

# ASE 2012

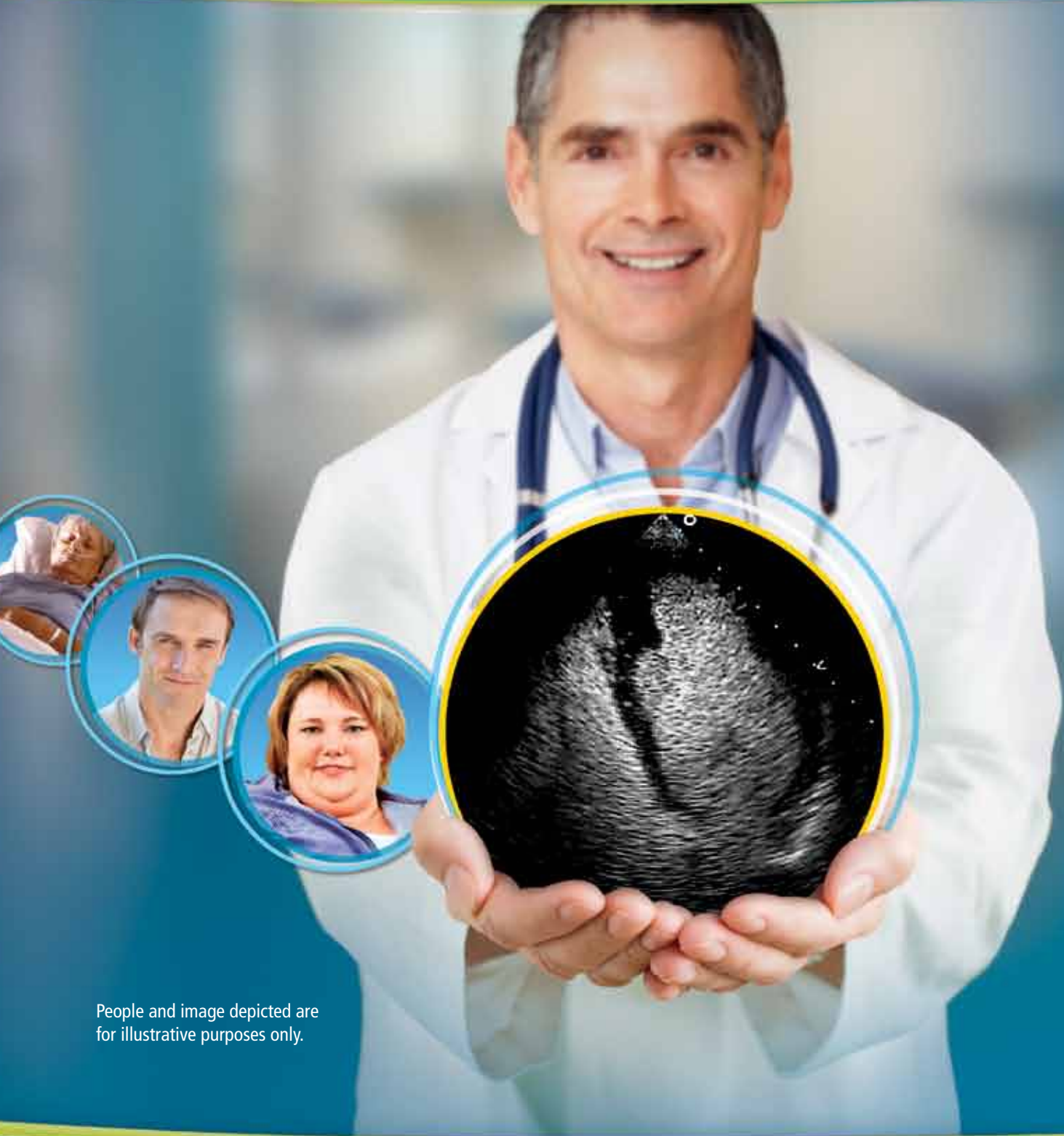
## FINAL PROGRAM

Gaylord National®  
National Harbor, MD  
JUNE 30 – JULY 3, 2012

AMERICAN SOCIETY OF ECHOCARDIOGRAPHY  
23<sup>RD</sup> ANNUAL SCIENTIFIC SESSIONS

**CARDIOVASCULAR IMAGING:**  
A DISEASE AND A PATIENT-BASED APPROACH

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**DEFINITY**   
VIAL  
FOR (Perflutren Lipid Microsphere)  
INJECTABLE SUSPENSION

# A DEFINITY® Echo— Giving You a Diagnostic Advantage in Suboptimal Echoes for Improved Patient Management<sup>1,2</sup>

In a study by Kurt et al...

- Significantly increases the percentage of evaluable segments, indicating a consistent diagnostic advantage<sup>1</sup>
- Enhances the quality of suboptimal echoes, which may result in more accurate and efficient diagnosis<sup>1</sup>
- Results in important alterations in medical management and avoidance of additional diagnostic procedures<sup>1</sup>

DEFINITY® has a proven safety profile<sup>2-4</sup> and has been used in more than 3.5 million patients.<sup>5</sup>

## Lantheus Medical Imaging, Inc., is pleased to share the FDA changes to the US Prescribing Information for DEFINITY®

- These changes are specific to DEFINITY® and follow the FDA review of Lantheus' labeling supplement submission dated September 2010, and subsequent to the FDA Safety Advisory Committee meeting held in May 2011
- Please contact Lantheus Medical Imaging, Inc., at 1-800-343-7851 or go to [definityimaging.com](http://definityimaging.com) for further information

Please Visit  
Booth 507

Please see accompanying brief summary, including boxed **WARNING** regarding serious cardiopulmonary reactions.

## INDICATIONS

Activated DEFINITY® (Perflutren Lipid Microsphere) Injectable Suspension is indicated for use in patients with suboptimal echocardiograms to opacify the left ventricular chamber and to improve the delineation of the left ventricular endocardial border.

## CONTRAINDICATIONS

Do not administer DEFINITY® to patients with known or suspected right-to-left, bi-directional or transient right-to-left cardiac shunts, by intra-arterial injection, or to patients with known hypersensitivity to perflutren.

## IMPORTANT SAFETY INFORMATION

### **WARNING: Serious Cardiopulmonary Reactions**

Serious cardiopulmonary reactions, including fatalities, have occurred uncommonly during or following perflutren-containing microsphere administration [See WARNINGS AND PRECAUTIONS (5.1)]. Most serious reactions occur within 30 minutes of administration.

- Assess all patients for the presence of any condition that precludes DEFINITY® administration [See CONTRAINDICATIONS (4)].
- Always have resuscitation equipment and trained personnel readily available.

In postmarketing use, rare but serious cardiopulmonary or anaphylactoid reactions have been reported during or shortly following perflutren-containing microsphere administration [See ADVERSE REACTIONS (6)]. The risk for these reactions may be increased among patients with unstable cardiopulmonary conditions [See Postmarketing Experience (6.2)]. It is not always possible to reliably establish a causal relationship to drug exposure due to the presence of underlying cardiopulmonary disease.

References: 1. Kurt M, Shaikh KA, Peterson L, et al. Impact of contrast echocardiography on evaluation of ventricular function and clinical management in a large prospective cohort. *J Am Coll Cardiol*. 2009;53(9):802-810. 2. Kitzman DW, Goldman ME, Gillam LD, Cohen JL, Aurigemma GP, Gottdiener JS. Efficacy and safety of the novel ultrasound contrast agent perflutren (Definity) in patients with suboptimal baseline left ventricular echocardiographic images. *Am J Cardiol*. 2000;86(6):669-674. 3. Data on file, Lantheus Medical Imaging, Inc. 4. Nucifora G, Marsan NA, Siebelink H-M J, et al. Safety of contrast-enhanced echocardiography within 24 h after acute myocardial infarction. *Eur J Echocardiogr*. 2008;9(6):816-818. 5. ©2001-2011 AMR/Arlington Medical Resources, LLC all rights reserved. Reproduction, distribution, transmission or publication is prohibited. Reprinted with permission.

# DEFINITY<sup>®</sup>

VIAL FOR (Perflutren Lipid Microsphere)  
INJECTABLE SUSPENSION

FOR INTRAVENOUS USE

**BRIEF SUMMARY**

Please See Full Prescribing Information available at [www.definityimaging.com](http://www.definityimaging.com) for additional information.

**WARNING: SERIOUS CARDIOPULMONARY REACTIONS**

Serious cardiopulmonary reactions, including fatalities, have occurred uncommonly during or following perflutren-containing microsphere administration [See WARNINGS AND PRECAUTIONS]. Most serious reactions occur within 30 minutes of administration.

- Assess all patients for the presence of any condition that precludes DEFINITY<sup>®</sup> administration [See CONTRAINDICATIONS].
- Always have resuscitation equipment and trained personnel readily available.

**DESCRIPTION**

DEFINITY<sup>®</sup> (Perflutren Lipid Microsphere) Injectable Suspension is an ultrasound contrast agent. The DEFINITY<sup>®</sup> vial contains components that upon activation yield perflutren lipid microspheres, a diagnostic drug that is intended to be used for contrast enhancement during the indicated echocardiographic procedures. The vial contains a clear, colorless, sterile, non-pyrogenic, hypertonic liquid, which upon activation with the aid of a VIALMIX<sup>®</sup>, provides a homogeneous, opaque, milky white injectable suspension of perflutren lipid microspheres. The suspension of activated DEFINITY<sup>®</sup> is administered by intravenous injection.

**INDICATIONS AND USAGE**

Activated DEFINITY<sup>®</sup> (Perflutren Lipid Microsphere) Injectable Suspension is indicated for use in patients with suboptimal echocardiograms to opacify the left ventricular chamber and to improve the delineation of the left ventricular endocardial border.

**CONTRAINDICATIONS**

Do not administer DEFINITY<sup>®</sup> to patients with known or suspected:

- Right-to-left, bi-directional, or transient right-to-left cardiac shunts,
- Hypersensitivity to perflutren [see WARNINGS AND PRECAUTIONS].

Do not administer DEFINITY<sup>®</sup> by intra-arterial injection.

**WARNINGS AND PRECAUTIONS****Serious Cardiopulmonary Reactions:**

Serious cardiopulmonary reactions including fatalities have occurred uncommonly during or shortly following perflutren-containing microsphere administration, typically within 30 minutes of administration. The risk for these reactions may be increased among patients with unstable cardiopulmonary conditions (acute myocardial infarction, acute coronary artery syndromes, worsening or unstable congestive heart failure, or serious ventricular arrhythmias). Always have cardiopulmonary resuscitation personnel and equipment readily available prior to DEFINITY<sup>®</sup> administration and monitor all patients for acute reactions.

The reported reactions include: fatal cardiac or respiratory arrest, shock, syncope, symptomatic arrhythmias (atrial fibrillation, tachycardia, bradycardia, supraventricular tachycardia, ventricular fibrillation, ventricular tachycardia), hypertension, hypotension, dyspnea, hypoxia, chest pain, respiratory distress, stridor, wheezing, loss of consciousness, and convulsions [see ADVERSE REACTIONS].

**Anaphylactoid Reactions:**

In postmarketing use, uncommon but serious anaphylactoid reactions were observed during or shortly following perflutren-containing microsphere administration including:

Shock, hypersensitivity, bronchospasm, throat tightness, angioedema, edema (pharyngeal, palatal, mouth, peripheral, localized), swelling (face, eye, lip, tongue, upper airway), facial hypoesthesia, rash, urticaria, pruritus, flushing, and erythema have occurred in patients with no prior exposure to perflutren-containing microsphere products [see ADVERSE REACTIONS].

**Systemic Embolization of DEFINITY<sup>®</sup> in Patients with Cardiac Shunts:**

In patients with right-to-left, bi-directional, or transient right-

to-left cardiac shunts phospholipid-encapsulated microspheres can bypass the pulmonary particle-filtering mechanisms and directly enter the arterial circulation resulting in microvascular occlusion and ischemia. In an animal study utilizing intra-arterial administration of activated DEFINITY<sup>®</sup>, microsphere trapping was seen in small arterioles <15 µm, especially at branch points and in capillaries at all doses tested, including doses directly applicable to those used in humans. An animal study utilizing intravenous administration did not result in arterial microvascular obstruction presumably because of filtering by the lungs. Do not administer DEFINITY<sup>®</sup> by intra-arterial injection [see CONTRAINDICATIONS].

**High Ultrasound Mechanical Index:**

High ultrasound mechanical index values may cause microsphere cavitation or rupture and lead to ventricular arrhythmias. Additionally, end-systolic triggering with high mechanical indices has been reported to cause ventricular arrhythmias. The safety of activated DEFINITY<sup>®</sup> at mechanical indices greater than 0.8 has not been evaluated [see DOSAGE AND ADMINISTRATION]. The safety of activated DEFINITY<sup>®</sup> with the use of end-systolic triggering has not been evaluated.

**QTc Prolongation:**

ECG parameters for doses up to 10 microL/kg were monitored in 221 subjects at multiple time points from 1 hour to 72 hours after the first bolus injection. In the 221 subjects, QTc prolongations of >30 msec were noted in 64 (29%) subjects. Forty-six out of 64 subjects with QTc prolongations were further evaluated and 39% (18/46) showed associated cardiac rhythm changes. The effects of concomitant drugs were not studied.

**ADVERSE REACTIONS****Clinical Trials Experience**

A total of 1716 subjects were evaluated in pre-market clinical trials of activated DEFINITY<sup>®</sup>. In this group, 1063 (61.9%) were male and 653 (38.1%) were female, 1328 (77.4%) were White, 258 (15.0%) were Black, 74 (4.3%) were Hispanic, and 56 (3.3%) were classified as other racial or ethnic groups. The mean age was 56.1 years (range 18 to 93). Of these, 144 (8.4%) had at least one adverse reaction (Table 6.1). There were 26 serious adverse events and 15 (0.9%) subjects discontinued because of an adverse event.

**Deaths and Serious Adverse Events**

Among the 1716 activated DEFINITY<sup>®</sup> patients, 19 (1.1%) suffered serious cardiopulmonary adverse events including eight deaths. The deaths occurred several days after activated DEFINITY<sup>®</sup> administration and appeared to be related to the course of underlying disease. Of the 11 other serious adverse events, which appeared within days of the drug administration (2-15 days), all appeared to be a progression underlying cardiac and non-cardiac disease. However, a role for DEFINITY<sup>®</sup> in the initiation or course of these adverse events cannot be ruled out.

**Discontinuations**

There were 15 discontinuations reported with a mean age of 41.5 years. Nine of these patients were discontinued after the first injection. One patient experienced a hypersensitivity reaction with urticaria and pruritus and all the other patients experienced dizziness, chest pain, dyspnea or back pain. These adverse reactions appeared within minutes (1 – 15 min) of the drug administration and were of moderate intensity resolving usually without treatment within minutes or hours after onset.

For all adverse reactions, the overall incidence of adverse experiences was similar for the <65 year age group and the > 65 year age group, similar in males and in females, similar among all racial or ethnic groups, and similar for bolus and infusion dosing. Table 6.1 summarizes the most common adverse reactions.

**Table 6.1. New-Onset Adverse Reactions Occurring in ≥0.5% of All Activated DEFINITY<sup>®</sup>-Treated Subjects**

	All activated DEFINITY <sup>®</sup> (N=1716)	
Total Number of Adverse Reactions	269	
Total Number of Subjects with an Adverse Reaction	144	(8.4%)
Body system		
Preferred term	n	(%)
Application Site Disorders	11	(0.6)
Injection Site Reactions	11	(0.6)
Body as a Whole	41	(2.4)
Back/renal pain	20	(1.2)
Chest pain	13	(0.8)

(Table 6.1 Cont'd)	All activated DEFINITY <sup>®</sup> (N=1716)	
Central and peripheral nervous system disorder	54	(3.1)
Headache	40	(2.3)
Dizziness	11	(0.6)
Gastrointestinal system	31	(1.8)
Nausea	17	(1.0)
Vascular (extracardiac) disorders	19	(1.1)
Flushing	19	(1.1)

N=Sample size 1716 subjects who received activated DEFINITY<sup>®</sup>  
n=Number of subjects reporting at least one Adverse Reaction

Other adverse reactions that occurred in ≤0.5% of the activated DEFINITY<sup>®</sup>-dosed subjects were:

**Body as a Whole:** Fatigue, fever, hot flushes, pain, rigors, and syncope

**Cardiovascular:** Abnormal ECGs, bradycardia, tachycardia, palpitation, hypertension and hypotension

**Digestive:** Dyspepsia, dry mouth, tongue disorder, toothache, abdominal pain, diarrhea and vomiting

**Hematology:** Granulocytosis, leukocytosis, leukopenia, and eosinophilia

**Musculoskeletal:** Arthralgia

**Nervous System:** Leg cramps, hypertonia, vertigo and paresthesia

**Platelet, Bleeding, and Clotting:** Hematoma

**Respiratory:** Coughing, hypoxia, pharyngitis, rhinitis and dyspnea

**Special Senses:** Decreased hearing, conjunctivitis, abnormal vision and taste perversion

**Skin:** Pruritus, rash, erythematous rash, urticaria, increased sweating, and dry skin

**Urinary:** Albuminuria

**Postmarketing Experience**

In a prospective, multicenter, open-label registry of 1053 patients receiving DEFINITY<sup>®</sup> in routine clinical practice, heart rate, respiratory rate, and pulse oximetry were monitored for 30 minutes after DEFINITY<sup>®</sup> administration. No deaths or serious adverse reactions were reported, suggesting that these reactions are unlikely to occur at a rate of more than 0.3% when DEFINITY<sup>®</sup> is used according to recommendations.

The following adverse reactions have been identified during the post-marketing use of perflutren-containing microsphere products. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

Fatal cardiopulmonary and anaphylactoid events and other serious but non-fatal adverse reactions were uncommonly reported. These events typically occurred within 30 minutes of DEFINITY<sup>®</sup> administration. These serious events may be increased among patients with unstable cardiopulmonary conditions (acute myocardial infarction, acute coronary artery syndromes, worsening or unstable congestive heart failure, or serious ventricular arrhythmias [see WARNINGS AND PRECAUTIONS]).

Reported reactions included:

**Cardiopulmonary**

Fatal cardiac or respiratory arrest, shock, syncope, symptomatic arrhythmias (atrial fibrillation, tachycardia, bradycardia, supraventricular tachycardia, ventricular fibrillation, ventricular tachycardia), hypertension, hypotension, dyspnea, hypoxia, chest pain, respiratory distress, stridor, wheezing.

**Anaphylactoid**

Anaphylactic/anaphylactoid reaction, anaphylactic shock, hypersensitivity, bronchospasm, throat tightness, angioedema, edema (pharyngeal, palatal, mouth, peripheral, localized), swelling (face, eye, lip, tongue, upper airway), facial hypoesthesia, rash, urticaria, pruritus, flushing, erythema.

**Neurologic**

Coma, loss of consciousness, convulsion, seizure, transient ischemic attack, agitation, tremor, vision blurred, dizziness, headache, fatigue.

**OVERDOSAGE**

The clinical consequences of overdosing with activated

DEFINITY® are not known. Treatment of an overdose should be directed toward the support of all vital functions and prompt institution of symptomatic therapy [see CONTRAINDICATIONS and WARNINGS AND PRECAUTIONS].

## DOSAGE AND ADMINISTRATION

DEFINITY® is intended for administration only after activation in the VIALMIX® apparatus. Before injection, this product must be activated and prepared according to the instructions outlined below. The VIALMIX® apparatus should be ordered from Lantheus Medical Imaging, 331 Treble Cove Road, North Billerica, MA, 01862. For customer orders call 1-800-299-3431.

DEFINITY® may be injected by either an intravenous (IV) bolus or infusion. The maximum dose is either two bolus doses or one single intravenous infusion. The safety of bolus and infusion dosing in combination or in sequence, has not been studied.

### Bolus

The recommended bolus dose for activated DEFINITY® is 10 microliters (microL)/kg of the activated product by intravenous bolus injection within 30-60 seconds, followed by a 10 mL saline flush. If necessary, a second 10 microliters (microL)/kg dose followed by a second 10 mL saline flush may be administered 30 minutes after the first injection to prolong contrast enhancement.

### Infusion

The recommended infusion dose for activated DEFINITY® is via an IV infusion of 1.3 mL added to 50 mL of preservative-free saline. The rate of infusion should be initiated at 4.0 mL/minute, but titrated as necessary to achieve optimal image enhancement, not to exceed 10 mL/minute.

### Imaging

After baseline non-contrast echocardiography is completed, set the mechanical index for the ultrasound device at 0.8 or below [see WARNINGS AND PRECAUTIONS]. Then inject activated DEFINITY® (as described above) and begin ultrasound imaging immediately. Evaluate the activated DEFINITY® echocardiogram images in combination with the non-contrast echocardiogram images.

In a crossover trial of 64 patients randomized to both bolus and infusion, the duration of clinically useful contrast enhancement for fundamental imaging was approximately 3.4 minutes after a

10 microL/kg bolus and was approximately 7.1 minutes during the continuous infusion of 1.3 mL activated DEFINITY® in 50 mL saline at a rate of 4 mL/min.

## DEFINITY® Activation, Preparation and Handling Instructions

1. Allow the vial to warm to room temperature before starting the activation procedure.
2. Activate DEFINITY® by shaking the vial for 45 seconds using a VIALMIX®.

Note: illustrations of this procedure are contained in the VIALMIX® Users Guide.

Do not use this drug unless it has completed a full 45 second activation cycle in the VIALMIX®. DEFINITY® will not be properly activated unless the full 45 second activation cycle is completed. Do not reactivate the vial if VIALMIX® did not complete a full 45 second cycle. Do not reactivate a successfully activated DEFINITY® vial (see step 3). Do not use a VIALMIX® that is not functioning properly. Refer to the "VIALMIX® User's Guide" for the "VIALMIX® calibration and replacement procedures" to ensure that a properly functioning VIALMIX® is used.

3. Immediately after activation in the VIALMIX®, activated DEFINITY® appears as a milky white suspension and may be used immediately after activation. If the product is not used within 5 minutes of VIALMIX® activation, the microspheres should be resuspended by 10 seconds of hand agitation by inverting the vial before the product is withdrawn in a syringe. The activated DEFINITY® may be used for up to 12 hours from the time of VIALMIX®, but only after the microspheres are resuspended by hand agitation. Store the activated DEFINITY® at room temperature in the original product vial.
  4. Invert the vial and withdraw the activated milky white suspension using the Intellipin™ (Dispensing Pin) or 18 to 20 gauge syringe needle. Withdraw the material from the middle of the liquid in the inverted vial. Do not inject air into the DEFINITY® VIAL.
  5. Use the product immediately after its withdrawal from the vial; do not allow the product to stand in the syringe.
- For single use only: DEFINITY® does not contain bacterial preservative. Bacterial contamination with the risk of post-administration septicemia can occur following the puncture

of the elastomeric septum. It is essential to follow directions for activation of DEFINITY® carefully and to adhere to strict aseptic procedures during preparation.

## HOW SUPPLIED/STORAGE AND HANDLING

### How Supplied

DEFINITY® is supplied as a single use 2-mL clear glass vial containing clear liquid. Each package (clear plastic clamshell) contains four (4) single-use vials.

### Storage and Handling

Store between 2-8°C (36°-46°F).

FOR SINGLE USE ONLY: DEFINITY® does not contain bacterial preservative. Bacterial contamination with the risk of post-administration septicemia can occur following the puncture of the elastomeric septum. It is essential to follow directions for activation of DEFINITY® carefully and to adhere to strict aseptic procedures during preparation.

## PATIENT COUNSELING INFORMATION

Patients receiving activated DEFINITY® should be instructed to inform their healthcare provider if they:

1. have a congenital heart defect, or recent worsening of heart or lung conditions [see CONTRAINDICATIONS and WARNINGS AND PRECAUTIONS],
2. have had prior reactions to DEFINITY® [see CONTRAINDICATIONS],
3. may be pregnant, are trying to become pregnant, or are nursing [see USE IN SPECIFIC POPULATIONS].

Distributed By



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All Other Business: 800-362-2668  
(For Massachusetts and International, call 978-667-9531)

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# WELCOME MESSAGE

Welcome to the ASE 23rd Annual Scientific Sessions! Because your time is valuable, we have packed the conference with educational sessions and social activities to provide you with comprehensive information and give you beneficial networking time. This year, there are a number of brand new sessions that are being offered for the first time, which are highlighted below.

ASE cares about the current healthcare environment and wants to ensure that our members are fully informed. On Saturday morning, two joint sessions, cosponsored with ACC, will focus on issues related to health care reform and practice management. These sessions will cover strategic planning, building fruitful practices, communication skills, and the role of echocardiography in the successful practice. Both private practice and hospital-based practice issues will be explored, and there will be ample time for audience interaction with the speakers.

An exciting, new Practice Management and Advocacy Track features Cathleen (Cathie) Biga, President and CEO of Cardiovascular Management of Illinois, and her presentation, "Business Options for Cardiovascular Practice and Academics" and "Running a Profitable Practice in the Era of Change" in the afternoon during this Saturday track. Ms. Biga will share her experience with cardiology practices and hospital integrations, facilitating cardiovascular service line growth, patient care delivery processes, payment reform, and trends in accountable care organizations. Another special guest, Catherine Hanson, Vice President of the AMA's Private Sector Advocacy and Advocacy Resource Center unit, will speak on how to maintain a practice in today's market, discussing anticipated trends and changes, and how to deal with them. She will share tips from her experience with payers, and will explain how to maneuver the system as a practitioner and how medical societies and associations can help.

Additionally on Saturday, ASE is holding a one-day multi-modality integrated imaging symposium with the American Society of Nuclear Cardiology (ASNC), Society of Cardiovascular Computed Tomography (SCCT), and Society of Cardiovascular Magnetic Resonance (SCMR), with four consecutive sessions on the evaluation of patients with hypertrophic cardiomyopathy, diseases of the aorta, pericardial diseases, and coronary artery disease using various imaging techniques.

Research is crucial to moving the field of echocardiography forward. The program committee has planned a one-day symposium on Sunday for fellows and junior faculty that covers several topics ranging from funding and selection of mentors to learning the potential role of cutting edge imaging research in the diagnosis of CV diseases. We are bringing you experts from the the NIH and FDA to enhance these sessions. In addition, Dr. Judy Hung, ASE 2012 Abstract Chair, and Dr. Jonathan Lindner, ASE 2012 Abstract Co-Chair, have selected a number of interesting abstracts from around the world on the latest advances in cardiovascular ultrasound. Original science will be integrated into the educational tracks. Two poster sessions in the Exhibit & Poster Hall will bring attendees face-to-face with scientific investigators for questions and insight. Similar to last year, some of these abstracts will be presented in the popular rapid fire format. The four best abstracts submitted will compete during the Arthur E. Weyman Young Investigator's Award Competition on Monday morning. The winner is announced after the Annual Feigenbaum Lecture and will travel to international echocardiography meetings representing ASE. You can use the online ASE 2012 Original Science Program Planner to search the accepted abstracts by author, topic or day of presentation, and create a personalized itinerary of the research you don't want to miss during the meeting. In case you do miss something, however, there will be a second

chance to learn about the interesting abstracts in the Wrap-Up session on Tuesday.

On Tuesday morning in the Science & Technology Theatre, we will feature a live satellite transmission from the Washington Hospital Center's cath lab of a Transcatheter Aortic Valve Replacement (TAVR) procedure. In this session, attendees will see the interaction between interventional cardiologists and echo faculty with two panels of experts, one in the convention center and another at Washington Hospital Center, providing helpful tips about the role of imaging in guiding valve replacement and monitoring for complications during the procedure. Also on Tuesday during the lunch break, "Hearts in Space," a session that shows the current applications of ultrasound imaging in studying cardiovascular physiology in space, will be presented. This session will feature ultrasound-savvy astronauts and ASE president, Dr James Thomas. In addition to these two new sessions, you can attend the rapid fire debates at 10:15 am, where the hottest topics in CV imaging and cardiac ultrasound will be debated. At 3:00 pm, in the Legends Stumping Other Legends session, senior echocardiographers will share with other legends and the audience their most challenging cases.

This year, the Interventional Track on Saturday is extensively geared towards the evaluation and management of patients with mitral valve disease. The Pediatric/Congenital Track offers a number of sessions that will meet the needs of beginners as well as more experienced echocardiographers in the field of congenital heart disease. On Monday, the Pediatric Fireside Chat will feature Dr. Norman Silverman, who will be interviewed by Dr. Wayne Tworetzky. Dr Silverman is well known for his pioneering work on the use of TTE, TEE and fetal echocardiography for the diagnosis of children with congenital heart disease.

The Cardiovascular Sonographer Track offers practical tips for imaging the difficult patient and has dedicated sessions for sonographers who are interested in congenital heart disease, 3D, strain and contrast. This is in addition to the evaluation of patients with cardiomyopathy, heart failure, and valvular heart disease. This year, the Vascular Imaging Track will emphasize the assessment of carotid disease and a number of emerging new technologies in this field. The Fundamental Imaging Track is primarily geared towards beginners and will present basic principles of cardiac ultrasound and their clinical applications by experienced ASE faculty who are well known for their ability to teach and simplify difficult topics and concepts. Finally, for those who want to see cases, a large number are presented throughout the sessions including a Case-Based Learning track.

Two interesting annual lectures will be presented this year: The 23<sup>rd</sup> Annual Scientific Sessions Edler Lecturer, Dr. Roberto Lang, FASE, and ASE past president, will present his lecture on Sunday, entitled, "3D Echo Has Come of Age: Promises and Perspectives." The 13th Annual ASE Scientific Sessions Feigenbaum lecturer, Dr. Philippe Pibarot, FASE, will present his lecture on Monday, July 2nd.

If you missed "3 of a Kind" in 2011, don't miss it in 2012. This echo game is hosted by David B. Adams, RCS, RDCS, FASE and ASE Past-President Randy Martin, MD, FASE. Pick your team and hang on to your Audience Response System keypad, as this raucous, but friendly competition involves the entire audience! During this entertaining session, you will laugh while learning about a variety of diseases in an educational format that engages the audience.

There are several networking events planned. First, the President's Reception on Saturday at 4:30 pm, hosted by ASE President, Dr. James

# WELCOME MESSAGE

Thomas, FASE, takes place in the Exhibit & Poster Hall. Appy Hour is a brand new event that combines mobile applications and networking on Sunday at 6:00 pm. Learn how you can keep ASE guidelines and membership information at your fingertips while enjoying an opportunity to talk with your colleagues. New in 2012, Monday's afternoon break at 3:15 pm will consist of an Independence Day Reception in the Exhibit & Poster Hall.

National Harbor is located just outside Washington DC, and water taxis from the Gaylord pier can be taken to Alexandria, VA, and Mount Vernon. If you decide to stay until July 4th, you can enjoy celebration in the nation's capital including the National Independence Day Parade, the Smithsonian Folklife Festival and fireworks launched from the Lincoln Memorial Reflecting Pool.

**On behalf of the ASE Scientific Sessions Program Committee and the Board of Directors, welcome to National Harbor, MD and to the ASE 23rd Annual Scientific Sessions!**



James Thomas, MD, FASE  
2012 ASE President



Sherif Nagueh, MD, FASE  
2012 ASE Program Chair



# PROGRAM COMMITTEE

## ASE 2012 Scientific Sessions Program Committee

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Member-at-Large .....	Sue Maisey, MBA, RDCS, RCS, FASE

## ASE Staff

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Chief Operating Officer .....	Hilary Lamb, MPA
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Meetings Department Manager .....	Beth Woloski

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# ABOUT ASE

## About ASE

As the largest global organization for cardiovascular ultrasound imaging, The American Society of Echocardiography (ASE) is the leader and advocate, setting practice standards and guidelines. Comprised of over 15,000 physicians, sonographers, nurses and scientists, ASE is a strong voice, providing guidance, expertise and education to its members with a commitment to improving the practice of ultrasound and imaging of the heart and cardiovascular system for better patient outcomes.

### ASE Membership

ASE serves its members in numerous ways by providing education, advocacy, research, practice guidelines and a community for their profession. Did you know your ASE membership affords you over \$400 of FREE credits a year, in addition to discounts on all ASE educational courses and products? Also included is a monthly subscription to the *Journal of the American Society of Echocardiography* (JASE), help with legislative coding and reimbursement issues and other career resources. Non-member attendees will receive a complimentary ASE membership through December 31, 2012, with their registration for the ASE 23rd Annual Scientific Sessions.

## Target Audience

The ASE 23rd Annual Scientific Sessions will benefit all healthcare providers interested in the application of cardiovascular ultrasound imaging in the care of patients. Participants in all areas of cardiovascular ultrasound imaging and at all levels of experience will find sessions that meet their needs and help improve their practice. High quality lectures, debates, hands-on sessions and poster presentations offer a broad spectrum of educational opportunities in both large and small group settings. Adult and pediatric cardiologists, cardiothoracic and vascular surgeons, cardiac anesthesiologists, cardiac sonographers, and emergency and critical care physicians, as well as hospitalists, radiologists, research scientists, residents and fellows in training, students, and nurses, are encouraged to participate actively in sessions and interact with available faculty, get a broad overview of all topics, or delve deeply into one or two topics. In addition, particular care has been taken to incorporate ASE guidelines into talks that will demonstrate how and why they should be applied in your daily practice.

## 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 the diagnosis and treatment options of a specific patient's condition.

## Disclosure

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 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 individual in a position to control content. Disclosure information is referenced and coded and can be found beginning on page 100 of this program.

## Commercial Support Disclosure Statement

This activity is supported in part by unrestricted educational grants from GE Healthcare and Abbott Vascular.

# EDUCATION INFORMATION

## Conference Objectives

To provide:

- Important updates in the interpretation of cardiac and vascular ultrasound that will impact patient care.
- A basic review of current techniques in cardiac ultrasound for the assessment of patients with a variety of cardiovascular conditions.
- A review of the latest updates in technology, research and guidelines for the assessment of patients with cardiac disease.
- Sessions that are appropriate for all levels of cardiac and vascular ultrasound professionals, including experts, intermediate learners, sonographers, fellows, and nurses.

After participating in this activity, attendees will be better able to:

- Utilize cardiac and vascular ultrasound for the comprehensive assessment and management of cardiovascular diseases including, but not limited to: valvular heart disease, coronary artery disease, cardiomyopathies, pericardial disease and congenital heart disease.
- Incorporate new guideline recommendations into clinical practice.
- Identify the limitations of the cardiovascular ultrasound technique in an effort to improve the accuracy of interpretation.
- Recognize the recent advancements and future direction of cardiac and vascular ultrasound and the impact these advancements may have on patient care.
- Integrate the latest technical developments into clinical practice.
- Employ cardiac ultrasound in pre-procedural, intra-procedural, and post-procedural care of patients in the operating room and catheterization laboratory.
- Recognize the utility of multimodality imaging (nuclear imaging, CMR and CTA) in the evaluation of patients with hypertrophic cardiomyopathy, pericardial disease and coronary artery disease.
- Determine how the new changes in the healthcare delivery system affect the practice of cardiology and cardiovascular imaging.
- Describe how to establish and sustain a successful cardiovascular practice in the hospital and the private settings.
- Explain how to begin and establish a successful career as a clinical investigator.
- Evaluate the current application of advanced cardiovascular imaging technologies to patient care in 2012.

## 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 through the joint sponsorship 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 *AMA PRA Category 1 Credits*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

ASE designates the Multimodality Imaging Symposium for a maximum of 6 hours and the ASE 2012 Ticketed Breakfast Symposia for a maximum of 1.5 hours each. The total amount of hours that can be claimed for attending both a symposium and the main conference is 30.

The American Medical Association has determined that non-US licensed physicians who participate in this educational activity are eligible for *AMA PRA Category 1 Credits*<sup>™</sup>.

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

This activity has been reviewed by the Intersocietal Accreditation Commission (IAC) and is acceptable for up to 30 hours of CME credit toward IAC Echocardiography laboratory accreditation requirements and up to 4.25 hours of CME credit toward IAC Vascular Testing laboratory accreditation requirements. Due to concurrent sessions, the maximum amount of credit that can be applied towards echocardiography and vascular accreditation requirements combined is 30.

The National Board of Echocardiography<sup>™</sup> (NBE) requires 15 hours of echocardiography-specific CME for both ReASCE<sup>®</sup> and RePTE<sup>®</sup> recertification. This activity contains 30 *AMA PRA Category 1 Credits*<sup>™</sup> that can be used toward recertification requirements.

\* ASE credits are not accepted toward meeting requirements of the American Registry of Radiologic Technologists (ARRT).

# SCIENTIFIC PROGRAM TRACKS & KEY

## MULTI-MODALITY IMAGING SYMPOSIUM MI

Cardiovascular imaging plays an important role in the diagnosis and treatment of patients with cardiovascular disease. This symposium on Saturday, June 30, will present a comprehensive multimodality approach in four consecutive sessions for the evaluation of patients with hypertrophic cardiomyopathy, aortic disease, pericardial disease, and coronary artery disease using echocardiography, nuclear cardiology, cardiac CT, and cardiac MR. Leading national and international experts will participate in this symposium with opportunity for interaction in panel and audience discussions. This session is planned in conjunction with three other leading cardiology speciality organizations, American Society of Nuclear Medicine (ASNC), Society for Cardiovascular Magnetic Resonance (SCMR), and Society of Cardiovascular Computed Tomography (SCCT).

## INTERVENTIONAL I

**The Mitral Valve Apparatus: Influence of Echocardiography on Perioperative Clinical Decision Making-** This symposium on Saturday, June 30, has been designed by the ASE Council on Perioperative Echocardiography to bring surgeons, anesthesiologists, echocardiographers, and sonographers together for an in-depth assessment of mitral valve disease. This symposium focuses on the mitral apparatus and tracks individual clinical scenarios from preoperative imaging to surgical decision making and postoperative considerations. True multidisciplinary integration with interactive panel discussions, porcine heart dissection, and multimedia presentations including surgical video that comprehensively explore current concepts in mitral valve disease will also be featured.

## PRACTICE MANAGEMENT AND ADVOCACY P

There are ongoing rapid changes in the health care delivery system that affect the practice of cardiology and cardiovascular imaging. These sessions will help attendees gain knowledge about these developments and learn strategies for having a successful practice. Topics covered will include, strategic planning, building the successful practice, communication skills, and the role of echocardiography in the successful practice. Both private practice and hospital-based practice issues will be explored and there will be time for audience interaction with the presenters. The afternoon sessions will also cover how best to advocate for the future of the profession.

## PEDIATRIC/CONGENITAL PC

The Council on Pediatric and Congenital Heart Disease has put together a program that promises to be jam-packed with cutting edge science, imaging pearls and hands-on instruction to benefit all members of the pediatric and adult congenital echocardiography community. The popular staples of the program return: the Saturday Congenital Symposium: Echo-Surgical-Pathology Correlation; Pediatric Echo Jeopardy, the Fireside Chat, case presentations, oral abstract sessions, and the always entertaining controversy debates. We will unveil the mysteries of some of the newer echo technologies and see how expert centers apply them in clinical practice. There will be a full serving of adult congenital topics throughout the meeting, with relevant sessions on each day. Finally, there will be a full fetal program, guaranteed to satisfy both experts and novices alike.

## RESEARCH R

**Basic Science & Clinical Careers Symposium** - It all starts with an idea and leads to an innovation that changes clinical practice and patient care. Whether you are considering an academic research career or are already an established investigator, this symposium on Sunday, July 1, will show you how to grow a career as a clinical investigator, with direction and advice from those who have already laid the foundation, as well as, explain how the ideas behind today's imaging research and innovations in technology are reshaping tomorrow's health care. This year, speakers from the NIH and FDA will be engaged to answer your questions.

**Original Research** - Investigators will present the latest advances in cardiovascular ultrasound throughout the program. Don't miss the rapid fire abstract sessions or the prestigious Arthur E. Weyman Young Investigator's Award Competition, where the four best abstracts submitted compete in front of a panel of luminaries for cash prizes and international recognition. Meet the investigators during dedicated poster viewing times. The ASE Scientific Sessions Wrap-Up will highlight the science you may have missed.

## FUNDAMENTAL IMAGING FI

This track will instruct practitioners on techniques of assessment and quantitation. There will also be sessions that focus on in-depth discussion of complicated issues which affect the practice of cardiovascular ultrasound, including heart failure and contrast.

# SCIENTIFIC PROGRAM TRACKS & KEY

## CASE-BASED LEARNING **CL**

During these sessions, the practice of clinical echocardiography and its relationship to patient management will be highlighted and stressed by experts with a clinical focus. These sessions will cover valvular heart disease, including challenges in quantitation, mechanisms of mitral regurgitation and prosthetic valve dysfunction. Topics include heart failure and cardiomyopathies, with a separate session on the assessment of cardiac transplant recipients and left ventricular assist devices, pericardial diseases, aortic disease, stress echocardiography, and the use of echocardiography in critically-ill patients. This will be an excellent learning opportunity facilitated by the presentation of a pertinent clinical cases to set the stage for specific questions related to imaging and management using the audience response system.

## VASCULAR IMAGING **VI**

The Council on Vascular Ultrasound has put together a rich program that will provide the attendee with an excellent overview on vascular ultrasound topics of interest to the practicing cardiologist/ultrasound technologist. Topics such as carotid imaging will be covered from basics to advanced techniques. Additional State-of-the-Art and emerging technologies will be covered as well in what promises to be an exciting session.

## CARDIOVASCULAR SONOGRAPHER **CS**

ASE is committed to excellence in the field of cardiovascular ultrasound. Join leaders in the field for in-depth discussions on the latest technologies including 3D echo and strain imaging. Learn how to advance your career or simply brush up on quantification and scanning techniques. Sessions will also review the latest guidelines and standards of practice, as well as, contrast administration and application.

## SYMPOSIUM **S**

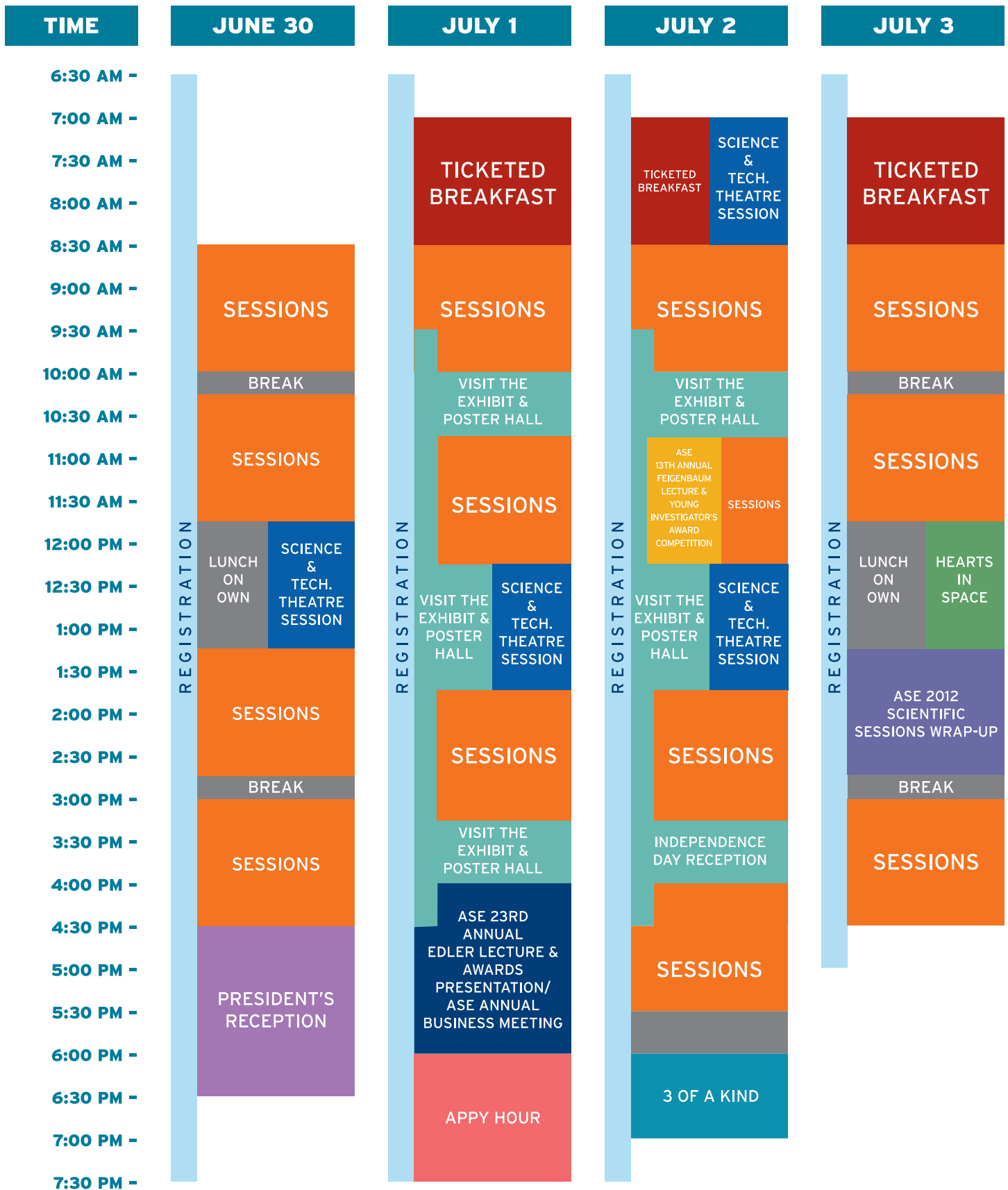
These daily tracks concentrate on clinical use of cardiovascular ultrasound. Each symposium discusses a specific topic in detail and instructs you on how to apply state-of-the-art cardiovascular ultrasound techniques in clinical practice. Topics include:

- The Patient with Cardiomyopathy or Congestive Heart Failure
- Ischemic Heart Disease: What Do You Need to Know?
- Aortic and Mitral Valve Disease
- Guiding Interventions in the Catheterization Laboratory

## TICKETED BREAKFAST **TB**

These sell-out sessions are case-based and explore one topic in detail. Registration is limited to facilitate active audience participation. The structure of these sessions will be a brief didactic presentation followed by illustrative cases, emphasizing important learning points. This will provide an excellent opportunity to hear firsthand from experts in the field who have clinical experience with 3D echocardiography, diastolic function assessment, valvular heart disease, and hemodynamics. Sessions will include assessment of mitral regurgitation, challenges in aortic stenosis, and stress echocardiography.

# SCHEDULES-AT-A-GLANCE



Schedule planning is made easy this year with the ASE 2012 mobile app. Please visit the Apple Store and search for "ASE 2012". It is free to download on your iPad or iPhone!

# GE Healthcare congratulates the 2012 ASE award winners



**Miguel A. Quiñones, MD**

Weill Cornell Medical College, Methodist  
DeBakey Heart & Vascular Center  
The Methodist Hospital – Houston, TX

*Physician Lifetime Achievement Award*



**Gerard P. Aurigemma,  
MD, FASE**

University of Massachusetts Medical  
School – Worcester, MA

*Richard Popp Excellence  
In Teaching Award*



**Philippe Pibarot, DVM, PhD,  
FASE**

Laval University, Quebec Heart & Lung  
Institute – Quebec, Canada

*Feigenbaum Lecturer*



**Deborah A. Agler,  
RCT, RDCS, FASE**

Cardiovascular Imaging Heart  
& Vascular Institute Cleveland Clinic  
Foundation – Cleveland, OH

*Cardiovascular Sonographer  
Distinguished Teacher Award*



**Arthur E. Weyman, MD, FASE**

Massachusetts General Hospital –  
Boston, MA

*Meritorious Service Award*



**Mary Etta King, MD, FASE**

Massachusetts General Hospital –  
Boston, MA

*Excellence In Teaching  
In Pediatrics Award*



imagination at work

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Heart & Vascular Center  
and Digisonics  
are proud to recognize

## DR. MIGUEL A. QUIÑONES

for the ASEF Lifetime  
Achievement Award.

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& Vascular Center<sup>SM</sup>



**DIGISONICS**

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# NETWORKING OPPORTUNITIES & SPECIAL EVENTS

## Science and Technology Theatre..... Daily Prince George's A, Level 1

Make sure to visit these events to find out the latest information from an Industry perspective. Breakfast and lunch are provided by ASE and are included in your registration fee. These sessions are not ticketed and space is first-come, first served and limited to the first 360 attendees. Science & Technology Theatres sessions are not a part of the official ASE 23rd Annual Scientific Sessions, as planned by the Program Committee, or in any way endorsed or affiliated with ASE. These sessions are not eligible for CME credit. Please visit page 6 of the *Exhibition Catalog* for a schedule of sessions taking place in the Science & Technology Theatre.

