### 28th Annual International Conference on

## RECENT ADVANCES IN ECHOCARDIOGRAPHY AND ALLIED TECHNIQUES (MRI, CT SCAN, NUCLEAR)

FRIDAY, March 23, 2012

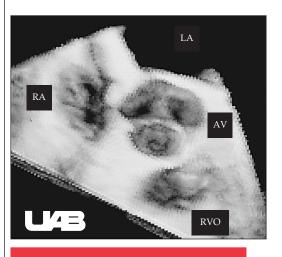
McCormick Place Convention Center, Chicago, Illinois

# INTERESTING CASE STUDIES A TOTAL OF OVER **55 CASES** BY OVER **55 FACULTY** ARE EXPECTED TO BE SHOWN

This event is not part of the official ACC Annual Scientific Session & Expo and/or ACC-i2 with TCT, as planned by their Program Committees.

### CONFERENCE DIRECTOR: Navin C. Nanda, MD

Jointly sponsored by the University of Alabama School of Medicine, UAB Division of Continuing Medical Education and University of Alabama at Birmingham Echocardiography Laboratory, Birmingham, Alabama, the International Society of Cardiovascular Ultrasound and the American Association of Cardiologists of Indian Origin



McCormick Place Convention Center 2301 South Lakeshore Drive, Chicago, Illinois Room: N229 – North Building, 2nd level



- **Purpose:** This conference is designed to provide a review of echocardiography and allied techniques (MRI, CT Scan, Nuclear) with emphasis on case studies dealing with valvular heart disease, endocarditis, valve repair, peripheral arterial diseases, prosthetic valves, heart failure, tumors, embolism, trauma, dissection, adult congenital heart disease, coronary artery disease, stress, intraoperative, 3-dimensional, LV strain/strain rate, Doppler tissue imaging, velocity vector imaging and contrast echocardiography. Although the symposium is designed mainly for physicians and technologists, we invite nurses, and other health and industry professionals to attend.
- **Objectives:** We expect the attendees to acquire and enhance their knowledge of various aspects of echocardiography; to be able to describe uses of basic modes of display for cardiac assessment; recognize normal anatomy and pathology of the heart from ultrasound images and to describe the use of Doppler ultrasound in the assessment of blood flow within the heart.
- Accreditation: 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 sponsorship of the University of Alabama School of Medicine (UASOM), University of Alabama at Birmingham Echocardiography Laboratory, Birmingham, Alabama, the International Society of Cardiovascular Ultrasound and the American Association of Cardiologists of Indian Origin. The UASOM is accredited by the ACCME to provide continuing medical education for physicians.

The University of Alabama School of Medicine designates this educational activity for a maximum of 7.25 AMA PRA Category 1 Credits<sup>TM</sup>. Physicians should only claim credit commensurate with the extent of their participation in the activity.

The University of Alabama School of Medicine is an equal opportunity/affirmative action institution. While designated for credit hours, the program is not intended to provide extensive training or certification in the field. Non-physicians should check with their registry organization regarding acceptance of the AMA PRA Category 1 Credits<sup>TM</sup>.

### **ACKNOWLEDGEMENTS**

No commercial support has been provided for this conference.

