reserves the right to cancel or postpone any course due to unforeseen circumstances. In the unlikely event Mayo School of Continuous Professional Development must cancel or postpone this course, Mayo School of Continuous Professional Development will refund the registration fee, but is not responsible for any related costs, charges, or expenses to participants, including fees assessed by airline/travel/lodging agencies.

Travel
Rochester, Minnesota, is a friendly city that greets thousands of visitors from around the world each year. The city is serviced by a modern international airport with multiple flights daily via American or Delta Airlines. Access to and from the airport is provided by taxi, shuttle service, and rental car. The airport is located approximately 10 miles from the Mayo Clinic campus.

Note to Travelers: Several cities in the United States are named Rochester. When you make airline reservations and check your baggage, be sure that your destination is Rochester, Minnesota (RST) and that your baggage has been properly tagged.

Travel arrangements are the sole responsibility of the individual registrant.

Lodging Accommodations
Guest rooms have been reserved for attendees and their guests with special course rates at each of the following downtown Rochester hotels. In order to receive the special rate, reservations must be made before the room block is filled or before the expiration date of Friday, September 28, 2012, whichever comes first. Reservations will be taken following this date based on space and rate availability. Please identify yourself as a participant of the STRAIN COURSE when making your reservation.

Kahler Grand Hotel
20 Second Avenue SW
800-283-6296 or 507-266-6703
$119 single/double
http://www.kahler.com/

Rochester Marriott Hotel
101 First Avenue SW
877-623-7775 or 507-280-6000
$139 single/double
http://www.marriott.com/

The hotels listed above are connected by skyway and pedestrian subway to conference facilities, downtown shops, and restaurants. You may wish to visit the Rochester Convention and Visitors Bureau website www.rochestercvb.org and/or www.rochester411.com for additional accommodation options and area information.

Lodging arrangements are the sole responsibility of the individual registrant.

Mayo School of Continuous Professional Development is not responsible for expenses incurred by an individual who is not confirmed and for whom space is not available at the meeting. Costs incurred by the registrant such as airline or hotel fees or penalties are the responsibility of the registrant.

Parking
Parking is available in hotel, city, and Mayo patient/visitor ramps. The cost for parking is not included in the registration fee. A map indicating the location of downtown parking facilities will be mailed with the registrant confirmation letter.
Faculty

Course Director
Benjamin W. Eidem, M.D., FACC, FASE
Professor of Pediatrics and Medicine, Mayo Clinic; Consultant, Division of Cardiovascular Diseases and Pediatric Cardiology; Director, Pediatric & Fetal Echocardiography Laboratory; Co-Director, Mayo Clinic Echocardiographic Laboratory, Mayo Clinic, Rochester, MN

Luc Mertens, M.D., Ph.D., FASE, FECS
Associate Professor at University of Toronto; Section Head, Echocardiography, The Hospital for Sick Children, Toronto, Canada

Mark K. Friedberg, M.D., FASE
Associate Professor in Pediatrics, Staff Cardiologist, The Labatt Family Heart Center, The Hospital for Sick Children, University of Toronto, Toronto, Canada

Mayo Faculty
Paul M. Bastiansen, RDCS
Advanced Clinical and Research Sonographer, Cardiovascular Ultrasound Imaging and Hemodynamic Laboratory, Mayo Clinic, Rochester, MN

Nowell M. Fine, M.D.
Advanced Adult Cardiology Fellow, Mayo Clinic, Rochester, MN

Rebecca (Becky) K. Lindquist, RDCS
Clinical Sonographer, Cardiovascular Ultrasound Imaging and Hemodynamic Laboratory; Head Research Sonographer, Congenital Echocardiography Research Laboratory, Mayo Clinic, Rochester, MN

Angela R. Miller, R.D.C.S.
Clinical Sonographer, Cardiovascular Ultrasound Imaging and Hemodynamic Laboratory; Congenital Echocardiography Research Laboratory, Mayo Clinic, Rochester, MN

Jae K. Oh, M.D., FACC, FAHA, FASE
Professor of Medicine, Mayo Clinic; Co-Director, Integrated CV Imaging, Mayo Clinic, Rochester, MN; and Director, Cardiovascular Center, Samsung Medical Center, Seoul, Korea

Chelsea L. Reece, R.D.C.S.
Clinical Sonographer, Cardiovascular Ultrasound Imaging and Hemodynamic Laboratory; Congenital Echocardiography Research Laboratory, Mayo Clinic, Rochester, MN

Hector R. Villarraga, M.D., FACC, FASE
Assistant Professor of Medicine, Mayo Clinic; Consultant, Division of Cardiovascular Diseases and Internal Medicine, Mayo Clinic, Rochester, MN

Guest Faculty
Andrea Dragulescu, M.D., Ph.D.
Assistant Professor in Pediatrics, Staff Cardiologist, The Labatt Family Heart Center, The Hospital for Sick Children, University of Toronto, Toronto, Canada

Javier Ganame, M.D., Ph.D.
Assistant Professor of Medicine, Cardiology Division, McMaster University, Hamilton, Ontario, Canada