## Saturday, June 30

### President's Reception..... 4:30 pm - 6:30 pm Exhibit & Poster Hall, Level 1 (Prince George's B)

All attendees are invited to celebrate ASE 2012 at the President's Reception, hosted by ASE President, James Thomas, MD, FASE. This is a wonderful opportunity to network with colleagues and friends while learning more about the newest equipment and services in the cardiovascular field. Complimentary hors d'oeuvres and cocktails will be available from many stations throughout the hall. Admission is included in your registration fee. Guest tickets may be purchased at the ASE Registration Counter.

## Sunday, July 1

### ASE 23rd Annual Edler Lecture and Awards Presentation/ASE Annual Business Meeting..... 4:00 pm - 6:00 pm Potomac A, Level 2

Join fellow attendees and ASE leadership as Roberto Lang, MD, FASE, of the University of Chicago Medical Center presents the 23rd Annual Scientific Sessions Edler Lecturer, "3D Echo Has Come of Age: Promises and Perspectives." Dr. Lang is a pioneer in the development of three-dimensional echocardiography and a past president of ASE.

### Appy Hour..... 6:00 pm - 7:30 pm Potomac Foyer, Level 2

Toast your fellow attendees at this complimentary reception, only steps from your sessions. Enjoy a gorgeous view of the Potomac River while conversing with colleagues and friends and learning more about ASE's diverse apps, which are now offered for smartphones and tablets.

## Monday, July 2

### 2012 Arthur E. Weyman Young Investigator's Award Competition and Annual Feigenbaum Lecture..... 10:45 am - 12:15 pm Potomac A, Level 2

The 13th Annual ASE Scientific Sessions Feigenbaum Lecture has been awarded to Philippe Pibarot, DVM, PhD, FASE who is a Professor at Laval University and Research Chair in Valvular Heart Diseases at the Quebec Heart & Lung Institute. Dr. Pibarot's lecture is titled, "Doppler Echocardiography is the Cornerstone of the Management of Aortic Stenosis." The Feigenbaum Lecturer is named in honor of the founder and the first president of ASE, Harvey Feigenbaum, MD, FASE. This lectureship is awarded to a young investigator in recognition of significant contributions to research in the field of echocardiography as well as his or her potential to continue at a high level of achievement. The 2012 Arthur E. Weyman Young Investigator's Award Competition, supported by the National Board of Echocardiography™ (NBE), will also be held during this time. Several outstanding young investigators will present their research and compete for first prize.

### Independence Day Celebration..... 3:15 pm - 4:00 pm Exhibit & Poster Hall, Level 1 (Prince George's B) New this year, Monday's afternoon break will celebrate the American Independence Day. To show gratitude to everyone involved in the

ASE 23rd Annual Scientific Sessions, ASE is pleased to offer one final opportunity at Gaylord National® for attendees and industry representatives to network while enjoying complimentary refreshments.

### "3 of a Kind: An Echo Game"..... 6:00 pm - 7:00 pm Potomac A, Level 2

Hosted by David B. Adams, RCS, RDCS, FASE and Randy Martin, MD, FASE, this event is a crowd pleaser! Pick your team and hang on to your Audience Response System pad, as this raucous, but friendly, competition includes the entire audience! During this entertaining session, you will laugh while learning about a variety of diseases in an educational format that involves audience participation. It is promised to be a lively and educational experience for all.

## Tuesday, July 3

### TAVR: LIVE FROM THE OR..... 8:30 am - 10:00 am Prince George's A, Level 1

This session will feature a live transmission from the Washington Hospital Center's cath lab of a Transcatheter Aortic Valve Replacement (TAVR) procedure. Attendees will learn about the current indications for TAVR, the technique, role of imaging in general and echo (TEE) in particular, in guiding the implantation and the diagnosis of complications. These discussions will take place between renowned faculty made up of echocardiographers and interventional cardiologists.

### Rapid-Fire Debates from the Greats..... 10:15 am - 11:45 am Potomac A, Level 2

This session will address two clinically important questions with debates: "Is there a role of evaluating dyssynchrony by echocardiography in patients to receive CRT?" and "Which is the imaging modality that should be obtained first in patients with possible aortic dissection: TEE or cardiac CT?" Don't miss ASE 2012 luminary faculty as they debate the hottest topics in cardiovascular ultrasound.

### Hearts in Space: NASA, Remote Diagnosis by Ultrasound, and the Impact of Weightlessness on Cardiac Function ..... 12:00 pm - 1:15 pm Potomac A, Level 2

This exciting and unique session will give you a little insight into medicine in the space program. Topics to be presented: Cardiovascular physiology in space flight, *Benjamin D. Levine, MD*; Training and remote guidance of ultrasound in space: Noncardiac applications, *Scott A. Dulchavsky, MD, PhD*; The Heart in Space: Changes in shape, size, and function, *James D. Thomas, MD, FASE*; and The view from space: Observations of an ultrasound-savvy astronaut, *Leroy Chiao, PhD* (former NASA astronaut).

### ASE 2012 Scientific Sessions Wrap-Up..... 1:15 pm - 2:45 pm Potomac A, Level 2

This session will highlight the most innovative research presented during the scientific sessions in the fields of myocardial and atrial function, stress and contrast echocardiography, 3D imaging, vascular, congenital and valvular heart disease. This is your opportunity to get an overview of ASE 2012 from the best in the field!

### Legends Stumping Other Legends..... 3:00 pm - 4:30 pm Potomac A, Level 2

Senior echocardiographers will share with other legends and the audience their most challenging cases. This session will provide unique input from luminaries in the field that will help attendees learn how to navigate through difficult situations and challenging cases. This year's participants include Harvey Feigenbaum among other "household names" in the echo world.

# SPECIAL AWARDS

## 2012 Edler Lecture



**Roberto M. Lang, MD, FASE, Professor of Medicine, Director, Noninvasive Cardiac Imaging Lab, at the University of Chicago Medicine, Chicago, IL**, has been named the 23rd Annual Scientific Sessions Edler Lecturer. Dr. Lang is an internationally renowned cardiologist and specialist in echocardiography and was a pioneer in the development of 3D echocardiography. He is also a past president of ASE. Created in 1990,

the annual Edler Lecture honors the founder of echocardiography, Inge Edler, MD. Dr. Lang will present his lecture, entitled "3D Echocardiography has Come of Age: Promises and Perspectives," during the ASE Awards Presentations, Sunday, July 1, in Potomac A.

## 2012 Feigenbaum Lecture



**Philippe Pibarot, DVM, PhD, FASE of the Laval University in Quebec, Canada**, has been named the 13th Annual ASE Scientific Sessions Feigenbaum Lecturer. The Feigenbaum Lecture was named in honor of the founder and first president of ASE, Harvey Feigenbaum, MD, FASE. This lectureship is awarded to a young investigator in recognition of his/her significant contributions to research in the field of echocardiography and his/her

potential to continue at a high level of achievement. Dr. Pibarot will present his lecture, entitled "Doppler Echocardiography is the Cornerstone of the Management of Aortic Stenosis," during the 2012 Arthur E. Weyman Young Investigators' Award Competition and Annual Feigenbaum Lecture from 10:45 am - 12:15 pm on Monday, July 2, in Potomac A.

## Lifetime Achievement Award

The Lifetime Achievement Award recognizes individuals who have had a lifetime of outstanding achievements in the field of cardiovascular ultrasound and have served as a role model through service, research and teaching. These individuals have a career in cardiovascular ultrasound spanning at least 25 years and are recognized at local, national and international levels. ASE is pleased to recognize this year's recipient during the ASE Awards Presentation from 4:00 pm - 6:00 pm on Sunday, July 1, in Potomac A.



**Miguel A. Quiñones, MD** has been named ASE's 4th Physician Lifetime Achievement recipient. Dr. Quiñones is Professor of Medicine, Weill Cornell Medical College, Chairman, Department of Cardiology, Methodist DeBakey Heart & Vascular Center, The Methodist Hospital, Houston, TX.

Dr. Quiñones is one of the true pioneers in the field of echocardiography, having led the way in the assessment of ventricular and valvular function and has shown long dedication to ASE. Dr. Quiñones has had a long and illustrious research career, focusing on the assessment of a wide variety of clinical problems with echocardiography. In his early career, he combined echocardiography with intracardiac high fidelity pressure measurement to related myocardial wall stress to systolic performance. Dr. Quiñones epitomizes excellence in echocardiography.

## Meritorious Service Award



The ASE Meritorious Service Award recognizes individual members for their substantial and generous efforts to the Society's betterment. ASE is pleased to recognize this year's recipient, **Arthur E. Weyman, MD, FASE, Research Director, Cardiac Ultrasound Laboratory, Professor of Medicine, Massachusetts General Hospital, Harvard Medical School, Boston, MA**. Dr. Weyman's contributions in the field of echocardiography

and, more specifically, to ASE are plentiful. He was present at the beginning of 2-Dimensional echocardiography and did much in the early years to define the standardized exam that we use to this day in examining our patients. He was deeply involved with ASE from its inception and served as its president 1991-1992. It was at that time that he recognized the importance of developing a digital formatting standard for echocardiography that was instrumental in involving ASE on the DICOM Standard Committee. Perhaps most notably, he was the driving force behind the development of the National Board of Echocardiography's standardized exam, which has become the essential credential for establishing one's expertise as an echocardiographer. The NBE was largely Dr. Weyman's vision from the start. He has had many other roles within ASE, including service on the Bylaws & Ethics Committee, the Development Committee, Foundation Task Force, Industry Roundtable, Long Term Goals Committee, and the Nominating committee. He will be recognized during the ASE Awards Presentation from 4:00 pm - 6:00 pm on Sunday, July 1, in Potomac A.

## Richard Popp Excellence in Teaching Award



**Gerard P. Aurigemma, MD, FASE of the University of Massachusetts Medical School, Worcester, MA**, has been named the 12th annual recipient of the Richard Popp Excellence in Teaching Award. Dr. Aurigemma was nominated by his peers for the important role he has played in teaching, mentoring and helping to improve the skills of future echocardiographers. The award is named in honor of ASE's second

president, Richard L. Popp, MD, FASE, and recognizes physicians who epitomize the ideal qualities possessed by a mentor and role model. He will be recognized during the ASE Awards Presentation from 4:00 - 6:00 pm on Sunday, July 1, in Potomac A.

# SPECIAL AWARDS

## Excellence in Teaching in Pediatrics



**Mary Etta King, MD, FASE, Associate Professor of Pediatrics, Harvard Medical School, Director, Pediatric Echocardiography, Cardiac Ultrasound Laboratory, Massachusetts General Hospital, Boston, MA,** has been named the 4th recipient of the Award for Excellence in Teaching in Pediatrics. Established in 2005, this biannual award recognizes an ASE member who demonstrates exceptional

commitment and skill in teaching pediatric echocardiography, who has been a mentor to students, serves as a role model for the profession, and who fosters a sense of clinical excellence and research investigation in the individuals he or she teaches. Dr. King will be recognized during the ASE Awards Presentation from 4:00 – 6:00 pm on Sunday, July 1, in Potomac A.

## Cardiovascular Sonographer Distinguished Teacher Award



**Deborah A. Agler, RCT, RDCS, FASE of the Cleveland Clinic Foundation in Cleveland, OH,** has been named the 11th annual recipient of the ASE Cardiovascular Sonographer Distinguished Teacher Award. She was nominated by her peers as an ASE cardiovascular sonographer member who exemplifies teaching expertise in echocardiography, acts as a mentor for

students and fellow sonographers, and serves a role model for the next generation of cardiovascular sonographers. Ms. Agler will be recognized during the ASE Awards Presentation from 4:00 – 6:00 p.m. on Sunday, July 1, in Potomac A.

## Honorary FASE

The Fellow of the American Society of Echocardiography (FASE) designation recognizes individuals dedicated to cardiovascular ultrasound who exemplify the highest achievement in the profession. The International Relations Task Force, in conjunction with the ASE Executive Committee, nominated three individuals to receive an “Honorary FASE” designation in 2012. This honor was given to individuals who have made significant contributions to the field of cardiovascular ultrasound and have played strong role in building international relationships with the Society. They will be recognized during the ASE Awards Presentation from 4:00 pm – 6:00 pm on Sunday, July 1, in Potomac A.

The 2012 honorees are:

**Otto A. Smiseth, MD, PhD, FASE**

Oslo University Hospital, Oslo, Norway

**Xinfang Wang, MD, FASE**

Huazhong University of Science and Technology,  
Tongji Medical College Wahan, Hubei, China

**Jose L. Zamorano, MD, FASE**

University Clinic San Carlos, Madrid, Spain

## 2012 Arthur E. Weyman Young Investigator's Award Finalists

The ASE Scientific Sessions Program Committee is pleased to recognize the finalists of the 2012 Arthur E. Weyman Young Investigator's Award Competition, supported by the National Board of Echocardiography™ (NBE), in honor of their first president, Arthur E. Weyman, MD, FASE. These outstanding young investigators will present their research during the 2012 Arthur E. Weyman Young Investigator's Award Competition and Annual Feigenbaum Lecture from 10:45 am-12:15 pm on Monday, July 2, in Potomac A.

*Abstract Chair: Judy W. Hung, MD, FASE*

*Abstract Co-Chair: Jonathan R. Lindner, MD, FASE*

**Paul J.H. Lee, MSc,** St. Michael's Hospital, Toronto, ON, Canada  
– “Ultrasound-Mediated Anti-Apoptotic Gene Therapy For Doxorubicin Cardiomyopathy”

**Huili Fu, PhD,** University of Pittsburgh, Pittsburgh, PA –  
“Designing Microbubble for Long Term *in vivo* Stem Cell Tracking Using Contrast Ultrasound”

**Cooper Moore, BSE,** Duke University, Durham, NC –  
“Visualization and Assessment of Depolarization Events With Ultrasound”

**Kenya Kusunose, MD, PhD,** Cleveland Clinic, Beachwood, OH –  
“Association of Left Atrial Dysfunction With Abnormal LV Filling Pressure Response to Exercise”

## 2012 ASE Foundation Abstract Presenter Travel Grant Recipients

The ASE Foundation is pleased to recognize the following recipients of Abstract Presenter Travel Grants for attendance at the 23rd Annual Scientific Sessions. The presentation of original research from around the world illustrating exciting new developments in cardiovascular ultrasound is an integral component of this meeting, and each of these young presenters was awarded \$1,000 toward his/her travel expenses.

- **Karima Addetia, MD,** McGill University, Montreal, QC, Canada
- **Bhawna Arya, MD,** Columbia University, New York, NY
- **Shahryar M. Chowdhury, MD,** Medical University of South Carolina, Charleston, SC
- **Patrick H. Collier, MD, PhD,** Cleveland Clinic Foundation, Cleveland, OH
- **Kevin Dougherty, MD,** Tufts Medical Center, Boston, MA
- **Viviane T. Hotta, MD, PhD,** The Heart Institute (InCor), Sao Paulo, Brazil
- **Oleg Kerbikov, MD,** City Clinical Hospital #14, Moscow, Russian Federation
- **Tuan V. Mai, MD,** Scripps Mercy Hospital, San Diego, CA
- **Joseph T. Poterucha, DO,** Creighton University, University of Nebraska Medical Center, Omaha, NE
- **Andrew Tang, BSc,** University of Alberta, Edmonton, AB, Canada

# SPECIAL AWARDS

## 2012 ASE Foundation Research Award Recipients

The ASE Research Awards Committee is pleased to announce the recipients of the 2012 ASE Foundation Research Awards. Through its annual research award program, the ASE Foundation supports worthy research activities that demonstrate the key role cardiovascular ultrasound plays in the diagnosis and management of patients with heart and vascular disease, and the role of emerging ultrasound technologies, such as 3D, contrast, and hand-carried ultrasound, and their application to patient care.

One Cardiovascular Sonographer Research Award was granted to support the growth and development of basic and clinical sonographer research:

**Charlie E. Luoma, MS, RDCS, RCEP**, Mayo Clinic Health System - Franciscan Healthcare, La Crosse, WI - "Myocardial Performance at Rest and During Exercise in Heart Failure with Preserved Ejection Fraction: Speckle Tracking Echocardiography - One piece of the puzzle."

Two Career Development Awards were granted to support young physicians/scientists just beginning careers in academic echocardiography:

**Mohamed Ahmed, MD**, University of Pittsburgh, Pittsburgh, PA - "Determining Mechanisms of Right Ventricular Pacing-Induced Cardiac Dysfunction Using Speckle Tracking Strain Echocardiography and Impact on Therapy"

**Shahryar M. Chowdhury, MD**, Medical University of South Carolina, Charleston, SC - "Validation of Non-Invasive Indices of Contractility in Children"

## TomTec Innovator Research Travel Grant

This new award is supported by a grant to the ASE Foundation from TomTec Imaging Systems and will be given on a yearly basis to support a promising young researcher present his/her work at the ASE Scientific Sessions. For more than 20 years, TomTec has driven innovations in echocardiography, and the ASE Foundation thanks them for investing in the young investigators who will continue to drive our field forward. This year's recipient received \$5,000 to support his/her travel expenses.

**Umar Khan, MD, PhD**, UMass Medical School, Worcester, MA - "Reduced Left Ventricular and Left Atrial Function in Acute Pulmonary Embolism: A Vector Velocity Imaging Study"

## UltraEcho, Ltd. Cardiovascular Sonographer Student Travel Grant Recipient

This award, supported by a grant to the ASE Education and Research Foundation, is presented to a sonographer student enrolled in an accredited cardiovascular ultrasound program. This grant provides funding to assist a student to attend the annual Scientific Sessions. The 2012 UltraEcho Student Travel Grant has been awarded to **Athena Andha, Alvin Community College, Alvin, TX**. This award will be recognized during the Council on Cardiovascular Sonography Business Meeting, Sunday, July 1, 8:30 - 10:00 a.m., in Potomac B.

## Alan D. Waggoner, MHS, RDCS Sonographer Student Scholarship Recipients

The Alan D. Waggoner, MHS, RDCS Sonographer Student Scholarship program was established in 2001 in recognition of Mr. Waggoner's professional achievements and service to ASE. Funding from the ASE Education and Research Foundation (ASEF) provides a limited number of \$1,000 scholarships for students enrolled in a cardiovascular ultrasound program accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) in the United States, or by an equivalent Canadian or international ultrasound program. Also included with each scholarship is a one-year complimentary membership in ASE, complimentary registration for the recipient to attend the 2012 Scientific Sessions, and limited travel support. This year's recipients were chosen from a large group of well-qualified candidates based on their nominating letters, personal accomplishments and academic record.

- **Tamara Beam**, UMBC Training Centers, Baltimore, MD
- **Rebecca Campbell**, Seattle University, Dept. of Diagnostic Ultrasound, Seattle, WA
- **Young Joo Jang**, Montgomery College, DMS, Silver Spring, MD
- **Jennifer L. Lasecki**, Johns Hopkins Hospital School of Cardiac Sonography, Baltimore, MD
- **Hemda Lewis**, Johns Hopkins Hospital School of Cardiac Sonography, Baltimore, MD
- **Lauren Longshore**, Cincinnati State Tech & Community College, Cincinnati, OH
- **Danielle Meadows**, South Hills School of Business & Technology, State College, PA
- **Tanya B. Michnevit**, Hoffman Heart Institute of CT, Hartford, CT
- **Denise Spiegel**, UWHC School of Diagnostic Medical Sonography, Madison, WI
- **Richard Yannotta**, Molloy College, Rockville Centre, NY

The 2012 student scholarship recipients will be recognized during the ASE Awards Presentation from 4:00 pm - 6:00 pm, Sunday, July 1, in Potomac A.

## Feigenbaum Cardiovascular Sonographer Student Travel Grant Recipient

This award is supported by a grant to the ASE Education and Research Foundation from Elsevier Inc. to honor Dr. Harvey Feigenbaum's commitment and tenure as the former editor of the *Journal of the American Society of Echocardiography* (JASE) for 20 years. It is presented to a sonographer student enrolled in a cardiovascular ultrasound program. This grant provides funding to assist a student to attend the annual Scientific Sessions or other ASE-sponsored educational courses. The 2012 student travel grant has been awarded to **Jim Conner, Weber State University, Ogden, UT**. This award will be recognized during the Council on Cardiovascular Sonography Business Meeting & Awards Presentation, Sunday, July 1, 8:30 am - 10:00 am, in Potomac B.

# SPECIAL AWARDS

## 2012 Council Travel Grant Awards

The ASE Foundation sponsors Council Travel Grant Awards to fellows, trainees and sonographers to fund their attendance at the ASE 23rd Annual Scientific Sessions. These travel grants are part of an ongoing effort by the Foundation, with the assistance of the Council Boards, to encourage trainees in cardiovascular specialties to focus on the respective echocardiography sub-specialty and to recruit enthusiastic new members to the Council membership. In addition, the hope of the Council Boards is to provide interested fellows with a deeper understanding of the imaging field and facilitate the development of meaningful mentoring opportunities for trainees with established imaging faculty.

## Council on Pediatric and Congenital Heart Disease Travel Grant Award Recipients

### **Suma Potiny, MD**

The Medical University of South Carolina  
Charleston, SC

### **Dongngan Truong, MD**

Primary Children's Medical Center  
Salt Lake City, UT

## Council on Vascular Ultrasound Travel Grant Award Recipients

### **Rene Quiroz, MD, MPH**

Boston Medical Center  
Boston, MA

### **Suzanne Poston, RDCS, FASE**

University of Texas Physicians  
Houston, TX

## Council on Perioperative Echocardiography Travel Grant Award Recipients

### **Agnes Kim, MD, PhD**

Yale-New Haven Hospital  
New Haven, CT

### **Karsten Bartels, MD**

Duke University Medical Center  
Durham, NC

## Council on Cardiovascular Sonography Board Travel Grant Awards

### **Mark D. Zemanek, RDCS, RDMS, RVT**

Leelanau Diagnostic Ultrasound, LLC  
Cedar, MI

### **Neha A. Soni-Patel, RDCS**

The Cleveland Clinic Children's Hospital  
Cleveland, OH

These travel grants are provided with the generous support from 2011 Annual Appeal donors.



**ASE** Foundation

# REGISTRATION, BADGE & TICKET DISTRIBUTION

## Attendee Registration

The ASE Registration Counter is located in the convention center foyer on level 2. Attendees may pick up their conference materials, including namebadge and tickets purchased at this location.

## ASE Faculty and Attendee Registration Counter Hours:

Friday, June 29 .....	12:00 pm-7:00 pm
Saturday, June 30 .....	6:30 am-7:00 pm
Sunday, July 1 .....	6:30 am-7:00 pm
Monday, July 2 .....	6:30 am-7:00 pm
Tuesday, July 3 .....	6:30 am-5:00 pm

## Ticket Distribution

Please note that some sessions require a purchased ticket for admission. Ticketed Breakfast Sessions require a purchased ticket; seating is limited and based on availability. If these sessions are not sold-out, tickets can be purchased at the ASE Registration Counter during registration hours.

## Speaker Ready Room

The Speaker Ready Room is located in Potomac 3/4. Faculty name badges will be available at the ASE Registration Counter during registration hours.

The Speaker Ready Room will be staffed with technicians to assist faculty with uploading and previewing presentations as follows:

Friday, June 29 .....	4:00 pm-7:00 pm
Saturday, June 30 .....	6:00 am-5:30 pm
Sunday, July 1 .....	6:30 am-4:30 pm
Monday, July 2 .....	6:30 am-4:30 pm
Tuesday, July 3 .....	6:30 am-4:30 pm

## FASE Lounge 9:00 am - 4:00 pm Saturday, June 30 - Tuesday, July 3

*Potomac 2, Level 2*

Enjoy the benefits of being a Fellow of the American Society of Echocardiography (FASE) at the exclusive FASE Lounge, conveniently located near the Speaker Ready Room. Come and pick up your FASE ribbon to show your dedication to your field and your prestigious designation. Lounge amenities will allow you to connect with friends, grab some refreshments, and take a break from the hustle and bustle of the day while being close to all the sessions.

## Name Badges

Admission to the ASE 2012 Scientific Sessions, Exhibit & Poster Hall, and Science & Technology Theatre is by badge only. Please wear your name badge at all times when in the Exhibit & Poster Hall. However, we recommend for your safety that name badges not be worn outside of the convention center.

ASE exhibitors may use a lead retrieval system in the Exhibit & Poster Hall or Science & Technology Theatre to obtain your information. Your name badge also functions as your exhibit badge, providing exhibitors with your name, institution (where applicable), address, business telephone number and e-mail address. ASE will not release e-mail addresses of attendees who declined this option on their registration form.

Family members with guest badges will be admitted to the Exhibit & Poster Hall and may sit in on non-ticketed educational sessions as space allows, but they are not eligible for a conference bag or to claim CME/CEU credit. Guests must be at least 12 years of age. You may purchase guest badges for family members at the ASE Registration Counter. ASE reserves the right to revoke or deny attendance to any registered participant, speaker, exhibitor, news media reporter or photographer of presentations or activities at the ASE 23rd Annual Scientific Sessions.

### PLEASE NOTE:

There is a \$50 replacement fee for lost name badges.

## Claiming Continuing Education Credit

Certificates for CME/CEU credit are available on site using our computerized certificate request system, or following the conference via a Web link which will be e-mailed to the address provided during the registration process. All professional registrants may use the computers at the CME/CEU Counter, located at the ASE Registration Counter. Credit should be claimed one time only on your final day of participation, and should not be applied for on a daily basis. Separate certificates will not be issued for your attendance at Ticketed Breakfast Symposia or Multimodality Imaging Symposia, and as such, you should include your participation in these sessions in your credit hours. CME/CEU credit is based on an honor system and credits claimed should only reflect the extent of your participation in the meeting.

# EXHIBIT INFORMATION

## Exhibit & Poster Hall

The ASE Scientific Sessions Program Committee encourages you to visit the Exhibit & Poster Hall. The exchange of information and access to new concepts, technology, devices and research is a vital component of professional development. Get face-to-face with the industry's leading developers and executives who can help you discover what's new, assist you in making the right choices for your institution, and show you ways to reduce costs and improve productivity.

The showcase of investigators from around the world presenting cutting-edge research on the latest advances in cardiovascular ultrasound is a highlight of ASE's annual meeting. Spend time in the poster area and gain firsthand knowledge and insight from scientific investigators.

## Exhibit & Poster Hall Hours

Saturday, June 30

*President's Reception* .....4:30 pm - 6:30 pm

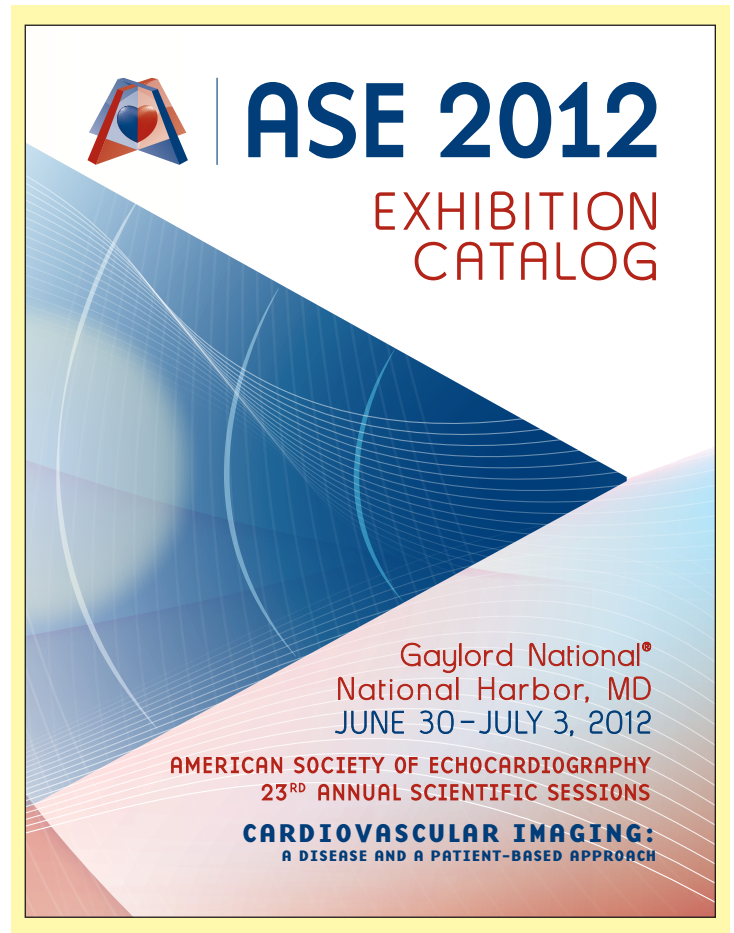
Sunday, July 1 .....9:30 am - 4:30 pm

Monday, July 2 .....9:30 am - 4:30 pm

*Independence Day Celebration* .....3:15 pm - 4:00 pm

## Exhibition Catalog

The *Exhibition Catalog* provides information on ASE 2012 Scientific Sessions, exhibitor descriptions, booth locations, Science & Technology Theatre sessions, and all activities taking place in the Exhibit & Poster Hall. Find a copy in your ASE 2012 conference bag!



# 2012 EXHIBIT & POSTER HALL HIGHLIGHTS

## Relax & Recharge Lounge

Take a break and recharge your mobile devices in ASE's Relax & Recharge Lounge, located in booth #734. Multiple charging stations and comfortable chairs are provided for your convenience. Don't forget to stop and visit with exhibitors on your way back to the lounge!

## ASE Headquarters Booth # 434

Visit the ASE Headquarters booth #434 to find out what's new with ASE and to learn about the exciting changes taking place in the cardiovascular ultrasound field. At ASE Headquarters, you'll find comprehensive information on all of our educational programs and products, membership opportunities and advocacy efforts. In addition, don't miss the exciting new products and services designed to help with your practice of cardiovascular ultrasound. ASE is available to help you find whatever it is you need. While you're there, don't forget to pick up your complimentary copy of the updated ASE guidelines CD.

## ASE Education and Research Foundation

The ASE Foundation (ASEF) is ASE's charitable arm, helping to assure the viability and visibility of CV ultrasound. Contributing to the Foundation is vital to ensuring the future of CV ultrasound and its use in patient diagnostic care. Monies raised through the ASEF and 2012 Annual Appeal support the following initiatives: 1) Research Awards - Sonographer and Career Development Grants; 2) Guideline Dissemination; 3) Student and Fellow Travel Grants and Scholarships; and 4) Philanthropic Missions and Educational Outreach. By donating, you play a role in the future of CV ultrasound and become a recognized supporter of the ASEF. This drives ASE's ongoing mission to serve its members, the larger community of healthcare providers and patients for whom cardiovascular ultrasound is essential. There are a number of ways to donate including our new, online monthly giving and text-to-donate programs. To learn more about donating, recognition programs, and upcoming ASEF charitable activities, please visit ASE Headquarters or online at [www.ASEFoundation.org](http://www.ASEFoundation.org).

## ASE Membership

ASE welcomes over 15,000 physicians, sonographers, nurses and scientists as part of its membership. ASE is a strong voice providing guidance, expertise and education to its members with a commitment to improving the practice of ultrasound and imaging of the heart and cardiovascular system for better patient outcomes. Membership affords you exclusive access to Connect@ASE, an interactive member forum with image library, online resources and lively discussion posts. Create your own community of ASE members to communicate with those around you, or post a question to the larger membership with Connect@ASE. ASE serves its members in numerous ways by providing education, volunteer opportunities, advocacy, research resources, practice guidelines and a community for your profession. Did you know your ASE membership affords you over \$400 of FREE credits a year, in addition to discounts on educational courses and products? Also included is a monthly subscription to the *Journal of the American Society of Echocardiography* (JASE). Learn more about Connect@ASE and your member benefits at ASE Headquarters booth #434.

## Echo Around the World

Booth #235

ASE has gone global! View our slides from ASE Global: Focus on India and the 2011 World Summit in Buenos Aires, as well as translated educational products and guideline documents. Take a trip around the world of echocardiography in booth #235; no middle seats required.

**President's Reception**..... 4:30 pm - 6:30 pm  
*Exhibit & Poster Hall, Level 1 (Prince George's B)*

All attendees are invited to celebrate ASE 2012 at the President's Reception on Saturday, hosted by ASE President, James Thomas, MD, FASE. The President's Reception takes place in the Exhibit & Poster Hall, at the Gaylord National®. This is a wonderful opportunity to network with colleagues and friends while learning more about the newest equipment and services in the cardiovascular field. Complimentary hors d'oeuvres and cocktails will be available from many stations throughout the hall. Admission is included in your registration fee. Guest tickets can be purchased at the ASE Registration Counter.

**Independence Day Celebration** 3:15 pm-4:00 pm  
*Exhibit & Poster Hall, Level 1 (Prince George's B)*

New this year, Monday's afternoon break will consist of a farewell reception in the Exhibit & Poster Hall. It will celebrate the American Independence Day. To show gratitude to everyone involved in the ASE 23rd Annual Scientific Sessions, ASE is pleased to offer one final opportunity at Gaylord National® for attendees and industry representatives to network while enjoying complimentary refreshments.

## ASE Product Sales

Are you aware that ASE offers educational products to help you improve your practice? Wide arrays of products are available for purchase every day. Save time and money by purchasing your products at the ASE 2012 Scientific Sessions. Be the first to purchase our brand-new products! Check out ASE's newest educational products including:

- ASEUniversity II DVD
- How to Perform a Transthoracic Echocardiographic Study Volume 1: Transducer Position and Anatomy DVD
- iASE Pocket Guidelines Application for iPhone/iPad/iPod/iTouch and Android devices
- Guidelines for the Echocardiographic Assessment of the Right Heart in Adults Pocket Guideline

Enjoy free shipping when you purchase ASE products on site.

### Location and Hours:

- Saturday, June 29  
4:30 pm - 6:30 pm in the ASE Headquarters booth #434
- Sunday, June 30  
9:30 am - 4:30 pm in the ASE Headquarters booth #434
- Monday, July 1  
9:30 am - 4:30 pm in the ASE Headquarters booth #434
- Tuesday, July 2  
9:00 am - 5:00 pm at the ASE Product Sales Counter on Level 2



## JASE

Quality education  
Standards • Grassroots  
of Sonographer Licensure  
reimbursement assistance • Member-only gifts and special discount  
opportunities • Early ASE course registration availability • CEU  
programs for local societies and hospitals • Discounts on all ASE  
educational courses (including co-sponsored courses) • Connect@ASE,  
social networking platform for all ASE members • Professional  
Liability Insurance for sonographers • Mobile Membership  
through Connect@ASE • Advanced Practice Sonographer  
Program • ASE Smartphone apps • Discounts on ASE  
educational products • Teaching slide sets  
• Opportunity to become a Fellow of the  
American Society of Echocardiography  
(FASE) • Resume posting and  
job searching through  
ASEMarketPlace  
• Special interest  
councils

## Free CME

• Guidelines and  
Advocacy Network • Support  
• Image Library • Coding and



Are you maximizing on the return of your investment?  
When invested in us, this is how we are investing in you.



[www.asecho.org](http://www.asecho.org)

# FACILITY INFORMATION

## The Gaylord National Hotel and Convention Center's physical address is:

201 Waterfront Street,  
National Harbor, MD 20745

Hourly shuttle service from Reagan National Airport (DCA) is available to and from Gaylord National®. SuperShuttle service, private sedans, and taxis are also available to all major airports and most locations locally. Visit [www.gaylordnational.com](http://www.gaylordnational.com) for shuttle fees and times.

Did you know all these activities are available, just steps from your hotel room at Gaylord National®?

- Fireworks show over the Potomac River on Saturday night!  
The ASE 2012 conference finishes just a day before the July 4th festival in nearby Washington, D.C. Ranked as the second most popular in the nation, it includes parades, fairs, concerts and fireworks!
- Water taxis operating between National Harbor and Alexandria, VA and Mount Vernon from the Gaylord Pier. Also offered are professional boat tours of the Washington Monuments and Mount Vernon. Downtown D.C. shuttle service departs every 90 minutes from Gaylord National® to Union Station or the Old Post Office.
- *Movies on the Potomac*: Every Friday and Sunday during the summer, National Harbor sponsors a free movie in the city center by the water.
- Canoes, kayaks, sailboats and bikes are for rent at the Main Pier.
- Expanded Lounge Bar on the main floor off the lobby: A great place for mingling with colleagues and friends.
- Enhanced landscaping offers a nice option for taking a stroll between or after sessions.

With 29 restaurants within walking distance of Gaylord National®, no one will feel restricted to eat at the same few places over and over. This added variety of dining options gives attendees a great meal regardless of budget or palate. Now, 35 shops make up Gaylord National's shopping district (and is still growing), so there is no need to travel to D.C. for that special gift in 2012. You will find something for the whole family in any price range and only minutes from the beautiful waterfront.

## Information and Concierge Desk

An information desk is available for anyone visiting Gaylord National®, located on level 2 in the hotel guest registration area. It is staffed by knowledgeable attendants who can answer questions about National Harbor and surrounding areas, as well as assist with dinner reservations. They can also provide directions on how to make the best of your free time to discover the city and its many attractions. Maps and pamphlets are also available.

## Parking at Gaylord National®

Parking at Gaylord National® is \$12 per day for overnight self-parking and \$30 per day for overnight valet parking. Guests with a handicapped placard or license plate may use designated handicapped valet parking places for the self-parking price

## Parking breakdown is as follows:

Self Parking:  
Daily Rate: \$12.00\*  
Overnight Rate: \$21.00\*

*\*All rates are subject to change without notice. Please call ahead to confirm pricing (301-965-4000).*

## First Aid

An emergency medical professional will be available during the hours of the ASE 2012 meeting, as well as during set-up and break down of the entire event. In the event of a medical emergency, please find a staff member or security guard to call the nurse on duty.

## Lost & Found

Questions regarding lost or found items can be directed to the ASE Registration Counter located in the convention center foyer.

## Luggage Storage and Coat Check

Please see the Bell Stand in the hotel lobby.

## Business Center

Gaylord National® offers a full-service 11th Hour Technology Center, which is centrally located on the main floor of the convention center. Shipping, faxing, copying and office equipment rentals are right at hand. For last-minute changes or projects, the business center offers 24-hour self-service printing and copying.

Hours of operation are:

- Monday-Sunday, 7:00 am to 9:00 pm
- 24-hour Internet Access
- 24-hour Self-service Printing and Copying

## Packaging Receiving Address and Business Center Contact Information:

Guest Name  
c/o Gaylord National Hotel and Convention Center  
201 Waterfront Street  
National Harbor, MD 20745



★ DINING ★

- Old Hickory Steakhouse & Lounge (Lobby Level)
- National Pastime Bar & Grill (Lower Atrium)
- Pienza Restaurant (Lower Atrium)
- Java Coast Fine Coffees (Lower Atrium)

★ BARS / LOUNGES ★

- Belvedere Lobby Bar (Lobby Level)
- POSE Ultra Lounge (Roof Top)

★ RETAIL ★

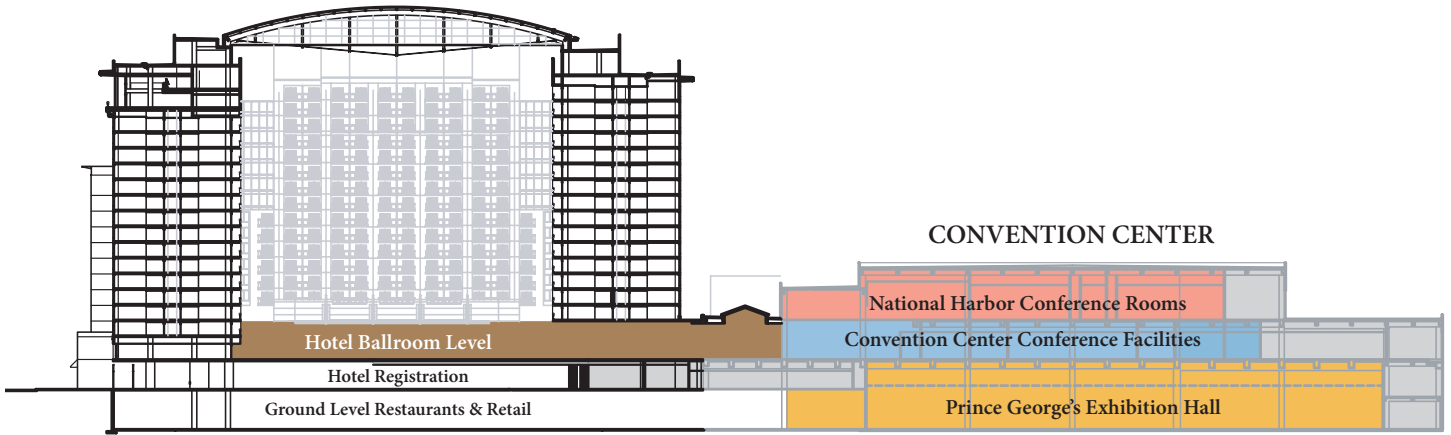
- Paisleys: Accessories & More (Lower Atrium)
- Amelia's Boutique (Lower Atrium)
- Strictly First Glass (Lobby Level)
- Key Provisions: News \* Sundries \* Gifts (Lower Atrium)

★ RECREATION ★

- Business Center (Ballroom Level)
- Relâche™ Spa & Salon (Lobby Level)
- Elevators to the Fitness Center, Pool & Bar, Potomac Playzone & Handicap Access to Pier (Take E2 elevator to level P1)

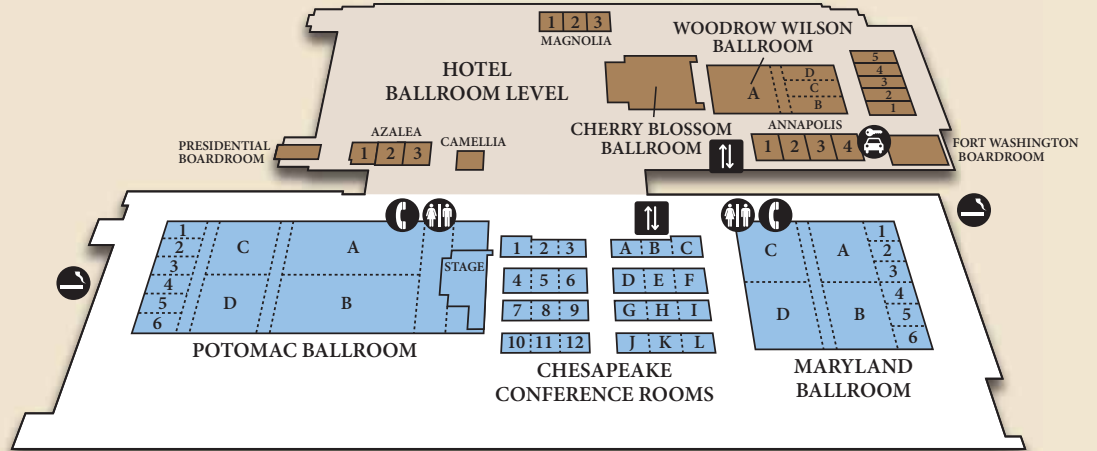
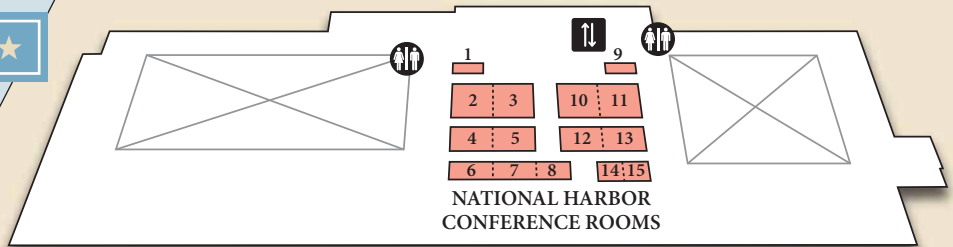
**LEGEND**

Elevators	Concierge
Restrooms	Tours
ATM	Bus Pickup
Phones	Taxi Pickup
Bell Services	Shuttle Desk
Convention Center	Smoking



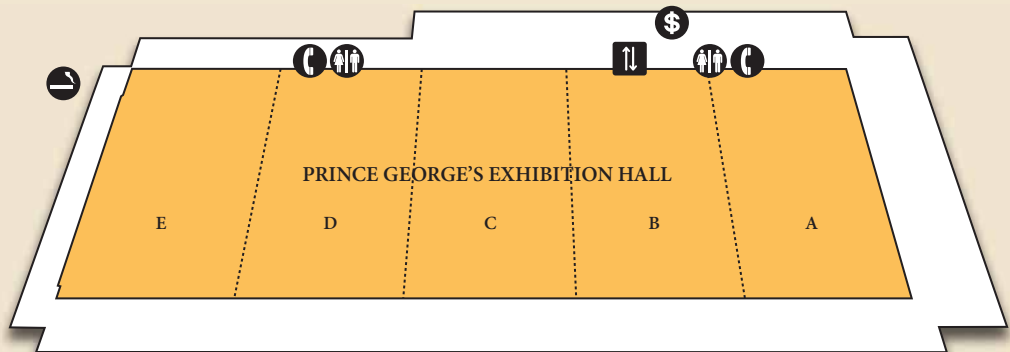
★ CONVENTION CENTER ★

Potomac River



LEGEND

- Car Rental
- Elevators
- Restrooms
- Phones
- Smoking



# GENERAL INFORMATION & REGULATIONS

## Food Functions

ASE will provide continental breakfast in the Potomac Foyer from 7:30 am – 8:30 am daily. Morning and afternoon coffee breaks are available for registered attendees in the Exhibit & Poster Hall Saturday, June 30 through Monday, July 2 and in the Potomac Foyer on Tuesday, July 3. Please refer to the Schedule-at-a-Glance on page 13 for the times of the daily morning, afternoon and lunch breaks.

ASE will provide breakfast and lunch on a first-come, first serve basis (max. 350 participants) for Science & Technology Theatre attendees held in Prince George's A. See page 6 of the *Exhibition Catalog* for a schedule of theatre sessions.

## Internet Access

ASE thanks Cardiovascular Credentialing International™ (CCI), booth #612, for sponsoring the E-mail Kiosk. The E-mail Kiosk is located adjacent to CCI in booth #614 in the Exhibit & Poster Hall. Printers for attendee use are also available at the E-mail Kiosk.

## 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 them 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 in the convention center. Be sure to remove your badge when you leave the convention center or your hotel room.

## News Media

The ASE Press room for the ASE 23rd Annual Scientific Sessions is located in the Camellia Room on Level 2. This facility is for the use of registered media only; press credentials are required. For information regarding news releases, news conferences and interviews, please contact Cathy Kerr, CAE, Vice President of Council Relations at [ckerr@asecho.org](mailto:ckerr@asecho.org) or 1-919-861-5574 ext. 7156. Media representatives must display their official ASE badge at all times. Please see our Photography and Audio/Visual Recording policy.

## Photography and Audio/Visual Recording Policy

No person may record any portion of the ASE 2012 Scientific Sessions, either by video, still or digital photography, audio or any other recording or reproduction mechanism. This includes recording of presentations and supporting A/V materials and of poster presentations and supporting poster materials. Taking photos of or recording the content of meeting room 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 conference badge and privileges.

ASE reserves the rights to all recordings or reproductions at ASE meetings. Please be aware that during the Scientific Sessions, attendees, vendors, guests and exhibitors may be photographed or videotaped by ASE contractors 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

Information about childcare is available at your hotel's concierge desk. ASE does not offer childcare services. Due to limited seating capacity and the highly technical nature of the program, children are not allowed to attend sessions. For their safety, children must be accompanied by an adult at all times during the ASE 2012 Scientific Sessions. Children 12 and older must have a purchased guest registration before they will be allowed entry into the Exhibit & Poster Hall. Children 11 and younger, strollers, and infant carriers are not permitted on the exhibit floor at any time.

# YOUR PERFORMANCE STANDS OUT, SO SHOULD YOU



Reap the benefits of your diligence by being recognized as FASE (Fellow of the American Society of Echocardiography), a designation that lets colleagues and patients know that you're part of an outstanding group of cardiovascular ultrasound professionals.

For those who meet the rigorous standards, FASE recognizes the dedicated member with proven professional contributions and a diverse set of skills and comprehensive knowledge of all aspects of cardiovascular ultrasound.

**Strive for FASE. You may already be eligible.**

Learn the professional benefits and review the application at [www.asecho.org/FASE](http://www.asecho.org/FASE).