### **FUTURE CONFERENCES**

- October 11-14, 2012, 25<sup>th</sup> Annual Conference on 2D, Conventional and Color Doppler Echocardiography, Callaway Gardens Resort, Pine Mountain, Georgia. Conference Director: Navin C. Nanda, M.D., Conference Co-Director: Robert B. Copeland, M.D.
- May 22-24, 2013, XVIII World Congress of Cardiology, Echocardiography and Allied Imaging Techniques, Riva Marina Resort Congress Center, Brindisi, Italy. Co-sponsored by the Italian Society of Cardiology, Apulian Chapter. President: Dr. Pasquale Palmiero; General Secretary: Dr. Maria Maiello
- May 30-June 1, 2014, XIX World Congress of Echocardiography and Allied Techniques, Romania. Cosponsored by the Romanian Society of Cardiology. Honorary President: Prof. Dr. Carmen Ginghina; Executive President, Dr. Ioan Mircea Coman, Secretary: Dr. Bogdan A. Popescu
- For information, contact: Navin C. Nanda, M.D., President, International Society of Cardiovascular Ultrasound, P.O. Box 323, Gardendale, AL 35071, USA. Tel: 205-934-8256; fax: 205-934-6747; E-mail: lindyc@uab.edu. Web site: http://www.iscu.org
- Preceptorship Training in Echocardiography Transthoracic (including 3D) or Transesophageal Echocardiography (all physicians and technologists), University of Alabama at Birmingham, Birmingham, Alabama. Director: Navin C. Nanda, M.D. Each one-week program emphasizes training in the latest theory, technique and practice of cardiovascular ultrasound examinations with emphasis on either transthoracic, transesophageal or 3-dimensional echocardiography. Fee: Physicians (\$1,000.00), Technologists (\$500.00). For further information contact: Navin C. Nanda, M.D., University of Alabama at Birmingham, Birmingham, Alabama. University of Alabama at Birmingham, Heart Station SW/S102, 619 19 Street South, Birmingham, AL 35249-6846. Tel: 205-934-8256; fax: 205-934-6747; E-mail: nanda@uab.edu

### **CONFERENCE DIRECTOR:**

Navin C. Nanda, MD, Distinguished Professor of Medicine and Cardiovascular Disease and Director, Heart Station/Echocardiography Laboratories, University of Alabama at Birmingham, Birmingham, Alabama. Director, Echocardiography Laboratories, The Kirklin Clinic, University of Alabama Health Services Foundation, Birmingham, Alabama.

### **FACULTY:**

- **Aiden Abidov, MD, PhD,** Associate Professor of Medicine and Radiology, Medical Director, Cardiology at UPHH, Director of Cardiovascular Imaging at UA Healthcare Networkand The Leonard C. Pfeiffer Chair of Cardiovascular Medicine, University of Arizona, Tucson, Arizona
- **Masood Ahmad, MBBS,** Professor of Medicine, Edward D. and Sally M. Futch Professor of Cardiology Division of Cardiology, Department of Internal Medicine and Medical Director, Echocardiography Laboratory, UTMB Galveston, Galveston, Texas
- Mouaz H. Al-Mallah, MD, MSc, Associate Professor of Medicine, Wayne State University, Detroit, Michigan and Consultant Cardiologist and Division Head, Cardiac Imaging, King Abdul-Aziz Cardiac Center, King Abdul-Aziz Medical City, Riyadh, Kingdom of Saudi Arabia
- **Daniel Areco, MD,** Director, Cardiology Department and Chest Pain Unit, Army Forces General Hospital, Montevideo, Uruguay
- **Alberto Baron, MD,** Director of Medical Department and Cardiology, Clinica Marly, Bogota, Colombia **Thomas Bartel, MD,** Assistant Professor of Medicine and Director, Program for Structural Heart Disease, Medical University Innsbruck, Innsbruck, Austria
- **Miguel Angel Bayas Paredes, MD,** Cardiologist, Echocardiography Laboratories, Axxis Hospital, Vozandes Hospital, Quito, Ecuador
- Aarti Bhat, MD, Assistant Professor/Pediatric, Seattle Children's Hospital, Seattle, Washington
- Roland R. Brandt, MD, Director, Echocardiography Laboratory, Kerckhoff Heart Center, Bad Nauheim, Germany
- M. Jay Campbell, MD, Assistant Professor of Pediatric Cardiology, Duke University Medical School, Duke Cardiovascular Magnetic Resonance Center, Durham, North Carolina
- Sibel Catirli Enar, MD, Associate Professor of Cardiology, Turkiye Hospital, Istanbul, Turkey
- Andaleeb Chowdhury, MBBS, Cardiologist, United Arab Emirates
- **Reema Chugh, MD,** Cardiologist, Specialist in Adult Congenital Heart Disease and Heart Disease in Pregnancy, Kaiser Foundation Hospitals, Panorama City (Los Angeles), California
- **Nathalie De Michelis, RN, BSN,** Cardiovascular Program Manager, University of California Irvine HealthCare, Orange, California
- **Nilda Espinola-Zavaleta, MD, PhD,** Professor of Echocardiography, Instituto Nacional de Cardiologia Ignacio Chavez, and Chief of Echocardiography, ABC Medical Center, Mexico City, Mexico
- **Lee J. Frazin, MD,** Professor of Clinical Medicine, University of Illinois at Chicago and Director, Echocardiography Laboratory, Jesse Brown VA Hospital, Chicago, Illinois
- **Julius M. Gardin, MD**, Professor and Chair, Department of Medicine, Hackensack University Medical Center, Hackensack, New Jersey
- Mark H. Goldberger, M.D., Assistant Clinical Professor of Medicine, Columbia University College of Physicians and Surgeons and Assistant Attending Physician, New York-Presbyterian Hospital, Columbia Campus, New York. New York
- **John Gorcsan, III, MD,** Professor of Medicine and Director of Echocardiography, University of Pittsburgh, Pittsburgh, Pennsylvania
- **Brian D. Hoit, MD,** Professor of Medicine and Physiology and Biophysics, Case Western Reserve University and Director of Echocardiographic Services, University Hospitals Health System, Cleveland, Ohio
- T. Fikret Ilgenli, MD, Associate Professor of Cardiology, Golcuk Military Hospital, Kocaeli, Turkey
- Omer Igbal, MD, Associate Professor, Loyola University Medical Center, Maywood, Illinois
- Chisato Izumi, MD, Cardiologist, Department of Cardiology, Tenri Hospital, Nara, Japan
- **Vidyut Kumar Jain, MD,** Professor of Medicine and Chairman, Department of Cardiology, Choithram Hospital, Indore, India
- **Leng Jiang, MD, Professor of Medicine, Tufts University School of Medicine, Boston, Massachusetts and Director of Noninvasive Cardiology, Baystate Medical Center, Springfield, Massachusetts**