Cameron Slorach, RDCS
Clinical and Research Cardiac Sonographer, Research Echo and Vascular Laboratory, The Hospital for Sick Children, University of Toronto, Toronto, Canada

Faculty Disclosure

As a provider accredited by ACCME, College of Medicine, Mayo Clinic (Mayo School of Continuous Professional Development) must ensure balance, independence, objectivity and scientific rigor in its educational activities. Course director(s), planning committee, faculty, and all others who are in a position to control the content of this educational activity are required to disclose all relevant financial relationships with any commercial interest related to the subject matter of the educational activity. Safeguards against commercial bias have been put in place. Faculty also will disclose any off-label and/or investigational use of pharmaceuticals or instruments discussed in their presentation. Disclosure of this information will be published in course materials so those participants in the activity may formulate their own judgments regarding the presentation.
FRIDAY, OCTOBER 19, 2012

7:30 a.m.  Registration and Continental Breakfast

8:15 a.m.  Welcome and Course Pretest
           Benjamin W. Eidem, M.D.

INTRODUCTION TO CARDIAC FUNCTION
Dr. Benjamin W. Eidem, presiding

8:30 a.m.  Assessment of Cardiac Function – Back to the Basics
           (Concepts of Contractility, Loading, Geometry, Invasive Measurements)
           Luc Mertens, M.D., Ph.D.

9:00 a.m.  Cardiac Mechanics – The Basic Principles
           Luc Mertens, M.D., Ph.D.

9:30 a.m.  Relationship Between Myocardial Deformation and Function. What Does Deformation Imaging Add Clinically
           Javier Ganame, M.D., Ph.D.

10:00 a.m. Refreshment Break

BASIC PRINCIPLES OF DEFORMATION AND VELOCITY IMAGING
Dr. Luc Mertens, presiding

10:30 a.m. Tissue Velocities and Isovolumic Acceleration: Basic Principles and How Do We Measure Them?
           Mark K. Friedberg, M.D.

10:50 a.m. Strain and Strain Rate: Basic Principles and How Do We Measure Them?
           Javier Ganame, M.D., Ph.D.

11:10 a.m. Torsion: How Do We Measure It and What Does It Mean?
           Andrea Dragulescu, M.D., Ph.D.

11:30 a.m. Velocities and Deformation – Validation, Variability, and Normal Values in Children
           Luc Mertens, M.D., Ph.D.

11:50 a.m. Questions and Answers
           Drs. Ganame, Friedberg, and Dragulescu; Dr. Mertens, moderator

12:15 p.m. Lunch
           Elizabethan Room, Kahler Hotel, Lobby Level

EVALUATION OF SYSTOLIC FUNCTION IN CHILDREN WITH CARDIOMYOPATHY
Dr. Mark K. Friedberg, presiding

1:30 p.m.  Evaluation of Ventricular Systolic Function in Children – A Practical Approach
           Benjamin W. Eidem, M.D.

1:50 p.m.  Evaluation of Ventricular Systolic Function in Children With Dilated Cardiomyopathy
           Mark K. Friedberg, M.D.

2:10 p.m.  Evaluation of Ventricular Systolic Function in Children With Hypertrophic Cardiomyopathy
           Javier Ganame, M.D., Ph.D.

2:30 p.m.  Early Detection of Myocardial Dysfunction in Cardiomyopathies
           Luc Mertens, M.D., Ph.D.

2:50 p.m.  Panel Discussion
           Drs. Eidem, Ganame, and Mertens; Dr. Friedberg, moderator

3:15 p.m.  Refreshment Break

APPLICATIONS OF STRAIN IMAGING IN ACQUIRED HEART DISEASE
Dr. Benjamin W. Eidem, presiding

3:30 p.m.  Strain in Coronary Artery Disease
           Nowell M. Fine, M.D.

4:00 p.m.  Strain for Evaluation of Thickened Myocardial Walls: Athlete Heart/HCM, Hyertension/Amyloid
           Hector R. Villarraga, M.D.

4:30 p.m.  Can Strain Help to Differentiate Myocardial from Pericardial Disease?
           Nowell M. Fine, M.D.

5:00 p.m.  Assessment of Ventricular Function in Adult Congenital Heart Disease
           Benjamin W. Eidem, M.D.

HANDS-ON DEMONSTRATION
Rebecca (Becky) K. Lindquist, RDCS, Paul M. Bastiansen, RDCS,
Angela R. Miller, RDCS, Chelsea L. Reece, RDCS, and Cameron Slorach, RDCS

5:30 p.m.  The Functional Protocol Demonstration
           Location: Siebens 4-02

           Cases and Hands-on Imaging
           With Examples of Optimal and Suboptimal Imaging
           Location: Siebens 4-10

6:30 p.m.  Adjourn
SATURDAY, OCTOBER 20, 2012

7:00 a.m.  Continental Breakfast

EVALUATION OF DIASTOLIC FUNCTION IN CHILDREN
Dr. Mark K. Friedberg, presiding

7:45 a.m.  Basic Determinants of Diastolic Function
Luc Mertens, M.D., Ph.D.