**VISIT THE FASE LOUNGE SATURDAY - TUESDAY IN POTOMAC 2, LEVEL 2.**



**FASE** Fellow of  
American Society of  
Echocardiography

**LEAD. CONTRIBUTE. BE RECOGNIZED.**

# SATURDAY HIGHLIGHTS



The AMERICAN SOCIETY of ECHOCARDIOGRAPHY  
EDUCATION and RESEARCH FOUNDATION  
will be honoring the following award recipients at

## THE 3<sup>rd</sup> Annual ASE FOUNDATION AWARDS GALA



### PHYSICIAN LIFETIME ACHIEVEMENT AWARD

Miguel A. Quiñones, MD

Weill Cornell Medical College, Methodist DeBakey Heart & Vascular Center  
The Methodist Hospital - Houston, TX

### FEIGENBAUM LECTURER

Philippe Pibarot, DVM, PhD, FASE

Laval University, Quebec Heart & Lung Institute - Quebec, Canada

### MERITORIOUS SERVICE AWARD

Arthur E. Weyman, MD, FASE

Massachusetts General Hospital - Boston, MA

### RICHARD POPP EXCELLENCE IN TEACHING AWARD

Gerard P. Aurigemma, MD, FASE

University of Massachusetts Medical School - Worcester, MA

### CARDIOVASCULAR SONOGRAPHER DISTINGUISHED TEACHER AWARD

Deborah A. Agler, RCT, RDCS, FASE

Cardiovascular Imaging Heart & Vascular Institute  
Cleveland Clinic Foundation - Cleveland, OH

### EXCELLENCE IN TEACHING IN PEDIATRICS AWARD

Mary Etta King, MD, FASE

Massachusetts General Hospital - Boston, MA

A special thank you to those who purchased a table.  
Your continued support of the ASE Foundation  
is greatly appreciated.

ASE Foundation - Securing the future of cardiovascular ultrasound.  
Proceeds from this event fund ASE research awards.

## Council on Perioperative Echocardiography Business Meeting & Awards Presentation

8:00 am - 8:25 am in Potomac A, Level 2

(Non-CME) All conference attendees with an interest in intraoperative ultrasound are invited to attend. An overview of council activities and opportunities for getting involved will be given. In addition, the 2012 travel award winners will be recognized during this time.

## Council on Pediatric and Congenital Heart Disease Business Meeting & Awards Presentation

3:00 pm - 3:30 pm in Potomac B, Level 2

(Non-CME) All conference attendees with an interest in pediatric and congenital heart disease are invited to attend this meeting, which will provide an overview of council activities and opportunities for getting involved. In addition, the 2012 travel award winners will be recognized during this time.

## Presidents Reception

4:30 pm - 6:30 pm in the Exhibit & Poster Hall  
(Prince George's B, Level 1)

(Non-CME) All attendees are invited to celebrate ASE 2012 at the President's Reception, hosted by ASE President, James Thomas, MD, FASE. This lively event will kick off ASE 2012 in the Exhibit & Poster Hall at Gaylord National®. This is a wonderful opportunity to network with colleagues and friends while learning more about the newest equipment and services in the cardiovascular field. Complimentary hors d'oeuvres and cocktails will be available from many stations throughout the hall. Admission is included in your registration fee. Guest tickets can be purchased at the ASE Registration Counter.

## Saturday Committee Meetings

These meetings are by invitation only.

### 8:00 am - 10:00 am

Council on Cardiovascular Sonography Board  
Potomac 5

### 8:30 am - 10:30 am

JASE Editorial Board  
Cherry Blossom Ballroom

### 10:30 am - 12:30 pm

Public Relations Committee  
Potomac 6

### 11:00 am - 12:00 pm

Research Awards Committee  
Chesapeake 11

### 12:00 pm - 1:00 pm

Nominating Committee  
Chesapeake 10

### 1:30 pm - 2:30 pm

Awards Committee  
Chesapeake 10

### 2:30 pm - 4:30 pm

International Relations Task Force  
Potomac 5

# SATURDAY, JUNE 30, 2012 SCHEDULE

## 8:00 am - 8:25 am

- I** Council on Perioperative Echocardiography Meeting and Awards Presentation - Potomac A  
Chair: S. Reeves Co-Chair: M. Swaminathan

## 8:25 am - 8:45 am

- I** The Mitral Valve Apparatus: Influence of Echocardiography on Perioperative Clinical Decision Making - Potomac A  
Chair(s): S. Reeves, M. Swaminathan

## 8:25 am - 8:30 am

- Introduction Moderator: S. Reeves

## 8:30 am - 8:45 am

- Anatomic Correlates: Normal Anatomy J. Walker, D. Shook

## 8:30 am - 10:00 am

- CS** Echo: The Standard Exam - National Harbor 4/5  
Chair(s): J. Marshall, R. Davis

## 8:30 am - 8:45 am

- Ergonomics J. Baker

## 8:45 am - 9:00 am

- Standard TTE Examination K. Eberman

## 9:00 am - 9:15 am

- Standard TEE Examination J. Banchs

## 9:15 am - 9:30 am

- Non-Standard Views J. Marshall

## 9:30 am - 9:45 am

- Tips and Tricks: Difficult Patient Imaging P. Peters

## 9:45 am - 10:00 am

- Questions and Answers

## 8:30 am - 10:00 am

- FI** The Basics of Diastolic Function Assessment - Principles and Pitfalls - National Harbor 2/3  
Chair(s): S. Witt, G. Aurigemma

## 8:30 am - 8:45 am

- Principles of Transmitral Flow Measurements J. Tajik

## 8:45 am - 9:00 am

- Are Pulmonary Vein Measurements Worth the Trouble? J. Mangion

## 9:00 am - 9:15 am

- Tissue Doppler: How and What to Measure G. Lancaster

## 9:15 am - 9:30 am

- Special Circumstances: Atrial Fibrillation and Valve Disease S. Sawada

## 9:30 am - 9:45 am

- Making Sense of Discrepant Indices G. Aurigemma

## 9:45 am - 10:00 am

- Questions and Answers

## 8:30 am - 10:00 am

- M1** Hypertrophic Cardiomyopathy - Potomac C  
Chair(s): M. Desai, M. Maron

## 8:30 am - 8:45 am

- Imaging Left Ventricle Morphology T. Abraham

## 8:45 am - 9:00 am

- Left Ventricle Systolic and Diastolic Function A. Woo

## 9:00 am - 9:15 am

- Sudden Cardiac Death M. Maron

## 9:15 am - 9:30 am

- LVOT Obstruction and Mitral Regurgitation M. Desai

## 9:30 am - 9:45 am

- CAD Imaging in Patients with HCM J. Hays

## 9:45 am - 10:00 am

- Questions and Answers

## 8:30 am - 10:00 am

- Medical Practice Management in the New Healthcare Norm:  
**P** Leadership Tips For A Successful Practice (Part I) - Potomac D  
Chair: P. Douglas Co-Chair: T. Ryan

## 8:30 am - 8:50 am

- Healthcare Reform: Where Are We Now? L. Nichols

## 8:50 am - 9:10 am

- Business Options for Cardiovascular Practice and Academics C. Biga

## 9:10 am - 9:30 am

- Strategic Planning: Making the Right Choices J. Palazzo

## 9:30 am - 10:00 am

- Questions and Answers

## 8:30 am - 10:00 am

- PC** Congenital Symposium: Echo-Surgical-Pathology Correlation in Congenital Anomalies of the Tricuspid Valve - Potomac B  
Chair: F. Cetta Co-Chair: G. Stevenson

## 8:30 am - 8:50 am

- Pathology Highlights S. Sanders

## 8:50 am - 9:10 am

- Valve Echocardiography: Diagnostic Pointers L. Lopez

## 9:10 am - 9:30 am

- Surgical Aspects: Peering Over the Drapes B. Kogon

## 9:30 am - 9:50 am

- Post-operative Imaging and the Adult Congenital Heart Disease Perspective C. Fleishman

## 9:50 am - 10:00 am

- Questions and Answers



# SATURDAY, JUNE 30, 2012

## SCHEDULE

### 8:45 am - 11:45 am

**I** **The Mitral Valve Apparatus: Influence of Echocardiography on Perioperative Clinical Decision Making: Degenerative Mitral Valve Disease** - Potomac A  
*Moderator: S. Reeves*

#### 8:45 am - 9:00 am

• Surgical Anatomy: Prosection *J. Walker, D. Shook*

#### 9:00 am - 9:15 am

• Pre-operative Considerations: Asymptomatic Mitral Valve Disease: Use of Echo to Determine When to Operate/Guideline Considerations  
*R. Hahn*

#### 9:15 am - 9:30 am

• Pre-operative Considerations: When to Select a Percutaneous Approach  
*S. Kar*

#### 9:30 am - 9:40 am

• Intraoperative Considerations: Surgical Approach "How to Size for Mitral Valve Repair"  
*D. Adams*

#### 9:40 am - 9:50 am

• Intraoperative Considerations: Surgical Approach "Complex Mitral Valve Disease: Resect or Respect?"  
*D. Adams*

#### 9:50 am - 10:00 am

• Intraoperative Considerations: Surgical Approach "Anterior Leaflet Disease"  
*D. Adams*

#### 10:15 am - 10:30 am

• Evaluation of Mitral Regurgitation in the Operating Room, Barlow's versus FED - What Did the Surgeon Really Need to Know? Is 3D TEE Useful?  
*M. Swaminathan*

#### 10:30 am - 10:45 am

• Post-operative Complications: Post Repair Mitral Regurgitation with or without SAM  
*M. Sherrid*

#### 10:45 am - 11:00 am

• Post-operative Complications: Post Repair Stenosis  
*F. Mahmood*

#### 11:00 am - 11:15 am

• Mitral Valve Repair Planned in Patient with Mod Tricuspid Regurgitation  
*A. Finley*

#### 11:15 am - 11:45 am

• Surgical Anatomy: Prosection *J. Walker, D. Shook*

### 10:15 am - 11:45 am

**CS** **Diastolic Function** - National Harbor 4/5  
*Chair(s): J. Hill, S. Kachline*

#### 10:15 am - 10:30 am

• Measurements for a Comprehensive Diastolic Exam  
*K. Moore*

#### 10:30 am - 10:45 am

• Tissue Doppler Waveforms  
*M. Rosenblatt*

#### 10:45 am - 11:00 am

• Basics of Strain Imaging  
*J. Hill*

#### 11:00 am - 11:15 am

• Case Studies: CRT and Optimization  
*K. Chin*

#### 11:15 am - 11:30 am

• Case Studies: 3D Strain and Torsion  
*J. Hill*

#### 11:30 am - 11:45 am

• Questions and Answers

### 10:15 am - 11:45 am

**FI** **Stress Testing: State-of-the-Art** - National Harbor 2/3  
*Chair(s): E. Gill, Y. Zhang*

#### 10:15 am - 10:30 am

• Stress Testing in the Era of the ACO: Predictions  
*E. Gill*

#### 10:30 am - 10:45 am

• Best Practice: Efficient Stress Echo Workflow  
*D. Atherton*

#### 10:45 am - 11:00 am

• Pharmacologic Stress Testing: Principles and Detection of Ischemia and Viability  
*D. Orsinelli*

#### 11:00 am - 11:15 am

• Treadmill and Bicycle Stress Echo: Physiology, Pitfalls and Case Examples  
*W. O'Donnell*

#### 11:15 am - 11:30 am

• Beyond Wall Motion: Valvular and Diastolic Assessment  
*J. Puthumana*

#### 11:30 am - 11:45 am

• Questions and Answers

### 10:15 am - 11:45 am

**MI** **Aortic Diseases** - Potomac C  
*Chair(s): S. Goldstein, V. Ferrari*

#### 10:15 am - 10:30 am

• Aortic Atherosclerosis  
*V. Ferrari*

#### 10:30 am - 10:45 am

• Aortic Aneurysms  
*D. Shah*

#### 10:45 am - 11:00 am

• Aortic Dissection  
*S. Goldstein*

#### 11:00 am - 11:15 am

• Marfan  
*M. Garcia*

#### 11:15 am - 11:30 am

• Aortic Root Disease in Patients with Aortic Valve Disease  
*A. Evangelista*

#### 11:30 am - 11:45 am

• Questions and Answers

### 10:15 am - 11:45 am

**P** **Medical Practice Management in the New Healthcare Norm: Evolving Models of Practice (Part II)** - Potomac D  
*Chair: D. Millman Co-Chair: W. Zoghbi*

#### 10:15 am - 10:35 am

• What is an Accountable Care Organization?  
*G. Rose*

#### 10:35 am - 10:55 am

• Place of Imaging in the Future of Cardiovascular Care  
*W. Zoghbi*

#### 10:55 am - 11:15 am

• How to Build a Successful Echocardiography Laboratory in a Hospital  
*T. Ryan*

#### 11:15 am - 11:45 am

• Questions and Answers

### 10:15 am - 11:45 am

**PC** **Congenital Symposium: Echo-Surgical-Pathology Correlation in Congenitally Corrected Transposition of the Great Arteries** - Potomac B  
*Chair: O. Miller Co-Chair: C. Sable*

#### 10:15 am - 10:35 am

• Pathology Highlights Speaker  
*S. Sanders*

#### 10:35 am - 10:55 am

• Echocardiography: Diagnostic Pointers  
*O. Miller*

#### 10:55 am - 11:15 am

• Surgical Aspects: Peering Over the Drapes  
*B. Kogon*

#### 11:15 am - 11:35 am

• Post-operative Imaging and the Adult Congenital Heart Disease Perspective  
*T. Slesnick*

#### 11:35 am - 11:45 am

• Questions and Answers

### 1:15 pm - 2:45 pm

**CS** **TEE for the Sonographer** - National Harbor 4/5  
*Chair(s): S. Little, M. Strachan*

#### 1:15 pm - 1:30 pm

• Basic TEE Views  
*J. Banchs*

#### 1:30 pm - 1:45 pm

• Dissection versus Artifact  
*E. Bossone*

#### 1:45 pm - 2:00 pm

• Case Studies: Masses TTE versus TEE  
*M. Strachan*

#### 2:00 pm - 2:15 pm

• Case Studies: 3D Assessment of the Mitral Valve  
*S. Little*

#### 2:15 pm - 2:30 pm

• What the Surgeon Needs to Know - TEE in the Operating Room  
*M. Adams*

#### 2:30 pm - 2:45 pm

• Questions and Answers

# SATURDAY, JUNE 30, 2012 SCHEDULE

## 1:15 pm - 2:45 pm

- FI** Contemporary Issues in Imaging Aortic Stenosis  
National Harbor 2/3  
Chair(s): P. Grayburn, E. Geiser

### 1:15 pm - 1:30 pm

- The Emerging Epidemic of Senile Calcific Aortic Stenosis  
P. Grayburn

### 1:30 pm - 1:45 pm

- "Best Practice" Protocol for Aortic Stenosis Assessment B. Kane

### 1:45 pm - 2:00 pm

- Cath Lab/Echo Lab Discrepancies: Case Examples and  
Commentary J. Aragam

### 2:00 pm - 2:15 pm

- Paradoxical Low Flow Aortic Stenosis: The Next Big Thing in Valve  
Disease? A. Labovitz

### 2:15 pm - 2:30 pm

- Patient/Prosthesis Mismatch: Is It Really Important? P. Pibarot

### 2:30 pm - 2:45 pm

- Questions and Answers

## 1:15 pm - 2:45 pm

- MI** Pericardial Diseases - Potomac C  
Chair(s): A. Klein, J. Oh

### 1:15 pm - 1:30 pm

- Pericarditis C. Kramer

### 1:30 pm - 1:45 pm

- Pericardial R. Kerber

### 1:45 pm - 2:00 pm

- Constriction M. Desai

### 2:00 pm - 2:15 pm

- Effusive Constrictive A. Klein

### 2:15 pm - 2:30 pm

- Mixed Disease: Constriction/Restriction J. Oh

### 2:30 pm - 2:45 pm

- Questions and Answers

## 1:15 pm - 2:45 pm

- P** Coding, AUC and Practice Expense Reduction - Potomac D  
Chair(s): M. Picard, G. Rose

### 1:15 pm - 1:30 pm

- CV Coding: Tips and Pitfalls J. Rosenbloom

### 1:30 pm - 1:45 pm

- Echo AUC Review and Impact on Patient Care M. Picard

### 1:45 pm - 2:00 pm

- Best Practices Using Quality Standards to Reduce/Control  
Practice Costs G. Rose

### 2:00 pm - 2:15 pm

- Applying Quality Standards to the Operations of the Echo Lab  
R. Stainback

### 2:15 pm - 2:30 pm

- Running a Profitable Practice in the Era of Change C. Biga

### 2:30 pm - 2:45 pm

- Questions and Answers

## 1:15 pm - 2:45 pm

- PC** Congenital Symposium: Echo-Surgical-Pathology  
Correlation in Tetralogy of Fallot - Potomac B  
Chair: W. Lai Co-Chair: J. Marek

### 1:15 pm - 1:35 pm

- Pathology Highlights S. Sanders

### 1:35 pm - 1:55 pm

- Echocardiography: Diagnostic Pointers S. Srivastava

### 1:55 pm - 2:15 pm

- Surgical Aspects: Peering Over the Drapes B. Kogon

### 2:15 pm - 2:35 pm

- Post-operative Imaging and the Adult Congenital Heart Disease  
Perspective A. Powell

### 2:35 pm - 2:45 pm

- Questions and Answers

## 1:15 pm - 3:15 pm

- I** The Mitral Valve Apparatus: Influence of Echocardiography  
on Perioperative Clinical Decision Making: Restrictive  
Mitral Valve Diseases: Functional and Ischemic - Potomac A  
Moderator: M. Swaminathan

### 1:15 pm - 1:30 pm

- Pre-operative Assessment: CABG only versus CABG/MVR A. Sagie

### 1:30 pm - 1:45 pm

- Intraoperative Echocardiographic Evaluation of Functional Mitral  
Regurgitation and Echocardiographic Predictors of Mitral Valve  
Repair Failure S. Sherman

### 1:45 pm - 2:15 pm

- Surgical Approaches (Annuloplasty Band, Annuloplasty Ring -  
Planar versus Geometric and Replacement) J. Walker

### 2:15 pm - 2:30 pm

- Post-operative Concerns: Post Repair Mitral Regurgitation  
W. Stewart

### 2:30 pm - 2:45 pm

- New Mitral Regurgitation Post-CABG R. Sniecinski

### 2:45 pm - 3:00 pm

- Intermediate and Long Term Survival Discriminators G. Lawrie

### 3:00 pm - 3:15 pm

- Questions and Answers

## 3:00 pm - 3:30 pm

- PC** Council on Pediatric and Congenital Heart Disease  
Meeting and Awards Presentation - Potomac B  
Chair: B. Eidem

## 3:00 pm - 4:30 pm

- CS** Echocardiography and Multimodality Imaging  
National Harbor 4/5  
Chair(s): K. Chin, P. Burgess

### 3:00 pm - 3:12 pm

- Modality: Pros and Cons M. Bremer

### 3:12 pm - 3:24 pm

- Case Studies: LV Function/Viability D. Atherton

### 3:24 pm - 3:36 pm

- Case Studies: Cardiac Masses J. Neary

### 3:36 pm - 3:48 pm

- Case Studies: Valvular Disease M. Bremer

### 3:48 pm - 4:00 pm

- Case Studies: Pericardial Disease M. Adams

### 4:00 pm - 4:12 pm

- Case Studies: Congenital Disease R. Novello

### 4:12 pm - 4:30 pm

- Questions and Answers

# SATURDAY, JUNE 30, 2012

## SCHEDULE

### 3:00 pm - 4:30 pm

**FI** **3D: What Does It Add?** - National Harbor 2/3  
Chair(s): *J. DeCara, M. McCulloch*

#### 3:00 pm - 3:15 pm

- Full Volume, Live 3D and BiPlane - Uses and Abuses *S.Kort*

#### 3:15 pm - 3:30 pm

- Cropping and Optimizing Images *D. Agler*

#### 3:30 pm - 3:45 pm

- 3D Volumes *M. McCulloch*

#### 3:45 pm - 4:00 pm

- 3D Stress Testing *J. DeCara*

#### 4:00 pm - 4:15 pm

- TEE Case Examples - Applications *I. Kronzon*

#### 4:15 pm - 4:30 pm

- Questions and Answers

### 3:00 pm - 4:30 pm

**MI** **Coronary Artery Disease** - Potomac C  
Chair(s): *W. Zoghbi, U. Hoffmann*

#### 3:00 pm - 3:15 pm

- Chest Pain Evaluation in the Emergency Room *U. Hoffmann*

#### 3:15 pm - 3:30 pm

- Patients with Acute Coronary Syndrome *C. Kramer*

#### 3:30 pm - 3:45 pm

- Risk Stratification Post MI *J. Mahmarian*

#### 3:45 pm - 4:00 pm

- Pre-operative Risk Stratification *P. Pellikka*

#### 4:00 pm - 4:15 pm

- Myocardial Viability - Does it Matter? *W. Zoghbi*

#### 4:15 pm - 4:30 pm

- Questions and Answers

### 3:00 pm - 4:30 pm

**P** **Advocacy and the Future of the Cardiovascular Practice** - Potomac D  
Chair(s): *D. Wiener, B. Byrd*

#### 3:00 pm - 3:30 pm

- An Insider's Look at the Changing Healthcare Landscape  
*C. Hanson*

#### 3:30 pm - 3:45 pm

- Impact of Payment Reform on Cardiovascular Imaging *B. Byrd*

#### 3:45 pm - 4:00 pm

- Regulatory Changes and Effects on Cardiovascular Practice  
*T. Ryan*

#### 4:00 pm - 4:15 pm

- Private Payers: Influencing Local Coverage Determinations  
*J. Dent*

#### 4:15 pm - 4:30 pm

- Questions and Answers

### 3:15 pm - 4:15 pm

**I** **The Mitral Valve Apparatus: Influence of Echocardiography on Perioperative Clinical Decision Making: Mitral Valve Stenosis** - Potomac A  
Moderator: *K. Glas*

#### 3:15 pm - 3:30 pm

- Pre-CPB Evaluation of the Mitral Valve: Do the Guidelines Guide?  
*M. Brady*

#### 3:30 pm - 3:55 pm

- Intraoperative: Can the Rheumatic Mitral Valve be Repaired?  
*S. Bolling*

#### 3:55 pm - 4:15 pm

- Post-operative: Intermediate and Long Term Survival Discriminators  
*H. Najm*

### 3:30 pm - 4:30 pm

**PC** **Pediatric Echo Jeopardy** - Potomac B  
Chair: *M. Brook*

Team Canada: *L. Mertens, L. Hornberger, N. Arbic*

Team Midwest: *E. Michelfelder, A. Dorfman, S. Meredith*

Team South: *P. Barker, T. Slesnick, B. Schlosser*

Team Europe: *O. Miller, D. Coleman, C. Storch*

### 4:15 pm - 5:30 pm:

**I** **The Mitral Valve Apparatus: Influence of Echocardiography on Perioperative Clinical Decision Making: Mitral Valve Replacement** - Potomac A  
Moderator: *M. Swaminathan*

#### 4:15 pm - 4:35 pm

- Pre-operative: Repair or Replacement for Endocarditis *J. Walker*

#### 4:35 pm - 4:55 pm

- Intraoperative: Surgical Valve Choices and Why (Bioprosthetic versus Mechanical) *G. Lawrie*

#### 4:55 pm - 5:15 pm

- Echocardiographic Techniques for Evaluation of Prosthetic Valves  
*K. Glas*

#### 5:15 pm - 5:30 pm

- Paravalvular Leak After Mitral Valve Replacement: When Do You Fix it? (Case Discussion) *N. Skubas*

# SUNDAY HIGHLIGHTS

## ASE/EAE Joint Sessions

### Quantifying Regional Myocardial Function: New ASE/EAE Recommendations

8:30 am - 10:00 am in Potomac D, Level 2

Techniques for evaluating cardiac mechanics, the range of physiological information that can be derived, their strength and limitations, and potential clinical application

### The Added Value of 3D Echocardiography: An ASE/EAE Consensus

10:45 am - 12:15 pm in Potomac D, Level 2

Understanding the new 3D echo guidelines: acquisition, display and utility in clinical practice

## 23rd Annual Edler Lecture and Awards Presentation/ASE Business Meeting

4:00 pm - 6:00 pm in Potomac A, Level 2

This exciting session highlights the Society's award winners, new leaders, president's summary of the successes of his presidency and provides insight into the next president's vision for the association. The scientific sessions chair also gives his overview of the 2012 annual meeting. The session culminates with the Edler Lecture.

**Roberto M. Lang, MD, Professor of Medicine, Director, Noninvasive Cardiac Imaging Lab, at the University of Chicago Medicine, Chicago, IL,** has been named the 23rd Annual Scientific Sessions Edler Lecturer. Dr. Lang is an internationally renowned cardiologist and specialist in echocardiography and was a pioneer in the development of 3D echocardiography. He is also a past president of ASE. Created in 1990, the annual Edler Lecture honors the founder of echocardiography, Inge Edler, MD. Dr. Lang will present his lecture, entitled "3D Echocardiography has Come of Age: Promises and Perspectives."

## Appy Hour

6:00 pm - 7:30 pm in Potomac Foyer, Level 2

Toast your fellow attendees at this complimentary reception, only steps from your sessions. Enjoy a gorgeous view of the Potomac River while conversing with colleagues and friends, and learning more about ASE's diverse apps now offered for Smartphones and tablets.

## Sunday Committee Meetings

These meetings are by invitation only.

### 7:00 am - 8:00 am

- Council on Perioperative Echo Board Meeting  
*Chesapeake 12*

### 7:00 am - 8:00 am

- COPE Board Meeting  
*Chesapeake 12*

### 8:00 am - 9:30 am

- New Practice Applications Task Force  
*Chesapeake 11*

### 9:15 am - 10:30 am

- Membership Steering Committee  
*Potomac 6*

### 9:30 am - 11:00 am

- ACCME Committee  
*Chesapeake 11*

### 10:00 am - 11:00 am

- Industry Relations Committee  
*Potomac 5*

### 10:30 am - 11:30 am

- Committee on Accreditation for Advanced Cardiovascular Sonography  
*Chesapeake 10*

### 12:15 - 1:45 pm

- Guidelines and Standards Committee  
*Potomac 5*

### 12:15 - 1:45 pm

- FASE Committee  
*Potomac 6*

### 12:15 - 1:45 pm

- Information Technology Committee  
*Chesapeake 11*

### 12:15 - 1:45 pm

- Advocacy Committee  
*Chesapeake 12*

### 1:00 - 1:45 pm

- Foundation Annual Appeal Task Force  
*Azalea 1*

### 1:45 - 2:45 pm

- ACS Credentialing Exam Task Force  
*Azalea 2*

### 2:00 - 3:00 pm

- JASE Contract Task Force  
*Chesapeake 10*

# SUNDAY, JULY 1, 2012

## SCHEDULE

### 7:00 am - 8:30 am

- TB** **Fetal Echo: Update on the Assessment and Management of Fetal Arrhythmias** - Chesapeake 7-9  
*Chair: B. Cuneo Co-Chair: L. Hornberger*

#### 7:00 am - 7:25 am

- Congenital Heart Block: What to do? *B. Cuneo*

#### 7:25 am - 7:45 am

- Questions and Answers

#### 7:45 am - 8:10 am

- Treatment Strategies in Fetal Supraventricular Tachycardia (SVT)  
*L. Hornberger*

#### 8:10 am - 8:30 am

- Questions and Answers

### 7:00 am - 8:30 am

- TB** **Basic Applications of 3D for LV Volumes and Mitral Valve Disease** - Chesapeake 1-3  
*Chair: I. Kronzon Co-Chair: C. Bruce*

#### 7:00 am - 7:20 am

- TTE *L. Sugeng*

#### 7:20 am - 7:40 am

- TEE *I. Kronzon*

#### 7:40 am - 7:50 am

- Case Presentation: TTE Left Ventricular Volumes and Ejection Fraction *S. Little*

#### 7:50 am - 8:00 am

- Case Presentation: TEE Mitral Valve (Mitral Valve Prolapse, Barlow and Flail) *S. Mankad*

#### 8:00 am - 8:10 am

- Case Presentation: TEE Periprosthetic Leak (Prosthetic Valve)  
*P. Shah*

#### 8:10 am - 8:30 am

- Questions and Answers

### 7:00 am - 8:30 am

- TB** **Basic Applications of Diastolic Function Guidelines** - Chesapeake 4-6  
*Chair: J. Ha Co-Chair: M. Quinones*

#### 7:00 am - 7:20 am

- Algorithmic Approach: Using Ejection Fraction, Left Atrial Volume, Mitral Inflow and Mitral Annular Velocity *J. Ha*

#### 7:20 am - 7:30 am

- Guidelines Case Presentation: Grade 1 (Impaired Relaxation) *C. Appleton*

#### 7:30 am - 7:40 am

- Case Presentation: Grade 2 (Pseudo Normal) *M. Plastino*

#### 7:40 am - 7:50 am

- Guidelines Case Presentation: Grade 3 (Restrictive) *H. Dokainish*

#### 7:50 am - 8:00 am

- Case Presentation: Discordant Parameters: What to Do?  
*M. Quinones*

#### 8:00 am - 8:10 am

- Case Presentation: Filling Pressures in Mitral Regurgitation  
*F. Flachskampf*

#### 8:10 am - 8:30 am

- Questions and Answers

### 8:30 am-10:00 am

- CL** **Echo in Systemic Disease: Illustrative Cases** - Potomac C  
*Chair(s): M. St. John Sutton, R. Davidoff*

#### 8:30 am - 8:40 am

- Carcinoid Heart Disease *M. St. John Sutton*

#### 8:40 am - 8:45 am

- Questions and Answers

#### 8:45 am - 8:55 am

- Hemochromatosis *M. Scherrer-Crosbie*

#### 8:55 am - 9:00am

- Questions and Answers

#### 9:00 am - 9:10 am

- Amyloidosis *R. Davidoff*

#### 9:10 am - 9:15 am

- Questions and Answers

#### 9:15 am - 9:25 am

- Hypereosinophilic Disease *J. Mohan*

#### 9:25 am - 9:30 am

- Questions and Answers

#### 9:30 am - 9:40 am

- Fabry Disease *J. DeCara*

#### 9:40 am - 9:45 am

- Questions and Answers

#### 9:45 am - 9:55 am

- Scleroderma Manifesting as Idiopathic Pulmonary Hypertension  
*S. Saha*

#### 9:55 am - 10:00 am

- Questions and Answers

### 8:30 am - 10:00am

- CS** **Council on Cardiovascular Sonography Meeting and Awards Presentation** (Non-CME) - National Harbor 4/5  
*Chair: K. Horton Co-Chair: E. McIlwain*

#### 8:30 am - 8:45 am

- Update from the Sonographer Council *K. Horton*

#### 8:45 am - 9:00 am

- Travel Awards *K. Horton*

#### 9:00 am - 9:15 am

- Healthcare Reform *J. Rosenbloom*

#### 9:15 am - 9:30 am

- Licensure Update *C. Mitchell*

#### 9:30 am - 9:45 am

- Accreditation and Quality *S. Maisey*

#### 9:45 am - 10:00 am

- Questions and Answers

### 8:30 am - 10:00 am

- FI** **Diastole - Relax!** - National Harbor 2/3  
*Chair(s): M. Keane, N. Hamburg*

#### 8:30 am - 8:45 am

- Left Atrial Volumes - How To Do It and What Does It Add? *M. Keane*

#### 8:45 am - 9:00 am

- Aortic Stiffness and Ventriculo-arterial Coupling *N. Hamburg*

#### 9:00 am - 9:15 am

- How to Apply the ASE Diastolic Algorithm *F. Flachskampf*

#### 9:15 am - 9:30am

- Volume Status - Is Echo a Non-Invasive Swan? *J. Kirkpatrick*

#### 9:30 am - 9:45 am

- Case Examples *M. Wood*

#### 9:45 am - 10:00 am

- Questions and Answers

# SUNDAY, JULY 1, 2012 SCHEDULE

## 8:30 am -10:00 am

**PC** **The Absolute Latest on the Assessment of Ventricular Function and Mechanics in Children (Joint EAE Session)-** Potomac B  
*Chair: J. Simpson Co-Chair: B. Eidem*

### 8:30 am - 8:50 am

- New Techniques for Assessing Systemic Ventricular Function in Hypoplastic Left Heart Syndrome *A. Bell*

### 8:50 am - 9:10 am

- Regional Myocardial Function in Post-operative Tetralogy of Fallot  
Speaker *T. Geva*

### 9:10 am - 9:30 am

- Assessing Tricuspid Valve Mechanics and Function *J. Smallhorn*

### 9:30 am - 9:50 am

- The Latest on Synchrony Analysis *M. Friedberg*

### 9:50 am - 10:00 am

- Questions and Answers

## 8:30 am - 10:00 am

**R** **Starting a Career in Academic Medicine -**  
**How to be a Clinical Investigator** - Chesapeake 4-6  
*Chair: D. Buxton Co-Chair: V. Mor-Avi*

### 8:30 am - 8:55 am

- The View from Funding Agencies - What Areas are being Funded?  
*N. Cook*

### 8:55 am - 9:10 am

- How to Apply for an NIH Grant: Career Development and Funding Opportunities for Young Investigators *J. Scott*

### 9:10 am - 9:20 am

- How to Obtain Funding: Other Organizational Grants - ASE, AHA, ACC *J. Gardin*

### 9:20 am - 9:35 am

- Grantsmanship 101: How to Write a Successful Grant: Tips from an Expert *D. Buxton*

### 9:35 am - 9:52 am

- Choosing the Best Mentor *F. Villanueva, R. Levine*

### 9:52 am - 10:00 am

- How to Plan and Carry out a Research Project: The Essential Ingredients for Success *V. Mor-Avi*

## 8:30 am - 10:00 am

**S** **Aortic Stenosis: Accurate Diagnosis by**  
**Echocardiography** - Potomac A  
*Chair: B. Khanderia Co-Chair: I. Mikati*

### 8:30 am - 8:42 am

- Treatment Options for Severe Aortic Stenosis *R. Bonow*

### 8:42 am - 8:54 am

- Echocardiography in Aortic Stenosis: The Diagnostic and Prognostic Test of Choice *B. Khanderia*

### 8:54 am - 9:06 am

- The Asymptomatic Patient with Aortic Stenosis (Adjunctive Imaging CTA and Biochemical Markers, Stress Testing and Approach to Management) *R. Hahn*

### 9:06 am - 9:16 am

- P1-121: Paradoxical Low Gradient Severe Aortic Stenosis - Measurement Error or True Pathology: An Outcome Study  
*A. Ozkan*

### 9:16 am - 9:28 am

- Low Gradient Aortic Stenosis: How Can We Be Sure of the Diagnosis? *S. Sengupta*

### 9:28 am - 9:40 am

- Are Other Measures of Aortic Stenosis Severity Clinically Useful?  
*P. Lancellotti*

### 9:40 am - 9:52 am

- Surgery for Severe Aortic Stenosis: Is Patient-Prosthesis Mismatch Important? *J. Dumesnil*

### 9:52 am - 10:00 am

- Questions and Answers

## 8:30 am - 10:00 am

**S** **Quantifying Regional Myocardial Function: New ASE/EAE Recommendations (Joint EAE Session)-** Potomac D  
*Chair: P. Sengupta Co-Chair: J. Zamorano*

### 8:30 am - 8:44 am

- Doppler, Tracking, 3D: Pros and Cons of the Techniques *J. Voigt*

### 8:44 am - 8:58 am

- Ischemic Heart Disease *T. Marwick*

### 8:58 am - 9:12 am

- Diastolic Function *S. Nagueh*

### 9:12 am - 9:26 am

- Dysynchrony *L. Badano*

### 9:26 am - 9:40 am

- Left Atrial Function *M. Galderisi*

### 9:40 am - 9:54 am

- Torsion *M. Vannan*

### 9:54 am - 10:00 am

- Questions and Answers

## 10:45 am - 12:15 pm

**CL** **Cases of Echo in Critically Ill Patients** - Potomac C  
*Chair(s): K. Chandrasekaran, N. Nanda*

### 10:45 am - 10:55 am

- Blunt and/or Penetrating Trauma *A. Finley*

### 10:55 am - 11:00 am

- Questions and Answers

### 11:00 am - 11:10 am

- Post MI Ventricular Septal Defect (VSD) *F. Asch*

### 11:10 am - 11:15 am

- Questions and Answers

### 11:15 am - 11:25 am

- Post MI Papillary Muscle Rupture *R. Sniecinski*

### 11:25 am - 11:30 am

- Questions and Answers

### 11:30 am - 11:40 am

- Post-operation CABG Hematoma *M. Keane*

### 11:40 am - 11:45 am

- Questions and Answers

### 11:45 am - 11:55 am

- Post-operation CABG-Hypoxemia *K. Chandrasekaran*

### 11:55 am - 12:00 pm

- Questions and Answers

### 12:00 pm - 12:10 pm

- Acute Pulmonary Embolism *G. Lin*

### 12:10 am - 12:15 pm

- Questions and Answers

## 10:45 am - 12:15 pm

**CS** **How To: Left Heart Assessment** - National Harbor 4/5  
*Chair(s): D. Agler, K. Horton*

### 10:45 am - 11:03 am

- 2D Left Heart Quantification: Structure and Function *K. Kassimatis*

### 11:03 am - 11:21 am

- 3D Acquisition and Quantification *D. Agler*

### 11:21 am - 11:39 am

- Diastolic Assessment and Case Studies *A. Morehead Flinn*

### 11:39 am - 11:57 am

- Stress Echo Evaluations and Case Studies *F. Chaudrey*

### 11:57 am - 12:15 pm

- Left Ventricular Aneurysms versus Pseudoaneurysms *M. Umland*

# SUNDAY, JULY 1, 2012

## SCHEDULE

### 10:45 am - 12:15 pm

#### Systematic Approach to Congenital Heart Disease-

- FI** National Harbor 2/3  
Chair(s): *W. Lai, R. Eapen*

#### 10:45 am - 11:05 am

- Cardiac Segments *R. Eapen*

#### 11:05 am - 11:25 am

- Hemodynamic Assessment in Congenital Heart Disease *W. Lai*

#### 11:25 am - 12:05 pm

- Cases: Highlighting Cardiac Segmentation and Hemodynamics (Situs and Cardiac Segments, Common Segment Sets and Common Hemodynamic Calculations) *W. Lai, R. Eapen*

#### 12:05 pm - 12:15 pm

- Questions and Answers

### 10:45 am - 12:15 pm

#### How I Incorporate Advanced Imaging Techniques into the

- PC** Daily Flow of my Echo Lab - Potomac B  
Chair: *L. Mertens* Co-Chair: *M. Cohen*

#### 10:45 am - 11:05 am

- Deformation Imaging: *L. Mertens*

#### 11:05 am - 11:25 am

- 3D Anatomical Imaging *G. Marx*

#### 11:25 am - 11:45 am

- 3D Functional Imaging *G. Shirali*

#### 11:45 am - 12:05 pm

- Stress Echo *W. Border*

#### 12:05 pm - 12:15 pm

- Questions and Answers

### 10:45 am - 12:15 pm

#### Academic Careers Symposium: Imaging in Research and

- R** Innovation - Chesapeake 4-6  
Chair: *P. Douglas* Co-Chair: *L. Marzella*

#### 10:45 am - 10:57 am

- FDA Perspective on the Use of Imaging in Clinical Trials  
*L. Marzella*

#### 10:57 am - 11:09 am

- Imaging as a Surrogate in Clinical Trials - Ultrasound versus Other Technologies *A. Taylor*

#### 11:09 am - 11:21 am

- Role of New Echo Technologies (Strain, 2D, Contrast) in Clinical Trials *J. Roelandt*

#### 11:21 am - 11:33 am

- Imaging in Pre-Clinical Research *B. Hoit*

#### 11:33 am - 11:45 am

- The Echocardiography Core Lab *P. Douglas*

#### 11:45 am - 11:57 am

- Potential Role of Ultrasound Technologies in the Development of New Therapeutics *H. Lopez*

#### 11:57 am - 12:15 pm

- Questions and Answers

### 10:45 am - 12:15 pm

#### Imaging for Transcatheter Aortic Valve Replacement

- S** (TAVR) - Potomac A  
Chair: *C. Bruce* Co-Chair: *S. Lerakis*

#### 10:45 am - 11:00 am

- Transcatheter Aortic Valve Replacement (TAVR) *A. Pichard*

#### 11:00 am - 11:15 am

- Essential Echo for TAVR: An Overview of Basic Measurements  
*C. Bruce*

#### 11:15 am - 11:30 am

- The Role of Echocardiographic Imaging in Valve Choice: It's Not Just About the Annulus *S. Little*

#### 11:30 am - 11:45 am

- Transcatheter Aortic Valve Positioning Misadventures: Prediction and Management *R. Hahn*

#### 11:45 am - 12:00 pm

- Adjunctive Imaging for TAVR: CT *J. Mahmorian*

#### 12:00 pm - 12:15 pm

- Questions and Answers

### 10:45 am - 12:15 pm

#### The Added Value of 3D Echocardiography: An ASE/EAE

- S** Consensus (Joint EAE Session) - Potomac D  
Chair: *L. Badano* Co-Chair: *R. Lang*

#### 10:45 am - 11:05 am

- 3D for Left Ventricular Function *R. Lang*

#### 11:05 am - 11:25 am

- 3D for Valvular Heart Disease *L. Badano*

#### 11:25 am - 11:45 am

- 3D for Congenital Heart Disease *L. Sugeng*

#### 11:45 am - 12:05 pm

- 3D for Stress Echocardiography *M. Monaghan*

#### 12:05 pm - 12:15 pm

- Questions and Answers

### 1:45 pm - 3:15 pm

#### Mass in the Heart: Tumor, Thrombus or Something Else?-

- CL** Potomac C  
Chair(s): *S. Homma, L. Yin*

#### 1:45 pm - 1:55 pm

- Valvular Mass *S. Litwin*

#### 1:55 pm - 2:00 pm

- Questions and Answers

#### 2:00 pm - 2:10 pm

- Mass Through Pulmonary Vein *S. Laing*

#### 2:10 pm - 2:15 pm

- Questions and Answers

#### 2:15 pm - 2:25 pm

- Left Ventricular Mass *S. Homma*

#### 2:25 pm - 2:30 pm

- Questions and Answers

#### 2:30 pm - 2:40 pm

- Right Ventricular Mass *G. Restrepo*

#### 2:40 pm - 2:45 pm

- Questions and Answers

#### 2:45 pm - 2:55 pm

- Pericardial Mass *M. Main*

#### 2:55 pm - 3:00 pm

- Questions and Answers

#### 3:00 pm - 3:10 pm

- Left Atrial Mass *M. Scherrer-Crosbie*

#### 3:10 pm - 3:15 pm

- Questions and Answers

### 1:45 pm - 3:15 pm

- CS** All about Cardiomyopathies - National Harbor 4/5  
Chair(s): *T. Belcik, P. Burgess*

#### 1:45 pm - 2:00 pm

- Hypertrophic Cardiomyopathies with Case Studies *K. Radigan*

#### 2:00 pm - 2:15 pm

- Infiltrative Cardiomyopathies with Case Studies *J. Warmsbecker*

#### 2:15 pm - 2:30 pm

- Ischemic Cardiomyopathies with Case Studies *K. Moore*

#### 2:30 pm - 2:45 pm

- Non-ischemic Cardiomyopathies with Case Studies *T. Belcik*

#### 2:45 pm - 3:00 pm

- Left Ventricular Assist Device Assessment with Case Studies  
*P. Burgess*

#### 3:00 pm - 3:15 pm

- Questions and Answers

# SUNDAY, JULY 1, 2012

## SCHEDULE

### 1:45 pm - 3:15 pm

**FI** **Atrial and Ventricular Septal Defects** - National Harbor 2/3  
Chair(s): *L. Lopez, A. Valente*

#### 1:45 pm - 2:05 pm

- Atrial Septal Defect (ASD) and Ventricular Septal Defect (VSD) Morphology and Pathophysiology *L. Lopez*

#### 2:05 pm - 2:25 pm

- Late Post-operative Assessment of Repaired ASD and VSD  
*A. Valente*

#### 2:25 pm - 3:05 pm

- Cases (Secundum Atrial Septal Defect, Sinus Venosus Defect, Primum Atrial Septal Defect, Ventricular Septal Defects and Complications of Repair) *L. Lopez, H. Ko*

#### 3:05 pm - 3:15 pm

- Questions and Answers

### 1:45 pm - 3:15 pm

**PC** **My Most Challenging Coronary Artery Diagnostic Dilemma (Audience Response Systems in Use)** - Potomac B  
Moderator(s): *I. Parness, P. Frommelt, G. Ensing, A. Younoszai*

#### 1:45 pm - 1:53 pm

- Case 1: Spontaneous Coronary Artery Dissection - Accurate Identification of Myocardial Ischemia with Deformational Imaging in the Absence of Regional Wall Motion Abnormalities  
*C. Harris*

#### 1:53 pm - 1:57 pm

- Discussion

#### 1:57 pm - 2:05 pm

- Case 2: My Most Challenging Coronary Artery Diagnostic Dilemma *J. Yeh*

#### 2:05 pm - 2:09 pm

- Discussion

#### 2:09 pm - 2:17 pm

- Case 3: Importance of Prospective Recognition and Surgical Implications of Coronary Anomalies in Complete Transposition of the Great Arteries *J. Johnson*

#### 2:17 pm - 2:21 pm

- Discussion

#### 2:21 pm - 2:29 pm

- Case 4: My Most Challenging Coronary Artery Diagnostic Dilemma *J. Kreeger*

#### 2:29 pm - 2:33 pm

- Discussion

#### 2:33 pm - 2:41 pm

- Case 5: My Most Challenging Coronary Artery Diagnostic Dilemma *J. Forsey*

#### 2:41 pm - 2:45 pm

- Discussion

#### 2:45 pm - 2:53 pm

- Case 6: Occlusion of the Left Coronary Artery by a Tethered Aortic Cusp. Unusual Cause of Myocardial Ischemia in an Infant  
*D. Saurers*

#### 2:53 pm - 2:57 pm

- Discussion

#### 2:57 pm - 3:05 pm

- Case 7: My Most Challenging Coronary Artery Diagnostic Dilemma  
*J. Camarda*

#### 3:05 pm - 3:09 pm

- Discussion

#### 3:09 pm - 3:15 pm

- Questions and Answers

### 1:45 pm - 3:15 pm

**R** **Cutting-Edge Research in Echocardiography: Great Ideas that will Change Clinical Practice and Patient Care** - Chesapeake 4-6  
Chair: *J. Lindner* Co-Chair: *T. Porter*

#### 1:45 pm - 2:00 pm

- New Transducer Technologies *D. Sahn*

#### 2:00 pm - 2:15 pm

- Molecular Imaging *J. Lindner*

#### 2:15 pm - 2:30 pm

- Therapeutic Ultrasound *T. Porter*

#### 2:30 pm - 2:45 pm

- Micromotion and Elastography Imaging *E. Konofagou*

#### 2:45 pm - 3:00 pm

- Advanced Hemodynamic Assessment with Echocardiography  
*O. Smiseth*

#### 3:00 pm - 3:15 pm

- Questions and Answers

### 1:45 pm - 3:15 pm

**S** **Mitral Regurgitation** - Potomac A  
Chair: *A. Neskovich* Co-Chair: *A. Jamil Tajik*

#### 1:45 pm - 2:00 pm

- When to Fix Mitral Regurgitation - A Changing Landscape? *B. Griffin*

#### 2:00 pm - 2:10 pm

- Degenerative Mitral Valve Disease *V. Rigolin*

#### 2:10 pm - 2:20 pm

- Functional Mitral Regurgitation *Y. Kim*

#### 2:20 pm - 2:30 pm

- Importance of Mechanism Recognition and Quantification of Mitral Regurgitation *A. Tajik*

#### 2:30 pm - 2:40 pm

- When is MRI Necessary in the Evaluation of Patients with Mitral Regurgitation? Or Is It? *D. Shah*

#### 2:40 pm - 2:50 pm

- Case Presentation: Is This Ischemic Mitral Regurgitation and Should the Patient Have Surgery? *F. Miller*

#### 2:50 pm - 3:00 pm

- Case Presentation: Is There Severe Mitral Regurgitation and Can the Valve Be Repaired? *W. Stewart*

#### 3:00 pm - 3:15 pm

- Questions and Answers



# SUNDAY, JULY 1, 2012

## SCHEDULE

### 1:45 pm - 3:15 pm

- S** **Interventional Echocardiography** - Potomac D  
*Chair: R. Hahn Co-Chair: F. Silvestry*

#### 1:45 pm - 1:57 pm

- Catheter-based Treatment of Congenital Heart Disease (ASD, VSD and Melody) *S. Mankad*

#### 1:57 pm - 2:09 pm

- Left Atrial Appendage Closure *L. Rodriguez*

#### 2:09 pm - 2:21 pm

- Hypertrophic Cardiomyopathy Diagnosis and Treatment (including Alcohol Septal Ablation) *M. Picard*