- **Madhavi Kadiyala, MD,** Assistant Director, Cardiac CT and MRI and Staff Echocardiologist, Saint Francis Hospital, Roslyn, NY
- **Elsadig Kazzam, MD, PhD,** Professor and Senior Consultant in Clinical Cardiology, Department of Internal Medicine, Faculty of Medicine & Health Sciences, United Arab Emirates University, Al-Ain, United Arab Emirates
- **James N.Kirkpatrick, MD,** Assistant Professor, Cardiovascular Medicine Division, and Echocardiography Laboratory, Hospital of the University of Pennsylvania, University of Pennsylvania, Philadelphia, Pennsylvania
- Joseph Kisslo, M.D., Professor of Medicine, Duke University Medical Center, Durham, North Carolina
- **Arthur J. Labovitz, MD,** Professor of Medicine and Vice Chair, Department of Cardiovascular Sciences, University of South Florida, Tampa, Florida
- **Stamatios Lerakis, MD**, Professor of Medicine (Cardiology), Radiology and Imaging Sciences, Emory University School of Medicine and Director of Interventional Echo and Cardiac MRI, Emory University Hospital and Clinic, Atlanta, Georgia
- **Shoa-Lin Lin, MD,** Professor of Medicine, National Defense Medical College and Director, Intensive Care Unit, Kaohsiung Veterans General Hospital, Kaohsiung City, Taiwan
- **Kameswari Maganti, MD,** Associate Professor of Medicine and Director, Cardiac Rehabilitation, Northwestern University Feinberg School of Medicine, Chicago, Illinois
- **Wilson Mathias Junior, MD,** Director, Echocardiography, Heart Institute (InCor), The University of Sao Paulo, Sao Paulo, Brazil
- **Gerald Maurer, MD,** Professor of Medicine, Director, Division of Cardiology and Chair, Department of Medicine II, Medical University of Vienna, Vienna, Austria
- **David Mehlman, MD,** Associate Professor of Medicine, Northwestern University Feinberg School of Medicine and Northwestern Memorial Hospital, Chicago, Illinois
- Virginia Michelis, MD, Chest Pain Unit, Army Forces General Hospital, Montevideo, Uruguay
- Jagdish C. Mohan, MD, Chairman, Institute of Heart & Vascular Diseases, JGH, New Delhi, India
- Bernhard Mumm, MSC, President & COO TomTec Imaging Systems, Munich, Germany
- H. Joachim Nesser, MD, Professor of Medicine and Director, Department Medicine II (Cardiology-Angiology-Intensive Care), Elisabethinen Teaching Hospital, Linz, Austria
- **Ryozo Omoto, MD,** Professor Emeritus and Honorary Director, Saitama Medical University Hospital, Saitama, Japan
- Ramdas G. Pai, MD, Professor of Medicine, Director, Heart and Imaging Center, and Director of Valve Clinic, Loma Linda University Medical Center, Loma Linda, California
- V. Maurizio Parato, MD, Professor of Cardiology, Politecnica delle Marche and Director, Chest Pain Unit, Mazzoni Hospital, Ascoli, Italy
- **Nelson Pizzano, MD,** Director, Echo Lab, National Institute of Cardiac Surgery, Montevideo, Uruguay **Athena Poppas, MD,** Associate Professor of Medicine, Brown University and Director, Echocardiography Laboratory, Rhode Island Hospital, Providence, Rhode Island
- **Jyothy J. Puthumana, M.D.**, Assistant Professor, Division of Cardiology, Northwestern University, Feinberg School of Medicine and Northwestern Memorial Hospital, Chicago, Illinois
- **Hanumanth K. Reddy, MD,** Adjunct Professor of Medicine, University of Arkansas for Medical Sciences, Little Rock, Arkansas
- **Gustavo Restrepo, MD**, Echocardiography Laboratory, Clinica Medellin and Director, Echocardiography Fellowship Program, Universidad CES, Medellin, Colombia
- **Vera H. Rigolin, MD,** Associate Professor of Medicine, Northwestern University Feinberg School of Medicine and Medical Director, Echocardiography Laboratory, Northwestern Memorial Hospital, Chicago, Illinois
- (Col.) C.P. Roy, MD, DM (Cardiology), Professor of Cardiology, Director and Head, Department of Medical Education (Cardiology) and Senior Consultant Cardiologist, Max Superspecialty Hospital, Saket, New Delhi, India
- **Debasish Roychoudhury, MD,** Clinical Assistant Professor of Medicine, Weill Medical College of Cornell University, New York, New York
- Rajat Sanyal, MD, Chairman, Division of Cardiology, Phelps Memorial Hospital, Cardiologist, Montefiore Medical Center, and Clinical Assistant Professor, Albert Einstein College of Medicine, New York, New York
- **Muhamed Saric, MD, PhD,** Associate Professor of Medicine and Director of Echocardiography Lab, New York University Langone Medical Center, New York, New York