8:15 a.m.  Current Techniques Used for Evaluation of Ventricular Diastolic Function in Adults
Rebecca (Becky) K. Lindquist, RDCS and Benjamin W. Eidem, M.D.

8:45 a.m.  Diastolic Functional Parameters and Invasive Pressure Measurements in Children. Why are Children Different?
Andrea Dragulescu, M.D., Ph.D.

9:15 a.m.  Refreshment Break

VELOCITY AND DEFORMATION IMAGING IN CONGENITAL HEART DISEASE
Dr. Luc Mertens, presiding

9:30 a.m.  The Effect of Geometry and Loading on Tissue Velocities and Deformation
Luc Mertens, M.D., Ph.D.

9:50 a.m.  Velocity and Deformation Imaging in Left Heart Lesions: Aortic Stenosis, Coarctation of the Aorta – Any Use?
Javier Ganame, M.D., Ph.D.

10:10 a.m.  Velocity and Deformation Imaging in Assessment of the Univentricular Heart Function
Mark K. Friedberg, M.D.

10:30 a.m.  Velocity and Deformation Imaging in Other Lesions: Transposition, ALCAPA, …
Benjamin W. Eidem, M.D.

10:50 a.m.  Panel Discussion
Drs. Ganame, Friedberg, and Eidem; Dr. Mertens, moderator

ASSESSMENT OF RV FUNCTION BY ECHOCARDIOGRAPHY
Dr. Benjamin W. Eidem, presiding

11:00 a.m.  Current Techniques for RV Functional Assessment
Paul M. Bastiansen, RDCS and Benjamin W. Eidem, M.D.

11:20 a.m.  RV Assessment After Tetralogy of Fallot Repair - Importance of Regional Myocardial Deformation
Andrea Dragulescu, M.D., Ph.D.

11:40 a.m.  RV Assessment in Pulmonary Hypertension
Mark K. Friedberg, M.D.

12:00 p.m.  Lunch
Elizabethan Room
Kahler Hotel, Lobby Level

ASSESSMENT OF VENTRICULAR DYSSYNCHRONY AND DEVICE OPTIMIZATION
Dr. Benjamin W. Eidem, presiding

1:00 p.m.  What Methods Are Available and Which Should We Use?
Mark K. Friedberg, M.D.

1:20 p.m.  Is There Utility for Echo Assessment of Dyssynchrony After the PROSPECT Trial?
Jae K. Oh, M.D.

1:40 p.m.  How Do We Use Echo to Optimize CRT Devices
Cameron Slorach, RDCS and Mark K. Friedberg, M.D.

2:00 p.m.  Panel Discussion
Drs. Friedberg and Oh; Dr. Eidem, moderator

2:15 p.m.  Refreshment Break and Visit Exhibits

FUTURE DIRECTIONS
Dr. Luc Mertens, presiding

2:30 p.m.  What and How to Introduce New Technology in a Pediatric Echo Lab
Benjamin W. Eidem, M.D.

3:00 p.m.  3-D Strain: Useful Tool or Cute Toy
Mark K. Friedberg, M.D.

3:30 p.m.  The Future of Pediatric Echocardiography – How Many Dimensions to Add?
Luc Mertens, M.D., Ph.D.

4:00 p.m.  Panel Discussion
Drs. Eidem and Friedberg; Dr. Mertens, moderator

4:15 p.m.  Post-Test
Benjamin W. Eidem, M.D.

HANDS-ON DEMONSTRATION
Rebecca (Becky) K. Lindquist, RDCS, Paul M. Bastiansen, RDCS, Angela R. Miller, RDCS, Chelsea L. Reece, RDCS, and Cameron Slorach, RDCS

4:30 p.m.  The Functional Protocol Demonstration
Location: Siebens 4-05
Cases and Hands-on With Examples of Optimal and Suboptimal Imaging
Location: Siebens 4-06

5:30 p.m.  Adjourn
Register online:
http://www.mayo.edu/cme/cardiovascular-diseases-2012R107

Registration Fee:
Course Registration (MD, PhD, DO, PharmD) $525.00
Course Registration (Fellows, Sonographer, RN) $400.00
One Day Fee $300.00

Mayo Clinic Division of Cardiology has recently implemented an online conference registration system. If this is your first time using the online system, you will need to create a profile and login account.

Register by entering the url: http://www.mayo.edu/cme/cardiovascular-diseases-2012R107 and click on Register Now. The system will guide you through the profile and login process. An e-mail address is required upon registration. A letter of confirmation will be forwarded to this address upon receipt of payment and submitted registration. Present this letter of confirmation when checking in at the meeting registration desk.

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For additional information, contact:
Cardiovascular Continuing Education
200 First Street SW – Gonda 6
Rochester, MN 55905

E-mail: cvcmeye@mayo.edu
Phone: 800-283-6296 or 507-266-6703
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If you already received a copy of this brochure, please give this brochure to an interested colleague.