#### 2:21 pm - 2:31 pm

- P1-139: Echocardiographic Predictors of Paravalvular Aortic Regurgitation After Transcatheter Aortic Valve Replacement *P. Mehrotra*

#### 2:31 pm - 2:43 pm

- Mitral Valve Interventions: Valvuloplasty *S. Goldstein*

#### 2:43 pm - 2:55 pm

- Mitral Valve Interventions: MitraClip *R. Hahn*

#### 2:55 pm - 3:07 pm

- Paravalvular Prosthetic Mitral Regurgitation *I. Kronzon*

#### 3:07 pm - 3:15 pm

- Questions and Answers

### 4:00 pm - 6:00 pm

- S** **23rd Annual Edler Lecture and Awards Presentation/ASE Annual Business Meeting** - Potomac A

#### 4:00 pm - 4:05 pm

- Welcome and Scientific Sessions Highlights *S. Nagueh*

#### 4:05 pm - 4:06 pm

- ASE Annual Membership Business Meeting Call to Order *J. Thomas*

#### 4:06 pm - 4:08 pm

- Review of June 2011 Minutes *M. McCulloch*

#### 4:08 pm - 4:13 pm

- Treasurer's Report *N. Weissman*

#### 4:13 pm - 4:20 pm

- Executive Committee and Board of Directors Announcements *J. Thomas*

#### 4:20 pm - 4:30 pm

- State of the ASE Presentation *J. Thomas*

#### 4:30 pm - 4:45 pm

- Incoming President's Address *P. Pellikka*

#### 4:45 pm - 5:34 pm

- ASE 2012 Awards *J. Thomas*

#### 5:34 pm - 5:35 pm

- Introduction of the 2012 Edler Lecture *J. Thomas*

#### 5:35 pm - 5:55 pm

- "3D Echocardiography has Come of Age: Promises and Perspectives" *R. Lang*

#### 5:55 pm - 6:00 pm

- Closing Announcements *J. Thomas*

# POSTER SESSION 1 (P1) IN THE EXHIBIT & POSTER HALL

**SUNDAY, JULY 1, 2012**

**Presented 9:30 am – 4:30 pm**

**Meet the Investigators 12:15 pm – 1:45 pm**

*Research Topics*

Late-Breaking Science.....LB-01 through LB-04  
Echo in Systemic Disease:  
CMP, DM, HTN, Obesity, Cancer ..... P1-01 through P1-50  
Intraoperative Echocardiography ..... P1-51 through P1-54  
Ischemic Heart Disease/Stress  
Echocardiography ..... P1-55 through P1-73  
Pediatric and Adult  
Congenital Heart Disease ..... P1-74 through P1-98  
Quality/Outcomes/Appropriateness/  
Echo in Clinical Trials ..... P1-99 through P1-118  
Valvular Heart Disease ..... P1-119 through P1-170  
Vascular Disease..... P1-171 through P1-183

*Author Disclosure Key: 1) Speakers' Bureau; 2) Consultant/Advisor; 3) Stock Ownership (not including stocks owned in a managed portfolio); 4) Research Grant (primary investigator); 5) Employment affiliation; 6) Royalty/Patents.*

## Late-Breaking Science LB-01 through LB-04

### LB-01

#### **Echocardiography Indicators of Systolic Function and Dyssynchrony Indices in Patients With Myocardial Infarction (MI)**

Nataliya Yaroshchuk<sup>1</sup>, Valentina Kochmacheva<sup>2</sup>, Vladimir Dityatev<sup>3</sup>. <sup>1</sup>Citi Hospital 3, Kamensk-Uralskiy, Russian Federation; <sup>2</sup>Regional Clinical Hospital 1, Ekaterinburg, Russian Federation; <sup>3</sup>Ural State Medical Academy, Ekaterinburg, Russian Federation

### LB-02

#### **ASE Remote Echocardiography With Web-based Assessments for Referrals at Distance (ASE-REWARD) Study**

Shaanmeet Singh<sup>1</sup>, Manish Bansal<sup>2</sup>, Puneet Maheshwari<sup>1</sup>, David Adams<sup>3</sup>, Rhonda Price<sup>4</sup>, LeaAnne Dantin<sup>5</sup>, Adi Hirish<sup>5</sup>, Mark D. Smith<sup>6</sup>, Laurie Smith<sup>6</sup>, Ravi Kasliwal<sup>7</sup>, Patricia A. Pelliikka<sup>8</sup>, James D. Thomas<sup>9</sup>, Jagat Narula<sup>10</sup>, Partho P. Sengupta<sup>10</sup>. <sup>1</sup>Shah Satnam ji Speciality Hospital, Sirsa, India; <sup>2</sup>Medanta Medicity, Gurgaon, India; <sup>3</sup>Duke University Medical Center, Durham, NC; <sup>4</sup>American Society of Echocardiography, Morrisville, NC; <sup>5</sup>GE Healthcare, Milwaukee, WI; <sup>6</sup>Core Sound Imaging, Inc., Raleigh, NC; <sup>7</sup>Medanta Medicity, New Delhi, India; <sup>8</sup>Mayo Clinic, Rochester, MN; <sup>9</sup>Cleveland Clinic, Cleveland, OH; <sup>10</sup>Mount Sinai Medical Center, New York, NY  
*Author Disclosures: L. Dantin: 5 (GE Healthcare); A. Hirish: 5 (GE Healthcare); M.D. Smith: 5 (Core Sound Imaging, Inc.); L. Smith: 5 (Core Sound Imaging, Inc.)*

### LB-03

#### **Left Ventricular Dyssynchrony Before and During Exercise Echocardiography in Patients With Normal Duration of QRS as a Sign of Ischemia**

Angela Zagatina<sup>1</sup>, Nadezhda Zhuravskaya<sup>1</sup>, Svetlana Y. Bartosh-Zelenaya<sup>2</sup>, Olesya Guseva<sup>2</sup>. <sup>1</sup>Cardiocenter Medika, St. Petersburg, Russian Federation; <sup>2</sup>Northwestern Medical University n.a. I.I. Mechnikov, St. Petersburg, Russian Federation

### LB-04

#### **Right Atrial Size and Function in 475 Persons With Structurally Normal Hearts**

Mahasti Ebtia, Parvathy Nair, Ken Gin, Marion E. Barnes, John Jue, Pui K. Lee, Teresa S. Tsang. University of British Columbia, Vancouver, BC, Canada

## Echo in Systemic Disease: CMP, DM, HTN, Obesity, Cancer P1-01 through P1-50

### P1-01

#### **Subaortic Membranes in Patients With Liver Vascular Malformations and Hereditary Hemorrhagic Telangiectasia**

Agnes S. Kim, Shahnaz Punjani, Lawrence H. Young, Robert I. White, Katherine Henderson, Lissa Sugeng. Yale University, New Haven, CT

### P1-02 *Monday Rapid Fire Presentation*

#### **The Spectrum of Mitral Apparatus Abnormalities in Hypertrophic Cardiomyopathy - It is More Than Systolic Anterior Motion and Outflow Gradient**

Ana Maria Gonzalez Gonzalez, Martin Maron, Dima Quraini, Allyson Monroe, Donna Dragotakes, Jose Angel Urbano Moral, Jeffrey Kuvin, Ayan Patel, Natesa Pandian. Tufts Medical Center, Boston, MA

### P1-03

#### **Identification of High Risk Patient With Sickle Cell Disease Using Echocardiography**

Bharathi Upadhyya, William Ntim, William Little, Min Pu. Wake Forest Baptist Medical Center, Winston Salem, NC

### P1-04

#### **Effects of Digoxin on Myocardial Remodeling in an Experimental Fibrosis Model**

Charles Mady, Leandro Tavares, Felix Ramires, Fernanda Pessoa, Adriana Oliveira, Julio Ferreira Filho, Fabio Fernandes, Renata Correa, Vera M. C. Salemi. Heart Institute (InCor), da Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil

# POSTER SESSION 1 (P1) IN THE EXHIBIT & POSTER HALL

## **P1-05** *Tuesday Rapid Fire Presentation*

### **Clinical Utility of Right Ventricular End-Diastolic Wall Stress in Patients With Pulmonary Hypertension**

Alex Zhai, Karima Addetia, David Langleben, Judith Therrien. McGill University, Montreal, QC, Canada

## **P1-06**

### **Left Atrial Function is Inversely Correlated With Left Atrial Size in Patients With Atrial Fibrillation**

Jonathan Rodriguez, Smadar Kort. Stony Brook University Medical Center, Stony Brook, NY

## **P1-07**

### **Decreased Right Atrial Function in Healthy Pediatric Cystic Fibrosis Patients Versus Non-Cystic Fibrosis Patients**

Nazire Ozcelik, Richard Shell, Melissa Holtzlander, Clifford L. Cua. Nationwide Children's Hospital, Columbus, OH

## **P1-08**

### **Distinguishing Echocardiographic Findings in Acute Pulmonary Embolism: Useful Features to Differentiate Acute From Chronic Pulmonary Hypertension**

Angel Lopez-Candales<sup>1</sup>, Kathy Edelman<sup>2</sup>. <sup>1</sup>University of Cincinnati, Cincinnati, OH; <sup>2</sup>University of Pittsburgh, Pittsburgh, PA

## **P1-09**

### **Epicardial Fat Rather Than Abdominal Visceral Fat is Associated With Arterial Stiffness**

Hitomi Sakamoto<sup>1</sup>, Norihisa Toh<sup>2</sup>, Hiroki Oe<sup>1</sup>, Kazuhiro Osawa<sup>2</sup>, Satoko Ugawa<sup>2</sup>, Nobuhisa Watanabe<sup>1</sup>, Yasuharu Tanabe<sup>1</sup>, Hiroshi Ito<sup>2</sup>. <sup>1</sup>Okayama University Hospital, Okayama, Japan; <sup>2</sup>Okayama University Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama, Japan

## **P1-10**

### **Right Ventricular Myocardial Performance Index Derived From Tissue Doppler Echocardiography is Useful in Differentiating Apical Ballooning Syndrome From Cardiomyopathy Due To Left Anterior Descending Coronary Artery Disease**

Pradeep K. Bhat, Imran Khan, Mahi L. Ashwath, Robert S. Finkelhor, Robert C. Bahler, Aleksandr Rovner. MetroHealth Campus of Case Western Reserve University, Cleveland, OH

## **P1-11**

### **Mechanisms of Coronary Flow Reserve Impairment in Apical vs. Asymmetrical Septal Hypertrophic Cardiomyopathy**

Hyo-Suk Ahn, Hyung-Kwan Kim, Sung-A Chang, Eun-Ah Park, Whal Lee, Yong-Jin Kim, Goo-Yeong Cho, Dae-Won Sohn, Jae-Hyung Park. Seoul National University Hospital, Seoul, Republic of Korea

## **P1-12**

### **Left Atrial Volume Index and Heart Rate Recovery Independently Predict Adverse Cardiac Outcome in Patients With Diabetes and Preserved Ejection Fraction**

Kazuaki Negishi, Sinziana Seicean, Tomoko Negishi, Teerapat Yingchoncharoen, Conrad Gibby, Thomas Cook, Thomas H. Marwick. Cleveland Clinic, Cleveland, OH

## **P1-13**

### **Accurate, Noninvasive Diagnosis of Cardiogenic Shock Based on Echocardiography Rather Than Invasive Hemodynamic Assessment**

Amir H. Najafi<sup>1</sup>, Kambiz Ghafourian<sup>1</sup>, Andre R. M. Paixao<sup>1</sup>, Mohamed Aljaabari<sup>1</sup>, Micaela Iantorno<sup>1</sup>, Samantha Jacobs<sup>2</sup>, Mary B. Ritchey<sup>2</sup>, Kathryn O'Callaghan<sup>2</sup>, Daniel Canos<sup>2</sup>, Julio A. Panza<sup>1</sup>, Federico M. Asch<sup>1</sup>, Howard A. Cooper<sup>1</sup>. <sup>1</sup>Washington Hospital Center, Washington, DC; <sup>2</sup>Food and Drug Administration, Silver Spring, MD

## **P1-14**

### **Pulmonary Hypertension In Hypertensive Patients: Association With Diastolic Dysfunction And Increased Pulmonary Vascular Resistance**

Nishaki K. Mehta<sup>1</sup>, James Connolly<sup>2</sup>, Monica Mukherjee<sup>1</sup>, Raman Dusaj<sup>1</sup>, Brian Choi<sup>1</sup>, Richard Katz<sup>1</sup>, Jannet Lewis<sup>1</sup>. <sup>1</sup>George Washington University, Washington, DC; <sup>2</sup>NIH, Bethesda, MD

## **P1-15**

### **Variations in Mitral Valve Morphology Independently Predicts Left Ventricular Outflow Tract Gradient in Hypertrophic Cardiomyopathy Patients Without Overt Septal Hypertrophy**

Jessica Rizzo, Ashwat Dhillon, Parag Patel, Deborah Agler, Nicholas Smedira, Bruce W. Lytle, Harry M. Lever, Milind Desai. Cleveland Clinic, Cleveland, OH

## **P1-16**

### **Archeological Echocardiography: Proof-of-Concept for Digitization and Speckle-Tracking Analysis of Archival Echocardiograms in the HyperGEN Study**

Frank G. Aguilar<sup>1</sup>, Senthil Selvaraj<sup>1</sup>, Eva Martinez<sup>1</sup>, Kwang-Youn Kim<sup>1</sup>, Laura Rasmussen-Torvik<sup>1</sup>, Donna Arnett<sup>2</sup>, Sanjiv Shah<sup>1</sup>. <sup>1</sup>Northwestern University, Chicago, IL; <sup>2</sup>University of Alabama at Birmingham, Birmingham, AL

## **P1-17**

### **Non-invasive Assessment of Left Atrial-Left Ventricular-Arterial Coupling in Patients With Diabetes Mellitus**

Susumu Nishio, Hirotsugu Yamada, Rina Tamai, Yukina Hirata, Mitsuyo Sato, Hazuki Hioraoka, Shuji Hayashi, Noriko Tomita, Junko Hotchi, Mika Bando, Maya Nakagawa, Daichi Hirota, Masataka Sata. Tokushima University Hospital, Tokushima, Japan

# POSTER SESSION 1 (P1) IN THE EXHIBIT & POSTER HALL

**P1-18**

## **Compatibility of Strain With Speckle Tracking Echocardiography and Velocity Vector Imaging in Detection of Adverse Clinical Outcomes in Patients With Pulmonary Arterial Hypertension**

Margaret M. Park, Jae-Hyeong Park, Jacqueline Sharp, Erika L. Lundgrin, W. H. Wilson Tang, Serpil C. Erzurum, James D. Thomas. Cleveland Clinic, Cleveland, OH

**P1-19**

## **Impact of Aerobic Exercise Training on Cardiac Function in Stroke Patients: A Prospective Randomized Controlled Study**

Michael Y.C. Tsang, Janice J. Eng, Ada Tang, John Jue, Kenneth G. Gin, Parvathy Nair, Pui-Kee Lee, Teresa S.M. Tsang. University of British Columbia, Vancouver, BC, Canada

**P1-20**

## **Left Atrial Changes in Diabetes Mellitus: More Than Diastolic Dysfunction?**

Krishna K. Kadappu<sup>1</sup>, Anita Boyd<sup>2</sup>, Suzanne Eshoo<sup>3</sup>, Brian Haluska<sup>4</sup>, Anthony ET Yeo<sup>5</sup>, Thomas Marwick<sup>6</sup>, Liza Thomas<sup>1</sup>. <sup>1</sup>South Western Clinical School, University of New South Wales, Liverpool Hospital, Liverpool, Australia; <sup>2</sup>University of New South Wales, Sydney, Liverpool, Australia; <sup>3</sup>University of Western Sydney, Campbelltown Hospital, Campbelltown, Australia; <sup>4</sup>Princess Alexandra Hospital, University of Queensland, Brisbane, Australia; <sup>5</sup>Ingham Institute for Applied Medical Research, Liverpool, Australia; <sup>6</sup>Cleveland Clinic, Cleveland, OH

**P1-21**

## **Early Detection of Myocardial Damage in Patients With Hypereosinophilia by Tissue Strain Imaging**

Haruhiko Abe, Susumu Hattori, Tetsufumi Nakashima, Motohiro Kosugi, Ryo Araki, Ryo Matsutera, Yoshiki Noda, Hidenori Adachi, Yoshinori Yasuoka, Tatsuya Sasaki. Osaka Minami Medical Center, Osaka, Japan

**P1-22**

## **Spongious Hypertrophic Cardiomyopathy: A Novel Phenotype of Hypertrophic Cardiomyopathy in Patients With Mutations in the Four-and-a-Half LIM-domain 1 Gene**

Joseph S. Binder<sup>1</sup>, Frank Weidemann<sup>2</sup>, Ingrid Lafer<sup>1</sup>, Meinrad Beer<sup>2</sup>, Tatjana Stojakovic<sup>1</sup>, Stefan Klaus Quasthoff<sup>1</sup>, Burkert Pieske<sup>1</sup>, Christian Windpassinger<sup>1</sup>. <sup>1</sup>Medical University of Graz, Graz, Austria; <sup>2</sup>Medical University of Wuerzburg, Wuerzburg, Germany

**P1-23**

## **The Prevalence, Spectrum and Clinical Significance of Intraventricular Pressure Gradients in Apical Hypertrophic Cardiomyopathy**

Gaetano Luca Panetta, Kevin Dougherty, Martin Maron, Jose Angel Urbano Moral, Yvette Dawood, Jeffrey Kuvin, Ayan Patel, Natesa Pandian. Tufts Medical Center, Boston, MA

**P1-24**

## **Phenotypic Characterization of Right Ventricular Echocardiographic Features in Chronic Pulmonary Hypertension**

Angel Lopez-Candales<sup>1</sup>, Kathy Edelman<sup>2</sup>. <sup>1</sup>University of Cincinnati, Cincinnati, OH; <sup>2</sup>University of Pittsburgh, Pittsburgh, PA

**P1-25**

## **Mitral Valve Prolapse Cardiomyopathy**

Eduard Malev<sup>1</sup>, Eduard Zemtsovsky<sup>1</sup>, Lubov Vasina<sup>1</sup>, Asiyet Pshepiy<sup>1</sup>, Aleksandra Korshunova<sup>2</sup>, Eugene Timofeev<sup>2</sup>. <sup>1</sup>Almazov Federal Centre of Heart, Blood and Endocrinology, Saint Petersburg, Russian Federation; <sup>2</sup>Pediatric State Medical Academy, Saint Petersburg, Russian Federation

**P1-26**

## **In The Shadows: Pulmonic Regurgitant Jet Can Reveal Restrictive Right Ventricular Inflow**

Gregg S. Pressman, Manmeet Singh, Kunal Parekh, Abel Romero-Corral. Albert Einstein Medical Center, Philadelphia, PA

**P1-27**

## **Endothelial Dysfunction and Hyperlipemia During Post-prandial Phase in Healthy Volunteers**

Yuko Ono, Hiroki Oe, Toru Miyoshi, Norihisa Toh, Yoko Noda, Nobuhisa Watanabe, Yasuharu Tanabe, Hiroshi Ito. Okayama University, Okayama, Japan

**P1-28**

## **Differences in Left Ventricular Dyssynchrony Between Right Ventricular High Septal Pacing and Apical Pacing: A Real-Time Three-Dimensional Echocardiographic Study**

Gao Chunheng. Jiangyin People's Hospital, South-East University, Jiangyin, China

**P1-29**

## **High Prevalence of Abnormal LV Geometry in Non-Cardioembolic Stroke Patients**

Mohamed Sherif Hashem<sup>1</sup>, Hayrapet Kalashyan<sup>2</sup>, Ahmed Dawood<sup>1</sup>, Abdel-Hakim Shawki<sup>3</sup>, Soon Kwang Chiew<sup>2</sup>, Hoda El-Katib<sup>1</sup>, Jonathan Choy<sup>2</sup>, Harald Becher<sup>2</sup>. <sup>1</sup>Jeddah Heart Institute, Jeddah, Saudi Arabia; <sup>2</sup>University of Alberta Hospital, Edmonton, AB, Canada; <sup>3</sup>Erfan & Bagedo Hospital, Jeddah, Saudi Arabia

**P1-30**

## **The Use of Transthoracic Echocardiography for Monitoring Pulmonary Hypertension in a Murine Model of Chronic Hypoxia**

Timothy C. Tan, Maria da Gloria Rodrigues-Machado, Arkadi Beloiartsev, Warren M. Zapol, Marielle Scherrer-Crosbie. Massachusetts General Hospital, Boston, MA

# POSTER SESSION 1 (P1) IN THE EXHIBIT & POSTER HALL

- P1-31**  
**Abnormalities of Left Ventricular Vortex Formation in Hypertensive Patients With or Without Evidence of Subclinical Cardiac Muscle Dysfunction**  
Giuseppe Caracciolo, Shantanu P. Sengupta, Ayumi Nakabo, Gianni Pedrizzetti, Jagat Narula, Partho P. Sengupta. Mount Sinai Medical Center, New York, NY
- P1-32**  
**Relation Between Exhaled Nitric Oxide and Left Ventricular Performance in Chronic Hemodialysis Patients**  
Mehrnoush Toufan Tabrizi. Tabrizi University Of Medical Science, Tabriz, Islamic Republic of Iran
- P1-33**  
**Echocardiographic Assessment of Left Atrial Volume in Asymptomatic Ambulatory Patients With Metabolic Syndrome and Arterial Hypertension: Is it Parameter Worth into Considerate**  
Magdalena Kostkiewicz<sup>1</sup>, Pawel Koprowski<sup>2</sup>, Agata Lesniak-Sobelga<sup>1</sup>, Piotr Podolec<sup>1</sup>. <sup>1</sup>Jagiellonian University, Hospital John Paul II, Krakow, Poland; <sup>2</sup>Poradnia Kardiologiczna, Nowy Sacz, Poland
- P1-34**  
**Assessment of Tricuspid Annular Motion Velocities in Pulmonary Hypertension of Various Etiologies**  
Junko Hotchi, Hirotsugu Yamada, Rina Tamai, Susumu Nishio, Noriko Tomita, Shuji Hayashi, Mika Bando, Sachiko Bando, Takayuki Ise, Toshiyuki Niki, Koji Yamaguchi, Takashi Iwase, Yoshio Taketani, Takeshi Soeki, Tetsuzo Wakatsuki, Masataka Sata. Tokushima University Hospital, Tokushima, Japan
- P1-35**  
**Left Ventricular Dysfunction in Critically Ill**  
Bhaskar Purushottam<sup>1</sup>, Oluseun Alli<sup>2</sup>, Kinnari Murthy<sup>1</sup>, Gregg S. Pressman<sup>1</sup>, Vincent M. Figueredo<sup>1</sup>. <sup>1</sup>Einstein Medical Center, Philadelphia, PA; <sup>2</sup>Mayo Clinic, Rochester, MN
- P1-36**  
**Development of Long-Term Outcomes Prediction Model in Non-Hemorrhagic Stroke Patients Based on Echocardiographic and Clinical Parameters**  
Avinash Murthy, Hourman Nourkeyhani, Amar Shah, Hussain Khwaja, Mikhail Torosoff. Albany Medical Center, Albany, NY
- P1-37**  
**Tissue Doppler Evaluation of Diastolic Function in Systemic Sclerosis**  
Marina C. F. Roque<sup>1</sup>, Ana C. Rodrigues<sup>1</sup>, Percival D. Sampaio-Barros<sup>2</sup>, Derly Becker Filho<sup>1</sup>, Sergio Barros<sup>1</sup>, Jairo Pinheiro, Jr.<sup>1</sup>, Ana Lucia Arruda<sup>1</sup>, Jose L. Andrade<sup>1</sup>. <sup>1</sup>InRad - Hospital das Clínicas - FMUSP, São Paulo, Brazil; <sup>2</sup>Reumatologia- Hospital das Clínicas - FMUSP, São Paulo, Brazil
- P1-38**  
**Left Ventricular Concentric Geometry and Dynamic Intraventricular Obstruction in Patients With Hypertension: An Dobutamine Stress Echocardiography Study**  
Il Suk Sohn, Hui-Jeong Hwang, Byung-Hyun Joe, Chang-Bum Park, Eun-Sun Jin, Jin-Man Cho, Chong-Jin Kim, Jong-Hoa Bae. Kyung Hee University Hospital at Gangdong, Seoul, Republic of Korea
- P1-39**  
**Range of Echocardiographic Parameters During Normal Pregnancy**  
Geoffrey Tso, Jennifer Lee, George Lui, Heather Trivedi, Martin Cohen, Peter Bernstein, Mario Garcia, Cynthia Taub. Montefiore Medical Center, Bronx, NY
- P1-40**  
**Influence of Systolic Blood Pressure and Heart Rate on Myocardial Function 20-Years Later: The CARDIA Study**  
Yasir A. Hamad<sup>1</sup>, Anderson Armstrong<sup>1</sup>, Ola Gjesdal<sup>1</sup>, Samuel S. Gidding<sup>2</sup>, Christopher Cox<sup>1</sup>, Nakela Cook<sup>3</sup>, Kiang Liu<sup>4</sup>, Joao Lima<sup>1</sup>. <sup>1</sup>Johns Hopkins School of Medicine, Baltimore, MD; <sup>2</sup>Nemours Cardiac Center, Wilmington, DE; <sup>3</sup>National Institutes of Health, Bethesda, MD; <sup>4</sup>Northwestern University, Chicago, IL
- P1-41**  
**Predictors of Diastolic Dysfunction in Morbidly Obese Patients Undergoing Stress Echocardiography**  
Harikrishna Makani<sup>1</sup>, Azhar Supariwala<sup>1</sup>, Arpit Shah<sup>1</sup>, Jorge Romero<sup>2</sup>, Jonathan Kahan<sup>1</sup>, Matthew Pierce<sup>3</sup>, Hetal Makwana<sup>1</sup>, Kana Fujikara<sup>3</sup>, Ingit Parmar<sup>1</sup>, Farhan Bajwa<sup>1</sup>, Farooq Chaudhry<sup>1</sup>. <sup>1</sup>St. Luke's Roosevelt Hospital and Columbia University College of Physicians and Surgeons, New York, NY; <sup>2</sup>Montefiore Medical Center, New York, NY; <sup>3</sup>Beth Israel Medical Center, New York, NY  
*Author Disclosures: F. Chaudhry: 1 (Lantheus Medical Group, GE Medical)*
- P1-42**  
**Hypertensive Response During Treadmill Exercise Echocardiography in Hypertensive Patients With No History of Coronary Artery Disease**  
Il Suk Sohn<sup>1</sup>, Hui-Jeong Hwang<sup>1</sup>, Chang-Bum Park<sup>1</sup>, Eun-Sun Jin<sup>1</sup>, Jin-Man Cho<sup>1</sup>, Chong-Jin Kim<sup>1</sup>, Jong-Hoa Bae<sup>1</sup>, Woo-Shik Kim<sup>2</sup>, Kwon-Sam Kim<sup>2</sup>. <sup>1</sup>Kyung Hee University Hospital at Gangdong, Seoul, Republic of Korea; <sup>2</sup>Kyung Hee Medical Center, Seoul, Republic of Korea
- P1-43**  
**Clinical Value of Carotid Arterial Wave Intensity Analysis in Differentiating Left Ventricular Hypertrophy Secondary to Hypertension from Hypertrophic Cardiomyopathy**  
Yue Li, Liang Guo. Chinese PLA General Hospital, Beijing, China

# POSTER SESSION 1 (P1) IN THE EXHIBIT & POSTER HALL

**P1-44**

## **Independent Impact of the Metabolic Syndrome and Obesity on Diastolic Function in Middle-Age: Insights From Structural Equation Modeling**

Abigail D. M. Khan<sup>1</sup>, Diana A. Chirinos<sup>2</sup>, Thierry C. Gillebert<sup>3</sup>, Marc L. De Buyzere<sup>3</sup>, Julio A. Chirinos<sup>1</sup>, Ernest R. Rietzschel<sup>3</sup>, The Asklepios Investigators<sup>3</sup>. <sup>1</sup>University of Pennsylvania, Philadelphia, PA; <sup>2</sup>University of Miami, Miami, FL; <sup>3</sup>Ghent University, Ghent, Belgium

**P1-45**

## **Infants With Protein Energy Malnutrition: Cardiac Aspect and Systolic, Diastolic Functions and LV Mass Indices**

Sahar S. Sheta. Cairo University Children Hospital, Pediatric Cardiology Department, Faculty of Medicine, Cairo, Egypt

**P1-46**

## **Prevalence of Left Ventricular Hypertrophy in Obese Children**

Joseph Mahgerefteh<sup>1</sup>, Jarrett Linder<sup>2</sup>, Ellen Johnson Silver<sup>2</sup>, Daphne Hsu<sup>1</sup>, Leo Lopez<sup>1</sup>. <sup>1</sup>The Children's Hospital at Montefiore, Bronx, NY; <sup>2</sup>Albert Einstein College of Medicine, Bronx, NY

**P1-47**

## **Comparative Echocardiographic Assessment of Diastolic Function on Type 2 Diabetes Mellitus (DM2) Patients Between Two Different Anti Hyperglycemic Treatments**

Meive Furtado, Ana L. Arruda, Ana C. Rodrigues, Katia Nogueira, Rosa Fukui, Dalva Rocha, Rosa Santos, Maria E. Silva, José L. Andrade, Giovanni G. Cerri. Medical School University of São Paulo, São Paulo, Brazil

**P1-48**

## **Correlation of Temperature Variation and Symptom Manifestation in Hypertrophic Cardiomyopathy**

John P. Bois, Jonathon Adams, Gautam Kumar, Steve Ommen, Rick Nishimura, Kyle Klarich. Mayo Clinic, Rochester, MN

**P1-49**

## **Association Between BMI, Age and Diastolic Function in Chinese Hypertension Patients**

Dan Zhu, Xia Bao Chen, Heng Xin Feng, Ping Zhao Li, Yin Dao Xie, Hong Wei Li, Ying Nie, Wei Gao. Peking University Third Hospital, Beijing, China

**P1-50**

## **Left Ventricular Geometric Patterns in Patients > or = 100 Years of Age**

Ajay Vallakati, Preeti Chandra, Vijay Shetty, Adnan Sadiq, Jacob Shani. Maimonides Medical Center, Brooklyn, NY

## **Intraoperative Echocardiography P1-51 through P1-54**

**P1-51** *Monday Rapid Fire Presentation*

### **Intraprocedural Complications of Transcatheter Aortic Valve Implantation: A Retrospective Review of Transesophageal Echocardiography Images**

Aditya Saini, Zuyue Wang, Steven A. Goldstein. Washington Hospital Center, Washington, DC

**P1-52**

### **Comparison of Dynamic Indices of Functional Mitral Regurgitation and Normal Mitral Valve Function Using Perioperative 3D Transesophageal Echocardiography**

Karsten Bartels<sup>1</sup>, Robert H. Thiele<sup>1</sup>, G. Burkhard Mackensen<sup>2</sup>. <sup>1</sup>Duke University Medical Center, Durham, NC; <sup>2</sup>University of Washington, Seattle, WA

**P1-53**

### **Relative Importance of Circumferential and Radial Strain During Biventricular Pacing in a Porcine Model of Acute Left Ventricular Volume Overload**

Alice Wang<sup>1</sup>, Santos E. Cabreriza<sup>1</sup>, T. Alexander Quinn<sup>2</sup>, Marc E. Richmond<sup>1</sup>, Bin Cheng<sup>3</sup>, Henry M. Spotnitz<sup>1</sup>. <sup>1</sup>Columbia Presbyterian Medical Center, New York, NY; <sup>2</sup>Imperial College London, London, United Kingdom; <sup>3</sup>Mailman School of Public Health, New York, NY

**P1-54**

### **Intracardiac Echocardiography to Guide Percutaneous Closure of Ascending Aortic Psuedoaneurysms**

Steven Goldberg, Zachary Steinberg, Edward Gill, Creighton Don. University of Washington Medical Center, Seattle, WA  
*Author Disclosures: S. Goldberg: 2 (St. Jude Medical)*

## **Ischemic Heart Disease/ Stress Echocardiography P1-55 through P1-73**

**P1-55**

### **2D Strain Dobutamine Stress Echocardiography Predicts Segmental Response of Extracorporeal Cardiac Shock Wave Therapy in Patients With Ischemic Heart Failure**

Yury Vasyuk, Alla Khadzegova, Evgeny Shkolnik, Elena Iouchtchouk. Moscow State University of Medicine and Dentistry, Moscow, Russian Federation

**P1-56**

### **Which Measure Is Best? Comparison of Strain and Quantitative Wall Motion Analysis During Dobutamine Stress for Detection of Demand Ischemia**

Katherine M. Parker, Jeffrey W. Holmes. University of Virginia, Charlottesville, VA

# POSTER SESSION 1 (P1) IN THE EXHIBIT & POSTER HALL

- P1-57**  
**The Negative Predictive Value of Real Time Perfusion Stress Echocardiography Versus Conventional Stress Echocardiography in Predicting Patient Outcome**  
Thomas R. Porter, Lynette Smith, Feng Xie, Kara Smith, Joan Olson, Kevin Nalty, Roberta Hess, Michelle Graham, Stacey Therrien. University of Nebraska Medical Center, Omaha, NE  
*Author Disclosures: T.R. Porter: 4 (Astellas Pharma, Philips Healthcare, Lantheus Medical Imaging)*
- P1-58**  
**Delivery of aFGF into Ischemic Myocardium Using Ultrasound-Mediated Cavitation of Heparin Modified Microbubbles**  
Yingzheng Zhao<sup>1</sup>, Qinqin Tang<sup>1</sup>, Xinqiao Tian<sup>2</sup>, Cuitao Lu<sup>1</sup>, Xiaokun Li<sup>1</sup>, Changzheng Sun<sup>1</sup>, Jilai Tian<sup>3</sup>, Pintong Huang<sup>2</sup>, Guowei Wu<sup>2</sup>, Lu Zhang<sup>1</sup>, Haifeng Lv<sup>1</sup>, Shuping Ge<sup>4</sup>. <sup>1</sup>Wenzhou Medical College, Wenzhou City, China; <sup>2</sup>The Second Affiliated Hospital of Wenzhou Medical College, Wenzhou City, China; <sup>3</sup>Pharmacy Experimental Center, China Pharmaceutical University, Nanjing City, China; <sup>4</sup>St. Christopher's Hospital for Children/Drexel University College of Medicine, Philadelphia, PA
- P1-59**  
**2D Speckle-Tracking Echocardiography in Acute Myocardial Infarction: Correlation Between Myocardial Scar and Echocardiographic Strain**  
Ana Barac<sup>1</sup>, Michael Kern<sup>2</sup>, Manuel A. Gonzales<sup>1</sup>, Gopal Ghimire<sup>1</sup>, Jyotshana Shrestha<sup>1</sup>, Ron Waksman<sup>1</sup>, Anthony R. Fuisz<sup>1</sup>, Gaby Weissman<sup>1</sup>. <sup>1</sup>Washington Hospital Center, Washington, DC; <sup>2</sup>Case Western Reserve University, Cleveland, OH
- P1-60**  
**Angiogenesis Effect Improvement of Anti-ICAM-1 Targeted Microbubbles for Mediation of Transfected hAng-1 Gene into Ischemic Myocardium**  
Qing Zhou, Bo Hu, Xiao Wang, Qian Chen, Qing Deng, Jin-ling Chen, Jia Huang, Rui-qiang Guo. Remin Hospital of Wuhan, China, Wuhan City, China
- P1-61**  
**Relation Between Myocardial Perfusion by <sup>82</sup>Rb PET Imaging and Myocardial Mechanics Measured by Two-Dimensional Speckle Tracking Echocardiography**  
Aasha S. Gopal, Andrew Van Tosh, Rena S. Toole, Kenneth J. Nichols, Eera Jain, Tanvir S. Gopal, Bradley Michalakakis, Brie Cronin, Berthold Klas. St. Francis Hospital, Roslyn, NY  
*Author Disclosures: B. Klas: 5 (TomTec GmBh)*
- P1-62**  
**Safety and Feasibility of Accelerated High Dose Dobutamine Stress Echocardiography in Comparison With Standard Dobutamine Echocardiography: Single Center Experience in a Large Series of Patients**  
Sabha Bhatti, Sunita Dhanalakota, Sami Hayek, Karthikeyan Ananthasubramaniam. Henry Ford Hospital, Detroit, MI  
*Author Disclosures: K. Ananthasubramaniam: 1, 2 (Astellas Pharma US Inc., Lantheus Medical Imaging), 4 (Astellas Pharma US Inc.)*
- P1-63**  
**Color M-mode Strain Rate Imaging for Detection of Coronary Disease: Comparison With Quantitative Angiography**  
Syed Abidi, Ronald Mastouri, Harvey Feigenbaum, Stephen G. Sawada. Indiana University, Indianapolis, IN
- P1-64**  
**Efficacy of Six-minute Walk Stress Echocardiography for Detection of Pulmonary Arterial Hypertension in Patients With Connective Tissue Disease**  
Junko Hotchi<sup>1</sup>, Hirotsugu Yamada<sup>1</sup>, Susumu Nishio<sup>1</sup>, Kenya Kusunose<sup>2</sup>, Noriko Tomita<sup>1</sup>, Shuji Hayashi<sup>1</sup>, Mika Bando<sup>1</sup>, Rina Tamai<sup>1</sup>, Maya Nakagawa<sup>1</sup>, Daichi Hirota<sup>1</sup>, Yukina Hirata<sup>1</sup>, Kozue Ogasawara<sup>1</sup>, Sachiko Bando<sup>1</sup>, Takayuki Ise<sup>1</sup>, Toshiyuki Niki<sup>1</sup>, Koji Yamaguchi<sup>1</sup>, Yoshio Taketani<sup>1</sup>, Takashi Iwase<sup>1</sup>, Takeshi Soeki<sup>1</sup>, Tetsuzo Wakatsuki<sup>1</sup>, Masataka Sata<sup>1</sup>. <sup>1</sup>Tokushima University Hospital, Tokushima, Japan; <sup>2</sup>Cleveland Clinic, Cleveland, OH
- P1-65**  
**The Value of 2D Longitudinal Strain for Detection of Significant Coronary Artery Disease in Patients Without Visual Segmental Wall Motion Abnormalities**  
Qing Deng, Qing Zhou, Rui-qiang Guo, Jin-ling Chen, Bo Hu, Jia Huang. Remin Hospital of Wuhan, China, Wuhan City, China
- P1-66**  
**Changes in Left Ventricular Dyssynchrony Patterns Between Rest and Stress During Low Dose Dobutamine Stress Echocardiography in Patients Referred for Cardiac Resynchronization Therapy: Implications for Optimal Left Ventricular Lead Positioning**  
Valentin Suma<sup>1</sup>, Farhan Bajwa<sup>2</sup>, Maureen Wang<sup>1</sup>, Azhar Supariwala<sup>2</sup>, Ajay S. Shah<sup>3</sup>, Dali Fan<sup>4</sup>, Suraj Sookhu<sup>1</sup>, Amgad N. Makaryus<sup>1</sup>, Jonathan S. Steinberg<sup>5</sup>, Farooq A. Chaudhry<sup>2</sup>. <sup>1</sup>North Shore University Hospital, Manhasset, NY; <sup>2</sup>St Luke's-Roosevelt Hospital Center, NY, NY; <sup>3</sup>St Luke's Hospital, Fords, NJ; <sup>4</sup>University of California, Davis Medical Center, Sacramento, CA; <sup>5</sup>Valley Hospital, Ridgewood, NJ  
*Author Disclosures: F.A. Chaudhry: 1 (Lantheus Medical Imaging)*

# POSTER SESSION 1 (P1) IN THE EXHIBIT & POSTER HALL

**P1-67**

## **Prognostic Value of Stress Imaging After Revascularization: A Meta-Analysis of Stress Echocardiography and Stress Nuclear Imaging**

Serge C. Harb, Thomas H. Marwick. Cleveland Clinic Foundation, Cleveland, OH

**P1-68**

## **How Do Abnormal Findings in Contrast-Stress-Echocardiography (CSE) Match With the Results of Coronary Angiography in Consecutive Unselected Patients?**

Mohamed Sherif Hashem<sup>1</sup>, Abdelmaksoud A. Elganady<sup>1</sup>, Ahmed Dawood<sup>1</sup>, Mohamed A. Amer<sup>1</sup>, Soon Kwang Chiew<sup>2</sup>, Jonathan Choy<sup>2</sup>, Harald Becher<sup>2</sup>. <sup>1</sup>Jeddah Heart Institute, Jeddah, Saudi Arabia; <sup>2</sup>University of Alberta Hospital, Edmonton, AB, Canada  
*Author Disclosures: J. Choy: 1 (Lantheus), 4 (Lantheus, Philips); H. Becher: 1, 2 (Bracco)*

**P1-69**

## **2D-Longitudinal Strain Improves Viability Assessment During Low Dose Dobutamine Stress Echocardiography**

Yury Vasyuk, Alla Khadzegova, Evgeny Shkolnik, Elena Iouchtchouk. Moscow State University of Medicine and Dentistry, Moscow, Russian Federation

**P1-70**

## **Assessment of the Correlation Between Time of Symptoms to Percutaneous Coronary Intervention and Left Ventricular Function Recovery of Acute Anterior Myocardial Infarction by Two-Dimensional Speckle Tracking Imaging**

Bo Hu, Rui-qiang Guo, Qing Zhou, Jin-ling Chen, Jia Huang, Qing Deng. Remin Hospital of Wuhan, Wuhan City, China

**P1-71**

## **Early Reduction in Left Atrial Size Following Cardiac Resynchronization Therapy**

Vitharani Kunanithy, Damian P. Redfearn, Kevin A. Michael, Wilma M. Hopman, Amer M. Johri. Kingston General Hospital, Kingston, ON, Canada

**P1-72**

## **Stress Echocardiography in Children and Adolescents: Establishing Normal Values for Left Ventricular Outflow Tract Gradients at Peak Exercise**

Carol Wittlieb, Meryl S. Cohen, Micheal G. McBride, Stephen M. Paridon, Robert Morrow, Melissa Rosenblatt, Yan Wang, Paul Stephens, Jr. The Children's Hospital of Philadelphia, Philadelphia, PA

**P1-73**

## **Echocardiographic Predictor for Dynamic Left Ventricular Outflow Obstruction in Patients With Sigmoid-Shaped Septum**

Manabu Takai, Masaki Izumo, Kengo Suzuki, Kei Mizukoshi, Ryo Kamijima, Seisyo Kou, Akio Hayashi, Yoshiro J. Akashi, Tomoo Harada, Eiji Ohtaki, Fumihiko Miyake. St. Marianna University School of Medicine, Kawasaki, Japan

## **Pediatric and Adult Congenital Heart Disease P1-74 through P1-98**

**P1-74**

## **Impaired Right and Left Ventricular Diastolic Mechanics and Filling in Asymptomatic Children and Adolescents After Repair of Tetralogy of Fallot**

Mark K. Friedberg, Fernanda P. Fernandes, Susan L. Roche, Lars Grosse-Wortmann, Cedric Manlhiot, Cheryl Fackoury, Cameron Slorach, Brian W. McCrindle, Luc Mertens, Paul F. Kantor. Hospital for Sick Children, Toronto, ON, Canada

**P1-75**

## **Cost-effectiveness of Prenatal Screening Strategies for Congenital Heart Disease (CHD)**

Nelangi Pinto<sup>1</sup>, Richard Nelson<sup>2</sup>, Kenneth Smith<sup>3</sup>, Torri D. Metz<sup>4</sup>, Michael Puchalski<sup>1</sup>. <sup>1</sup>University of Utah, Salt Lake City, UT; <sup>2</sup>University of Utah, Department of Economics, Salt Lake City, UT; <sup>3</sup>University of Pittsburgh, Pittsburgh, PA; <sup>4</sup>University of Utah, Department of Obstetrics and Gynecology, Salt Lake City, UT

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## **Re-coarctation of the Aorta After the Norwood Operation Can Be Accurately Predicted Using a Composite Score Based on Transthoracic Echocardiography**

Shari L. Wellen, Andrew C. Glatz, Chitra Ravishankar, Meryl S. Cohen. Children's Hospital of Philadelphia, Philadelphia, PA

**P1-77**

## **Longitudinal Strain and Strain Rate May Aid in Early Detection of Coronary Vasculopathy in Pediatric Cardiac Transplant Patients**

Bridget B. Zoeller, Shelley D. Miyamoto, Adel K. Younoszai, Bruce F. Landeck, II. Children's Hospital Colorado, Aurora, CO

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## **Evaluation of Shunt Flow Through Ventricular Septal Defect Using a New 3D Doppler Method**

Lydia Tam<sup>1</sup>, Christine Kang<sup>1</sup>, Vivian Chen<sup>1</sup>, Shahryar Ashraf<sup>1</sup>, Cole Streiff<sup>1</sup>, Meihua Zhu<sup>1</sup>, Saurabh Datta<sup>2</sup>, Muhammad Ashraf<sup>1</sup>, David J. Sahn<sup>1</sup>. <sup>1</sup>Oregon Health & Science University, Portland, OR; <sup>2</sup>Siemens Medical Solutions, Mountain View, CA  
*Author Disclosures: S. Datta: 5 (Siemens Medical Solutions); D.J. Sahn: 2 (Siemens Medical Solutions)*



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**Unicommissural Aortic Valves: Impact on Ascending Aorta Dilation and Association With Aortic Coarctation**  
Rowan Walsh, Ira A. Parness, Irene Lytrivi, Shubhika Srivastava. Mount Sinai Medical Center, New York, NY
- P1-80**  
**Decreased Systolic Function Impairs Exercise Performance in Children With Hypertrophic Cardiomyopathy**  
Matthew Eric Ferguson<sup>1</sup>, Margaret J. Strieper<sup>1</sup>, Robert M. Campbell<sup>1</sup>, Erin Demo<sup>2</sup>, Gemma Morrow<sup>3</sup>, Carey Lamphier<sup>4</sup>, William L. Border<sup>1</sup>. <sup>1</sup>Sibley Heart Center, Children's Healthcare of Atlanta, Emory University, Atlanta, GA; <sup>2</sup>Sibley Heart Center, Children's Healthcare of Atlanta, Atlanta, GA; <sup>3</sup>Children's Healthcare of Atlanta, Atlanta, GA; <sup>4</sup>Children's Healthcare of Atlanta, Emory University, Atlanta, GA
- P1-81**  
**Gender and Racial Variations in Aortic Stiffness in Healthy Adolescents**  
Daisuke Kobayashi, Pam Odzianam, Pooja Gupta, Sanjeev Aggarwal. Children's Hospital of Michigan, Detroit, MI
- P1-82**  
**Favorable Right Ventricular and Tricuspid Valve Remodeling in Patients With Hypoplastic Left Heart Syndrome After the Superior Bidirectional Cavopulmonary Anastomosis**  
Shinya Ugaki, Nee S. Khoo, David Ross, Ivan Rebeyka, Ian Adatia. Stollery Children's Hospital, University of Alberta, Edmonton, AB, Canada
- P1-83**  
**Right and Left Ventricular Function in Repaired Tetralogy of Fallot: A Comparison of Pressure-loaded Versus Volume-loaded Right Ventricle**  
Cory V. Noel, John P. Kovalchin, Ali Zaidi, Frederick Long, Karen Texter. Nationwide Children's Hospital, Columbus, OH
- P1-84**  
**Technical Innovations to Advance Histotripsy (Pulsed Cavitation Therapeutic Ultrasound) Toward Non-invasive Neonatal Cardiac Application**  
Gabe E. Owens, Ryan Miller, Adam Maxwell, Yohan Kim, Kuang-Wei Lin, Zhen Xu. University of Michigan, Ann Arbor, MI  
*Author Disclosures: Z. Xu: 2, 3 (HistoSonics)*
- P1-85**  
**Can Simple Echocardiographic Measures Reduce the Number of Cardiac Magnetic Resonance Imaging Studies to Diagnose Right Ventricular Enlargement in Congenital Heart Disease?**  
Mohammed H. Alghamdi, Lars Grosse-Wortmann, Nauman Ahmad, Luc Mertens, Mark K. Friedberg. Hospital for Sick Children, Toronto, ON, Canada
- P1-86**  
**In Children Undergoing Ventricular Assist Device Implantation: Does Pre-implantation Severe Right Ventricular Failure Require Bi-Ventricular Support?**  
Ricardo Pignatelli, Andres Samayoa, Iki Adachi, Qiqiong Cui, Aamir Jeewa, Nancy Ayres, David Morales. Baylor College of Medicine, Houston, TX
- P1-87**  
**Normative Data for the Late First-Early Second Trimester Fetal Heart**  
Angela McBrien, Lisa Howley, Yuka Yamamoto, Akiko Hirose, Priya Sekar, Venu Jain, Tarek Motan, Mark Walsh, Jean Trines, Winnie Savard, Lisa K. Hornberger. University of Alberta, Edmonton, AB, Canada
- P1-88**  
**The Prevalence of and Attitudes for Neonatal Functional Echocardiography Use and Training: A Survey of United States Neonatal Intensive Care Unit Medical Directors**  
Scott Schachinger, Robert Schumacher, Gregory Ensing, R. Brent Stansfield. University of Michigan, Ann Arbor, MI
- P1-89**  
**Enhanced Global & Regional Myocardial Synchrony and Deformation in Highly Trained Elite High School Athletes**  
Rebecca K. Lindquist, Angela R. Miller, Chelsea L. Reece, Patrick W. O'Leary, Frank Cetta, Benjamin W. Eidem. Mayo Clinic, Rochester, MN
- P1-90**  
**Acute Changes in Myocardial Systolic Function in Preterm Infants Undergoing Patent Ductus Arteriosus Ligation. A Tissue Doppler and Myocardial Deformation Study**  
Afif F. El-Khuffash, Amish Jain, Patrick McNamara, Luc L. Mertens. The Hospital for Sick Children, Toronto, ON, Canada
- P1-91**  
**Can Evaluation of Strain and Strain Rate Improve Management of Patients With Kawasaki Disease?**  
Rachel T. McCandless, L. LuAnn Minich, Molly L. McFadden, Lloyd Y. Tani, Shaji C. Menon. University of Utah, Salt Lake City, UT
- P1-92**  
**Assessing the Correlates of Arterial Structure and Function in Healthy Adolescents**  
Timothy J. Bradley, Cameron Slorach, Cedric Manlhiot, Wei Hui, Taisto Sarkola, Edgar T. Jaeggi, Luc Mertens. The Hospital For Sick Children, Toronto, ON, Canada