- **Gyanendra Sharma, MD,** Professor of Medicine, Director, Adult Echocardiography Laboratory and Medical Director, Cardiovascular Outpatient Center, Division of Cardiology, Medical College of Georgia, Augusta, Georgia
- Vibhuti Singh, MD, MPH, Assistant Professor, University of South Florida, Morsani College of Medicine, Tampa, Florida
- **Shubhika Srivastava, MBBS,** Associate Professor of Pediatrics, and Director, Pediatric and Fetal Echocardiography Laboratory, Division of Pediatric Cardiology, Mount Sinai Medical Center, New York, New York
- **Pantila Vanichakarn, MD,** Cardiology Fellow, Advanced Cardiac Imaging Fellow, Dartmouth-Hitchcock Medical Center, Lebanon, New Hampshire
- Mani A. Vannan, MD, Cardiologist, Atlanta, Georgia
- **Padmini Varadarajan, MD,** Associate Professor of Medicine, Director, Cardiac MRI and Associate Director, Heart and Imaging Center, Loma Linda University Medical Center, Loma Linda, California
- **Zvi Vered, MD,** Professor of Cardiology, Sackler School of Medicine, Tel Aviv University, Director, Department of Cardiology, Assaf Harofeh Medical Center, Zerifin, Israel
- **Malissa J. Wood, MD,** Assistant Professor of Medicine, Harvard Medical School and Co-Director, MGH Heart Center Women's Heart Health Program, Boston, Massachusetts
- **Timothy D. Woods, MD,** Associate Professor of Medicine and Radiology, Medical College of Wisconsin, Milwaukee, Wisconsin