# POSTER SESSION 1 (P1) IN THE EXHIBIT & POSTER HALL

**P1-93**

**Developmental Changes in Ventricular Diastolic Function: A Doppler Tissue Imaging Study of Longitudinal Myocardial Velocity in Premature Infants**

Adel K. Younoszai<sup>1</sup>, Joshua I. Miller<sup>2</sup>, Marci K. Sontag<sup>2</sup>, Brenda B. Poindexter<sup>3</sup>, Steve H. Abman<sup>1</sup>, Peter M. Mourani<sup>1</sup>.  
<sup>1</sup>Children's Hospital Colorado, Denver, CO; <sup>2</sup>University of Colorado Denver, Denver, CO; <sup>3</sup>Indiana University School of Medicine, Indianapolis, IN

**P1-94**

**Clinical Significance of 2-Dimensional, M-mode and Doppler Echo Indices of Right Ventricular Function in Children With Idiopathic Pulmonary Arterial Hypertension**

Eiass A. Kassem, Jr., Mark K. Friedberg, Jr. The Hospital for Sick Children, Toronto, ON, Canada  
*Author Disclosures: M.K. Friedberg: 4 (Actelion)*

**P1-95**

**Three Dimensional Transesophageal Echocardiography of Ventricular Septal Defect in Children and Adults: Determination of the Best Imaging Protocol**

David Alex Roberson<sup>1</sup>, Vivian Wei Cui<sup>1</sup>, Wendy Tsang<sup>2</sup>, Waseem Cossar<sup>1</sup>, Lynn Weinert<sup>2</sup>, Saroja Bharati<sup>1</sup>, Roberto M. Lang<sup>2</sup>. <sup>1</sup>The Heart Institute for Children, Oak Lawn, IL; <sup>2</sup>University of Chicago Medical Center, Chicago, IL

**P1-96**

**Utility of Modality-Independent 3D Speckle Tracking Imaging Technology for Evaluation of Left Ventricular Mechanics: Feasibility, Reproducibility, Maturational Changes, and Normal Ranges of 3D Global Strain, Displacement, Rotation, Twist and Torsion**

Li Zhang<sup>1</sup>, Jun Gao<sup>2</sup>, Mingxing Xie<sup>2</sup>, Xinqiao Tian<sup>1</sup>, Liwen Liu<sup>1</sup>, Jie Sun<sup>1</sup>, Rula Balluz<sup>1</sup>, Shuping Ge<sup>1</sup>. <sup>1</sup>St. Christopher's Hospital for Children/Drexel University College of Medicine, Philadelphia, PA; <sup>2</sup>Union Hospital/Huazhong University of Science and Technology, Wuhan, China

**P1-97**

**Changes in the Fetal Cardiac Axis in the Late First-Early Second Trimester**

Angela McBrien, Lisa Howley, Yuka Yamamoto, Akiko Hirose, Priya Sekar, Venu Jain, Tarek Motan, Jean Trines, Winnie Savard, Lisa K. Hornberger. University of Alberta, Edmonton, AB, Canada

**P1-98**

**Echocardiographic Assessment of Right Atrial Pressure in a Pediatric and Young Adult Population**

Bhawna Arya<sup>1</sup>, Diane Kerstein<sup>1</sup>, Cheng-Shiun Leu<sup>2</sup>, Warren A. Zuckerman<sup>1</sup>, Usha Krishnan<sup>1</sup>, Wyman W. Lai<sup>1</sup>. <sup>1</sup>Columbia University College of Physicians and Surgeons, New York, NY; <sup>2</sup>Columbia University Mailman School of Public Health, New York, NY

## Quality/Outcomes/Appropriateness/ Echo in Clinical Trials P1-99 through P1-118

**P1-99**

**Extra-Cardiac Findings During Routine Echocardiographic Examination**

Mohamad Adnan Alkhouli, Paul Sandhu, John Panidis, Amit Pursnani. Temple University, Philadelphia, PA

**P1-100**

**Pulmonary Artery Systolic Pressure by Echocardiography Strongly Predicts Outcomes in Stable Outpatients With Heart Failure: The Atlanta Cardiomyopathy Consortium**

Sarawut Siwamogsatham, Vasiliki V. Georgiopoulou, Anjan Deka, Joshua A. Kailin, Robert T. Cole, Divya Gupta, Catherine N. Marti, Javed Butler, Andreas P. Kalogeropoulos. Emory University, Atlanta, GA

**P1-101**

**Implementation of a Hand-Held Ultrasound Curriculum During Early Medical School: What is the Best Method to Teach Novel Learners?**

Thomas R. Cawthorn, Curtis Nickel, Michael O'Reilly, Anthony J. Sanfilippo, Amer M. Johri. Queen's University, Kingston, ON, Canada

**P1-102**

**Diagnostic Yield of Repeated Echocardiographic Evaluation in Patients Readmitted for Decompensated Heart Failure Despite Optimal Medical Therapy**

Sahar Amery, Ji Lee, Colin Hirst, Edward Philbin, Mikhail Torosoff, Steven Fein. Albany Medical Center, Albany, NY

**P1-103**

**Echocardiography-derived Pulmonary Artery Systolic Pressure Predicts Clinical Events Independently of the Seattle Heart Failure Score in Patients With Stage D Heart Failure**

Vasiliki V. Georgiopoulou, Sarawut Siwamogsatham, Anjan Deka, Joshua A. Kailin, Robert T. Cole, Divya Gupta, Catherine N. Marti, Javed Butler, Andreas P. Kalogeropoulos. Emory University, Atlanta, GA

# POSTER SESSION 1 (P1) IN THE EXHIBIT & POSTER HALL

## P1-104

### **Left Ventricular Mass as a Predictor of Cardiovascular Outcomes in Young Adults: The CARDIA Study**

Anderson C. Armstrong<sup>1</sup>, Samuel S. Gidding<sup>2</sup>, Ola Gjesdal<sup>1</sup>, Kiang Liu<sup>3</sup>, Cora E. Lewis<sup>4</sup>, Kirsten Bibbins-Domingo<sup>5</sup>, Stephen Sidney<sup>6</sup>, Pamela J. Schreiner<sup>7</sup>, David R. Jacobs<sup>7</sup>, O. D. Williams<sup>4</sup>, David C. Goff<sup>8</sup>, Joao A. C. Lima<sup>1</sup>. <sup>1</sup>Johns Hopkins University, Baltimore, MD; <sup>2</sup>Nemours Cardiac Center, Wilmington, DE; <sup>3</sup>Northwestern University, Chicago, IL; <sup>4</sup>University of Alabama at Birmingham, Birmingham, AL; <sup>5</sup>University of California at San Francisco, San Francisco, CA; <sup>6</sup>Kaiser Permanente Division of Research, Oakland, CA; <sup>7</sup>University of Minnesota, Minneapolis, MN; <sup>8</sup>Wake Forest University, Winston-Salem, NC

## P1-105

### **An Echo Screening Tool for Sudden Cardiac Death in Young Athletes**

Michelle A. Grenier, Robert Hinton, Timothy J. Knilans, John L. Jefferies, Wayne Mays, Nicholas Edwards, Jeffrey Towbin, Richard Czosek, Jeffery Anderson. Cincinnati Childrens Hospital Medical Center, Cincinnati, OH

## P1-106

### **Appropriate Use of Transthoracic Echocardiography: A Prospective Evaluation in 1825 Consecutive Patients Using the 2011 Revised Appropriate Use Criteria for Echocardiography**

Harshal R. Patil, Michael L. Main, Tina R. Coggins, Lisa L. Kusnetzky. Saint Luke's Mid America Heart Institute, Kansas City, MO

## P1-107

### **Test-to-Test in-Field Reproducibility of Echocardiography in the CARDIA Study**

Anderson C. Armstrong<sup>1</sup>, Erin P. Ricketts<sup>1</sup>, Alex Arynchyn<sup>2</sup>, Kiang Liu<sup>3</sup>, Ellen Stengel<sup>1</sup>, Paul Adler<sup>1</sup>, Stephen Sidney<sup>4</sup>, Cora E. Lewis<sup>2</sup>, Pamela J. Schreiner<sup>5</sup>, James M. Shikany<sup>2</sup>, Christopher Cox<sup>1</sup>, Samuel S. Gidding<sup>6</sup>, Joao A. C. Lima<sup>1</sup>. <sup>1</sup>Johns Hopkins University, Baltimore, MD; <sup>2</sup>University of Alabama at Birmingham, Birmingham, AL; <sup>3</sup>Northwestern University, Chicago, IL; <sup>4</sup>Kaiser Permanente Division of Research, Oakland, CA; <sup>5</sup>University of Minnesota, Minneapolis, MN; <sup>6</sup>Nemours Cardiac Center, Wilmington, DE

## P1-108

### **Standardizing Quality of 2-Dimensional Echocardiographic Images by Automatic Scoring**

Sri Kaushik Pavani<sup>1</sup>, Navneeth Subramanian<sup>1</sup>, Mithun Das Gupta<sup>1</sup>, Pavan Kumar Annangi<sup>1</sup>, Brian Young<sup>2</sup>, Satish C. Govind<sup>3</sup>. <sup>1</sup>John F Welch Technology Center, Bangalore, India; <sup>2</sup>GE Healthcare, Milwaukee, WI; <sup>3</sup>Bhagwan Mahavir Jain Heart Centre, Bangalore, India

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## P1-109

### **Image Quality and Reproducibility in Echocardiographic Assessment of Left Ventricular Mass: The Multi-Ethnic Study of Atherosclerosis**

Anderson C. Armstrong<sup>1</sup>, Ola Gjesdal<sup>1</sup>, Andre Almeida<sup>1</sup>, Colin Wu<sup>2</sup>, Lyndia Brumback<sup>3</sup>, Joao Lima<sup>1</sup>. <sup>1</sup>Johns Hopkins University, Baltimore, MD; <sup>2</sup>National Heart, Lung, and Blood Institute, NIH, Bethesda, MD; <sup>3</sup>University of Washington, Seattle, WA

## P1-110

### **Aortic Valve Area vs VTI Ratio in Diagnosis of Aortic Valve Stenosis: A Comparative Study Calculating the Average Error Rate Measurement**

Francesca D'Auria, Valentina Stinziani, Susanna Grego, Patrizio Polisca, Luigi Chiariello. Cardiac Surgery Unit, Tor Vergata University Hospital, Rome, Italy

## P1-111

### **Comparison of the 2007 and 2011 Appropriate Use Criteria for Transthoracic Echocardiography**

Sacha R. Bhatia, Dana Carne, Michael H. Picard, Rory W. Weiner. Massachusetts General Hospital, Boston, MA

## P1-112

### **Incremental Value of Left Ventricular Global Longitudinal Strain and High Sensitivity C-Reactive Protein for Prognosis in Patients With Chronic Systolic Heart Failure**

Hirohiko Motoki, Allen G. Borowski, Kevin Shrestha, W.H. Wilson Tang, Allan L. Klein. Cleveland Clinic, Cleveland, OH

## P1-113

### **Echocardiographic Assessment of Cardiac Masses - When Do We Need Supplementary Imaging by Cardiac CT or MR?**

Arun Dahiya, Michael Bolen, Rory Hachamovitch, Thomas Marwick. Cleveland Clinic Foundation, Cleveland, OH

## P1-114

### **Comparison of the 2008 and 2011 Appropriate Use Criteria for Stress Echocardiography**

Vishesh Kumar<sup>1</sup>, R. Sacha Bhatia<sup>2</sup>, Michael H. Picard<sup>2</sup>, Rory B. Weiner<sup>2</sup>. <sup>1</sup>North Shore Medical Center, Salem, MA; <sup>2</sup>Massachusetts General Hospital, Boston, MA

## P1-115

### **Development of a Novel Training Program in Cardiovascular Limited Ultrasound Examination for Internal Medicine Residency: 9-year Results**

Bruce J. Kimura, Stan A. Amundson, James N. Phan, Donna L. Agan, David J. Shaw. Scripps Mercy Hospital, San Diego, CA

# POSTER SESSION 1 (P1) IN THE EXHIBIT & POSTER HALL

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## **HypnoSIS to facilitate trans-Esophageal echocardiography Tolerance. The I-SLEPT Study**

Francois Tournoux<sup>1</sup>, Yasmina Bouchema<sup>2</sup>, Beatrice Miquel<sup>2</sup>, Florence Beauvais<sup>2</sup>, Alain Cohen-Solal<sup>2</sup>, Eric Vicaut<sup>2</sup>, Hélène Rousseau<sup>2</sup>, Isabelle Corman<sup>2</sup>, Damien Logeart<sup>2</sup>. <sup>1</sup>Centre Hospitalier Universitaire de Montreal, Montreal, QC, Canada; <sup>2</sup>Centre Hospitalier Lariboisiere, Paris, France

**P1-117**

## **Impact of LV Geometrical Pattern on Improvement in Diastolic Function After Antihypertensive Therapy: The EDEN Trial**

Norihisa Toh<sup>1</sup>, Hiroshi Ito<sup>1</sup>, Katsuhisa Ishii<sup>2</sup>, Hajime Kihara<sup>3</sup>, Noriaki Kasayuki<sup>4</sup>, Fumiaki Nakamura<sup>5</sup>, Kenei Shimada<sup>6</sup>, Shota Fukuda<sup>7</sup>, Hiroki Oe<sup>8</sup>, Hiroyuki Watanabe<sup>9</sup>, Katsuomi Iwakura<sup>10</sup>, Junichi Yoshikawa<sup>11</sup>. <sup>1</sup>Okayama University Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama, Japan; <sup>2</sup>Kansai Electric Power Hospital, Osaka, Japan; <sup>3</sup>Kihara Cardiovascular Clinic, Asahikawa, Japan; <sup>4</sup>Ishikiriseiki Hospital, Osaka, Japan; <sup>5</sup>Ibaraki Iseikai Hospital, Ibaraki, Japan; <sup>6</sup>Osaka City University of Medicine, Osaka, Japan; <sup>7</sup>Osaka Ekisaikai Hospital, Osaka, Japan; <sup>8</sup>Okayama University Hospital, Okayama, Japan; <sup>9</sup>Sakakibara Heart Institute, Tokyo, Japan; <sup>10</sup>Sakurabashi Watanabe Hospital, Osaka, Japan; <sup>11</sup>Nishinomiya Watanabe Cardiovascular Center Hospital, Nishinomiya, Japan

**P1-118**

## **The Difference of Atrial Mechanical Activity Recovery Timing According to Left Atrial Volume After Electrical Cardioversion of Atrial Fibrillation**

Jung Sun Cho, Min Seok Choi, Ho-Joong Youn, Eun-Joo Cho, Sung-Ho Her, Mahn-Won Park, Jae Beum Lee, Chan Seok Park, Mi-Jeong Kim, Hae-Ok Jung, Hui-Kyung Jeon, Jae-Hyung Kim. Daejeon St. Mary Hospital, Dae-jeon, Republic of Korea

## **Valvular Heart Disease P1-119 through P1-170**

**P1-119**

## **Effects of the Mueller Maneuver on Functional Mitral Regurgitation**

Gregg S. Pressman<sup>1</sup>, Marek Orban<sup>2</sup>, Kunal Parekh<sup>1</sup>, Manmeet Singh<sup>1</sup>, Abel Romero-Corral<sup>1</sup>. <sup>1</sup>Albert Einstein Medical Center, Philadelphia, PA; <sup>2</sup>St. Anna Hospital, ICRC, Masaryk University, Brno, Czech Republic

**P1-120**

## **Newly Developed Mitral Regurgitation After Cardiac Resynchronization Therapy: A Marker for Unfavorable Outcome**

Tetsuuri Onishi, Toshinari Onishi, Josef Marek, Mohamed Ahmed, Samir Saba, John Gorcsan, III. University of Pittsburgh, Pittsburgh, PA  
*Author Disclosures: J. Gorcsan: 2 (GE, Toshiba, Medtronic, St. Jude Medical, Biotronik), 4 (GE, Toshiba)*

**P1-121 Sunday Oral Presentation**

## **Paradoxical Low Gradient Severe Aortic Stenosis - Measurement Error or True Pathology: An Outcome Study**

Alper Ozkan, Sachin Goel, Akin Cam, Hazem Bdair, Kanhaiya Lal Poddar, Samir Kapadia, Murat Tuzcu, Thomas Marwick. Cleveland Clinic, Cleveland, OH

**P1-122 Monday Rapid Fire Presentation**

## **Assessment of Longitudinal Myocardial Mechanics in Patients With Degenerative Mitral Valve Regurgitation Predicts Post-Operative Deterioration of LV Systolic Function**

Dimosthenis Pandis, Partho P. Sengupta, Javier Castillo, Giuseppe Caracciolo, Gregory Fischer, Jagat Narula, David H. Adams. Mount Sinai Medical Center, New York, NY

**P1-123 Monday Rapid Fire Presentation**

## **Echocardiographic Predictors of Mortality to Risk Stratify Patients With Unoperated Severe Aortic Stenosis**

Mark M. Gajjar, Benjamin H. Freed, Wendy Tsang, Valluvan Jeevanandam, Mark J. Russo, Roberto M. Lang. University of Chicago Medical Center, Chicago, IL  
*Author Disclosures: R.M. Lang: 4 (Philips Medical Center)*

**P1-124 Monday Rapid Fire Presentation**

## **The Resting Color Doppler Three-Dimensional Echocardiography-Derived Vena Contracta Length Predicts Exercise-Induced Increase of Mild to Moderate Functional Mitral Regurgitation in Systolic Heart Failure**

Jan Vecera, Jozef Bartunek, Marc Vanderheyden, Oana Bodea, Paul Mertens, Martin Penicka. Cardiovascular Center Aalst, Aalst, Belgium

**P1-125 Monday Rapid Fire Presentation**

## **The Valvuloarterial Impedance as a Prognostic Factor in Patients With Aortic Stenosis**

Sun Hee Park, Dong Heon Yang, Na Young Kim, Se Yong Jang, Jung Gyoo Kang. Kyungpook National University Hospital, Daegu, Republic of Korea

# POSTER SESSION 1 (P1) IN THE EXHIBIT & POSTER HALL

**P1-126**

## **Persisting Diastolic Dysfunction is Associated With Failure to Improve Myocardial Deformation After Aortic Valve Replacement**

Teerapat Yingchoncharoen, Conrad Gibby, Brian Griffin, Leonardo Rodriguez, Richard Grimm, Thomas H. Marwick. Cleveland Clinic, Cleveland, OH

**P1-127**

## **Mitral Regurgitation in Young Adults and Later Life Cardiac Changes: The CARDIA Study**

Suma H. Konety<sup>1</sup>, David Jacobs<sup>1</sup>, Hilary Whitham<sup>1</sup>, Samuel Gidding<sup>2</sup>, Stephen Glasser<sup>3</sup>, Joao Lima<sup>4</sup>, Pamela Schreiner<sup>1</sup>. <sup>1</sup>University of Minnesota, Minneapolis, MN; <sup>2</sup>Nemours Cardiac Center, Wilmington, DE; <sup>3</sup>University of Alabama, Birmingham, AL; <sup>4</sup>Johns Hopkins University, Baltimore, MD

**P1-128**

## **Predictors of Severe Tricuspid Regurgitation After Heart Transplantation, Is the Heart Biopsy Bad?**

Sami Hayek, Joseph Chattahi, Sunita Dhanalakota, Karthikeyan Ananthasubramaniam. Henry Ford Hospital, Detroit, MI

**P1-129**

## **The Bicuspid Aortic Valve: A Correlation Between Phenotypic Classification of Leaflet Morphology and Valvular Function**

Ji-Hyun Kim. Seoul National University, Seoul, Republic of Korea

**P1-130**

## **Impaired Longitudinal Left Ventricular Function Reflects Adverse Remodeling and is Associated With Worse Outcomes in Preserved Ejection Fraction, Low Flow, and Low Gradient Aortic Stenosis**

Praveen Mehrotra, Katrijn Jansen, Aidan Flynn, Timothy Tan, Michael Picard, Judy Hung. Massachusetts General Hospital, Boston, MA

**P1-131**

## **Comprehensive Hemodynamic Performance Comparison and Frequency of Patient Prosthesis Mismatch Between the St. Jude Medical Epic and the Trifecta Bioprosthetic Aortic Valves**

Gabriel Vorobiof<sup>1</sup>, Jimmy Diep<sup>1</sup>, Mary Jo Barnes<sup>2</sup>, Daniel M. Bethencourt<sup>2</sup>. <sup>1</sup>UC Irvine & Long Beach Memorial Medical Center, Long Beach, CA; <sup>2</sup>Long Beach Memorial Medical Center, Long Beach, CA

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**P1-132**

## **Hemodynamic Classification of Patients With Severe Isolated Aortic Stenosis and Normal Left Ventricular Ejection Fraction Using Left Ventricular Stroke Volume Index and Mean Transvalvular Pressure Gradient: Prognostic Significance**

Dvorah Holtzman, Florentina Petillo, Simcha Pollack, Peter D-Y Rhee, Nathaniel Reichel, Eddy Barasch. St. Francis Hospital/SUNY at Stony Brook, Roslyn, NY

**P1-133 Monday Rapid Fire Presentation**

## **Prevalence and Characteristics of Patients With Clinical Improvement but not Significant Right Ventricular Reverse Remodeling After Corrective Tricuspid Regurgitation Surgery**

Ji-Hyun Kim<sup>1</sup>, Hyung-Kwan Kim<sup>1</sup>, Hyo Eun Park<sup>2</sup>, Seung-Pyo Lee<sup>1</sup>, Yong-Jin Kim<sup>1</sup>, Goo-Yoeng Cho<sup>3</sup>, Dae-Won Sohn<sup>1</sup>. <sup>1</sup>Seoul National University Hospital, Seoul, Republic of Korea; <sup>2</sup>Seoul National University Hospital Healthcare System Gangnam Center, Seoul, Republic of Korea; <sup>3</sup>Seoul National University Bundang Hospital, Seongnam, Republic of Korea

**P1-134**

## **Sex-Specific Differences in the Prognostic Impact of Moderate Unrepaired Mitral Regurgitation in Patients Undergoing Coronary Artery Bypass Surgery**

Jonathan Afilalo<sup>1</sup>, Susie Hong-Zohlman<sup>2</sup>, Aidan W. Flynn<sup>1</sup>, Avi Shimony<sup>3</sup>, Lawrence G. Rudski<sup>3</sup>, Igal A. Sebag<sup>3</sup>, Arvind K. Agnihotri<sup>1</sup>, David M. Shahian<sup>1</sup>, Robert A. Levine<sup>1</sup>, Michael H. Picard<sup>1</sup>. <sup>1</sup>Massachusetts General Hospital, Boston, MA; <sup>2</sup>Beth Israel Deaconess Medical Center, Boston, MA; <sup>3</sup>Jewish General Hospital, Montreal, QC, Canada

**P1-135**

## **Risk Factors for Development of Severe Tricuspid Regurgitation in Patients With Pulmonary Hypertension**

Mohammad Q. Najib<sup>1</sup>, Roger Click<sup>2</sup>, Howard Lee<sup>1</sup>, Jhansi L. Ganji<sup>1</sup>, Suresh Challa<sup>1</sup>, Hari P. Chaliki<sup>1</sup>. <sup>1</sup>Mayo Clinic, Scottsdale, AZ; <sup>2</sup>Mayo Clinic, Rochester, MN

**P1-136**

## **Do the Quantitative Parameters of Regurgitant Volume, Regurgitant Fraction, Vena Contracta and Regurgitant Orifice Area Add Value Over Color Doppler Alone in Predicting the Overall MR Grade**

Sara Baig<sup>1</sup>, Marie-Claude Parent<sup>1</sup>, Mary Beth Michaels<sup>2</sup>, Brian Munneke<sup>2</sup>, Elyse Foster<sup>1</sup>. <sup>1</sup>University of California San Francisco, San Francisco, CA; <sup>2</sup>Abbott Vascular, Menlo Park, CA

*Author Disclosures: M. Michaels: 2 (Abbott Vascular); B. Munneke: 2 (Abbott Vascular); E. Foster: 4 (Abbott Vascular)*

# POSTER SESSION 1 (P1) IN THE EXHIBIT & POSTER HALL

**P1-137**

## **Transthoracic Echocardiography Can Accurately Predict Size of Transcatheter Heart Valves for Transcatheter Aortic Valve Replacement**

Chesnal Arepalli<sup>1</sup>, Lamanna Jason<sup>2</sup>, Sharon Howell<sup>3</sup>, Vasilis Babaliarios<sup>3</sup>, Vinod Thourani<sup>4</sup>, Emir Veledar<sup>3</sup>, Stamatios Lerakis<sup>3</sup>. <sup>1</sup>Emory University School of Medicine - Department of Radiology, Atlanta, GA; <sup>2</sup>Emory University School of Medicine & Department of Biomedical Engineering, Georgia Institute of Technology, Atlanta, GA; <sup>3</sup>Emory University School of Medicine - Division of Cardiology, Atlanta, GA; <sup>4</sup>Emory University School of Medicine - Division of Cardiothoracic Surgery, Atlanta, GA

**P1-138**

## **Morphological Echocardiographic Predictors of Mitral Regurgitation After Percutaneous Mitral Valvuloplasty for Rheumatic Mitral Stenosis: Influence of Asymmetric Commissural Remodeling**

Maria P. Nunes<sup>1</sup>, Luis Miguel Rincon<sup>2</sup>, Timothy C. Tan<sup>2</sup>, Rodrigo Do Lago<sup>3</sup>, Sammy Elmariah<sup>3</sup>, Ronan Margey<sup>3</sup>, Ignacio Cruz-Gonzalez<sup>3</sup>, Igor F. Palacios<sup>3</sup>, Judy Hung<sup>2</sup>. <sup>1</sup>Federal University of Minas Gerais, Brazil and Cardiac Ultrasound Lab, Massachusetts General Hospital, Harvard Medical School, Boston, MA; <sup>2</sup>Cardiac Ultrasound Lab, Massachusetts General Hospital, Harvard Medical School, Boston, MA; <sup>3</sup>Cardiac Unit, Massachusetts General Hospital, Harvard Medical School, Boston, MA

**P1-139** *Sunday Oral Presentation*

## **Echocardiographic Predictors of Paravalvular Aortic Regurgitation After Transcatheter Aortic Valve Replacement**

Praveen Mehrotra, Sammy Elmariah, Arvind Agnihotri, Ignacio Inglessis, Igor Palacios, Michael Picard, Jonathan Passeri. Massachusetts General Hospital, Boston, MA

**P1-140**

## **Influence of Mitral Regurgitation on Left Atrial Strain and Strain Rate**

Allen G. Borowski, Kevin Shrestha, Hirohiko Motoki, Maureen G. Martin, Wilson W. H. Tang, Allan L. Klein. Cleveland Clinic, Cleveland, OH

**P1-141**

## **Continuous Wave Doppler Echocardiography Measurement of Functional Aortic Valve Area in Subjects With Aortic Valve Stenosis Corrected by Left Ventricular Outflow Tract Size by ECG Gated 320 Slice CT**

Akihisa Kataoka, Nobusada Funabashi, Sawako Horie, Koya Ozawa, Maiko Takahashi, Rei Yajima, Masae Uehara, Hiroyuki Takaoka, Yoshio Kobayashi. Chiba University Graduate School of Medicine, Chiba, Japan

**P1-142**

## **Impact of Metabolic Syndrome and/or Diabetes on LV Remodelling in Patients With Severe Calcific Aortic Stenosis Before and After Aortic Valve Replacement**

Marie-Annick Clavel, Romain Capoulade, Jean G. Dumesnil, Patrick Mathieu, Jean-Pierre Després, Philippe Pibarot. CRIUCPQ, Quebec, QC, Canada

**P1-143**

## **Left Ventricular Contractility in Patients With Low-flow, Low-gradient Severe Aortic Stenosis With Normal Ejection Fraction**

Ricardo A. Migliore, Maria E. Adaniya, Miguel Barranco, Luis Mantilla, Guillermo Miramont, Diego Mantilla, Horacio Tamagusuku. Hospital Eva Perón, San Martín, Pcia de Buenos Aires, Argentina

**P1-144**

## **Usefulness of Projected Aortic Valve Area at Normal Transvalvular Flow Rate in Patients With Small Aortic Valve Area and Low Gradient Despite Preserved LV Ejection Fraction**

Marie-Annick Clavel<sup>1</sup>, Pierre Vladimir Ennezat<sup>2</sup>, Sylvestre Maréchaux<sup>2</sup>, Jean G. Dumesnil<sup>1</sup>, Zeineb Hachicha<sup>1</sup>, Patrick Mathieu<sup>1</sup>, Annaïk Bellouin<sup>2</sup>, Sébastien Bergeron<sup>1</sup>, Patrick Meimoun<sup>3</sup>, Marie Arsenaull<sup>1</sup>, Thierry Le Tourneau<sup>2</sup>, Agnès Pasquet<sup>4</sup>, Christian Couture<sup>1</sup>, Sylvain Trahan<sup>1</sup>, Melanie K. Sackett<sup>1</sup>, Philippe Pibarot<sup>1</sup>. <sup>1</sup>CRIUCPQ, Quebec, QC, Canada; <sup>2</sup>Centre Hospitalier Régional et Universitaire de Lille, Lille, France; <sup>3</sup>Centre hospitalier de Compiègne, Compiègne, France; <sup>4</sup>Cliniques Universitaires St Luc, Brussels, Belgium

**P1-145**

## **Impact of Left Atrial Function on Exercise Capacity in Patients With Asymptomatic Severe Mitral Regurgitation: Speckle Tracking Echocardiography Study**

Ryo Kamijima, Masaki Izumo, Kengo Suzuki, Kei Mizukoshi, Manabu Takai, Seisyou Kou, Akio Hayashi, Yoshihiro J. Akashi, Tomoo Harada, Eiji Ohtaki, Fumihiko Miyake. St. Marianna University School of Medicine, Kawasaki, Japan

**P1-146**

## **Assessment of Mitral Regurgitation by Quantitative and Semiquantitative Methods in Severe Aortic Stenosis. Its Relationship to LV Function**

Ricardo A. Migliore, Maria E. Adaniya, Miguel Barranco, Luis Mantilla, Guillermo Miramont, Diego Mantilla, Horacio Tamagusuku. Hospital Eva Perón, San Martín, Pcia de Buenos Aires, Argentina

# POSTER SESSION 1 (P1) IN THE EXHIBIT & POSTER HALL

**P1-147**

**Computational Fluid Dynamic Analysis of the Impact of Obtuse Leaflet Angulation On Isovelocity Surface Calculation of Orifice Area In Mitral Regurgitation**

Robert D. Rifkin<sup>1</sup>, Mark McQuilling<sup>2</sup>, Miranda Turlin<sup>2</sup>, Michael C. Wendl<sup>3</sup>. <sup>1</sup>Washington University School of Medicine, St. Louis, MO; <sup>2</sup>St. Louis University, St. Louis, MO; <sup>3</sup>Washington University, St. Louis, MO

**P1-148**

**Detection of Locations of Tricuspid Regurgitant Orifice Using 3-Dimensional Color Doppler Echocardiography and Its Correspondence to Directions of Tricuspid Regurgitant Jet by 2-Dimensional Color Doppler Echocardiography**

Manatomo Toyono<sup>1</sup>, Jun Oyamada<sup>2</sup>, Shunsuke Shimada<sup>1</sup>, Mieko Aoki-Okazaki<sup>1</sup>, Tsutomu Takahashi<sup>2</sup>, Takahiro Shiota<sup>3</sup>. <sup>1</sup>Akita University Hospital, Akita, Japan; <sup>2</sup>Akita University Graduate School of Medicine and Faculty of Medicine, Akita, Japan; <sup>3</sup>Cedars-Sinai Medical Center, Los Angeles, CA

**P1-149**

**Predictors of Survival in Patients With Chronic Aortic Regurgitation Not Receiving Aortic Valve Replacement**

Steven J. Lavine. University of Florida/Jacksonville, Jacksonville, FL  
*Author Disclosures: S. J.Lavine: 2 (GE Medical)*

**P1-150**

**Usefulness of Aortic Valve Calcium Scoring in Patients With Aortic Stenosis and Discordant Doppler-Echocardiographic Findings**

Marie-Annick Clavel<sup>1</sup>, David Messika-Zeitoun<sup>2</sup>, Philippe Pibarot<sup>3</sup>, Shivani Aggarwal<sup>1</sup>, Phillip Araoz<sup>1</sup>, Hector Michelena<sup>1</sup>, Caroline Cuffe<sup>2</sup>, Eric Larose<sup>3</sup>, Romain Capoulade<sup>3</sup>, Maurice Enriquez-Sarano<sup>1</sup>. <sup>1</sup>Mayo Clinic, Rochester, MN; <sup>2</sup>Hopital Bichat, Paris, France; <sup>3</sup>CRUICPQ, Québec, QC, Canada

**P1-151**

**Time to Peak Three-Dimensional Strain Significantly Delayed in Asymptomatic Patients With Severe Mitral Regurgitation Although LVEF>60%**

Haiyan Chen, Cuizhen Pan, Yulin Wang, Sun Pan, Chunsheng Wang, Xianhong Shu. Zhongshan Hospital, Fudan University, Shanghai, China

**P1-152**

**Should We Wait for Symptoms Prior to Aortic Valve Surgery in Elderly Patients With Severe Aortic Stenosis?**

Mohammad Q. Najib<sup>1</sup>, Patrick A. DeValeria<sup>1</sup>, Jhansi Ganji<sup>1</sup>, Roger L. Click<sup>2</sup>, Hari P. Chaliki<sup>1</sup>. <sup>1</sup>Mayo Clinic, Scottsdale, AZ; <sup>2</sup>Mayo Clinic, Rochester, MN

**P1-153**

**A Novel Echocardiographic Scoring System for Prediction of Improvement in Mitral Regurgitation After Cardiac Resynchronization Therapy**

Tetsuuri Onishi, Toshinari Onishi, Josef Marek, Mohamed Ahmed, Samir Saba, John Gorcsan, III. University of Pittsburgh, Pittsburgh, PA

*Author Disclosures: J. Gorcsan: 2 (GE, Toshiba, Medtronic, St. Jude Medical, Biotronik), 4 (GE, Toshiba)*

**P1-154**

**The Mitral Regurgitation Severity Index: A Novel Spectral Doppler-based Echocardiographic Tool for Mitral Regurgitation Severity Assessment**

Issa Alesh, Anas Alani, Ashraf Mostafa, Mehrdad Toosi, Deepti Bhandare, Hammam Zmily, Sandip Zalawadiya, Luis Afonso. Wayne State University, Detroit, MI

**P1-155**

**Getting a Click Out of Aortic Stenosis: Use of Spectral Clicks on Continuous Wave Doppler to Identify Severe Aortic Stenosis**

David Amstel, George Nijmeh, Abdul Rahman Safadi, Hui Xie, Joan Briller, Thomas Stamos, George Kondos, Lee Frazin. University of Illinois, Chicago, IL

**P1-156**

**Prediction of Paraprothetic Aortic Regurgitation in Patients After Transcatheter Aortic Valve Replacement**

Azusa Furugen, Hasan Jilaihawi, Takeji Saito, Jun Tanaka, Kenji Harada, Moody Makar, Wen Cheng, Jasminka Stegic, Niraj Doctor, Mamoo Nakamura, Mohammad Kashif, Tarun Chakravarty, Daniel Sullivan, Swaminatha V. Gurudevan, Kirsten Tolstrup, Robert J. Siegel, Takahiro Shiota, Raj Makkar. Cedars-Sinai Medical Center, Los Angeles, CA

*Author Disclosures: T. Shiota: 1 (Philips)*

**P1-157**

**Mitral Valve Leaflet Displacement in Rheumatic Mitral Stenosis: A Superior Measure of Percutaneous Mitral Valvuloplasty Outcome?**

Maria P. Nunes<sup>1</sup>, Luis M. Rincon<sup>2</sup>, Timothy C. Tan<sup>2</sup>, Rodrigo Do Lago<sup>3</sup>, Sammy Elmariah<sup>3</sup>, Ronan Margey<sup>3</sup>, Ignacio Cruz-Gonzalez<sup>3</sup>, Igor F. Palacios<sup>3</sup>, Judy Hung<sup>2</sup>. <sup>1</sup>Cardiac Ultrasound Lab, Massachusetts General Hospital, Harvard Medical School and Federal University of Minas Gerais, BH, Brazil, Boston, MA; <sup>2</sup>Cardiac Ultrasound Lab, Massachusetts General Hospital, Harvard Medical School, Boston, MA; <sup>3</sup>Cardiac Unit, Massachusetts General Hospital, Harvard Medical School, Boston, MA

# POSTER SESSION 1 (P1) IN THE EXHIBIT & POSTER HALL

**P1-158**

**Echocardiographic Assessment of Pressure-Valve Area Mismatched Aortic Stenosis in Patients With Normal Left Ventricular Function: Are They Identical or Different?**

Meng Meng, Dalane Kitzman, Heping Deng, Pamela Burgess, Min Pu. Wake Forest Baptist Health, Winston-Salem, NC

**P1-159**

**Echocardiographic Assessment of Left Ventricular and Left Atrial Function One Month After Transcatheter Aortic Valve Implantation and Surgical Bioprostheses in Severe Aortic Stenosis**

Kenji Harada, Takeji Saito, Jun Tanaka, Azusa Furugen, Hasan Jilaihawi, Raj Makkar, Takahiro Shiota. Cedars-Sinai Medical Center, Los Angeles, CA

*Author Disclosures: H. Jilaihawi: 2 (Edwards Lifesciences); R. Makkar: 2 (Edwards Lifesciences); T. Shiota: 1 (Philips Medical Systems)*

**P1-160**

**Prognostic Impact of Preoperative Echocardiography on Mortality or Major Morbidity in Patients Undergoing Aortic Valve Replacement**

Timothy C. Tan, Jonathan Afilalo, Luis M. Rincon, Aidan W. Flynn, Arvind K. Agnihotri, David M. Shahian, Michael H. Picard. Massachusetts General Hospital, Boston, MA

**P1-161**

**Pre-operative Left Ventricular Mass Index Predicts Post-operative Mortality After Surgical Aortic Valve Replacement in Severe Aortic Stenosis**

Helle G. Carstensen<sup>1</sup>, Charlotte Nordenberg<sup>1</sup>, Peter Sogaard<sup>1</sup>, Thomas Fritz-Hansen<sup>1</sup>, Jan Bech<sup>1</sup>, Soren Galatius<sup>1</sup>, Jan Skov Jensen<sup>1</sup>, Rasmus Mogelvang<sup>2</sup>. <sup>1</sup>Gentofte University Hospital, Hellerup, Denmark; <sup>2</sup>Rigshospitalet, Copenhagen, Denmark

**P1-162**

**The Prevalence, Determinants and Prognosis of Pulmonary Hypertension in Severe Isolated Aortic Stenosis and Preserved Left Ventricular Systolic Function**

Dvorah Holtzman<sup>1</sup>, Peter D-Y Rhee<sup>1</sup>, Florentina Petillo<sup>1</sup>, Simcha Pollack<sup>2</sup>, Nathaniel Reichek<sup>1</sup>, Eddy Barasch<sup>1</sup>. <sup>1</sup>St. Francis Hospital/SUNY at Stony Brook, Roslyn, NY; <sup>2</sup>St. Francis Hospital/SUNY at Stony Brook, Roslyn, NY

**P1-163**

**Left Ventricular Strain in Predicting Reduced Systolic Function in Aortic Regurgitation**

Vaida Mizarienė<sup>1</sup>, Diana Žaliaduonytė-Pekšienė<sup>2</sup>, Regina Jonkaitienė<sup>2</sup>, Jolanta Vaškelytė<sup>1</sup>, Renaldas Jurkevicius<sup>3</sup>. <sup>1</sup>Institute of Cardiology, Medical Academy, Lithuanian University of Health Sciences, Kaunas, Lithuania; <sup>2</sup>Department of Cardiology, Medical Academy, Lithuanian University of Health Sciences, Kaunas, Lithuania; <sup>3</sup>Lithuanian University of Health Sciences, Kaunas, Lithuania

**P1-164**

**Which Echocardiographic Variables Help Predict the Severity of Ischemic Mitral Regurgitation?**

Xin Zeng, Niamh Kilcullen, Victoria Piro, Lin Zou, Judy Hung. Massachusetts General Hospital, Boston, MA

**P1-165**

**Determinants of Ischemic Mitral Regurgitation: A Scoring System Based on Integrative MR Grading Criteria**

Xin Zeng, Niamh Kilcullen, Lin Zou, Judy Hung. Massachusetts General Hospital, Boston, MA

**P1-166**

**Annual Progression Rate and Incremental Factors for the Severity of Tricuspid Calcific Aortic Valve Stenosis in Japanese Population**

Eiji Yamashita<sup>1</sup>, Masaaki Takeuchi<sup>2</sup>, Kyoko Kaku<sup>2</sup>, Hiroyuki Toide<sup>1</sup>, Hiroki Okaniwa<sup>1</sup>, Nobuhiko Haruki<sup>2</sup>, Hidetoshi Yoshitani<sup>2</sup>, Hiroshi Hoshizaki<sup>1</sup>, Yutaka Otsuji<sup>2</sup>, Shigeru Oshima<sup>1</sup>. <sup>1</sup>Gunma Prefectural Cardiovascular Center, Maebashi, Japan; <sup>2</sup>The Second Department of Internal Medicine, University of Occupational and Environmental Health, Kitakyushu, Japan

**P1-167**

**Improving the Accuracy of Aortic Valve Area Calculations in Patients With Severe Aortic Stenosis: Location of the LVOT Diameter Measurement**

Omar K. Khalique, Elana Koss, Susheel Kodali, Mathew Williams, Martin Leon, Rebecca Hahn. Columbia University Medical Center, New York, NY

*Author Disclosures: S. Kodali: 2 (Edwards Lifesciences); M. Williams: 2 (Edwards Lifesciences); M. Leon: 2 (Edwards Lifesciences)*

**P1-168**

**A Novel and Simple Method for Visually Screening Aortic Stenosis With Pocket-sized Echocardiography**

Makoto Ito<sup>1</sup>, Yukio Abe<sup>1</sup>, Chiharu Tanaka<sup>1</sup>, Kazato Ito<sup>1</sup>, Hiroaki Matsumi<sup>1</sup>, Kazuki Mizutani<sup>1</sup>, Kei Yunoki<sup>1</sup>, Eiichirou Nakagawa<sup>1</sup>, Ryushi Komatsu<sup>1</sup>, Takahiko Naruko<sup>1</sup>, Akira Ito<sup>1</sup>, Kazuo Haze<sup>1</sup>, Minoru Yoshiyama<sup>2</sup>, Junichi Yoshikawa<sup>3</sup>. <sup>1</sup>Osaka City General Hospital, Osaka, Japan; <sup>2</sup>Osaka City University School of Medicine, Osaka, Japan; <sup>3</sup>Nishinomiya Watanabe Cardiovascular Center, Nishinomiya, Japan

**P1-169**

**Valve Characteristics in Patients Undergoing Transcatheter Aortic Valve Implantation Compared With Conventional Aortic Valve Replacement**

Cliona Kenny, Selvaraj Shanmuganathan, Tiago Fonseca, Olaf Wendler, Mark Monaghan. King's College Hospital, London, United Kingdom

*Author Disclosures: O. Wendler: 1, 4 (Edwards); M. Monaghan: 1 (Edwards, Philips)*



# POSTER SESSION 1 (P1) IN THE EXHIBIT & POSTER HALL

**P1-170**

## **Global Strain Analysis Using Three-Dimensional Speckle Tracking Imaging in Patients With Severe Aortic Stenosis and Preserved Left Ventricular Ejection Fraction**

Kazuto Yamaguchi, Saki Ito, Tomoko Adachi, Hiroyuki Yoshitomi, Eri Nitta, Hiroto Sato, Nobuhiro Kodani, Takashi Sugamori, Akihiro Endo, Nobuyuki Takahashi, Kazuaki Tanabe. Shimane University Faculty of Medicine, Izumo, Japan

## **Vascular Disease P1-171 through P1-183**

**P1-171**

## **Prevalence and Clinical Correlates of Popliteal Artery Atherosclerosis in Young Adults: The Strong Heart Study**

Ingrid Hriljac<sup>1</sup>, Mary J. Roman<sup>1</sup>, Barbara V. Howard<sup>2</sup>, Lyle G. Best<sup>3</sup>, Elisa T. Lee<sup>4</sup>, Richard B. Devereux<sup>1</sup>. <sup>1</sup>Weill Cornell Medical College, New York, NY; <sup>2</sup>MedStar Research Institute, Washington, DC; <sup>3</sup>Missouri Breaks Industries Res, Timber Lake, SD; <sup>4</sup>University of Oklahoma Health Sciences Center, Oklahoma City, OK

*Author Disclosures: R.B. Devereux: 2 (Merck)*

**P1-172**

## **Can Carotid Plaque Assessment Rule Out Significant Coronary Artery Disease? A Comparison of Plaque Quantification by 2D and 3D Ultrasound**

Amer M. Johri<sup>1</sup>, David Chitty<sup>1</sup>, Paul Malik<sup>1</sup>, Murray Matangi<sup>2</sup>, Parvin Mousavi<sup>1</sup>, Andrew Day<sup>1</sup>, Chris Simpson<sup>1</sup>. <sup>1</sup>Queen's University, Kingston, ON, Canada; <sup>2</sup>Kingston Heart Clinic, Kingston, ON, Canada

**P1-173**

## **Carotid Remodeling in Preeclampsia by Analysis With Echo-Tracking System**

Li-Jun Yuan, Yun-You Duan, Dan Xue, Hua-Guang Yang, Tie-Sheng Cao, Ning Zhou. Tangdu Hospital, Xi'an, China

**P1-174**

## **Traditional and Three-Dimensional Transcranial Color Doppler Sonography in Middle Cerebral Artery Stenting**

Yun-You Duan, Jian-Mei Chen, Xi Liu, Jia Wang, Zhen-Wei Zhao, Li-Jun Yuan. Tangdu Hospital, Xi'an, China

**P1-175**

## **Prevalence and Risk Factor Correlates of Popliteal Artery Atherosclerosis: The Strong Heart Study**

Ingrid Hriljac<sup>1</sup>, Mary J. Roman<sup>1</sup>, Barbara V. Howard<sup>2</sup>, Lyle G. Best<sup>3</sup>, Elisa T. Lee<sup>4</sup>, Richard B. Devereux<sup>1</sup>. <sup>1</sup>Weill Cornell Medical College, New York, NY; <sup>2</sup>MedStar Research Institute, Washington, DC; <sup>3</sup>Missouri Breaks Industries Res, Timber Lake, SD; <sup>4</sup>University of Oklahoma Health Sciences Center, Oklahoma City, OK

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**P1-176**

## **Effect of Statin Therapy on Regression of Carotid Artery Plaque Assessed by High-Resolution Color Mapping Method Based on Integrated Backscatter**

Mika Bando, Hirotsugu Yamada, Susumu Nishio, Rina Tamai, Noriko Tomita, Shuji Hayashi, Junko Hotchi, Maya Nakagawa, Daichi Hirota, Yukina Hirata, Sachiko Bando, Takayuki Ise, Toshiyuki Niki, Koji Yamaguchi, Takashi Iwase, Yoshio Taketani, Takeshi Soeki, Tetsuzo Wakatsuki, Masataka Sata. Tokushima University Hospital, Tokushima, Japan

**P1-177**

## **Evaluation of Carotid Arterial Elasticity in Patients With Coronary Artery Disease by Ultrasound Radio-Frequency Technique**

Yun-You Duan, Yi Wang, Li Zhang, Li-Jun Yuan, Lei Xu, Yi-Lin Yang, Tie-Sheng Cao. Tangdu Hospital, Xi'an, China

**P1-178**

## **Preliminary Study on the Correlation Between Femoral Elasticity and Cardiac Function in Patients With Lower Extremity Atherosclerotic Disease**

Linyuan Wan, Mingxing Xie, Xinfang Wang. Union Hospital of Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China

**P1-179**

## **Systolic Time Intervals Measured With Carotid Wall Speckle Tracking in Diabetics and Hypertensives**

Eric Y. Yang<sup>1</sup>, Gerd Brunner<sup>1</sup>, Hisham Dokainish<sup>2</sup>, Salim S. Virani<sup>1</sup>, Nasser Lakkis<sup>1</sup>, Arunima Misra<sup>1</sup>, Marti L. McCulloch<sup>3</sup>, Addison A. Taylor<sup>1</sup>, George E. Taffet<sup>1</sup>, Craig J. Hartley<sup>1</sup>, Joel D. Morrisett<sup>1</sup>, Christie M. Ballantyne<sup>1</sup>, Sherif F. Nagueh<sup>3</sup>, Vijay Nambi<sup>1</sup>. <sup>1</sup>Baylor College of Medicine, Houston, TX; <sup>2</sup>McMaster University, Hamilton, ON, Canada; <sup>3</sup>Methodist DeBakey Heart and Vascular Center, the Methodist Hospital, Houston, TX

# POSTER SESSION 1 (P1) IN THE EXHIBIT & POSTER HALL

## **P1-180**

### **Mobility of Symptomatic Plaque Core Exceeds Relative Motion of Plaque Cap and Base**

Oleg B. Kerbikov<sup>1</sup>, Anna I. Machulina<sup>1</sup>, Sergey A. Voynov<sup>2</sup>, Alla B. Hadzegova<sup>3</sup>, Evgeny L. Shkolnik<sup>3</sup>, Yury A. Vasyuk<sup>3</sup>. <sup>1</sup>City Clinical Hospital #14, Moscow, Russian Federation; <sup>2</sup>Russian State Medical University, Moscow, Russian Federation; <sup>3</sup>Moscow State University of Medicine and Dentistry, Moscow, Russian Federation

## **P1-181**

### **Intimal Carotid Evaluation Before Echocardiography Reveals Global Vascular Risk**

Murray F. Matangi<sup>1</sup>, David W. J. Armstrong<sup>1</sup>, Amanda Dillon<sup>1</sup>, Amer Johri<sup>2</sup>, Daniel Brouillard<sup>1</sup>. <sup>1</sup>Kingston Heart Clinic, Kingston, ON, Canada; <sup>2</sup>Queens University Cardiology, Kingston, ON, Canada

## **P1-182**

### **Carotid Artery Stiffness and Heart Function in Hypertensive Patients**

Hye-Sun Seo<sup>1</sup>, In Hyun Jung<sup>2</sup>, Nae-hee Lee<sup>1</sup>, Tae-Hoon Ha<sup>1</sup>, Jon Suh<sup>1</sup>, Jae Huk Choi<sup>1</sup>, Yoon Haeng Cho<sup>1</sup>, Tae-soo Kang<sup>3</sup>. <sup>1</sup>Soonchunhyang University Hospital, Bucheon, Republic of Korea; <sup>2</sup>Division of Cardiology, Department of Internal Medicine, Sejong General Hospital, Bucheon, Republic of Korea; <sup>3</sup>Dankook University Hospital Cardiology Division, Cheonan, Republic of Korea

## **P1-183**

### **Carotid Intima-Media Thickness in Master Athletes**

Niccolò Gori, Jr., Tempesti Giulio, Alice Bartolini, Anania Giuseppe, Laura Stefani, Loira Toncelli, Maria Concetta Robertina Vono, Giorgio Galanti. Sports Medicine Centre, Florence, Italy

# MONDAY HIGHLIGHTS

## Council on Vascular Ultrasound Meeting & Awards Presentation

8:30 am – 8:50 am in Chesapeake 4-6, Level 2

(Non-CME) All conference attendees with an interest in vascular ultrasound are invited to attend this meeting, which will provide an overview of council activities and opportunities for getting involved. In addition, the 2011 travel award winners will be recognized during this time.

## 2012 Arthur E. Weyman Young Investigator's Award Competition & 13th Annual Feigenbaum Lecture

10:45 am – 12:15 pm in Potomac A, Level 2

The 13th Annual ASE Scientific Sessions Feigenbaum Lecture will be given by **Philippe Pibarot, DVM, PhD, FASE, of the Laval University in Quebec, Canada.** The Feigenbaum Lecturer was named in honor of the founder and the first president of ASE, Harvey Feigenbaum, MD, FASE. This lectureship is awarded to a young investigator in recognition of significant contributions to research in the field of echocardiography as well as his or her potential to continue at a high level of achievement. Dr. Pibarot will present his lecture, entitled "Doppler Echocardiography is the Cornerstone of the Management of Aortic Stenosis."

The ASE Scientific Sessions Program Committee is pleased to recognize the finalists of the 2012 Arthur E. Weyman Young Investigator's Award Competition, supported by the National Board of Echocardiography™ (NBE) in honor of their first president, Arthur E. Weyman, MD, FASE.

## ASE/JSE Joint Session

Clinical Applications of Speckle Tracking for Assessment of Myocardial Function

4:00 pm – 5:30 pm in Potomac D, Level 2

Understanding the basic principles of Speckle tracking, the physiological parameters STE can measure, and the most important findings described in the recent literature

## Fireside Chat: Norman Silverman

5:30 pm - 6:30 pm in Potomac B, Level 2

The Fireside Chat, where one of the luminaries of pediatric echo is interviewed, will feature Dr. Norman Silverman this year. He has been a pioneer and thought leader in the field for many years and will share his thoughts and accumulated wisdom in an interview format with Dr Wayne Tworetzky.

## "3 of a Kind: An Echo Game"

6:00 pm – 7:00 pm in Potomac A, Level 2

If you missed this in 2011, don't miss it in 2012. Hosted by David B. Adams, RCS, RDCS, FASE, and Randy Martin, MD, FASE, pick your team and hang on to your Audience Response System pad, as this raucous, but friendly, competition includes the entire audience! During this entertaining session, you will laugh while learning about a variety of diseases in an educational format that involves audience participation. It is promised to be a lively and educational experience for all.

## Monday Committee Meetings

These meetings are by invitation only.

### 7:00 am - 9:00 am

- Research Committee  
*Potomac 5*

### 7:30 am - 8:30 am

- 3D Editorial Board  
*Chesapeake 10*

### 8:00 am - 9:00 am

- Finance Committee  
*Potomac 6*

### 12:30 pm - 1:30 pm

- ASCeXAM Product Task Force  
*Potomac 5*

### 2:00 pm - 4:00 pm

- Strain Standardization Task Force  
*Chesapeake 11/12*

### 2:00 pm - 3:30 pm

- Education Committee  
*Potomac 5*

### 2:30 pm - 3:30 pm

- International Sonographer Training Task Force  
*Potomac 6*

### 3:00 pm - 4:00 pm

- Bylaws and Ethics Committee  
*Chesapeake 10*

### 3:30 pm - 4:30 pm

- Scientific Sessions Task Force  
*Potomac 5*

# MONDAY, JULY 2, 2012

## SCHEDULE

### 7:00 am - 8:30 am

**TB** **3D Applications in Clinical Practice** - Chesapeake 1-3  
Chair: R. Lang Co-Chair: N. Pandian

#### 7:00 am - 7:20 am

- Is 3D a Necessity in a Modern Echo Lab? N. Pandian

#### 7:20 am - 7:40 am

- Incorporating 3D into Clinical Practice R. Lang

#### 7:40 am - 7:50 am

- Case Presentation: TTE Right Ventricular Volumes and Function S. Kort

#### 7:50 am - 8:00 am

- Case Presentation: Use in Stress Echo M. Ahmed

#### 8:00 am - 8:10 am

- Case Presentation: Use in Prosthetic Valve Assessment/Mitral Stenosis W. Tsang

#### 8:10 am - 8:30 am

- Questions and Answers

### 7:00 am - 8:30 am

**TB** **Advanced Applications of Diastolic Function Assessment-**  
Chesapeake 4-6  
Chair: J. Plana Co-Chair: J. Seward

#### 7:00 am - 7:20 am

- What Every Lab Should Do: Using Ejection Fraction, Left Atrial Volume, Mitral Inflow and Mitral Annular Velocity S. Lester

#### 7:20 am - 7:40 am

- How to and Pitfalls: Left Atrial Volume, Mitral Inflow and Mitral Annular Velocity J. Seward

#### 7:40 am - 7:50 am

- Case Presentation: Heart Failure with Preserved Ejection Fraction A. Klein

#### 7:50 am - 8:00 am

- Case Presentation: Diastolic Function in Stress Echo J. Ha

#### 8:00 am - 8:10 am

- Case Presentation: Does Strain/Strain Rate Add? J. Plana

#### 8:10 am - 8:30 am

- Questions and Answers

### 7:00 am - 8:30 am

**TB** **Prosthetic Valve Dysfunction** - Chesapeake 7-9  
Chair: W. Zoghbi Co-Chair: F. Miller

#### 7:00 am - 7:20 am

- ASE Guideline Recommendations for Assessment of Prosthetic Valve Dysfunction W. Zoghbi

#### 7:20 am - 7:30 am

- Case Presentation: Periprosthetic Mitral Regurgitation F. Asch

#### 7:30 am - 7:40 am

- Case Presentation: Perivalvular Aortic Regurgitation K. Kurrelmeyer

#### 7:40 am - 7:50 am

- Case Presentation: Prosthetic Valve Thrombosis Z. Wang

#### 7:50 am - 8:00 am

- Case Presentation: Prosthesis Patient Mismatch M. Stoddard

#### 8:00 am - 8:10 am

- Case Presentation: Dehiscence/Endocarditis L. Gillam

#### 8:10 am - 8:30 am

- Questions and Answers

### 8:30 am-9:30 am

**How to Get Your Research Published** (Non-CME) - Chesapeake 1-3  
Chair: A. Pearlman

### 8:30 am - 8:50am

**VI** **Council on Vascular Ultrasound Meeting and Awards Presentation** (Non-CME) - Chesapeake 4-6  
Chair: V. Nambi

### 8:30 am - 10:00 am

**CL** **Aortic Disease** - Potomac C  
Chair(s): A. Evangelista, S. Goldstein

#### 8:30 am - 8:40 am

- Aortic Disease A. Evangelista

#### 8:40 am - 8:45 am

- Aortic Disease Questions and Answers

#### 8:45 am - 8:55 am

- 3-D Echo Guided Valve-Sparing Root Operation: How and Outcome(s) M. Vannan

#### 8:55 am - 9:00 am

- Questions and Answers

#### 9:00 am - 9:10 am

- Intramural Hematoma S. Goldstein

#### 9:10 am - 9:15 am

- Questions and Answers

#### 9:15 am - 9:25 am

- Ascending Thoracic Aortic Aneurysm: When to Operate? M. Main

#### 9:25 am - 9:30 am

- Questions and Answers

#### 9:30 am - 9:40 am

- Marfan Syndrome F. Asch

#### 9:40 am - 9:45 am

- Questions and Answers

#### 9:45 am - 9:55 am

- Bicuspid Aortopathy B. Pirat

#### 9:55 am - 10:00 am

- Questions and Answers

### 8:30 am - 10:00 am

**CS** **How To: Contrast Echocardiography** - National Harbor 4/5  
Chair(s): R. Davis, M. Strachan

#### 8:30 am - 8:40 am

- ASE Contrast Guidelines S. Maisey

#### 8:40 am - 8:50 am

- Tips and Tricks: System Settings and Contrast Administration J. Odabashian

#### 8:50 am - 9:15 am

- Image Troubleshooting and Artifacts B. Kane

#### 9:15 am - 9:35 am

- Stress Echo and Contrast with Case Studies B. Doldt

#### 9:35 am - 9:55 am

- Masses with Case Studies Speaker M. Strachan

#### 9:55 am - 10:00 am

- Questions and Answers

# MONDAY, JULY 2, 2012

## SCHEDULE

### 8:30 am - 10:00 am

- FI** **Quantitation of Regurgitation: The Leading Labs Share Their Secrets** - National Harbor 2/3  
Chair(s): R. Levine, R. Kasliwal

#### 8:30 am - 8:45 am

- Quantitation of Aortic Regurgitation: How to and Why *M. Quinones*

#### 8:45 am - 9:00 am

- Mitral Regurgitation Quantitation: What We Really Do? *L. Rodriquez*

#### 9:00 am - 9:15 am

- Pulmonary Regurgitation and Tricuspid Regurgitation Quantitation: What Do We Really Know? *N. Nanda*

#### 9:15 am - 9:30 am

- Integrating Doppler Quantitation and Left Ventricular Volumes for Timing of Surgery in Aortic Regurgitation and Mitral Regurgitation *Y. Kim*

#### 9:30 am - 9:45 am

- Should We Quantify Regurgitation on Every Patient? *M. Vannan*

#### 9:45 am - 10:00 am

- Questions and Answers

### 8:30 am - 10:00 am

- PC** **Advanced Techniques and Multimodality Imaging: Importance in the Adult with Congenital Heart Disease-** Potomac B  
Chair: J. Lawrenson Co-Chair: J. Kovalchin

#### 8:30 am - 8:50 am

- The Adult Patient after Arterial Switch Operation *N. Ammash*

#### 8:50 am - 9:10 am

- The Adult Fontan Patient *A. Valente*

#### 9:10 am - 9:30 am

- Imaging Assessment of Percutaneous Pulmonary Valve Intervention *J. Marek*

#### 9:30 am - 9:50 am

- Aortic Coarctation in the Adult Congenital Patient *D. Parra*

#### 9:50 am - 10:00 am

- Questions and Answers

### 8:30 am - 10:00 am

- S** **Right Heart Assessment** - Potomac D  
Chair: L. Gillam Co-Chair: L. Rudski

#### 8:30 am - 8:42 am

- The Clinical Impact of Right Heart Function and Dysfunction *L. Gillam*

#### 8:42 am - 8:54 am

- Assessing Right Ventricular Size and Function: ASE Guidelines *L. Rudski*

#### 8:54 am - 9:06 am

- New Methods of Assessing Right Ventricular Function *T. Edvardsen*

#### 9:06 am - 9:16 am

- P2-135: Right Ventricular Global Longitudinal Strain by Two-dimensional Speckle Tracking Echocardiography Correlates With Conventional Echocardiographic Determinants of Severity in Pulmonary Hypertension *M. Park*

#### 9:16 am - 9:28 am

- Tricuspid Stenosis and Tricuspid Regurgitation *N. Schiller*

#### 9:28 am - 9:40 am

- Pulmonary Stenosis and Pulmonary Regurgitation *W. Lai*

#### 9:40 am - 9:52 am

- Timing and Assessment of Pulmonic Valve Replacement *S. Phillips*

#### 9:52 am - 10:00 am

- Questions and Answers

### 8:50 am - 10:00 am

- VI** **Carotid Imaging: The Basics** - Chesapeake 4-6  
Chair: N. Hamburg, Co-Chair: V. Nambi

#### 8:50 am - 9:05 am

- How Do You Scan the Carotids? The Basics *S. Perese*

#### 9:05 am - 9:20 am

- Interpreting a Carotid Ultrasound: Approach and Pitfalls *E. Mohler*

#### 9:20 am - 9:35 am

- Management of Carotid Artery Disease: When and How Often Do You Screen, When Do You Refer and How Do You Treat? *R. Pande*

#### 9:35 am - 9:50 am

- Using Carotid Imaging in Cardiovascular Risk Stratification *A. Johri*

#### 9:50 am - 10:00 am

- Questions and Answers

### 10:45 am - 12:15 pm

- S** **2012 Arthur E. Weyman Young Investigator's Award Competition and 13th Annual Feigenbaum Lecture-** Potomac A  
Chair: J. Hung Co-Chair: J. Lindner  
Judges: J. Thomas, K. Yoshida, A. Weyman, S. Shernan, M. Quinones, L. Badano

#### 10:45 am - 10:50 am

- Welcome and Introduction of Judges *J. Hung*

#### 10:50 am - 11:05 am

- YIA-1: Ultrasound-Mediated Anti-Apoptotic Gene Therapy For Doxorubicin Cardiomyopathy *P. Lee*

#### 11:05 am - 11:20 am

- YIA-2: Designing Microbubble for Long Term *in vivo* Stem Cell Tracking Using Contrast Ultrasound *H. Fu*

#### 11:20 am - 11:35 am

- YIA-3: Visualization and Assessment of Depolarization Events With Ultrasound *C. Moore*

#### 11:35 am - 11:50 am

- YIA-4: Association of Left Atrial Dysfunction With Abnormal LV Filling Pressure Response to Exercise *K. Kusunose*

#### 11:50 am - 12:10 pm

- 13th Annual Feigenbaum Lecture Speaker *P. Pibarot*

#### 12:10 pm - 12:12 pm

- Feigenbaum Lecture Plaque Presentation *H. Feigenbaum*

#### 12:12 pm - 12:15 pm

- Announcement of the Young Investigator's Award Winner *J. Hung*

### 1:45 pm - 3:15 pm

- CS** **How To: Right Heart Assessment** - National Harbor 4/5  
Chair(s): L. Rudski, P. Coon

#### 1:45 pm - 2:00 pm

- Right Ventricular Quantification: ASE Guidelines *L. Rudski*

#### 2:00 pm - 2:15 pm

- 3D Right Ventricular Acquisition and Quantification *A. Armour*

#### 2:15 pm - 2:30 pm

- Assessment of Tricuspid Valve and Pulmonary Valve *P. Coon*

#### 2:30 pm - 2:45 pm

- Pulmonary Hypertension Progression with Case Studies *M. Park*

#### 2:45 pm - 3:00 pm

- Right Heart - Differential Diagnosis with Case Studies *G. Kane*

#### 3:00 pm - 3:15 pm

- Questions and Answers

# MONDAY, JULY 2, 2012

## SCHEDULE

### 1:45 pm - 3:15 pm

**CL** Pericardial Disease - Potomac C  
Chair(s): B. Hoit, R. Kerber

#### 1:45 pm - 1:55 pm

- Diagnosis of Acute Pericarditis - Is There a Role for Echocardiography? *M. Scherrer-Crosbie*

#### 1:55 pm - 2:00 pm

- Questions and Answers

#### 2:00 pm - 2:10 pm

- Pericardial Effusion and Cardiac Tamponade *R. Kerber*

#### 2:10 pm - 2:15 pm

- Questions and Answers

#### 2:15 pm - 2:25 pm

- Echo-Guided Pericardiocentesis *J. Seward*

#### 2:25 pm - 2:30 pm

- Questions and Answers

#### 2:30 pm - 2:40 pm

- Atypical Presentations of Cardiac Tamponade *B. Hoit*

#### 2:40 pm - 2:45 pm

- Questions and Answers

#### 2:45 pm - 2:55 pm

- Constrictive Pericarditis *T. Abraham*

#### 2:55 pm - 3:00 pm

- Questions and Answers

#### 3:00 pm - 3:10 pm

- Distinguishing Pericardial, Pleural and Ascitic Fluid *M. Wood*

#### 3:10 pm - 3:15 pm

- Questions and Answers

### 1:45 pm - 3:15 pm

**FI** Heart Failure and Cardiomyopathy - National Harbor 2/3  
Chair(s): L. Gillam, D. Kwon

#### 1:45 pm - 2:00 pm

- 3D Echo: How to Apply for DCM and Ischemic Cardiomyopathy *J. Kwan*

#### 2:00 pm - 2:15 pm

- Hypertrophic Cardiomyopathy *H. Rakowski*

#### 2:15 pm - 2:30 pm

- Cardiac Amyloidosis and Fabry's Disease *M. Grogan*

#### 2:30 pm - 2:45 pm

- Myocarditis: Contemporary Imaging Approach *J. Passeri*

#### 2:45 pm - 3:00 pm

- Stress Cardiomyopathy: Beyond the Case Reports *C. Tei*

#### 3:00 pm - 3:15 pm

- Questions and Answers

### 1:45 pm - 3:15 pm

**PC** Fetal Echo: Key Factors Predicting Outcome in Congenital Heart Lesions - Potomac B  
Chair: M. Puchalski Co-Chair: J. Rychik

#### 1:45 pm - 2:05 pm

- The Fetus with Hypoplastic Left Heart Syndrome *J. Rychik*

#### 2:05 pm - 2:25 pm

- The Fetus with Ebstein's Anomaly *W. Tworetzky*

#### 2:25 pm - 2:45 pm

- The Fetus with Tetralogy of Fallot with Absent Pulmonary Valve *C. Fifer*

#### 2:45 pm - 3:05 pm

- Fetal Heterotaxy Syndrome *M. Donofrio*

#### 3:05 pm - 3:15 pm

- Questions and Answers

### 1:45 pm - 3:15 pm

**R** Rapid Fire Oral Abstracts: Valvular Heart Disease: It All Starts with the Echo - Chesapeake 1-3  
Chair: S. Mankad; Co-Chairs: R. Levine, W. Stewart

#### 1:45 pm - 1:50 pm

- P1-122: Assessment of Longitudinal Myocardial Mechanics in Patients With Degenerative Mitral Valve Regurgitation Predicts Post-Operative Deterioration of LV Systolic Function *D. Pandis*

#### 1:50 pm - 1:55 pm

- Questions and Answers

#### 1:55 pm - 2:00 pm

- P1-02: The Spectrum of Mitral Apparatus Abnormalities in Hypertrophic Cardiomyopathy - It is More Than Systolic Anterior Motion and Outflow Gradient *A. Gonzalez Gonzalez*

#### 2:00 pm - 2:05 pm

- Questions and Answers

#### 2:05 pm - 2:10 pm

- P1-124: The Resting Color Doppler Three-Dimensional Echocardiography-Derived Vena Contracta Length Predicts Exercise-Induced Increase of Mild to Moderate Functional Mitral Regurgitation in Systolic Heart Failure *J. Vecera*

#### 2:10 pm - 2:15 pm

- Questions and Answers

#### 2:15 pm - 2:20 pm

- P1-123: Echocardiographic Predictors of Mortality to Risk Stratify Patients With Unoperated Severe Aortic Stenosis *M. Gajjar*

#### 2:20 pm - 2:25 pm

- Questions and Answers

#### 2:25 pm - 2:30 pm

- P1-125: The Valvuloarterial Impedance as a Prognostic Factor in Patients With Aortic Stenosis *S. Park*

#### 2:30 pm - 2:35 pm

- Questions and Answers

#### 2:35 pm - 2:40 pm

- P1-51: Intraprocedural Complications of Transcatheter Aortic Valve Implantation: A Retrospective Review of Transesophageal Echocardiography Images *A. Saini*

#### 2:40 pm - 2:45 pm

- Questions and Answers

#### 2:45 pm - 2:50 pm

- P1-133: Prevalence and Characteristics of Patients With Clinical Improvement but not Significant Right Ventricular Reverse Remodeling After Corrective Tricuspid Regurgitation Surgery *J. Kim*

#### 2:50 pm - 2:55 pm

- Questions and Answers

#### 2:55 pm - 3:00 pm

- P2-42: Three-Dimensional Color Doppler Echocardiography Versus Two-Dimensional Derived Method in the Quantification of Tricuspid Regurgitation Orifice Area *T. Chen*

#### 3:00 pm - 3:05 pm

- Questions and Answers

#### 3:05 pm - 3:10 pm

- P2-01: Papillary Fibroelastoma: An Unexpectedly Common Cardiac Mass *K. Klarich*

#### 3:10 pm - 3:15 pm

- Questions and Answers

# MONDAY, JULY 2, 2012

## SCHEDULE

### 1:45 pm - 3:15 pm

- S** **Pulmonary Hypertension** - Potomac D  
Chair: N. Schiller Co-Chair: S. Lester

#### 1:45 pm - 1:57 pm

- The Changing Prognosis of Pulmonary Hypertension *A. Frost*

#### 1:57 pm - 2:09 pm

- The Differential Diagnosis of Pulmonary Hypertension: Role of Echocardiography *J. Gardin*

#### 2:09 pm - 2:21 pm

- Right Heart Hemodynamics: Echocardiographic Measurements *N. Schiller*

#### 2:21 pm - 2:31 pm

- Controversy in Right Heart Hemodynamics Debate: Echocardiography Can Replace Right Heart Cath *B. Ristow*

#### 2:31 pm - 2:41 pm

- Controversy in Right Heart Hemodynamics Debate: Echocardiographic Reliability Is Limited *A. Labovitz*

#### 2:41 pm - 2:53 pm

- Prognostic Importance of Echocardiography in Pulmonary Hypertension *S. Nakatani*

#### 2:53 pm - 3:05 pm

- Echocardiography in Pulmonary Embolism: Illustrative Cases *S. Solomon*

#### 3:05 pm - 3:15 pm

- Questions and Answers

### 1:45 pm - 3:15 pm

- S** **Role of Echocardiography in Heart Failure with Reduced Ejection Fraction** - Potomac A  
Chair: J. Estep Co-Chair: R. Grimm

#### 1:45 pm - 1:57 pm

- Clinical Perspective: The Changing Faces of Systolic Heart Failure *J. Estep*

#### 1:57 pm - 2:09 pm

- Achieving Precision in Measuring Left Ventricular Systolic Function with Echocardiography *T. Edvardsen*

#### 2:09 - 2:21 pm

- Incorporating Left Ventricular Mechanics Into the Assessment of Left Ventricular Function *O. Smiseth*

#### 2:21 - 2:33 pm

- Recognizing Treatable Non-ischemic Cardiomyopathies *R. Grimm*

#### 2:33 pm - 2:45 pm

- When Does MRI Add Clinical Value in the Assessment of the Left Ventricle *D. Shah*

#### 2:45 pm - 2:52 pm

- Case Presentation: Echo and MRI as Complimentary Techniques in Stress-Induced Cardiomyopathy *M. Garcia*

#### 2:52 pm - 2:59 pm

- Case Presentation: Non-Compaction Cardiomyopathy *R. Ronderos*

#### 2:59 pm - 3:15 pm

- Questions and Answers

### 1:45 pm - 3:15 pm

- VI** **Carotid Imaging: Advanced** - Chesapeake 4-6  
Chair: N. Hamburg Co-Chair: S. Kim

#### 1:45 pm - 2:00 pm

- Carotid Ultrasound Manifestation of Cardiac Disease: Doppler Signs Not to Miss *J. Meadows*

#### 2:00 pm - 2:15 pm

- Carotid Duplex 201: Beyond Atherosclerotic Vascular Disease *S. Kim*

#### 2:15 pm - 2:30 pm

- Carotid Imaging After Revascularization *P. Sobieszczuk*

#### 2:30 pm - 2:45 pm

- Carotid Strain *E. Yang*

#### 2:45 pm - 3:15 pm

- Case-Based Discussion: Putting It All Together *N. Hamburg, R. Eberhardt*

### 4:00 pm - 5:30 pm

- CL** **Cardiomyopathy** - Potomac C  
Chair(s): Z Wang, M. Wood

#### 4:00 pm - 4:10 pm

- Chemotherapy-Induced Cardiomyopathy *J. Banchs*

#### 4:10 pm - 4:15 pm

- Questions and Answers

#### 4:15 pm - 4:25 pm

- Hypertrophic Cardiomyopathy *M. Wood*

#### 4:25 pm - 4:30 pm

- Questions and Answers

#### 4:30 pm - 4:40 pm

- Amyloid Heart Disease *T. Abraham*

#### 4:40 pm - 4:45 pm

- Questions and Answers

#### 4:45 pm - 4:55 pm

- Non-compaction Cardiomyopathy *H. Michelena*

#### 4:55 pm - 5:00 pm

- Questions and Answers

#### 5:00 pm - 5:10 pm

- Tako-Tsubo Cardiomyopathy (Classic) *Z. Wang*

#### 5:10 pm - 5:15 pm

- Questions and Answers

#### 5:15 pm - 5:25 pm

- Tako-Tsubo Cardiomyopathy (Variants) *H. Yamada*

#### 5:25 pm - 5:30 pm

- Questions and Answers

### 4:00 pm - 5:30 pm

- CS** **Assessing Pericardial Diseases and Masses** - National Harbor 4/5  
Chair(s): H. Dokainish, R. Rigling

#### 4:00 pm - 4:15 pm

- Assessing Pericardial Effusion and Tamponade *D. McCullough*

#### 4:15 pm - 4:30 pm

- Constriction versus Restriction with Case Studies *P. Peters*

#### 4:30 pm - 4:45 pm

- Infiltrating the Pericardium: Tumors and Cysts *H. Dokainish*

#### 4:45 pm - 5:00 pm

- Benign Cardiac Masses with Case Studies *R. Palma*

#### 5:00 pm - 5:15 pm

- Malignant Cardiac Masses with Case Studies *R. Rigling*

#### 5:15 pm - 5:30 pm

- Questions and Answers

# MONDAY, JULY 2, 2012

## SCHEDULE

### 4:00 pm - 5:30 pm

**PC Hemodynamic Assessment of the Fetus** - Potomac B  
Chair: N. Ayres Co-Chair: J. Huhta

#### 4:00 pm - 4:20 pm

- Assessment of Hemodynamics by Fetal MRI *M. Seed*

#### 4:20 pm - 4:40 pm

- The Fetus with Transposition of the Great Arteries *N. Silverman*

#### 4:40 pm - 5:00 pm

- The Latest on Twin Twin Transfusion Syndrome *J. Cnota*

#### 5:00 pm - 5:20 pm

- Hemodynamic Assessment in Non-Cardiac Fetal Interventions  
*A. Moon-Grady*

#### 5:20 pm - 5:30 pm

- Questions and Answers

### 4:00 pm - 5:30 pm

**S Clinical Applications of Speckle Tracking for Assessment of Myocardial Function (Joint JSE Session)** - Potomac D  
Chair: K. Yoshida Co-Chair: V. Mor-Avi

#### 4:00 pm - 4:14 pm

- Speckle Tracking Echocardiography (STE): Basic Principles  
*V. Mor-Avi*

#### 4:14 pm - 4:28 pm

- Validation of 3D Speckle Tracking *T. Ishizu*

#### 4:28 pm - 4:42 pm

- STE for Dysynchrony and CRT *J. Gorcsan*

#### 4:42 pm - 4:56 pm

- STE for Myocardial Function in Patients with Valvular Heart Disease *K. Yoshida*

#### 4:56 pm - 5:10 pm

- 3D Speckle Tracking for Diagnosis of Ischemia *M. Takano*

#### 5:10 pm - 5:24 pm

- Speckle Tracking for Right Ventricular Function *T. Shiota*

#### 5:24 pm - 5:30 pm

- Questions and Answers

### 4:00 pm - 5:15 pm

**S Heart Failure and Normal Ejection Fraction** - Potomac A  
Chair: G. Whalley Co-Chair: D. Kitzman

#### 4:00 pm - 4:12 pm

- The Spectrum of Heart Failure and Normal Ejection Fraction: From Exercise Intolerance to Flash Pulmonary Edema *D. Kitzman*

#### 4:12 pm - 4:24 pm

- Basic Hemodynamics of Diastolic Dysfunction and Diastolic Heart Failure *O. Smiseth*

#### 4:24 pm - 4:36 pm

- What Clinically Useful Information Does Echocardiography Add Beyond Ejection Fraction *J. Oh*

#### 4:36 pm - 4:46 pm

- P2-158: Diastolic Electromechanical Coupling: Association of the Electrocardiographic T-peak to T-end Interval With Echocardiographic Markers of Diastolic Dysfunction *S. Shah*

#### 4:46 pm - 4:58 pm

- What the Atrium Can Tell You About the Left Ventricle *J. Seward*

#### 4:58 pm - 5:10 pm

- Case Presentation: Role of Echocardiography in Guiding Management of Patients with Heart Failure and Normal Ejection Fraction *C. Appleton*

#### 5:10 pm - 5:15 pm

- Questions and Answers

### 4:00 pm - 5:30 pm

**VI Beyond the Carotids** - Chesapeake 4-6  
Chair: M. Salameh Co-Chair: E. Mohler

#### 4:00 pm - 4:18 pm

- Scanning, Screening and Managing Abdominal Aneurysm  
*S. Perese*

#### 4:18 pm - 4:38 pm

- Venous Disease for the Cardiologist *M. Salameh*

#### 4:38 pm - 4:56 pm

- Vascular Assistance to the Cardiologist: Assessing and Managing Access Complications *P. Sobieszczyk*

#### 4:56 pm - 5:14 pm

- The Vascular Lab in Peripheral Arterial Disease Detection and Management *J. Meadows*

#### 5:14 pm - 5:30 pm

- Questions and Answers

### 4:00 pm - 5:30 pm

**FI Contrast Fundamentals** - National Harbor 2/3  
Chair(s): S. Kaul, V. Nambi

#### 4:00 pm - 4:15 pm

- Indications for Contrast Use *S. Mulvagh*

#### 4:15 pm - 4:30 pm

- Improving Work Flow with Contrast *B. Doldt*

#### 4:30 pm - 4:45 pm

- Identification of Masses *J. Kirkpatrick*

#### 4:45 pm - 5:00 pm

- Vascular Uses and Indications *V. Nambi*

#### 5:00 pm - 5:15 pm

- Stress Testing - Does Everyone Need Contrast? *K. Kurrelmeyer*

#### 5:15 pm - 5:30 pm

- Questions and Answers

### 5:30 pm - 6:30 pm

**PC Fireside Chat: Norman Silverman** - Potomac B  
Chair: N. Silverman Co-Chair: W. Tworetzky

### 6:00 pm - 7:00 pm

**S 3 of a Kind: An Echo Game** - Potomac A  
Chair: D. Adams Moderator: R. Martin

Scorekeeper: *M. McCulloch*

Team North America: *T. Ryan, M. Quinones*

Team Europe: *P. Zamorano, L. Badano*

Team South America: *J. Lowenstein, R. Lang*



# POSTER SESSION 2 (P2) IN THE EXHIBIT & POSTER HALL

**MONDAY, JULY 2, 2012**

**Presented 9:30 am – 4:30 pm**

**Meet the Investigators 12:15 pm – 1:45 pm**

*Research Topics*

Cardiac Source of Embolism ..... P2-01 through P2-11

Contrast Echocardiography ..... P2-12 through P2-23

Novel Technologies:

3D/Tissue/Molecular Imaging ..... P2-24 through P2-92

Pericardial Disease ..... P2-93 and P2-94

Pediatric and Adult

Congenital Heart Disease ..... P2-95 through P2-119

Quality/Outcomes/Appropriateness/

Echo in Clinical Trials ..... P2-120 through P2-134

Ventricular Function ..... P2-135 through P2-203

*Author Disclosure Key: 1) Speakers' Bureau; 2) Consultant/Advisor; 3) Stock Ownership (not including stocks owned in a managed portfolio); 4) Research Grant (primary investigator); 5) Employment affiliation; 6) Royalty/Patents.*

## Cardiac Source of Embolism P2-01 through P2-11

**P2-01** *Monday Rapid Fire Presentation*

### **Papillary Fibroelastoma: An Unexpectedly Common Cardiac Mass**

Syahidah S. Tamin, Shamruz K. Khan, Joseph J. Maleszewski, William D. Edwards, Charles J. Bruce, Jae K. Oh, Patricia A. Pellikka, Kyle W. Klarich. Mayo Clinic, Rochester, MN

**P2-02**

### **A Comparison of the Correlation of CHADS<sub>2</sub> and CHA<sub>2</sub>DS<sub>2</sub>-VASc Risk Score and Category With Transesophageal Echocardiography Risk Factors for Thromboembolism**

Howard J. Willens, Katarina Nelson, Andrew DeNicco, Mauro Moscucci. University of Miami Miller School of Medicine, Miami, FL

**P2-03**

### **Transpulmonary Ultrasound Contrast During Transesophageal Echocardiography Clarifies Ambiguous Left Atrial Appendage Pathology In Patients With Suspicion Of A Clot And Improves Patient Care**

Kevin Dougherty, Regina Miele, Dima Quraini, Daniel Kramer, Jeffrey Kuvin, Ayan Patel, Gregory Corrodi, Borzoo Nikpoor, Natesa Pandian. The CardioVascular Center, Tufts Medical Center, Boston, MA

*Author Disclosures: N. Pandian: 1 (Lantheus Medical Imaging)*

**P2-04**

### **Utility of Transesophageal Echocardiography in Altering Anticoagulation Treatment Decisions of Patients Admitted With Acute Stroke or Transient Ischemic Attack**

Roland F. Njoh, Anh Thu Nguyen, Thomas Genese, Raghuraman Vidhun. St. Mary's Hospital, Waterbury, CT

**P2-05**

### **Rates of Major Source of Cardiac Embolism by Transesophageal Echocardiogram in Patients With Cerebrovascular Attack or Transient Ischemic Attack**

Edward A. Gill, Jr., Peter Morcos, Yi Liang, Kyra J. Becker. University of Washington School of Medicine, Seattle, WA

**P2-06**

### **CHA<sub>2</sub>DS<sub>2</sub>-VASc Score for Screening of Thromboembolic Risk Prior to Atrial Fibrillation Ablation: Comparison to CHADS<sub>2</sub> Scoring System**

Eiji Yamashita, Takehito Sasaki, Naofumi Tsukada, Hiroyuki Toide, Hiroki Okaniwa, Kohki Nakamura, Kenichi Kaseno, Koji Kumagai, Shigeto Naito, Hiroshi Hoshizaki, Shigeru Ohshima. Gunma Prefectural Cardiovascular Center, Maebashi, Japan

**P2-07**

### **Leftward Bulging of Atrial Septum is Induced by Nitroglycerine and Exaggerated During the Strain Phase of Valsalva: Implications for Detection of Patent Foramen Ovale**

Magnus C. Johansson, Cecilia Wallentin Guron. Sahlgrenska University Hospital, Göteborg, Sweden

**P2-08**

### **Left Atrial Appendage Emptying Flow Velocity Significantly Correlates With CHA<sub>2</sub>DS<sub>2</sub>-VASc Score, Not With CHADS<sub>2</sub>**

Koji Kurosawa, Kazuaki Negishi, Masaru Obokata, Yoshiaki Houjou, Masahiro Nakajima, Youhei Ono, Nobuaki Fukuda, Rieko Tateno, Masahiko Kurabayashi. Gunma University Graduate School of Medicine, Maebashi, Japan

**P2-09**

### **Left Atrial Appendage Dysfunction in Female Patients Prior to Catheter Ablation for Atrial Fibrillation**

Eiji Yamashita, Takehito Sasaki, Naofumi Tsukada, Hiroyuki Toide, Hiroki Okaniwa, Koji Kumagai, Shigeto Naito, Hiroshi Hoshizaki, Shigeru Ohshima. Gunma Prefectural Cardiovascular Center, Maebashi, Japan

**P2-10**

### **Cardiac Diastolic Dysfunction Measured By Echocardiography Is Associated With Increased Blood Coagulability**

Norimasa Mitsuma, Daisuke Ito, Makoto Hattori, Ryoji Nishi, Kazuya Kawabata, Shinichiro Yamada, Satoshi Yokoi, Noriyoshi Nakai, Keizo Yasui, Yasuhiro Hasegawa, Kazuo Hasegawa. Nagoya Daini Red Cross Hospital, Nagoya, Japan

**P2-11**

### **Should Transesophageal Echocardiography be Reperformed Prior to Repeat Ablation or Cardioversion for Early Recurrence of Atrial Fibrillation?**

Takehito Sasaki, Eiji Yamamashita, Kouki Nakamura, Kenichi Kaseno, Kouji Kumagai, Shigeto Naito, Hiroshi Hoshizaki, Shigeru Ohshima. Gunma Prefectural Cardiovascular Center, Maebashi, Japan

# POSTER SESSION 2 (P2) IN THE EXHIBIT & POSTER HALL

## Contrast Echocardiography P2-12 through P2-23

### P2-12 Tuesday Oral Presentation

#### Improved Sonothrombolysis Utilizing a Low Mechanical Index Therapeutic Ultrasound Impulse Containing a Longer Pulse Duration

Tanmay Kumar, Jia Liu, Juefei Wu, Feng Xie, John Lof, Shelby Kutty, Thomas R. Porter. University of Nebraska Medical Center, Omaha, NE

*Author Disclosures:* T.R. Porter: 4 (Lantheus Medical Imaging, Astellas Pharma, Philips Healthcare)

### P2-13

#### The Modulatory Effects of Glucagon-like Peptide-1 (GLP-1) on Coronary Flow Reserve During Acute Hyperglycemia in Type 2 Diabetics: A Comparative Study Using Bedside Myocardial Contrast Echocardiography

Sahar S. Abdelmoneim, Mary E. Hagan, Edward Mendrick, Brenda Kirby, Barbara Norby, Rita Basu, Ananda Basu, Sharon L. Mulvagh. Mayo Clinic, Rochester, MN

*Author Disclosures:* A. Basu: 4 (Sanofi-Aventis, Takeda); S.L. Mulvagh: 4 (Lantheus Medical Imaging, Astellas Pharma Inc.)