### CASE STUDIES IN ECHOCARDIOGRAPHY

### Friday, March 23, 2012

7:30 – 8:00 am Registration, Coffee/Tea

7:55 – 8:00 am Welcome and Course Orientation - Dr. Navin Nanda

Each faculty case presenter will be allotted 6 minutes. This will include presentation of pertinent clinical findings, echocardiogram, questions for the audience

8:00-10:00 am

Session I. Cardiomyopathy, Congenital Heart Disease, CT/MRI, Intracardiac Echo, LV, Masses, Myocardial Infarction, Percutaneous Devices, Tissue Doppler Imaging, Valvar Heart Disease, Velocity Vector Imaging, 3D Echo, Miscellaneous.

### Case Presentations and Discussion, Cases 1-16

Moderators: Drs. Ramdas G. Pai, Hanumanth K. Reddy and Timothy Woods

Dr. Mouaz H. Al-Mallah (interesting case study); Dr. Roland R. Brandt (50-year old woman with a murmur); Dr. Andaleeb Chowdhury (LAA thrombus visualization by TEE before and after device closure of LAA); Dr. Madhavi Kadiyala (a web of confusion, interesting case); Dr. James N. Kirkpatrick (interesting case study); Dr. Arthur J. Labovitz (interesting case study); Dr. Shoa-Lin Lin (coronary artery fistula); Dr. Kameswari Maganti (interesting case study); Dr. David Mehlman (long term effect of pulmonary valvectomy); Bernhard Mumm (advances in cardiac quantification); Dr. Ryozo Omoto (mass echo in left ventricle in a young patient with syncope); Dr. Ramdas G. Pai (challenging case); Dr. Athena Poppas (an unusual presentation); Dr. Gustavo Restrepo (congenital absence of pericardium); Dr. Hanumanth K. Reddy (life of a patient after an echocardiographic diagnosis of hypertrophic cardiomyopathy); Dr. Timothy Woods (interesting case study)

10:00-10:15 Refreshment break

10:15-11:30 am

Session II. Biventricular Pacing, Cardiomyopathy/Myocarditis, Coronary Artery Disease, CT/MRI, Echo Quantification, Embolism, LV Diastolic Function, Masses, Post Intervention, Prosthetic Valves, Shunt Lesions, Valvar Heart Disease, 3D Echo.

### Case Presentations and Discussion, Cases 17-26

Moderators: Drs. Aiden Abidov, Nilda Espinola-Zavaleta, Lee J. Frazin and Vidyut Kumar Jain

Dr. Aiden Abidov (interesting multimodality case); Dr. Reema Chugh (can two wrongs make a right?); Dr. Nilda Espinola-Zavaleta (tumors of the right cavities); Dr. Lee J. Frazin (interesting case study); Dr. T. Fikret Ilgenli (Castelman's disease); Dr. Vidyut Kumar Jain (an interesting case of EMF – 25 years followup); Dr. Joseph Kisslo (interesting case study); Dr. Stamatios Lerakis (interesting case study); Dr. Gerald Maurer (interesting case study); Dr. Navin C. Nanda (interesting case study)

11:30-1:00 pm

Session III. Aortic Pathologies, Cardiac Dyssynchrony, Congenital Heart Disease, Critical Care, CT/MRI, Masses, Pericarditis, Stress Echo, Valvar Heart Disease, Valve Repair, 3D Echo.