### P2-14

#### Complement-Mediated Glomerular Retention of Lipid Microbubbles: A Potential Mechanism for Flank Discomfort in Patients Receiving Ultrasound Contrast

Yani Liu, Aris Xie, Qi Yue, Jessi Khangura, Brian Davidson, Todd Belcik, Yan Zhao, Sajeevani Kim, Yoichi Inaba, Jonathan Lindner. Oregon Health and Science University, Portland, OR

### P2-15

#### Feasibility and Safety of Contrast Echocardiography in Children With Congenital Heart Defects

Lourdes Fatima Gonçalves Gomes<sup>1</sup>, Celia Maria Camelo Silva<sup>1</sup>, Wilson Mathias, Jr.<sup>2</sup>, Ana Lucia Arruda<sup>3</sup>, Ranulfo Pinheiro Mattos, III<sup>1</sup>, Valdir A. Moises, Sr.<sup>1</sup>, Orlando Campos<sup>1</sup>, Antonio Carlos Camargo Carvalho<sup>1</sup>. <sup>1</sup>Escola Paulista de Medicina, São Paulo, Brazil; <sup>2</sup>Instituto do Coração - Universidade de São Paulo, São Paulo, Brazil; <sup>3</sup>Universidade de São Paulo, São Paulo, Brazil

### P2-16

#### Prognostic Value of Myocardial Blood Flow Reserve Obtained by Quantitative Myocardial Contrast Echocardiography in Patients With Dilated Cardiomyopathy

Marta F. Lima, Victoria Yezinia, Maria C. Abduch, Marcio Lima, Joao C. N. Sbrano, Wilson Mathias, Jeane M. Tsutsui. Heart Institute (InCor)- University of São Paulo Medical School, São Paulo, Brazil

### P2-17

#### Simultaneous Assessment of Left Ventricular Volumes, Ejection Fraction and Myocardial Deformation Parameters in Contrast Echocardiograms

Alda Huqi<sup>1</sup>, Allen He<sup>2</sup>, Berthold Klas<sup>3</sup>, Ian Paterson<sup>2</sup>, Marleen Irwin<sup>2</sup>, Justin Ezekovitz<sup>2</sup>, Jonathan Choy<sup>2</sup>, Harald Becher<sup>2</sup>. <sup>1</sup>University of Pisa, Pisa, Italy; <sup>2</sup>University of Alberta, Edmonton, AB, Canada; <sup>3</sup>TomTec, Munich, Germany  
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### P2-18

#### Feasibility of Sonographer-Administered Echocontrast in a Large Volume Tertiary Care Echocardiography Laboratory

Andrew Tang<sup>1</sup>, Soon Kwang Chiew<sup>2</sup>, Roman Rashkovetsky<sup>2</sup>, Harald Becher<sup>2</sup>, Jonathan Choy<sup>2</sup>. <sup>1</sup>University of Alberta, Edmonton, AB, Canada; <sup>2</sup>Mazankowski Alberta Heart Institute, Edmonton, AB, Canada

*Author Disclosures:* H. Becher: 1 (Lantheus Medical Imaging, Bracco), 2 (Bracco); J. Choy: 1 (Lantheus Medical Imaging)

### P2-19

#### Acute Hemodynamic Effects Of Enhanced External Counterpulsation In Patients With Refractory Angina

Adrian A. Chong, Carlos S. Fernando, Howard Leong-Poi, Gordon W. Moe. St Michael's Hospital, Toronto, ON, Canada

### P2-20

#### Quantification of Left Ventricular Size and Function Using Contrast-Enhanced Real-Time 3D Imaging With Power Modulation: Comparison With Cardiac MRI

Patrick D. Coon, Heidi Pollard, Kathleen Furlong, Roberto M. Lang, Victor Mor-Avi. University of Chicago, Chicago, IL  
*Author Disclosures:* R.M. Lang: 4 (Lantheus Medical Imaging); V. Mor-Avi: 4 (Lantheus Medical Imaging)

### P2-21

#### Ischaemic Burden Determined by Myocardial Contrast Echocardiography Predicts Mortality in Patients Referred for the Assessment of Ischaemia in New-Onset Shortness of Breath

Brijesh Anantharam<sup>1</sup>, Raj Janardhanan<sup>1</sup>, Sajad Hayat<sup>1</sup>, Roxy Senior<sup>2</sup>. <sup>1</sup>Northwick Park Hospital, Harrow, United Kingdom; <sup>2</sup>Northwick Park Hospital, Harrow, & Royal Brompton Hospital, London, United Kingdom

### P2-22

#### Incremental Prognostic Value of Left Ventricular Vortex Strength Over Conventional Echocardiography Indices in Heart Failure

Haruhiko Abe<sup>1</sup>, Giuseppe Caracciolo<sup>2</sup>, Gianni Pedrizzetti<sup>2</sup>, Jagat Narula<sup>2</sup>, Partho P. Sengupta<sup>2</sup>. <sup>1</sup>Osaka Minami Medical Center Cardiovascular Division, Osaka, Japan; <sup>2</sup>Mount Sinai Medical Center, New York, NY

# POSTER SESSION 2 (P2) IN THE EXHIBIT & POSTER HALL

## P2-23

### **Clinical Usefulness of Left Ventricular Vortex Flow Analysis for Predicting Apical Thrombus Formation in Patients With Acute Anterior Wall Infarctin**

Wonjong Park<sup>1</sup>, Yoon-Jung Choi<sup>1</sup>, Bo-Kyoung Lee<sup>1</sup>, Sang-Wook Kang<sup>1</sup>, Young-Jo Kim<sup>1</sup>, Jang-Won Son<sup>2</sup>, Jung-Hyun Choi<sup>3</sup>, Helene Houle<sup>4</sup>, Geu-Ru Hong<sup>2</sup>. <sup>1</sup>Yeungnam University Hospital, Daegu, Republic of Korea; <sup>2</sup>Yonsei University Hospital, Seoul, Republic of Korea; <sup>3</sup>Pusan National University Hospital, Busan, Republic of Korea; <sup>4</sup>Siemens Medical Solutions, Mountain View, CA

*Author Disclosures:* H. Houle: 5 (Siemens Medical Solutions); G. Hong: 4 (Siemens Medical Solutions)

## **Novel Technologies: 3D/Tissue/Molecular Imaging P2-24 through P2-92**

### **P2-24** *Tuesday Oral Presentation*

#### **Three Dimensional Speckle Tracking in Post-infarction Left Ventricular Remodeling: Relationship of Global Myocardial Strains With Scar Burden, Hypertrophy and Akt Upregulation**

Carlos G. Santos-Gallego, Torsten P. Vahl, Giuseppe Caracciolo, Teresa Arias, Hans Paul Gaebelt, Javier Sanz, Valentin Fuster, Jagat Narula, Juan Jose Badimon, Partho P. Sengupta. Mount Sinai Medical Center, New York, NY

### **P2-25** *Tuesday Oral Presentation*

#### **Incremental Prognostic Value of Left Ventricular Global Longitudinal Strain in Patients With Heart Failure**

Hirohiko Motoki, Allen G. Borowski, Kevin Shrestha, W.H. Wilson Tang, Allan L. Klein. Cleveland Clinic, Cleveland, OH

## P2-26

### **Left and Right Ventricular Strain and Strain Rate Measurement in Normal Adults Using Velocity Vector Imaging: An Assessment of Reference Values and Intervendor Agreement**

Nowell M. Fine, Aijaz A. Shah, Il-Yong Han, Yang Yu, Ju-feng Hsiao, Yuki Koshino, Hayder K. Saleh, Fletcher A. Miller, Jr., Jae K. Oh, Patricia A. Pellikka, Hector R. Villarraga. Mayo Clinic, Rochester, MN

## P2-27

### **Evaluation of Aortic Root Areas and Diameters by Three-Dimensional Echocardiography**

Wendy Tsang<sup>1</sup>, Vivian Cui<sup>2</sup>, Razvan Ionasec<sup>3</sup>, Masaaki Takeuchi<sup>1</sup>, Helene Houle<sup>4</sup>, Lynn Weinert<sup>1</sup>, David A. Roberson<sup>2</sup>, Roberto M. Lang<sup>1</sup>. <sup>1</sup>University of Chicago Medical Center, Chicago, IL; <sup>2</sup>The Heart Institute for Children, Hope Children's Hospital, Chicago, IL; <sup>3</sup>Siemens Corporate Research, Princeton, NJ; <sup>4</sup>Siemens Ultrasound, Mountain View, CA

*Author Disclosures:* R. Ionasec: 5 (Siemens Corporate Research); H. Houle: 5 (Siemens Ultrasound); R.M. Lang: 4 (Philips)

### **P2-28** *Tuesday Rapid Fire Presentation*

#### **Detection of Pulmonary Congestion Using the Newly-developed Pocket-sized Transthoracic Echocardiographic Imaging Device in Patients With Heart Failure**

Rika Takemoto, Hiroki Oe, Norihisa Toh, Satoko Ugawa, Yuko Ono, Nobuhisa Watanabe, Yasuharu Tanabe, Hiroshi Ito. Okayama University, Okayama, Japan

## P2-29

### **Relative "Apical Sparring" of Longitudinal Strain Using 2-Dimensional Speckle-Tracking Echocardiography is Both Sensitive and Specific for the Diagnosis of Cardiac Amyloidosis**

Dermot Phelan, Patrick Collier, Paaladinesh Thavendiranathan, Thomas H. Marwick, Zoran B. Popovic, Juan Carlos Plana, Mazen A. Hanna, James D. Thomas. Cleveland Clinic Foundation, Cleveland, OH

## P2-30

### **The Effect Of Microgravity On Myocardial Strain: An Interim Analysis From The Integrated Cardiovascular Study**

Kazuaki Negishi<sup>1</sup>, Shafkat Anwar<sup>1</sup>, Zoran B. Popovic<sup>1</sup>, Neil L. Greenberg<sup>1</sup>, Allen G. Borowski<sup>1</sup>, David S. Martin<sup>2</sup>, Micheal W. Bungo<sup>3</sup>, Benjamin D. Levine<sup>4</sup>, James D. Thomas<sup>1</sup>. <sup>1</sup>Cleveland Clinic, Cleveland, OH; <sup>2</sup>Wyle Integrated Systems and Service, Houston, TX; <sup>3</sup>The University of Texas Medical School, Houston, TX; <sup>4</sup>Institute for Exercise & Environmental Medicine, University of Texas Southwestern, Dallas, TX

## P2-31

### **Significantly Decreased Longitudinal and Circumferential Global Strain in Duchenne Muscular Dystrophy Patients With Normal Ejection Fractions Using Speckle Tracking Echocardiography**

Sunil J. Ghelani, Lowell H. Frank, Christopher F. Spurney. Children's National Medical Center, Washington, DC

# POSTER SESSION 2 (P2) IN THE EXHIBIT & POSTER HALL

**P2-32**

**Left Atrial Dyssynchrony in Patients With Paroxysmal Atrial Fibrillation: Three-Dimensional Speckle Tracking Analysis**

Atsuko Furukawa, Hiroko Hoshiba, Chizu Miyasaka, Hiroshi Sato, Takahiro Nagai, Eiji Tada, Kazuaki Kataoka, Yutaka Seino, Katsuhisa Ishii. Kansai Electric Power Hospital, Osaka, Japan

**P2-33**

**Left Atrial Volume and Function in Patients With Light Chains Systemic Amyloidosis: A 3D Speckle Tracking Imaging Study**

Dania Mohty, Najmeddine Echahidi, Vincent Petitalot, David Lavergne, Victor Aboyans, Dominique Bordessoule, Patrice Virot, Arnaud Jaccard. Chu Dupuytren, Limoges, France

**P2-34**

**Feasibility of Sonoporation Using Nano-sized Bubble Liposomes as Treatment of Infective Endocarditis: A Study on Rat Model of Experimental Endocarditis**

Kasumi Masuda<sup>1</sup>, Mami Yamashita<sup>1</sup>, Toshihiko Asanuma<sup>1</sup>, Ryo Suzuki<sup>2</sup>, Kazuo Maruyama<sup>2</sup>, Kotaro Mitsutake<sup>3</sup>, Satoshi Nakatani<sup>1</sup>. <sup>1</sup>Osaka University Graduate School of Medicine, Suita, Japan; <sup>2</sup>Teikyo University, School of Pharmaceutical Sciences, Tokyo, Japan; <sup>3</sup>Saitama Medical University International Medical Center, Saitama, Japan

**P2-35**

**Myocardial Tissue Injury Detected by Ultrasonic Integrated Backscatter Closely Reflects the Size of Infarction in a Rat Model of Ischemia and Reperfusion**

Minako Katayama<sup>1</sup>, Panupong Jiamsripong<sup>2</sup>, Eileen M. McMahon<sup>1</sup>, Theresa R. Lombardi<sup>3</sup>, Anna E. Bukatina<sup>1</sup>, Marek Belohlavek<sup>1</sup>. <sup>1</sup>Mayo Clinic, Scottsdale, AZ; <sup>2</sup>University of Hawaii, Honolulu, HI; <sup>3</sup>Arizona State University, Tempe, AZ

**P2-36** *Tuesday Rapid Fire Presentation*

**Determining Myocardial Fiber Structure of Intact Hearts In Vitro From Analyses of Echocardiographic Images**

Mark R. Holland, Michelle L. Milne, Gautam K. Singh, James G. Miller. Washington University, St. Louis, MO

**P2-37**

**Influence of Preterm Delivery on Maturational Changes in Left Ventricular Myocardial Function**

Akiko Hirose, Nee Khoo, Khalid Aziz, Najlaa Al-Rajaa, Jutta Van den boom, Winnie Savard, Paul Brooks, Yuka Yamamoto, Lisa K. Hornberger. University of Alberta, Edmonton, AB, Canada

**P2-38**

**Effect of Diastolic Function on Left Atrial Strain and Strain Rate**

Allen G. Borowski, Hirohiko Motoki, Kevin Shrestha, Maureen G. Martin, Wilson W. H. Tang, Allan L. Klein. Cleveland Clinic, Cleveland, OH

**P2-39**

**Three-Dimensional Echocardiography in Assessment of Dyssynchrony in Patients With Left Ventricular Hypertrophy and Normal Systolic Function**

Masood Ahmad, Meneleo Dimaano, Rosario Mercado-Young, Tianrong Xie. University of Texas Medical Branch, Galveston, TX

**P2-40**

**Evaluation of Right Ventricular Regional Volume and Systolic Function in Patients With Pulmonary Arterial Hypertension Using Three-Dimensional Echocardiography**

Dehong Kong, Xianhong Shu, Cuizhen Pan, Leilei Cheng, Lili Dong, Haohua Yao, Daxin Zhou. Zhongshan Hospital, Fudan University, Shanghai, China

**P2-41**

**A Three-Dimensional Echocardiographic Study on Aortic-Mitral Coupling in Transcatheter Aortic Valve Implantation**

Wendy Tsang<sup>1</sup>, Massimiliano Meineri<sup>2</sup>, Rebecca T. Hahn<sup>3</sup>, Federico Veronesi<sup>4</sup>, Mark Osten<sup>2</sup>, Eric Horlick<sup>2</sup>, Roberto M. Lang<sup>1</sup>. <sup>1</sup>University of Chicago Medical Center, Chicago, IL; <sup>2</sup>Toronto General Hospital, Toronto, ON, Canada; <sup>3</sup>Columbia University Medical Center, New York, NY; <sup>4</sup>Department of Cardiac Surgery, Centro Cardiologico Monzino IRCCS, University of Milan, Italy, Milan, Italy  
*Author Disclosures: R.M. Lang: 4 (Philips)*

**P2-42** *Monday Rapid Fire Presentation*

**Three-Dimensional Color Doppler Echocardiography Versus Two-Dimensional Derived Method in the Quantification of Tricuspid Regurgitation Orifice Area**

Tien-En Chen, Susan H. Kwon, Maurice E. Sarano, Abby L. Biers, Jocelyn M. Moen, Kristin W. O'Meara, Antia M. Nadolny, Benjamin F. Wong, Sunil V. Mankad. Mayo Clinic, Rochester, MN

**P2-43**

**Use of 3-Dimensional Echocardiography in Evaluation of Right Ventricular Function Pre- and Post-Exercise Stress Tests**

Marsha Ma<sup>1</sup>, R. Andrew de Freitas<sup>1</sup>, Luciana Young<sup>1</sup>, Qiong Zhao<sup>2</sup>. <sup>1</sup>Childrens Memorial Hospital, Chicago, IL; <sup>2</sup>Northwestern Memorial Hospital, Chicago, IL

# POSTER SESSION 2 (P2) IN THE EXHIBIT & POSTER HALL

- P2-44**  
**Visualization of Patent Ductus Arteriosus Using Real-Time Three Dimensional Echocardiogram Comparative Study With 2D Echocardiogram and Angiography**  
Alaa Roushdy, Azza Elfiky, Dinna Ezzeldin. Cardiology Department Ain shams University, Cairo, Egypt
- P2-45**  
**Global Systolic Left Atrial Strain is an Independent Predictor of 6 Month Survival in Hospitalized Patients With Heart Failure**  
Karthik Ananthasubramaniam, Kristin Brooks, Meredith Mahan. Henry Ford Hospital, Detroit, MI  
*Author Disclosures: K. Ananthasubramaniam: 1 (Lantheus Medical Imaging)*
- P2-46**  
**Carotid Artery Thickness and Plaque Quantified by Carotid Ultrasound is Associated With Angiographic Coronary Stenosis**  
Pearl Behl, M. Matangi, P. Malik, P. Mousavi, Chris Simpson, Amer Johri. Queens University, Kingston, ON, Canada
- P2-47**  
**Left Ventricular Twisting by Speckle Tracking: A Study on Master Athletes With Mitral Valve Prolapse**  
Alessio De Luca, Loira Toncelli, Laura Stefani, Roberta M. C. Vono, Giorgio Galanti. University of Florence - Careggi Hospital, Florence, Italy
- P2-48**  
**Assessment of Dynamic Changes in Fossa Ovalis Using Real-time Three-dimensional Transesophageal Echocardiography: A Comparison With Two-dimensional Transesophageal Echocardiography**  
Masaki Izumo<sup>1</sup>, Jun Tanaka<sup>2</sup>, Takeji Saitoh<sup>2</sup>, Swaminatha V. Gurudevan<sup>2</sup>, Kirsten Tolstrup<sup>2</sup>, Robert J. Siegel<sup>2</sup>, Fumihiko Miyake<sup>1</sup>, Takahiro Shiota<sup>2</sup>. <sup>1</sup>St. Marianna University School of Medicine, Kawasaki, Japan; <sup>2</sup>Cedars-Sinai Medical Center, Los Angeles, CA  
*Author Disclosures: R.J. Siegel: 1 (Philips Medical Systems); T. Shiota: 1 (Philips Medical Systems)*
- P2-49**  
**Improved Perception of Depth Dimension of 3D Echocardiographic Images Using True Stereoscopic Displays Versus Conventional Color Rendered Monoscopic Display**  
Robert D. Rifkin, Billy Cathey, Nadia Vasilyeva. Barnes-Jewish Hospital, St. Louis, MO
- P2-50**  
**What is the Primary Source of Discordance in Strain Measurement Between Vendors: Imaging or Analysis?**  
Kazuaki Negishi<sup>1</sup>, Sean Lucas<sup>2</sup>, Tomoko Negishi<sup>1</sup>, Jamie Hamilton<sup>2</sup>, Thomas H. Marwick<sup>1</sup>. <sup>1</sup>Cleveland Clinic, Cleveland, OH; <sup>2</sup>Epsilon, Ann Arbor, MI
- P2-51**  
**Reduced Left Ventricular and Left Atrial Function in Acute Pulmonary Embolism: A Vector Velocity Imaging Study**  
Umar A. Khan, Dennis A. Tighe, Gerard P. Aurigemma. UMass Medical School, Worcester, MA
- P2-52**  
**Two-Dimensional Longitudinal Strain Assessment in the Presence of Myocardial Contrast Agents is Feasible With Only Speckle-Tracking Method After Microbubble Destruction**  
Joao L. Cavalcante, Patrick Collier, Juan Carlos Plana, Kazuaki Negishi, James D. Thomas, Thomas H. Marwick. Cleveland Clinic Foundation, Cleveland, OH
- P2-53**  
**Is the Prolongation of QRS Duration Really Associated With Increased Dyssynchrony? An Evaluation by 3D Echo in Patients With Dilated Cardiomyopathy and QRS > 120 ms**  
Viviane Tiemi Hotta, Daniela do Carmo Rassi, Martino Martinelli Filho, Wilson Mathias, Marcelo Luiz Campos Vieira. Heart Institute/University of São Paulo Medical School, São Paulo, Brazil
- P2-54**  
**Three Dimensional Speckle Tracking Strain Evaluation of Right Ventricular Dyssynchrony in Patients With Pulmonary Hypertension**  
Tetsuuri Onishi, Toshinari Onishi, Josef Marek, Mohamed Ahmed, John Gorcsan, III. University of Pittsburgh, Pittsburgh, PA  
*Author Disclosures: J. Gorcsan: 2 (GE, Toshiba, Medtronic, St. Jude Medical, Biotronik), 4 (GE, Toshiba)*
- P2-55**  
**Dynamic Three-Dimensional Tricuspid Annular Geometry Assessment in Pulmonary Hypertension**  
Wendy Tsang<sup>1</sup>, Lynn Weinert<sup>1</sup>, Benjamin Freed<sup>1</sup>, Rolf Baumann<sup>2</sup>, Victor Mor-Avi<sup>1</sup>, Amit R. Patel<sup>1</sup>, Roberto M. Lang<sup>1</sup>. <sup>1</sup>University of Chicago, Chicago, IL; <sup>2</sup>TomTec Imaging Systems, Unterschleissheim, Germany  
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# POSTER SESSION 2 (P2) IN THE EXHIBIT & POSTER HALL

**P2-56**

## **Three-dimensional Speckle Tracking Echocardiographic Analysis of Patients Presenting Familial Amyloidosis**

Marcelo L. Vieira, Marcio D. Almeida, Ben-Hur Ferraz Neto, Wercules A. Oliveira, Thiago Shoji, Ana C. T. Rodrigues, Adriana Cordovil, Laise Guimaraes, Rudyney Azevedo, Claudia G. Monaco, Edgar B. Lira Filho, Claudio H. Fischer, Samira S. Morhy. Hospital Israelita Albert Einstein, São Paulo, Brazil

**P2-57**

## **Characterization of Intraventricular Flow Patterns in Healthy Neonates From Conventional Color Doppler Ultrasound**

Shai Tejman-Yarden<sup>1</sup>, Callie L. Rzasz<sup>2</sup>, Yolanda Benito<sup>3</sup>, Marta Alhama<sup>3</sup>, Tina Leone<sup>2</sup>, Raquel Yotti<sup>3</sup>, Javier Bermejo<sup>3</sup>, Juan Carlos Del Alamo<sup>4</sup>, Beth F. Printz<sup>1</sup>. <sup>1</sup>Rady Children's Hospital, University of California San Diego, San Diego, CA; <sup>2</sup>University of California San Diego, San Diego, CA; <sup>3</sup>Division of Cardiology, Hospital General Universitario Gregorio Marañón, Madrid, Spain; <sup>4</sup>Department of Mechanical and Aerospace Engineering, University of California San Diego, San Diego, CA

**P2-58**

## **Visualization of Submitral Structure by 3D Transgastric Echocardiography**

Kikuko Obase<sup>1</sup>, Masashi Komeda<sup>2</sup>, Ken Saito<sup>1</sup>, Hiroyuki Okura<sup>1</sup>, Kiyoshi Yoshida<sup>1</sup>. <sup>1</sup>Kawasaki Medical School, Kurashiki, Japan; <sup>2</sup>Nagoya Heart Center, Nagoya, Japan

**P2-59**

## **New 4D Echocardiography to Monitor Mechanical Heart Function in Open Chest Instrumented Pigs Subjected to Ventricular Pacing From Different Sites**

Muhammad Ashraf<sup>1</sup>, Helene Houle<sup>2</sup>, Cole Streiff<sup>1</sup>, Meihua Zhu<sup>1</sup>, David J. Sahn<sup>1</sup>. <sup>1</sup>Oregon Health & Science University, Portland, OR; <sup>2</sup>Siemens Medical Solutions, Mountain View, CA

*Author Disclosures: H. Houle: 5 (Siemens Medical Solutions); D.J. Sahn: 2 (Siemens Medical Solutions)*

**P2-60**

## **Comparison of Three Dimensional Knowledge Based Reconstruction to Visual Assessment in the Analysis of Right Ventricular Volume and Function**

Jennifer K. E. Whitham<sup>1</sup>, Tiffanie R. Johnson<sup>1</sup>, Timothy M. Cordes<sup>1</sup>, James E. Slaven<sup>2</sup>. <sup>1</sup>Riley Hospital for Children, Indianapolis, IN; <sup>2</sup>Indiana University School of Medicine, Indianapolis, IN

**P2-61**

## **Left Ventricular Regional Systolic Strain and Synchrony Are Significantly Altered in Hypertrophic Cardiomyopathy: A Three-dimensional Speckle Tracking Imaging Study**

Liwen Liu<sup>1</sup>, Shengjun Tuo<sup>2</sup>, Bin Liu<sup>2</sup>, Lei Zuo<sup>2</sup>, Fang Liu<sup>2</sup>, YanDan Sun<sup>2</sup>, Wei Qi<sup>2</sup>, Xiaodong Zhou<sup>2</sup>, Shuping Ge<sup>1</sup>. <sup>1</sup>St. Christopher's Hospital for Children/Drexel University College of Medicine, Philadelphia, PA; <sup>2</sup>Xijing Hospital/The Fourth Military Medical University, Xi'an, Shannxi, China

**P2-62**

## **Utilization of Live 3D Transesophageal Echocardiography Techniques in an Urban Academic Medical Center**

Dron P. Bhandari, Mohan Pamerla, Mario J. Garcia, George K. Lui, Cynthia C. Taub. Montefiore Medical Center, Bronx, NY

**P2-63**

## **Comparison of Vendor-Independent Platforms for Speckle Tracking Echocardiography Derived Strain and Strain Rate With a Vendor-Specific Platform**

Elisabeth Kraigher-Krainer<sup>1</sup>, Gabriela Querejeta<sup>1</sup>, Deepak K. Gupta<sup>1</sup>, Veronica L. Dimaano<sup>2</sup>, Hong-Chang Luo<sup>2</sup>, Theodore Abraham<sup>2</sup>, Amil M. Shah<sup>1</sup>, Scott D. Solomon<sup>1</sup>. <sup>1</sup>Brigham and Women's Hospital, Boston, MA; <sup>2</sup>John's Hopkins University, Baltimore, MD

**P2-64**

## **Variation in Normal Ranges of Longitudinal Strain Are Based on Differences in Study Groups More Than Equipment: A Meta-Analysis**

Teerapat Yingchoncharoen, Shikhar Agarwal, Kazuaki Negishi, Thomas H. Marwick. Cleveland Clinic, Cleveland Heights, OH

**P2-65**

## **Usefulness of Dipyridamole Stress Real-time Contrast Echocardiography and Two-dimensional Speckle Tracking Imaging to Evaluate Subtle Contractile Dysfunction and Ventricular Dyssynchrony Caused by Microembolization**

Leilei Cheng, Weizhi Pan, Yongle Chen, Zhangwei Chen, Shufu Chang, Xianhong Shu. Zhongshan Hospital, Fudan University, Shanghai, China

**P2-66**

## **Vortex Intensity Changes in the Left Ventricle Following Percutaneous Coronary Intervention for Acute Myocardial Infarction: A Clinical Color Doppler Vector Flow Mapping Study**

Liwen Liu<sup>1</sup>, Lisha Na<sup>2</sup>, Bin Ma<sup>3</sup>, Rui Liu<sup>2</sup>, Haibin Zhang<sup>3</sup>, Shengjun Tuo<sup>3</sup>, Minjuan Zheng<sup>3</sup>, Bin Liu<sup>3</sup>, Shuping Ge<sup>1</sup>. <sup>1</sup>St. Christopher's Hospital for Children/Drexel University College of Medicine, Philadelphia, PA; <sup>2</sup>General Hospital of Ningxia Medical University, Yinchuan, Ningxia, China; <sup>3</sup>Xijing Hospital/The Fourth Military Medical University, Xi'an, Shannxi, China

# POSTER SESSION 2 (P2) IN THE EXHIBIT & POSTER HALL

**P2-67**

**Strain Determination by a High Resolution DENSE 3D Speckle Tracking Method Using a New Nongated 4D Echo Image Loops: Validation Against Sonomicrometry**

Kaavya Mandi<sup>1</sup>, Kevin Truong<sup>1</sup>, Christine Kang<sup>1</sup>, Vivian Chen<sup>1</sup>, Shahryar Ashraf<sup>1</sup>, Cole Streiff<sup>1</sup>, David Roundhill<sup>2</sup>, Zhijun Zhang<sup>1</sup>, Xubo Song<sup>1</sup>, Meihua Zhu<sup>1</sup>, Muhammad Ashraf<sup>1</sup>, David J. Sahn<sup>1</sup>. <sup>1</sup>Oregon Health & Science University, Portland, OR; <sup>2</sup>Philips Medical Systems, Bothell, WA

*Author Disclosures: D. Roundhill: 5 (Philips Medical Systems); X. Song: 2 (Philips Medical Systems); D.J. Sahn: 2 (Philips Medical Systems)*

**P2-68**

**Differentiation Between Hypertrophic Cardiomyopathy and Hypertensive Heart Disease Using Tricuspid Annular Motion Velocity**

Shuji Hayashi, Hirotsugu Yamada, Noriko Tomita, Junko Hotchi, Mika Bando, Susumu Nishio, Rina Tamai, Maya Nakagawa, Takayuki Ise, Toshiyuki Niki, Koji Yamaguchi, Yoshio Taketani, Takashi Iwase, Takeshi Soeki, Tetsuzo Wakatsuki, Masataka Sata. Tokushima University Hospital, Tokushima, Japan

**P2-69**

**Improvement of Left Ventricular Stroke Volume Estimation by Combining 2- and 3-Dimensional Echocardiography in a Swine Model of Acute Myocardial Infarction**

Yuichi J. Shimada. Beth Israel Medical Center, University Hospital and Manhattan Campus for the Albert Einstein College, New York, NY

**P2-70**

**Efficiency of Quantitative Longitudinal-Peak-Systolic-Strain Values Using Automated-Function-Imaging on Transthoracic-Echocardiogram for Evaluating Left Ventricular Wall Motion: New Diagnostic Criteria and Agreement With Naked-Eye Evaluation by Experienced-Cardiologist**

Koya Ozawa, Nobusada Funabashi, Sawako Horie, Maiko Takahashi, Akihisa Kataoka, Masae Uehara, Hiroyuki Takaoka, Yoshio Kobayashi. Chiba University Graduate School of Medicine, Chiba, Japan

**P2-71**

**Regional Peak Longitudinal Strain by Two Dimensional Speckle Tracking Echocardiography Provides Useful Information to Distinguish Fibrotic From Non-Fibrotic Lesions in Left Ventricular Myocardium in Hypertrophic Cardiomyopathy Subjects on 320 Slice CT and Normal Control Lesions**

Sawako Horie, Nobusada Funabashi, Akihisa Kataoka, Koya Ozawa, Maiko Takahashi, Masae Uehara, Hiroyuki Takaoka, Yoshio Kobayashi. Chiba University Graduate School of Medicine, Chiba, Japan

**P2-72**

**Acute Effects of Adaptive Servo-Ventilation Therapy on Left Ventricular Regional Myocardial Function in Chronic Heart Failure Patients**

Mana Hiraishi, Hidekazu Tanaka, Yoshiki Motoji, Junichi Imanishi, Tatsuya Miyoshi, Tatsuya Miyoshi, Takayuki Tsuji, Akihiro Kaneko, Keiko Ryo, Yuko Fukuda, Kazuhiro Tatsumi, Kensuke Matsumoto, Masayuki Nakagawa, Asumi Takei, Hiroya Kawai, Ken-ichi Hirata. Kobe University Graduate School of Medicine, Kobe City, Japan

**P2-73**

**Strain Imaging In Patients With Mitral Regurgitation Who Underwent Conservative Versus Surgical Management**

Andrew E. Kott, Nicholas Furiase, Priya Kohli, Vera Rigolin, Nausheen Akhter, Jyothy Puthumana. Northwestern University Feinberg School of Medicine, Chicago, IL

**P2-74**

**Initial Experience With the Micro-Transesophageal Transducer: Report on the Utilization, Effectiveness and Complications in 100 Pediatric and Adult Patients**

David Alex Roberson<sup>1</sup>, Vivian Wei Cui<sup>1</sup>, Wendy Tsang<sup>2</sup>, Lynn Weinert<sup>2</sup>, Roberto M. Lang<sup>2</sup>. <sup>1</sup>The Heart Institute for Children, Oak Lawn, IL; <sup>2</sup>University of Chicago Medical Center, Chicago, IL

**P2-75**

**Longitudinal Strain From 4-chamber View Has High Agreement With Strain From 18 Cardiac Segments**

Shafkat Anwar, Patrick Gladding, Kazuaki Negishi, Zoran Popovic, James D. Thomas. Cleveland Clinic, Cleveland, OH

**P2-76**

**Assessing Of Infarct Size Early After Reperfusion In Patients With Acute Myocardial Infarction In Clinical Setting**

Krasimira A. Hristova, Dobrin Vassilev, Pavlin Pavlov, Tzvetana Katova, Iana Simova, Velislava Kostova. University National Heart Hospital, Sofia, Bulgaria

**P2-77**

**Latent Systolic Dysfunction in Morbidly Obese Patients With Diastolic Dysfunction**

Harikrishna Makani<sup>1</sup>, Azhar Supariwala<sup>1</sup>, Kana Fujikara<sup>2</sup>, Jorge Romero<sup>3</sup>, Matthew Pierce<sup>1</sup>, Hetal Makwana<sup>1</sup>, Jonathan Kahan<sup>1</sup>, Arpit Shah<sup>1</sup>, Farhan Bajwa<sup>1</sup>, Ingit Parmar<sup>1</sup>, Farooq Chaudhry<sup>1</sup>. <sup>1</sup>St. Luke's Roosevelt Hospital and Columbia University College of Physicians and Surgeons, New York, NY; <sup>2</sup>Beth Israel Medical Center, New York, NY; <sup>3</sup>Montefiore Medical Center, New York, NY

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# POSTER SESSION 2 (P2) IN THE EXHIBIT & POSTER HALL

**P2-78**

## ***In-vivo* Validation of a New 3D Myocardial Strain Estimation Tool**

Stefaan Bouchez. University of Ghent, Ghent, Belgium  
*Author Disclosures: S. Bouchez: 4 (Siemens)*

**P2-79**

## **Global Longitudinal Strain can be Measured Reliably by 2D Speckle Tracking Using Vendor Independent Software**

Niels Risum<sup>1</sup>, Sophia Ali<sup>1</sup>, Niels Thue Olsen<sup>2</sup>, Christian Jons<sup>3</sup>, Michel Khouri<sup>1</sup>, Zainab Samad<sup>1</sup>, Trine K. Lauridsen<sup>1</sup>, Eric Velazquez<sup>1</sup>, Peter Sogaard<sup>4</sup>, Joseph Kisslo<sup>1</sup>. <sup>1</sup>Duke University Medical Center, Division of Cardiology, Durham, NC; <sup>2</sup>Roskilde Hospital, Department of Cardiology, Roskilde, Denmark; <sup>3</sup>Glostrup Hospital, Department of Cardiology, Glostrup, Denmark; <sup>4</sup>Gentofte University Hospital, Department of Cardiology, Hellerup, Denmark

**P2-80**

## **Effects of Frame Rate on Three-Dimensional Measurements of Myocardial Strain**

Chattanong Yodwut, Lynn Weinert, Roberto M. Lang, Victor Mor-Avi. University of Chicago, Chicago, IL

**P2-81**

## **Assessment of Left Ventricular Global Systolic and Diastolic Function by Real-time Three-dimensional Echocardiography**

Jianjun Yuan, Sr., Changhua Wei. Henan Provincial People's Hospital, Zhengzhou City, China

**P2-82**

## **Assessment the Different Rotation of Endocardium and Epicardium in Diastolic Heart Failure Patients Using Two-dimensional Speckle Tracking Imaging**

Jing Wang, Mingxing Xie, Yuyuan Chen, Qing Lv, Xinfang Wang. Union Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China

**P2-83**

## **Acute Reverse Left Atrial Remodeling After Double Tefflon Mitral Valvuloplasty Analysed by Real-Time 3D-Echocardiography. Preliminary Results**

Mirian M. Pardi, Maria-Cristina D. Abduch, Pablo M. Pomerantzeff, Carlos M. Brandao, Jeane M. Tsutsui, Wilson Mathias, Jr., Marcelo L. C. Vieira. Heart Institute, The University of São Paulo School of Medicine, São Paulo, Brazil

**P2-84**

## **Novel Algorithm for Automated Left Ventricular Function Evaluation**

Michal Yaacobi<sup>1</sup>, Hugo Guterman<sup>2</sup>, Noah Liel-Cohen<sup>3</sup>. <sup>1</sup>Diacardio LTD, Ofakim, Israel; <sup>2</sup>Ben-Gurion University of The Negev, Beer-Sheva, Israel; <sup>3</sup>Soroka University Medical Center, Beer-Sheva, Israel

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**P2-85**

## **Improved Determination of Mitral Valve Pathology Using 3D Echocardiography With Computational Simulation**

Yonghoon Rim<sup>1</sup>, Patrick Kee<sup>1</sup>, Susan T. Laing<sup>1</sup>, Krishnan B. Chandran<sup>2</sup>, David D. McPherson<sup>1</sup>, Hyunggun Kim<sup>1</sup>. <sup>1</sup>The University of Texas Health Science Center at Houston, Houston, TX; <sup>2</sup>The University of Iowa, Iowa City, IA

**P2-86**

## **Echocardiographic Measures of Myocardial Motion by Doppler and Feature Tracking Technologies: The Need for Standardization?**

Matthew Nelson, R. Todd Hurst, Serag Raslan, Stephen Cha, Susan Wilansky, Steven J. Lester. Mayo Clinic Arizona, Scottsdale, AZ

**P2-87**

## **Resting RV Performance Assessment in Young Athletes: A Comparison Between 3D and 2D Echocardiography**

Alessio De Luca, Jr., Laura Stefani, Giorgio Galanti. Sports Medicine Centre, Florence, Italy

**P2-88**

## **Assessment of Left Ventricular Function and Mechanical Dyssynchrony by Three-Dimensional Speckle Tracking Echocardiography**

Yu Kang, Haiyan Chen, Cuizhen Pan, Yongle Chen, Yangang Su, Xianhong Shu. Zhongshan Hospital, Fudan University, Shanghai, China

**P2-89**

## **A Novel Mathematical Fluid Dynamic of Left Ventricular Dilated Cardiomyopathy**

Saeed Ranjbar<sup>1</sup>, Mersedeh Karvandi<sup>2</sup>, Seyed Ahmad Hassantash<sup>1</sup>. <sup>1</sup>Shahid Beheshti University of Medical Sciences, Modarres Hospital, Institute of Clinical Research, Tehran, Islamic Republic of Iran; <sup>2</sup>Taleghani Hospital of Shahid Beheshti University Of Medical Sciences, Tehran, Islamic Republic of Iran



# POSTER SESSION 2 (P2) IN THE EXHIBIT & POSTER HALL

**P2-90**

## **Three-Dimensional Principal Tangential Strain Along With Ejection Fraction Distinguishes Heart Failure Subjects From Those With Normal Left Ventricular Systolic Function**

Samir K. Saha<sup>1</sup>, Anatoli Kiotsekoglou<sup>1</sup>, Rena Toole<sup>2</sup>, Aasha Gopal<sup>2</sup>. <sup>1</sup>Sundsvalls Hospital, Sundsvall, Sweden; <sup>2</sup>Saint Francis Hospital, Roslyn, NY

**P2-91**

## **Relationship Between Deformation and Volume in Left Atrium in Patients With Paroxysmal Atrial Fibrillation Using Three-dimensional Speckle Tracking Echocardiography**

Toru Ariyoshi<sup>1</sup>, Yasuaki Wada<sup>1</sup>, Shinichi Okuda<sup>2</sup>, Kosuke Uchida<sup>2</sup>, Yukari Kishida<sup>1</sup>, Noriko Harada<sup>1</sup>, Tomoko Tanaka<sup>1</sup>, Yuji Hinoda<sup>1</sup>, Masunori Matsuzaki<sup>2</sup>. <sup>1</sup>Yamaguchi University Hospital, Ube City, Yamaguchi Prefecture, Japan; <sup>2</sup>Yamaguchi University Graduate School of Medicine, Ube City, Yamaguchi Prefecture, Japan

**P2-92**

## **Achievability of the Assessment of the Mitral Valve Leaflets by Mathematical Equations of Inelasticity Based on Echocardiography**

Mersedeh Karvandi<sup>1</sup>, Saeed Ranjbar<sup>2</sup>, Seyed Ahmad Hassantash<sup>2</sup>. <sup>1</sup>Taleghani Hospital of Shahid Beheshti University of Medical Sciences, Tehran, Islamic Republic of Iran; <sup>2</sup>Shahid Beheshti University of Medical Sciences, Modarres Hospital, Institute of Clinical Research, Tehran, Islamic Republic of Iran

## **Pericardial Disease P2-93 and P2-94**

**P2-93**

## **Differentiation Between Restrictive Cardiomyopathy and Constrictive Pericarditis by Quantitative Real-time Three-dimensional Echocardiography**

Cuizhen Pan, Xianhong Shu, Weipeng Zhao, Lili Dong, Dehong Kong, Haohua Yao, Haiyan Chen, Minmin Sun, Junbo Ge. Zhongshan Hospital, Fudan University, Shanghai, China

**P2-94**

## **Clinical Implication of Pericardial Adhesion After Cardiac Surgery**

Hyungseop Kim, Hyun-OK Cho, Ji-Hyun Son, Hyoung-Seob Park, Yun-Kyeong Cho, Hyuck-Jun Yoon, Chang-Wook Nam, Seung-Ho Hur, Yoon-Nyun Kim, Kwon-Bae Kim. Keimyung University Dongsan Medical Center, Daegu, Republic of Korea

## **Pediatric and Adult Congenital Heart Disease P2-95 through P2-119**

**P2-95**

## **Pulmonary Blood Flow Patterns in Fetuses With Pulmonary Outflow Tract Obstruction**

Shabnam Peyvandi, Margaret McCann, Debbra Soffer, Zhiyun Tian, Jack Rychik, Anita Szswast. Children's Hospital of Philadelphia, Philadelphia, PA

**P2-96**

## **Is Aortic Valve Leaflet Morphology Predictive of Outcome in Pediatric Aortic Valve Stenosis?**

Jessica Bowman<sup>1</sup>, Rohit Loomba<sup>2</sup>, Frank Cetta<sup>1</sup>, Andrew Pelech<sup>2</sup>. <sup>1</sup>Mayo Clinic, Rochester, MN; <sup>2</sup>Children's Hospital of Wisconsin, Milwaukee, WI

**P2-97**

## **Pulsed Doppler and Vector Velocity Imaging-Derived Left Ventricular Function in Severe Fetal Ebstein Anomaly and Tricuspid Valve Dysplasia**

Timothy Colen<sup>1</sup>, Paul A. Brooks<sup>1</sup>, Anita Moon-Grady<sup>2</sup>, Nee S. Khoo<sup>1</sup>, Lisa K. Hornberger<sup>1</sup>. <sup>1</sup>University of Alberta, Edmonton, AB, Canada; <sup>2</sup>University of California, San Francisco, CA

**P2-98**

## **Effect of Hybrid Stage 1 Procedure on Ventricular Function in Infants With Hypoplastic Left Heart Syndrome**

Daisuke Kobayashi, Sanjeev Aggarwal. Children's Hospital of Michigan, Detroit, MI

**P2-99**

## **Atrioventricular Valve Annular Area and Force on Valve Through Cardiac Cycle in Single Ventricle: An Analysis Using Biplane Speckle-Tracking**

Masaki Nii, Chisato Miyakoshi, Norihiro Asanuma, Keichiro Ibuki, Atsuko Kato, Takako Toda, Nao Hamamoto, Jun Yoshimoto, Sung-Hae Kim, Norie Mitsushita, Yasuo Ono. Shizuoka Children's Hospital, Shizuoka, Japan

**P2-100**

## **Tricuspid Annular Plane Systolic Excursion Identifies Right Ventricular Dysfunction in Children With Repaired Congenital Heart Disease and Pulmonary Hypertension**

Amanda Hauck<sup>1</sup>, Ruixin Guo<sup>2</sup>, D. Dunbar Ivy<sup>1</sup>, Adel Younoszai<sup>1</sup>. <sup>1</sup>Children's Hospital Colorado, Aurora, CO; <sup>2</sup>Colorado School of Public Health, University of Colorado Denver, Aurora, CO

# POSTER SESSION 2 (P2) IN THE EXHIBIT & POSTER HALL

## P2-101

### **Changes in Left Ventricular Longitudinal Strain With Anthracycline Chemotherapy In Adolescents Predict Subsequent Left Ventricular Systolic Dysfunction**

Joseph T. Poterucha<sup>1</sup>, Shelby Kutty<sup>1</sup>, Rebecca K. Lindquist<sup>2</sup>, Ling Li<sup>1</sup>, Benjamin W. Eidem<sup>2</sup>. <sup>1</sup>University of Nebraska/Creighton University, Omaha, NE; <sup>2</sup>Divisions of Pediatric Cardiology and Cardiovascular Diseases, Mayo Clinic, Rochester, MN

## P2-102

### **Development and Validation of a Fetal Cardiovascular Disease Severity Scale**

Brooke T. Davey<sup>1</sup>, Mary T. Donofrio<sup>2</sup>, Anita J. Moon-Grady<sup>3</sup>, Carlen G. Fifer<sup>4</sup>, Bettina F. Cuneo<sup>5</sup>, Christine B. Falkensammer<sup>6</sup>, Anita L. Szwasz<sup>1</sup>, Jack Rychik<sup>1</sup>. <sup>1</sup>Children's Hospital of Philadelphia, Philadelphia, PA; <sup>2</sup>Children's National Medical Center, Washington, DC; <sup>3</sup>University of California, San Francisco, San Francisco, CA; <sup>4</sup>University of Michigan Health System, Ann Arbor, MI; <sup>5</sup>The Heart Institute for Children, Chicago, IL; <sup>6</sup>Texas Children's Hospital, Houston, TX

## P2-103

### **Three-Dimensional Sectional Volumetric Analysis and Sequential Segmental Diagnosis of Conotruncal Defects With Real-Time Three-Dimensional Echocardiography**

Guo-zhen Chen, Kun Sun. Shanghai Children's Medical Center affiliated to Shanghai Jiaotong University School of Medicine, Shanghai, China

## P2-104

### **Pulmonary Valve Growth in Fetuses and Neonates With Tetralogy of Fallot**

Kevin G. Friedman, Sowmya Balasubramanian, Wayne Tworetzky. Children's Hospital Boston, Boston, MA

## P2-105

### **Stroke Distance is a More Precise Measurement Than Cardiac Output in the Assessment of Fetal Ventricular Function**

Heather Y. Sun, Rajesh Punn, Elif Seda Selamet Tierney, Theresa A. Tacy. Lucile Packard Children's Hospital, Stanford University, Palo Alto, CA

## P2-106

### **Should Transverse Arch Size Determine Surgical Approach in Young Infants With Coarctation?**

Dongngan T. Truong, Lloyd Y. Tani, Tyler R. Beardsley, L. LuAnn Minich, Phillip T. Burch, Shaji C. Mennon. University of Utah, Salt Lake City, UT

## P2-107

### **Cardiac Magnetic Resonance and Echocardiographic Evaluation of Ventricular Function in Repaired Tetralogy of Fallot Patients With Depressed Left Ventricular Ejection Fraction**

Cory V. Noel, John P. Kovalchin, Ali Zaidi, Frederick Long, Karen M. Texter. Nationwide Children's Hospital, Columbus, OH

## P2-108

### **Aortic Stiffness and Diastolic Dysfunction in Pediatric Patients With Bicuspid Aortic Valves**

Kristin C. Lombardi, Bevin Weeks, Eugene Kevin Hall, Robert McNamara, Lissa Sugeng, Constance Weismann. Yale University School of Medicine, New Haven, CT

## P2-109

### **Pressure-Volume Loop Analysis in Patients With Single Ventricles: Comparison of Pressure-Volume Loop and Echocardiographic Measures of Diastolic Function**

Shahryar M. Chowdhury<sup>1</sup>, Ryan Butts<sup>1</sup>, Anthony M. Hlavacek<sup>1</sup>, Tain-Yen Hsia<sup>2</sup>, Sachin Khambadkone<sup>2</sup>, G. Hamilton Baker<sup>1</sup>. <sup>1</sup>Medical University of South Carolina, Charleston, SC; <sup>2</sup>Great Ormond Street Hospital for Children, London, United Kingdom

## P2-110

### **Ventricular Dysfunction and Heart Failure in Adults With Repaired Tetralogy of Fallot**

Joshua A. Kailin<sup>1</sup>, William L. Border<sup>1</sup>, Anjan Deka<sup>2</sup>, Vasiliki V. Georgiopoulou<sup>2</sup>, Michael E. McConnell<sup>1</sup>, Javed Butler<sup>2</sup>, Wendy M. Book<sup>2</sup>, Andreas P. Kalogeropoulos<sup>2</sup>. <sup>1</sup>Children's Healthcare of Atlanta, Atlanta, GA; <sup>2</sup>Emory University, Atlanta, GA

## P2-111

### **Pulsed-Wave Doppler Interrogation of the Descending Aorta in Children After Superior Cavopulmonary Connection Does Not Predict Systemic to Pulmonary Arterial Collateral Flow**

Michael V. DiMaria, Meryl S. Cohen, Kevin K. Whitehead. The Children's Hospital of Philadelphia, Philadelphia, PA

## P2-112

### **Assessing Systemic Output in Premature Neonates: Comparing Two Techniques to Measure Superior Vena Cava Blood Flow and Their Correlation With Cardiac Output**

Scott Schachinger, Greg Ensing, R. Brent Stansfield. University of Michigan, Ann Arbor, MI

## P2-113

### **Fetal Echocardiographic Predictors of Survival in Tricuspid Valve Dysplasia and Ebstein's Anomaly With Moderate to Severe Tricuspid Regurgitation**

Smitha Bullock, Anita Krishnan, Mary Donofrio. Children's National Medical Center, Washington, DC

# POSTER SESSION 2 (P2) IN THE EXHIBIT & POSTER HALL

**P2-114**

## **Assessing Ventricular-Vascular Interactions Non-Invasively in Healthy Adolescents**

Timothy J. Bradley, Cameron Slorach, Cedric Manlhiot, Wei Hui, Mark K. Friedberg, Edgar T. Jaeggi, Paul F. Kantor, Luc Mertens. The Hospital For Sick Children, Toronto, ON, Canada

**P2-115**

## **Quantitative 3D Echo Analysis of Ventricular Function and Synchrony in Children With Congenital Complete Heart Block: 3D, Tissue Doppler and M-mode Study**

David Alex Roberson, Vivian Wei Cui, Supaluck Kanjanauthai, Rukmini Komarlu, Ira Shetty, Anne Fretter, Bettina F. Cuneo, Frank Zimmerman. The Heart Institute for Children, Oak Lawn, IL

**P2-116**

## **Noninvasive Assessment of Elevated Pulmonary Vascular Resistance in Children With Pulmonary Hypertension Secondary to Congenital Heart Disease. Comparative Study Between 5 Different Doppler Indices**

Alaa Roushdy<sup>1</sup>, Iman Ragab<sup>2</sup>, Wessam Abdel Raouf<sup>3</sup>.  
<sup>1</sup>Cardiology Department Ain Shams University, Cairo, Egypt;  
<sup>2</sup>Pediatric Department Ain Shams University, Cairo, Egypt;  
<sup>3</sup>Abu Elreish Univerity Hospital, Cairo, Egypt

**P2-117**

## **Influence of Right Ventricular Dilation on Right and Left Ventricular Longitudinal Strain and Strain Rate in Adults With Tetralogy of Fallot and Ebstein's Anomaly**

Jennifer A. Johnson, Chelsea L. Reece, Hector R. Villarraga, Garvan C. Kane, Naser M. Ammash, Benjamin W. Eidem. Mayo Clinic, Rochester, MN

**P2-118**

## **Ebstein Anomaly: Are All Cone Repairs Created Equal**

Mark D. Norris, Sameh M. Said, Joseph A. Dearani, Benjamin W. Eidem, Frank Cetta. Mayo Clinic, Rochester, MN

**P2-119**

## **Role of Echocardiography During Pediatric Left Ventricular Assist Device Support**

Ricardo Pignatelli<sup>1</sup>, Nancy Ayres<sup>1</sup>, Kathy Kendall<sup>2</sup>, Ronald Bronicki<sup>1</sup>, Carolyn Altman<sup>1</sup>, Qiqiong Cui<sup>1</sup>, William Dreyer<sup>1</sup>, David Morales<sup>1</sup>. <sup>1</sup>Baylor College of Medicine, Houston, TX;  
<sup>2</sup>Texas Children's Hospital, Houston, TX

**P2-120**

## **Improving Concordance in Echocardiographic Reporting of Diastolic Dysfunction**

Patrick Collier, Dermot Phelan, Leonardo Rodriguez, Allan Klein, Thomas James, Tom Marwick. Cleveland Clinic, Cleveland, OH

**P2-121**

## **Learning to Apply the Ultrasound Stethoscope on the Critically-Ill: Comparing Six "Quick-Look" Signs for Quality and Prognostic Value During Initial Use by Novices**

Tuan V. Mai, David J. Shaw, Stan A. Amundson, Donna L. Agan, Bruce J. Kimura. Scripps Mercy Hospital, San Diego, CA

**P2-122**

## **The Association Between 2011 ACCF/AHA/ASNC/HFSA/HRS/SCAI/SCCM/SCCT/SCMR Appropriate Use Criteria for Transthoracic Echocardiography and Clinically Important Findings**

Angela L. Price, Andres de Luna, Anand Rohatgi, Sandeep R. Das, Sharon C. Reimold, Susan A. Matulevicius. UT Southwestern Medical Center, Dallas, TX

**P2-123**

## **Variation in Measures of Right Ventricular Structure and Function Performed in Standard Versus Modified Apical Views**

Jose Rivero, John Groarke, Kurt Jacobsen, Brenda Docktor, Shane McCullough, Susan Cheng. Brigham and Women's Hospital, Cambridge, MA

**P2-124**

## **Superiority of M-mode Echocardiography Defined Left Bundle Branch Block to Electrocardiographic Left Bundle Branch Block for Predicting Response to Cardiac Resynchronization Therapy**

Nicholay Teodorovich, Anisiia Doytchinova, Jeri Lynn Steward, Peng-Sheng Chen, Stephen Sawada, Mithilesh Das, Harvey Feigenbaum. Indiana University, Indianapolis, IN

**P2-125**

## **Effects of an Educational Project Based on Appropriate Use Criteria on Cardiologists Utilization of Echocardiography**

Howard J. Willens, Katarina Nelson, Robert C. Hendel. University of Miami Miller School of Medicine, Miami, FL

**P2-126**

## **Right Ventricular Myocardial Performance Index Predicts New-Onset Atrial Fibrillation Following Isolated Coronary Artery Bypass Surgery: Insights From the Pre-Operative Surgical Stratification by Echocardiography (POSSE) Study**