### Case Presentations and Discussion, Cases 27-38

Moderators: Drs. Wilson Mathias Junior, Vera H. Rigolin and Debasish Roychoudhury

Dr. Alberto Baron (right atrium; an usual finding); Dr. Thomas Bartel (intracardiac echocardiography in TAVR; benefits from a new guiding tool); Dr. Aarti Bhat (interesting neonatal echo based case); Dr. Omer Iqbal (interesting case study); Dr. Wilson Mathias Junior (interesting case study); Dr. Virginia Michelis (interesting clinical case); Dr. Vera H. Rigolin (elevated BNP levels in a patient with hypertrophic cardiomyopathy); Dr. Debasish Roychoudhury (interesting case study); Dr. Rajat Sanyal (a case of endocarditis); Dr. Muhamed Saric (a pacemaker wire gone astray); Dr. Gyanendra Sharma (right atrial angiosarcoma – an unusual cause of dyspnea and presyncope in a young woman); Dr. Zvi Vered (interesting case study)

1:00 – 2:00 pm Lunch on your own

2:00 - 3:30 pm

Session IV. Cardiomyopathy/Myocarditis, CT/MRI, Congenital Heart Disease, Endocarditis, Heart Failure, Post Intervention, Prosthetic Valves, Pulmonary Hypertension, RV Function, Strain and Strain Rate, Valve Repair and Surgery, 3D Echo.

### Case Presentations and Discussion, Cases 39-55

**Moderators:** Drs. Brian D. Hoit, Jagdish C. Mohan, H. Joachim Nesser and Mani Vannan

Dr. Daniel Areco (interesting case study); Dr. Miguel Angel Bayas Paredes (interesting case study); Dr. M. Jay Campbell (neonatal cardiac mass: pre- and postnatal multimodality imaging); Dr. Nathalie De Michelis (guidance of mitral valve repair in mitral regurgitation using automated quantitative 3-D echo); Dr. Julius M. Gardin (interesting case study); Dr. John Gorcsan (interesting case study); Dr. Brian Hoit (interesting case study); Dr. Chisato Izumi (interesting case study); Dr. Leng Jiang (open your eyes wider); Dr. Jagdish Mohan (myocardial hematoma in ACS: detection by echo); Dr. H. Joachim Nesser (interesting case study); Dr. V. Maurizio Parato (interesting case study); Dr. Nelson Pizzano (interesting case study); Dr. (Col.) C.P. Roy (interesting case of cardiac mass); Dr. Shubhika Srivastava (interesting congenital case); Dr. Mani Vannan (automated 3-D myocardial strain); Dr. Padmini Varadarajan (interesting case study)

3:30 - 4:30 pm

Session V. Cardiomyopathy/Myocarditis, Coronary Aneurysm, Embolism, Endocarditis, Heart Failure, Masses, Myocardial Infarction, Pericardial Disease, Peripheral Arterial Disease, Prosthetic Valves, RV Volume, Systemic Diseases, Trauma, Valvar Heart Disease, Valve Repair, 3D Echo, Miscellaneous.

Case Presentation and Discussion, Cases 56-63
Moderators: Drs. Masood Ahmad, and Malissa J. Wood

Dr. Masood Ahmad (an interesting 3-D presentation); Dr. Sibel Catirli Enar (case of prosthetic valve endocarditis); Dr. Mark H. Goldberger (interesting case study); Dr. Elsadig Kazzam (interesting case study); Dr. Jyothy Puthumana (interesting case study); Dr. Vibhuti Singh (interesting case study – valve case); Dr. Pantila Vanichakarn (interesting case study); Dr. Malissa J. Wood (perioperative chest pain and heart murmur)

4:30 pm Adjournment