Avi Shimony<sup>1</sup>, Jonathan Afilalo<sup>2</sup>, Lawrence G. Rudski<sup>1</sup>, David Langleben<sup>1</sup>, Aidan W. Flynn<sup>2</sup>, Arvind K. Agnihotri<sup>2</sup>, David M. Shahian<sup>2</sup>, Michael H. Picard<sup>2</sup>. <sup>1</sup>Jewish General Hospital, Montreal, QC, Canada; <sup>2</sup>Massachusetts General Hospital, Boston, MA

**Quality/Outcomes/Appropriateness/  
Echo in Clinical Trials  
P2-120 through P2-134**

# POSTER SESSION 2 (P2) IN THE EXHIBIT & POSTER HALL

**P2-127**

## **Gap Analysis of Prescription/Dosing of Medical Therapy and Referral for Implantable Cardiac Defibrillators in Patients With Echocardiographic Evidence of Left Ventricular Systolic Dysfunction**

Lauren Jewett, Robby Nieuwlaat, Catherine Demers, Joshua Coulson, Eva Lonn, Jeff Healey, Brian Haynes, Stuart Connolly, Hisham Dokainish. McMaster University, Hamilton, ON, Canada

*Author Disclosures:* J. Healey: 1 (St. Jude), 2 (Bayer, Boehringer-Ingelheim); S. Connolly: 1 (Sanofi Aventis, Boston Scientific, St. Jude Medical), 2 (Bristol Myers-Squibb, Boehringer-Ingelheim)

**P2-128**

## **Evaluation of Estimated Versus True Height and Weight Measurements for Indexing Echocardiographic Parameters to Body Surface Area: The Weight Height Estimation Echo Trial (WHEET)**

Adrian A. Chong, Andrew T. Yan, Subodh B. Joshi, Alessandro Salvino, Catherine B. Alarcon, Chi-Ming Chow, Howard Leong-Poi. St Michael's Hospital, Toronto, ON, Canada

**P2-129**

## **Low Framingham Risk Patients With a Family History of Cardiovascular Disease Have a Significant Incidence of Increased Carotid Intima-Media Thickness: The IMPRESS Study**

Brian A. Haluska<sup>1</sup>, Julie Holliday<sup>1</sup>, Karam Kostner<sup>1</sup>, Desley Hegney<sup>2</sup>, Lieng Hsi Ling<sup>2</sup>, Melinda Carrington<sup>3</sup>, Simon Stewart<sup>3</sup>, Thomas H. Marwick<sup>1</sup>. <sup>1</sup>University of Queensland, Brisbane, Australia; <sup>2</sup>National University of Singapore, Singapore, Singapore; <sup>3</sup>Baker IDI Heart and Diabetes Institute, Melbourne, Australia; <sup>4</sup>The Cleveland Clinic, Cleveland, OH

**P2-130**

## **Utility of Right Ventricular Free Wall Longitudinal Speckle Tracking Strain for Evaluation of Outcome in Patients With Pulmonary Hypertension**

Yoshiki Motoji, Hidekazu Tanaka, Yuko Fukuda, Keiko Ryo, Jun-ichi Imanishi, Tatsuya Miyoshi, Mana Hiraishi, Akihiro Kaneko, Takayuki Tsuji, Kazuhiro Tatsumi, Kensuke Matsumoto, Noriaki Emoto, Hiroya Kawai, Ken-ichi Hirata. Kobe University Graduate School of Medicine, Kobe, Japan

**P2-131**

## **Echocardiographic Assessment of Pericardial Effusion After Ablation for Atrial Fibrillation**

Gian-Carlo Giove, Jonathan Sussman, Jay Curwin, Timothy Mahoney, Robert Coyne, Stephen Winters, Linda Gillam. Gagnon Cardiovascular Institute, Morristown, NJ

*Author Disclosures:* J. Sussman: 4 (Medtronic, St. Jude Medical, Boston Scientific Corp.); J. Curwin: 4 (Medtronic, St. Jude Medical, Boston Scientific Corp.); T. Mahoney: 4 (Medtronic, St. Jude Medical, Boston Scientific Corp.); R. Coyne: 1 (Sanofi Aventis), 4 (Medtronic, St. Jude Medical, Boston Scientific Corp.); S. Winters: 1 (Sanofi Aventis), 4 (Medtronic, St. Jude Medical, Boston Scientific Corp.); L. Gillam: 4 (Edwards Lifescience, Coherex, Abbott Vascular)

**P2-132**

## **Comparison of Left Atrial Size Measured by Various Echocardiographic Techniques With That Measured by Multidetector Computed Tomography**

Keiko Ryo, Hidekazu Tanaka, Yoshiki Yoshiki, Junichi Inanishi, Tatsuya Miyoshi, Mana Hiraishi, Akihiro Kaneko, Takayuki Tsuji, Yuko Fukuda, Kazuhiro Tatsumi, Kensuke Matsumoto, Hiroya Kawai, Ken-ichi Hirata. Division of Cardiovascular Medicine, Kobe University Graduate School of Medicine, Kobe, Japan

**P2-133**

## **Defining Occult Myocardial Dysfunction in Pediatric Cancer Survivors Exposed to High-dose Anthracycline Therapy**

Olga Toro-Salazar<sup>1</sup>, Kan N. Hor<sup>2</sup>, Georgina Burke<sup>1</sup>, Eileen Gillan<sup>1</sup>, Michelle Larocque<sup>1</sup>, Kim Jennings<sup>1</sup>, Pranitis Lucy<sup>1</sup>, Bruce Liang<sup>3</sup>. <sup>1</sup>Connecticut Children's Medical Center, Hartford, CT; <sup>2</sup>Cincinnati Children's Hospital Medical Center, Cincinnati, OH; <sup>3</sup>University of Connecticut Health Center, Farmington, CT

**P2-134**

## **Comparison of the 2007 and 2011 Appropriate Use Criteria for Transesophageal Echocardiography**

Dana M. Carne, R. Sacha Bhatia, Michael H. Picard, Rory B. Weiner. Massachusetts General Hospital, Boston, MA

## Ventricular Function P2-135 through P2-203

**P2-135 Monday Oral Presentation**

## **Right Ventricular Global Longitudinal Strain by Two-dimensional Speckle Tracking Echocardiography Correlates With Conventional Echocardiographic Determinants of Severity in Pulmonary Hypertension**

Margaret M. Park, Erika L. Lundgrin, Jacqueline Sharp, Samar Fahra, W.H. Wilson Tang, Serpil C. Erzurum, James D. Thomas. Cleveland Clinic, Cleveland, OH

# POSTER SESSION 2 (P2) IN THE EXHIBIT & POSTER HALL

**P2-136**

**Increased Importance of Echocardiographic Dyssynchrony to Diabetic Patients Undergoing Cardiac Resynchronization Therapy**

Mohamed Ahmed, Josef Marek, Toshinari Onishi, Tetsuuri Onishi, David Schwartzman, John Gorcsan, III. University of Pittsburgh, Pittsburgh, PA

*Author Disclosures: J. Gorcsan: 2 (GE, Toshiba, Medtronic, St. Jude Medical, Biotronik), 4 (GE, Toshiba)*

**P2-137**

**Left Ventricular Geometry and Function in Patients With Sigmoid Septum**

Mika Bando, Hirotsugu Yamada, Noriko Tomita, Susumu Nishio, Rina Tamai, Shuji Hayashi, Junko Hotchi, Takayuki Ise, Toshiyuki Niki, Koji Yamaguchi, Takashi Iwase, Yoshio Taketani, Takeshi Soeki, Tetsuzo Wakatsuki, Masataka Sata. Tokushima University Hospital, Tokushima, Japan

**P2-138**

**The Impact of Arterial Hypertension on Right Ventricular Deformation**

Krasimira A. Hristova<sup>1</sup>, Andre La Gerche<sup>2</sup>, Tzvetana Katova<sup>1</sup>, Velislava Kostova<sup>1</sup>, Iana Simova<sup>1</sup>. <sup>1</sup>University National Heart Hospital, Sofia, Bulgaria; <sup>2</sup>Catholic University, Cardiovascular Department, Leuven, Belgium

**P2-139**

**Impact of Left Atrial Dyssynchrony on Active Left Atrial Function in Patients With Non-Ischemic Dilated Cardiomyopathy**

Frederico J. N. Mancuso, Valdir A. Moises, Dirceu R. Almeida, Flavio S. Brito, Wercules A. Oliveira, Dalva Poyares, Angelo A. V. Paola, Antonio C. C. Carvalho, Orlando Campos. Escola Paulista de Medicina - Universidade Federal de São Paulo (Unifesp), São Paulo, Brazil

**P2-140**

**Determinants of the Left Atrial Volume in Patients With Non-Ischemic Dilated Cardiomyopathy. A Real-Time Three-Dimensional Echocardiography and Tissue Doppler Study**

Frederico J. N. Mancuso, Dirceu R. Almeida, Valdir A. Moises, Flavio S. Brito, Wercules A. Oliveira, Dalva Poyares, Angelo A. V. Paola, Antonio C. C. Carvalho, Orlando Campos. Escola Paulista de Medicina - Universidade Federal de São Paulo (Unifesp), São Paulo, Brazil

**P2-141**

**Free Wall Activation Delay by Tissue Doppler Imaging Predicts Long Term Survival After Cardiac Resynchronization Therapy**

Josef Marek, Mohamed Ahmed, Toshinari Onishi, Tetsuuri Onishi, Samir Saba, John Gorcsan, III. University of Pittsburgh, Pittsburgh, PA

*Author Disclosures: J. Gorcsan: 2 (GE, Toshiba, Medtronic, St. Jude Medical, Biotronik), 4 (GE, Toshiba)*

**P2-142**

**Reproducibility of Echocardiography Readings in a Core Imaging Laboratory: The CARDIA Study**

Paul Adler<sup>1</sup>, Anderson P. Armstrong<sup>1</sup>, Erin P. Ricketts<sup>1</sup>, Ellen Stengel<sup>1</sup>, Kimberly Keck<sup>1</sup>, Danielle Mee<sup>1</sup>, Jamie Martello<sup>1</sup>, Lisa Friedman<sup>1</sup>, Derk Ng<sup>1</sup>, Alex Arynchyn<sup>2</sup>, Kiang Liu<sup>3</sup>, Ola Gjesdal<sup>1</sup>, Samuel S. Gidding<sup>4</sup>, Joao A. C. Lima<sup>1</sup>, Christopher Cox<sup>1</sup>. <sup>1</sup>Johns Hopkins University, Baltimore, MD; <sup>2</sup>University of Alabama, Birmingham, AL; <sup>3</sup>Northwestern University, Chicago, IL; <sup>4</sup>Nemours/Alfred I. duPont Hospital for Children, Wilmington, DE

**P2-143 Tuesday Rapid Fire Presentation**

**Improvement of Mechanical Dyssynchrony and Its Relation to Recovery of Cardiac Function In Patients Supported by a Continuous Flow Left Ventricular Assist Device**

Akiko Mano, Toshinari Onishi, Tetsuuri Onishi, Josef Marek, Mohamed Ahmed, Dennis M. McNamara, Robert L. Kormos, John Gorcsan, III. University of Pittsburgh, Pittsburgh, PA

*Author Disclosures: J. Gorcsan: 2 (GE, Toshiba, Medtronic, St. Jude Medical, Biotronik), 4 (GE, Toshiba)*

**P2-144 Tuesday Rapid Fire Presentation**

**Right Ventricular Regional Systolic Function and Dyssynchrony in Patients With Pulmonary Hypertension Evaluated by Three-Dimensional Echocardiography**

Dehong Kong, Xianhong Shu, Cuizhen Pan, Leilei Cheng, Lili Dong, Haohua Yao, Daxin Zhou. Zhongshan Hospital, Fudan University, Shanghai, China

**P2-145**

**Echocardiographic Antecedents of Sudden Cardiac Death in African Americans: The Atherosclerosis Risk in Communities (ARIC) Study**

Suma H. Konety<sup>1</sup>, Faye Lopez<sup>1</sup>, Alvaro Alonso<sup>1</sup>, Ervin Fox<sup>2</sup>, Lin Chen<sup>1</sup>, Selcuk Adabag<sup>3</sup>, Aaron Folsom<sup>1</sup>. <sup>1</sup>University of Minnesota, Minneapolis, MN; <sup>2</sup>University of Mississippi, Jackson, MS; <sup>3</sup>VA Medical Center, Minneapolis, MN

**P2-146**

**Echocardiographic and Right Heart Catheter Derived Changes in Pulmonary Artery Systolic Pressure in Patients With Acute Decompensated Heart Failure and Depressed Versus Preserved Right Ventricular Systolic Function**

Andreas P. Kalogeropoulos, Sarawut Siwamogsatham, Catherine N. Marti, Divya Gupta, Robert T. Cole, Vasiliki V. Georgiopoulou, Javed Butler. Emory University, Atlanta, GA

**P2-147 Tuesday Rapid Fire Presentation**

**Effect of Surgical Correction of Tetralogy of Fallot on Short-Term Right Ventricular Function as Determined by Ultrasound Two-Dimensional Speckle Tracking Imaging**

Mingxing Xie, Yuman Li, Xinfang Wang. Union Hospital of Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China

# POSTER SESSION 2 (P2) IN THE EXHIBIT & POSTER HALL

## **P2-148** *Tuesday Rapid Fire Presentation*

### **Adaptive Left Ventricle Hypertrophy in Soccer Players: An Echocardiographic Follow Up**

Loira Toncelli, Laura Stefani, Roberto Mercuri, Roberta M. C. Vono, Valentina Di Tante, Alessio De Luca, Giorgio Galanti. University of Florence - Careggi Hospital, Florence, Italy

## **P2-149** *Tuesday Rapid Fire Presentation*

### **Noninvasive Measures of Ventricular-Vascular Interaction Predict Adverse Outcome in Chronic Heart Failure**

Abigail D. M. Khan<sup>1</sup>, Benjamin French<sup>1</sup>, Ted Plappert<sup>1</sup>, Martin S. St. John Sutton<sup>1</sup>, David A. Kass<sup>2</sup>, Thomas P. Cappola<sup>1</sup>, Bonnie Ky<sup>1</sup>. <sup>1</sup>University of Pennsylvania, Philadelphia, PA; <sup>2</sup>Johns Hopkins Medical Institutions, Baltimore, MD

## **P2-150**

### **The Effect of Right Ventricular Dysfunction on Left Ventricular Systolic and Diastolic Function in the Normal and Dysfunctional Left Ventricle**

Steven J. Lavine. University of Florida/Jacksonville, Jacksonville, FL

*Author Disclosures: S. J. Lavine: 2 (GE Medical)*

## **P2-151** *Tuesday Rapid Fire Presentation*

### **Left Ventricular Segmental 'Lengthening-Contractions' in Myopathic Hearts are Maladapted to the Distribution of Intra-cavity Vortex Circulation**

Ayumi Nakabo, Haruhiko Abe, Giuseppe Caracciolo, Gianni Pedrizzetti, Jagat Narula, Partho P. Sengupta. Mount Sinai Medical Center, New York, NY

## **P2-152**

### **Right Ventricular Mechanics Provides Prognostic Value Incremental to Left Ventricular Ejection Fraction in Patients With Chronic Systolic Heart Failure**

Hirohiko Motoki, Allen G. Borowski, Kevin Shrestha, W. H. Wilson Tang, Allan L. Klein. Cleveland Clinic, Cleveland, OH

## **P2-153**

### **3D is the Most Reproducible Echocardiographic Technique for Sequential Assessment of Left Ventricular Ejection Fraction and Volumes in Patients With Stable Global Longitudinal Strain Undergoing Chemotherapy for Breast Cancer**

Paaladinesh Thavendiranathan, Andrew D. Grant, Negishi Tomoko, Juan Carlos Plana, Zoran B. Popovic, Thomas H. Marwick. Cleveland Clinic, Cleveland, OH

## **P2-154**

### **Left Ventricular Global Longitudinal Strain as a Marker of Myocardial Performance and Predictor of Long-Term Adverse Events in Decompensated Heart Failure**

Allen G. Borowski, Kevin Shrestha, Hirohiko Motoki, Wilson W. H. Tang, James D. Thomas. Cleveland Clinic, Cleveland, OH

## **P2-155**

### **Early Changes in Left Ventricular Untwist After Transcatheter Aortic Valve Implantation (TAVI)**

Abdul R. Maher, Fay Ahmad, Saib Khogali. Heart and Lung Centre, Birmingham, United Kingdom

## **P2-156**

### **Dyssynchrony: Inconsistent Phenomenon During Right Ventricular Pacing and Not the Sole Marker of Contractile Impairment**

Thriveni Sanagala, Samuel L. Johnston, Kathleen Provancal, Gloria D. Groot, Niraj Varma. Loyola University Medical Center, Maywood, IL

## **P2-157**

### **Left Ventricular Mass at the Age of 23 to 35 Years Predicts Global Left Ventricular Systolic Function 20 Years Later: The CARDIA Study**

Satoru Kishi<sup>1</sup>, Anderson C. Armstrong<sup>1</sup>, David R. Jacobs<sup>2</sup>, Stephen Sidney<sup>3</sup>, Cora E. Lewis<sup>4</sup>, Pamela J. Schreiner<sup>2</sup>, Kiang Liu<sup>5</sup>, James M. Shikany<sup>4</sup>, Samuel S. Gidding<sup>6</sup>, Joao A. C. Lima<sup>1</sup>. <sup>1</sup>Johns Hopkins University School of Medicine, Baltimore, MD; <sup>2</sup>University of Minnesota, Minneapolis, MN; <sup>3</sup>Kaiser Permanente Division of Research, Oakland, CA; <sup>4</sup>University of Alabama at Birmingham, Birmingham, AL; <sup>5</sup>Northwestern University, Chicago, IL; <sup>6</sup>Nemours Cardiac Center, Wilmington, DE

## **P2-158** *Monday Oral Presentation*

### **Diastolic Electromechanical Coupling: Association of the Electrocardiographic T-peak to T-end Interval With Echocardiographic Markers of Diastolic Dysfunction**

Jane E. Wilcox, Andrew Sauer, Rod Passman, Jeffrey J. Goldberger, Sanjiv J. Shah. Northwestern University, Chicago, IL

## **P2-159**

### **Left Ventricular Twist by Speckle Tracking Echocardiography is a Predictor of Changes in Cardiac Output**

Alice Wang<sup>1</sup>, Santos E. Cabreriza<sup>1</sup>, Vinod Havalad<sup>1</sup>, Linda Aponte-Patel<sup>1</sup>, Gerardo Gonzalez<sup>1</sup>, Bin Cheng<sup>2</sup>, Henry M. Spotnitz<sup>1</sup>. <sup>1</sup>Columbia Presbyterian Medical Center, New York, NY; <sup>2</sup>Mailman School of Public Health, New York, NY

## **P2-160**

### **Acute Effects of Right Ventricular Apical Pacing on Dyssynchrony and Deterioration of Ventricular Function in Heart Failure Patients With Intrinsic Left Bundle Branch Block**

Hidekazu Tanaka, Chad Feldman, Firas Zahr, Toshinari Onishi, Tetsuaki Onishi, John Gorcsan, III, David Schwartzman. University of Pittsburgh, Pittsburgh, PA  
*Author Disclosures: J. Gorcsan: 2 (GE, Toshiba, Medtronic, St. Jude Medical, Biotronik), 4 (GE, Toshiba)*

# POSTER SESSION 2 (P2) IN THE EXHIBIT & POSTER HALL

**P2-161**

## **The Impact of Ageing on Right Ventricular Diastolic Function in Normal Subjects**

Takenori Otsuka<sup>1</sup>, Makoto Suzuki<sup>1</sup>, Hisao Yoshikawa<sup>1</sup>, Go Hashimoto<sup>1</sup>, Youko Ishikawa<sup>1</sup>, Tsukasa Osaki<sup>1</sup>, Hirofumi Masai<sup>2</sup>, Tsuyoshi Ono<sup>2</sup>, Masato Yamamoto<sup>2</sup>, Kaoru Sugi<sup>1</sup>.  
<sup>1</sup>Toho University Ohashi Medical Center, Tokyo, Japan;  
<sup>2</sup>Sempo Tokyo Takanawa Hospital, Tokyo, Japan

**P2-162**

## **Right Ventricular Assessment by Real-Time 3D Echocardiography Versus Cardiac Magnetic Resonance in Patients With Left Ventricular Systolic Dysfunction**

Jiwon Kim<sup>1</sup>, Scott B. Cohen<sup>2</sup>, Michael Atalay<sup>1</sup>, David Adams<sup>1</sup>, Andrew Maslow<sup>1</sup>, Athena Poppas<sup>1</sup>. <sup>1</sup>Rhode Island Hospital/Brown Univ, Providence, RI; <sup>2</sup>Medical College of Wisconsin, Milwaukee, WI

*Author Disclosures: A. Poppas: 4 (Phillips)*

**P2-163**

## **Impact of Microgravity on Cardiac Shape: Comparison of Pre- and In-flight Data to Mathematical Modeling**

Christopher H. May<sup>1</sup>, Allen Borowski<sup>1</sup>, David Martin<sup>2</sup>, Zoran B. Popovic<sup>1</sup>, Kazuaki Negishi<sup>1</sup>, Jagir R. Hussan<sup>3</sup>, Patrick Gladding<sup>3</sup>, Peter Hunter<sup>3</sup>, Ilana Iskovitz<sup>4</sup>, Mohammed Kassemi<sup>4</sup>, Michael W. Bungo<sup>5</sup>, Benjamin D. Levine<sup>6</sup>, James D. Thomas<sup>1</sup>. <sup>1</sup>Cleveland Clinic, Cleveland, OH; <sup>2</sup>NASA Johnson Space Center, Houston, TX; <sup>3</sup>University of Auckland, Auckland, New Zealand; <sup>4</sup>National Center for Space Exploration Research, NASA Glenn Research Center, Cleveland, OH; <sup>5</sup>University of Texas, Houston, Houston, TX; <sup>6</sup>University of Texas Southwestern Medical Center at Dallas, Dallas, TX

**P2-164**

## **Decreased Left Ventricular Volume at One Year Predicts Mortality in Patients Undergoing Cardiac Resynchronization Therapy**

Andrew E. Kott<sup>1</sup>, Adin-Cristian Andrei<sup>1</sup>, Andrew Sauer<sup>1</sup>, Matthew Coppola<sup>1</sup>, Liviu Klein<sup>2</sup>, Jyothy Puthumana<sup>1</sup>.  
<sup>1</sup>Northwestern University Feinberg School of Medicine, Chicago, IL; <sup>2</sup>University of California - San Francisco School of Medicine, San Francisco, CA

**P2-165**

## **Left Ventricular Mechanical Disturbances Do Not Necessarily Improve Rapidly After Cardiac Resynchronization Therapy**

Kazato Ito<sup>1</sup>, Yukio Abe<sup>1</sup>, Chiharu Tanaka<sup>1</sup>, Hiroaki Matsumi<sup>1</sup>, Kazuki Mizutani<sup>1</sup>, Makoto Ito<sup>1</sup>, Kei Yunoki<sup>1</sup>, Eiichiro Nakagawa<sup>1</sup>, Ryushi Komatsu<sup>1</sup>, Kazuo Haze<sup>1</sup>, Junichi Yoshikawa<sup>2</sup>, Minoru Yoshiyama<sup>3</sup>, Takahiko Naruko<sup>1</sup>, Akira Itoh<sup>1</sup>. <sup>1</sup>Osaka City General Hospital, Osaka, Japan; <sup>2</sup>Nishinomiya Watanabe Cardiovascular Center, Nishinomiya, Japan; <sup>3</sup>Osaka City University Medical School, Osaka, Japan

**P2-166**

## **Study of Quantitative Assessment of Left Ventricular Systolic Function by Tissue Motion Annular Displacement in Heart Failure Patients**

Yue Song, Li Yuan, Mingxing Xie, Xinfang Wang. Union Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China

**P2-167**

## **Predictors Deteriorating LV Systolic Function in Restored Idiopathic Dilated Cardiomyopathy**

Jin-Sun Park<sup>1</sup>, Kyoung-Woo Seo<sup>2</sup>, Jin-Woo Kim<sup>2</sup>, Byoung-Joo Choi<sup>2</sup>, So-Yeon Choi<sup>2</sup>, Myeong-Ho Yoon<sup>2</sup>, Gyo-Seung Hwang<sup>2</sup>, Seung-Jea Tahk<sup>2</sup>, Joon-Han Shin<sup>2</sup>. <sup>1</sup>Ajou University School of Medicine, Suwon, Republic of Korea; <sup>2</sup>Ajou University School of Medicine, Suwon, Republic of Korea

**P2-168**

## **Cardiac Mechanics in HIV Patients: A Systolic Myocardial Deformation Study in Children and Young Adults**

Ghassan H. Al-Naami, Fuad Kiblawi, Helen Kest, Ayman Hamdan, Dorothy Myridakis. St Joseph's Regional Medical Center, Paterson, NJ

**P2-169**

## **Feasibility of New Non-Gated High Frame Rate 3D Echocardiography for Evaluation of Cardiac Mechanics: An In Vitro Validation Study**

Shahryar Ashraf<sup>1</sup>, Meihua Zhu<sup>1</sup>, Helene Houle<sup>2</sup>, Cole Streiff<sup>1</sup>, David J. Sahn<sup>1</sup>. <sup>1</sup>Oregon Health & Science University, Portland, OR; <sup>2</sup>Siemens Medical Solutions, Mountain View, CA  
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**P2-170**

## **Echocardiography Quantified Stroke Volume for Assessment of Global Left Ventricular Dysfunction After Acute Myocardial Infarction: Comparison of Doppler and Teichholz Methods to Cardiac Magnetic Resonance**

Abiola Dele-Michael<sup>1</sup>, Kana Fujikura<sup>2</sup>, Fahmida Islam<sup>1</sup>, Fay Lin<sup>1</sup>, Richard B. Devereux<sup>1</sup>, Jonathan W. Weinsaft<sup>1</sup>. <sup>1</sup>Weill Cornell Medical College, New York, NY; <sup>2</sup>Beth Israel Medical Center, New York, NY

**P2-171**

## **Decreased Global Strain of Right Ventricle in Patients With Involvement of Major Acute Marginal Branch of Right Coronary Artery**

Wei-Ting Chang, Wei-Chuan Tsai, Yen-Wen Liu, Cheng-Han Lee, Ping-Yuan Liu, Ju-Yi Chen, Yi-Heng Lee, Liang-Miin Tsai. National Cheng Kung University Hospital, Tainan, Taiwan

# POSTER SESSION 2 (P2) IN THE EXHIBIT & POSTER HALL

**P2-172**

## **The Relationship Between Regional Longitudinal Strain and the Distribution of Myocardial Fibrosis in the Myocardial Wall in Patients With Hypertrophic Cardiomyopathy**

Makoto Saito<sup>1</sup>, Hideki Okayama<sup>2</sup>, Haruhiko Higashi<sup>1</sup>, Hiroe Morioka<sup>1</sup>, Toyofumi Yoshii<sup>1</sup>, Go Hiasa<sup>1</sup>, Takumi Sumimoto<sup>1</sup>, Kazuhisa Nishimura<sup>3</sup>, Katsuji Inoue<sup>3</sup>, Jitsuo Higaki<sup>3</sup>.  
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**P2-173**

## **Comparison of Septal and Lateral E-prime for Tissue Doppler Assessment of Diastolic Function**

Theodore J. Koliass, Diane L. Eberhart, Nicole M. Kline, Stanley J. Chetcuti. University of Michigan, Ann Arbor, MI  
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**P2-174**

## **Multi-Modality Comparison of ASE Guideline Echocardiographic Parameters to Assess Right Ventricular Function in Patients With Pulmonary Arterial Hypertension**

Benjamin H. Freed, Nicole M. Bhave, Wendy Tsang, Mardi Gomberg-Maitland, Victor Mor-Avi, Amit R. Patel, Roberto M. Lang. University of Chicago Medical Center, Chicago, IL  
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**P2-175**

## **Differentiation of Left Atrial Dysfunction From Pseudonormal/Restrictive Transmitral Flow Velocity Pattern in Patients With Preserved Ejection Fraction**

Shuji Hayashi, Hirotsugu Yamada, Noriko Tomita, Junko Hotchi, Mika Bando, Susumu Nishio, Rina Tamai, Maya Nakagawa, Daichi Hirota, Yukina Hirata, Masataka Sata. Tokushima University Hospital, Tokushima, Japan

**P2-176**

## **Global Longitudinal Peak Strain Can Demonstrate Subclinical Left Ventricular Systolic Dysfunction in Older Patients Receiving Trastuzumab Therapy**

Sun Hwa Lee, Won Ho Kim, Hae Eun Yun, Min Ju Song, Lae Young Jung, Min Seok Soh, E-Sik Kim, Jae Ki Ko. Chonbuk National University Hospital, Jeonju, Republic of Korea

**P2-177**

## **Validation of Global Longitudinal Strain and Global Longitudinal Strain Rate as Reliable Markers of Right Ventricular Dysfunction: Comparison With Cardiac Magnetic Resonance and Outcome**

Jae-Hyeong Park, Deborah H. Kwon, Thomas H. Marwick. Cleveland Clinic Foundation, Cleveland, OH

**P2-178**

## **Impact of Arterial Stiffness on Left Ventricular Longitudinal Function in Healthy Subjects: A Speckle-Strain Imaging Study**

Makoto Saito<sup>1</sup>, Hideki Okayama<sup>2</sup>, Haruhiko Higashi<sup>1</sup>, Hiroe Morioka<sup>1</sup>, Toyofumi Yoshii<sup>1</sup>, Go Hiasa<sup>1</sup>, Takumi Sumimoto<sup>1</sup>, Kazuhisa Nishimura<sup>3</sup>, Katsuji Inoue<sup>3</sup>, Jitsuo Higaki<sup>3</sup>.  
<sup>1</sup>Kitaishikai Hospital, Ozu, Japan; <sup>2</sup>Ehime Prefectural Central Hospital, Matsuyama, Japan; <sup>3</sup>Ehime University Graduate School of Medicine, Toon, Japan

**P2-179**

## **Impact of Gender Difference on the Relation Between Arterial Stiffness and Left Ventricular Diastolic Function in Healthy Subjects**

Makoto Saito<sup>1</sup>, Hideki Okayama<sup>2</sup>, Haruhiko Higashi<sup>1</sup>, Hiroe Morioka<sup>1</sup>, Toyofumi Yoshii<sup>1</sup>, Go Hiasa<sup>1</sup>, Takumi Sumimoto<sup>1</sup>, Kazuhisa Nishimura<sup>3</sup>, Katsuji Inoue<sup>3</sup>, Jitsuo Higaki<sup>3</sup>.  
<sup>1</sup>Kitaishikai Hospital, Ozu, Japan; <sup>2</sup>Ehime Prefectural Central Hospital, Matsuyama, Japan; <sup>3</sup>Ehime University Graduate School of Medicine, Toon, Japan

**P2-180**

## **Compatibility of Strain With Speckle Tracking Echocardiography and Velocity Vector Imaging in Detection of RV Dysfunction in Patients With Ischemic Cardiomyopathy: A Validation Study With Cardiac Magnetic Resonance**

Jae-Hyeong Park, Deborah H. Kwon, Thomas H. Marwick. Cleveland Clinic Foundation, Cleveland, OH

**P2-181**

## **The Effect of Volume Overload and Cardiac Fibrosis on Ventricular Remodeling and Exercise Capacity in a Murine Model of Left Ventricular Pressure Overload**

Kyung-Hee Kim, Yong-Jin Kim, Hyun-Jin Kim, Seung-Pyo Lee, Hyung-Kwan Kim, Dae-won Sohn. Seoul National University Hospital, Seoul, Republic of Korea

**P2-182**

## **Strain and Strain Rate Imaging in the Assessment of Acute Rejection and Cardiac Function in a Pediatric Heart Transplant Population**

Michelle Carr, Pei-Ni Jone, Kendall Hunter, Adel Younoszai, Scott Auerbach. Children's Hospital Colorado, Aurora, CO

**P2-183**

## **Frequency and Predictors of "Preserved" Left Ventricular Relaxation in Patients With Reduced Left Ventricular Ejection Fraction - A Doppler Echocardiographic Study**

Tomoko Tamada, Hiroyuki Okura, Koichiro Imai, Terumasa Koyama, Ken Saito, Kikuko Obase, Teruyoshi Kume, Akihiro Hayashida, Yoji Neishi, Takahiro Kawamoto, Kiyoshi Yoshida. Kawasaki Medical School, Kurashiki, Japan



# POSTER SESSION 2 (P2) IN THE EXHIBIT & POSTER HALL

**P2-184**

## **Usefulness of Low Intensity Exercise Stress Echocardiography for Predicting Exercise Capacity in Patients With Atrial Fibrillation**

Kosuke Uchida, Sr.<sup>1</sup>, Yasuaki Wada<sup>2</sup>, Shinichi Okuda<sup>1</sup>, Wakako Murakami<sup>1</sup>, Takeshi Nakamura<sup>1</sup>, Takeki Myoren<sup>1</sup>, Toru Ariyoshi<sup>2</sup>, Noriko Harada<sup>2</sup>, Tomoko Tanaka<sup>2</sup>, Takeshi Yamamoto<sup>1</sup>, Takeshi Ueyama<sup>1</sup>, Akihiro Hino<sup>1</sup>, Kozo Shiraishi<sup>1</sup>, Tadamitsu Nakashima<sup>1</sup>, Masunori Matsuzaki<sup>1</sup>. <sup>1</sup>Yamaguchi University Graduate School of Medicine, Ube, Japan; <sup>2</sup>Yamaguchi University Hospital, Ube, Japan

**P2-185**

## **Serial Echocardiographic Evaluation Using 2-Dimensional Speckle Tracking Imaging in Monitoring Right Ventricular Failure Dysfunction Following Left Ventricular Assist Device Implantation**

Tomoko S. Kato, Maryjane Farr, P. Christian Schulze, Jeffrey Jiang, Shuichi Kitada, Shinich Iwata, Jonathan Yang, Hiroo Takayama, Ulrich P. Jorde, Yoshifumi Naka, Donna M. Mancini, Linda Gillam, Shunichi Homma. Columbia University Medical Center, New York, NY

**P2-186**

## **Right Ventricular Strain in Elite Athletes With Right Ventricular Enlargement**

Jana Svetlichnaya, Mazen Albaghdadi, Jyothy Puthumana, Ike Okwuosa. Northwestern University, Chicago, IL

**P2-187**

## **Estimation of Left Ventricular Vortex Strength in Contrast Echo Particle Imaging Velocimetry Images**

Ayumi Nakabo, Haruhiko Abe, Giuseppe Caracciolo, Gianni Pedrizzetti, Jagat Narula, Partho P. Sengupta. Mount Sinai Medical Center, New York, NY

**P2-188**

## **Dissecting Each Peak and Nadir Component of Tricuspid Annular Motion: Clues to Right Ventricular Performance**

Angel Lopez-Candales<sup>1</sup>, Kathy Edelman<sup>2</sup>. <sup>1</sup>University of Cincinnati, Cincinnati, OH; <sup>2</sup>University of Pittsburgh, Pittsburgh, PA

**P2-189**

## **Effect of Diastolic Dysfunction in Short Term In-Hospital Outcome After CABG Surgery**

Magdy F. A. Ismail, Sr., Mohamed Fahmy Ibraheim, Sr., Abdel-Fatah Al-Asfer, Sameh AlSayed. King Fahd Medical City, Riyadh, Saudi Arabia

**P2-190**

## **Right Ventricular Diastolic Dysfunction in Children With Sickle Cell Disease**

Sarika Kalantre<sup>1</sup>, Joseph Mahgerefteh<sup>1</sup>, Hilel Cohen<sup>2</sup>, Daphne Hsu<sup>1</sup>, Deepa Manwani<sup>1</sup>, Leo Lopez<sup>1</sup>. <sup>1</sup>Children's Hospital at Montefiore, Bronx, NY; <sup>2</sup>Albert Einstein College of Medicine, Bronx, NY

**P2-191**

## **Morphological and Functional Cardiac Modifications in Adolescent Soccer Players**

Matteo Milicia, Jr., Alice Bartolini, Niccolò Gori, Giulio Tempesti, Valentina Di Tante, Alessio De Luca, Laura Stefani, Giorgio Galanti. Sports Medicine Centre, Florence, Italy

**P2-192**

## **The Right Ventricular Contractile Pattern is Markedly Different After Cardiac Surgery Relative to Normal Hearts: Implications for Post-surgical Right Ventricular Function Assessment**

Anjali V. Fields<sup>1</sup>, Amresh Raina<sup>2</sup>, Zachary M. Gertz<sup>1</sup>, Susan V. Chambers<sup>1</sup>, Paul R. Forfia<sup>1</sup>. <sup>1</sup>University of Pennsylvania, Philadelphia, PA; <sup>2</sup>Allegheny General Hospital, Pittsburgh, PA

**P2-193**

## **Is it Worth to Acquire All the Doppler Indices for Diastolic LV Dysfunction When LA is Dilated?**

Alda Huqi<sup>1</sup>, Allen He<sup>2</sup>, Marleen Irwin<sup>2</sup>, Ian Paterson<sup>2</sup>, Jonathan Choy<sup>2</sup>, Harald Becher<sup>2</sup>. <sup>1</sup>University of Pisa, Pisa, Italy; <sup>2</sup>University of Alberta, Edmonton, AB, Canada

**P2-194**

## **Reduced Left Ventricular Systolic and Diastolic Function on a Transthoracic Echocardiogram Had a Positive Relationship With Various Morphological Kinds of Ventricular Premature Beats With Fragmented QRS Waves on a 12 Lead Holter ECG in Hypertrophic Cardiomyopathy Subjects**

Koya Ozawa, Nobusada Funabashi, Sawako Horie, Maiko Takahashi, Akihisa Kataoka, Hiroyuki Takaoka, Masae Uehara, Yoshio Kobayashi. Chiba University Graduate School of Medicine, Chiba, Japan

**P2-195**

## **Comparison of Strain With Speckle Tracking Echocardiography and Velocity Vector Imaging in Patients With Acute Pulmonary Embolism**

Jae-Hyeong Park, Yun Seon Park, Yeon Ju Kim, In Suk Lee, Hye Yun Jeong, Seon Ah Jin, Soo Jin Park, Jun Hyung Kim, Jae-Hwan Lee, Si Wan Choi, Jin-Ok Jeong, In-Whan Seong. Chungnam National University Hospital, Daejeon, Republic of Korea

# POSTER SESSION 2 (P2) IN THE EXHIBIT & POSTER HALL

**P2-196**

**Echocardiographic Characterization of a Progressive Model of Heart Failure**

Sarah Mangiafico<sup>1</sup>, Diego Bellavia<sup>1</sup>, Lisa C. Costello-Boerrigter<sup>1</sup>, Guido Boerrigter<sup>1</sup>, Gail Harty<sup>1</sup>, Elise Oehler<sup>1</sup>, Corrado Tamburino<sup>2</sup>, Alessandro Cataliotti<sup>1</sup>, John C. Burnett, Jr.<sup>1</sup>. <sup>1</sup>Mayo Clinic, Rochester, MN; <sup>2</sup>University of Catania, Catania, Italy

**P2-197**

**Definition of Determinants of Diastolic Function of the Left Ventricle by Modern Methods of the Multidimensional Data Analysis**

Gulnora Rozikhodjaeva<sup>1</sup>, Dildora Rozikhodjaeva<sup>2</sup>. <sup>1</sup>Central Clinical Hospital #1, Tashkent, Uzbekistan; <sup>2</sup>University of Information Technologies, Tashkent, Uzbekistan

**P2-198**

**Quantification of Acute Mechanical Effects of Biventricular Pacing: A New Approach Using 3-D Speckle Tracking Activation Imaging**

Toshinari Onishi, Tetsuari Onishi, Mohamed E. Ahmed, Josef Marek, Samir Saba, David Schwartzman, John Gorcsan, III. University of Pittsburgh, Pittsburgh, PA  
*Author Disclosures: J. Gorcsan: 2, (GE, Toshiba, Medtronic, St. Jude Medical, Biotronik), 4 (GE, Toshiba)*

**P2-199**

**Deceleration Time of Early Diastolic Velocity by Tissue Doppler Velocity Image: A Novel Index of Left Ventricular End-diastolic Pressure**

Kazushi Takemoto, Kumiko Hirata, Makoto Orii, Takashi Kubo, Toshio Imanishi, Takashi Akasaka. Wakamaya Medical University, Wakayama, Japan

**P2-200**

**Investigation on Left Ventricular Myocardial Multi-Dimensional Deformation in Hypertension Using 2-Dimensional Strain Echocardiography**

Qinyun Ruan, Meiyun Lin. Fujian Medical University, Fuzhou, China

**P2-201**

**A Novel Modification of the Teichholz Approach for Calculating Left Ventricular Ejection Fraction Using the Septal Inflection Point as the True Ellipsoid Diameter**

Jonathan Afilalo, Robert A. Levine, Arthur E. Weyman, Aidan W. Flynn, David M. Shahian, Michael H. Picard. Massachusetts General Hospital, Boston, MA

**P2-202**

**Effect of Preload on Right Ventricular Function Evaluated by 2-Dimensional Speckle Tracking**

Chan Seok Park, Seo-Hee Ahn, Ji-Hee Kim, Jung Sun Cho, Woo-Baek Chung, Eun-Ju Cho, Eun-Ju Cho, Hae-Ok Jung, Hui-Kyung Jeon, Ho-Joong Youn. Catholic University of Korea, Seoul, Republic of Korea

**P2-203**

**Prognostic Implication of "Preserved" Left Ventricular Relaxation in Patients With Reduced Left Ventricular Ejection Fraction - A Doppler Echocardiographic Study**

Tomoko Tamada, Hiroyuki Okura, Koichiro Imai, Terumasa Koyama, Ken Saito, Kikuko Obase, Teruyoshi Kume, Akihiro Hayashida, Yoji Neishi, Takahiro Kawamoto, Kiyoshi Yoshida. Kawasaki Medical School, Kurashiki, Japan

# TUESDAY HIGHLIGHTS

## TAVR: Live from the OR

8:30 am – 10:00 am in Prince George's A, Level 1

This session will feature a live transmission from the Washington Hospital Center's cath lab of a Transcatheter Aortic Valve Replacement (TAVR) procedure. Attendees will learn about the current indications for TAVR, the technique, role of imaging in general and echo (TEE) in particular, in guiding the implantation and the diagnosis of complications. These discussions will take place between renowned faculty made up of echocardiographers and interventional cardiologists.

## Rapid-Fire Debates from the Greats

10:15 am – 11:45 am in Potomac A, Level 2

This session will address two clinically important questions with debates: "Is there a role of evaluating dyssynchrony by echocardiography in patients to receive CRT?" and "Which is the imaging modality that should be obtained first in patients with possible aortic dissection: TEE or cardiac CT?" Don't miss ASE 2012 luminary faculty as they debate the hottest topics in cardiovascular ultrasound.

## ASE 2012 Scientific Sessions Wrap-Up

1:15 pm – 2:45 pm in Potomac A, Level 2

This session will highlight the most innovative research presented during the scientific sessions in the fields of myocardial and atrial function, stress and contrast echocardiography, 3D imaging, vascular, congenital and valvular heart disease. This is your opportunity to get an overview of ASE 2012 from the best in the field!

## Hearts in Space: NASA, Remote Diagnosis by Ultrasound, and the Impact of Weightlessness on Cardiac Function

12:00 pm – 1:15 pm in Potomac A, Level 2

This exciting and unique session will give you a little insight into medicine in the space program. Topics to be presented: Cardiovascular physiology in space flight, *Benjamin D. Levine, MD*; Training and remote guidance of ultrasound in space: Noncardiac applications, *Scott A. Dulchavsky, MD, PhD*; The Heart in Space: Changes in shape, size, and function, *James D. Thomas, MD, FASE*; and The view from space: Observations of an ultrasound-savvy astronaut, *Leroy Chiao, PhD* (former NASA astronaut).

## Educator's Summit: Overcoming Barriers to Improve Student Scanning Success

3:00 pm – 4:30 pm in National Harbor 4/5, Level 3

This session will be a combination of panel discussions and open forum discussions. It will involve networking and sharing of ideas on how cardiovascular ultrasound educators can overcome barriers to improve student scanning success. Discussion will include how to recognize students with limited spatial abilities, how scanning skills may be impacted, ideas for testing spatial abilities, pros and cons of admission screening, and ideas for improving spatial recognition. Attendees of this session will also receive information on educator resources available from ASE.

## Legends Stumping Other Legends

3:00 pm – 4:30 pm in Potomac A, Level 2

Senior echocardiographers will share with other legends and the audience their most challenging cases. This session will provide unique input from luminaries in the field that will help attendees learn how to navigate through difficult situations and challenging cases. This year's participants include Harvey Feigenbaum among other "household names" in the echo world.

## Tuesday Committee Meetings

These meetings are by invitation only.

### 7:00-8:00 am

- Scientific Sessions Program Committee  
*Potomac 5*

### 7:00-8:30 am

- Council on Vascular Ultrasound Board Meeting  
*Potomac 6*

### 11:45-1:15 pm

- Pediatric Echo Lab Directors Meeting  
*Chesapeake 11/12*

# TUESDAY, JULY 3, 2012

## SCHEDULE

### 7:00 am - 8:30 am

**Accreditation Evolved; Updates to IAC Echocardiography -**  
National Harbor 4/5

Chair(s): *B. Gorman, S. Katanick*

### 7:00 am - 8:30 am

**TB Hemodynamics** - Chesapeake 1-3  
Chair: *B. Khandheria* Co-Chair: *M. Saric*

#### 7:00 am - 7:10 am

- Case Presentation: How to Measure Stroke Volume and Cardiac Output *A. Armour*

#### 7:10 am - 7:20 am

- Case Presentation: How to Measure Left Ventricular Filling Pressure *B. Khandheria*

#### 7:20 am - 7:30 am

- Case Presentation: How to Measure Pulmonary Artery Pressure in the Absence of Adequate Tricuspid Regurgitation *G. Kane*

#### 7:30 am - 7:40 am

- Case Presentation: Strengths and Weakness of Pressure/Half Time in Mitral Stenosis *M. Saric*

#### 7:40 am - 7:50 am

- Case Presentation: Pitfalls in Assessment of Aortic Stenosis *B. Hoit*

#### 7:50 am - 8:00 am

- Case Presentation: Pitfalls in Assessment of Mitral Regurgitation *A. Poppas*

#### 8:00 am - 8:10 am

- Case Presentation: Tips to Distinguish Tricuspid Regurgitation, Mitral Regurgitation, Left Ventricular Outflow Tract (LVOT) Obstruction and Aortic Stenosis Signals *V. Rigolin*

#### 8:10 am - 8:30 am

- Questions and Answers

### 7:00 am - 8:30 am

**TB Aortic Stenosis in 2012** - Chesapeake 4-6  
Chair: *M. Quinones* Co-Chair: *J. Dumesnil*

#### 7:00 am - 7:20 am

- Severe Aortic Stenosis with Severe Left Ventricular Dysfunction (Low Output and Low Gradient) *M. Quinones*

#### 7:20 pm - 7:30 pm

- Case Presentation: Low Gradient with Preserved Ejection Fraction and Low Stroke Volume *J. Dumesnil*

#### 7:30 am - 7:40 am

- Case Presentation: Valvular Aortic Stenosis and Subvalvular Stenosis (Stenosis in Series) *H. Michelena*

#### 7:40 am - 7:50 am

- Case Presentation: Discrete Subvalvular Aortic Stenosis *L. Minich*

#### 7:50 am - 8:00 am

- Case Presentation: Supravalvular Aortic Stenosis *R. Pignatelli*

#### 8:00 am - 8:10 am

- Case Presentation: Selection for Transcatheter Aortic Valve Implantation (TAVI) *M. Gallagher*

#### 8:10 am - 8:30 am

- Questions and Answers

### 7:00 am - 8:30 am

**TB Stress Echocardiography Beyond Coronary Artery Disease** - Chesapeake 7-9  
Chair(s): *K. Koulogiannis, T. Ryan*

#### 7:00 am - 7:15 am

- Application of Stress Echo for Patients with Dyspnea *S. Sawada*

#### 7:15 am - 7:30 am

- Stress Echo for Valvular Heart Disease *T. Ryan*

#### 7:30 am - 7:40 am

- Case Presentation: Dobutamine Stress Test in Low Gradient Aortic Stenosis with Depressed Ejection Fraction *P. Lancellotti*

#### 7:40 am - 7:50 am

- Case Presentation: Exercise Echo in Mitral Regurgitation *I. Mikati*

#### 7:50 am - 8:00 am

- Case Presentation: Diastolic Stress Test *R. McCully*

#### 8:00 am - 8:10 am

- Case Presentation: Pulmonary Artery Pressures with Exercise *K. Koulogiannis*

#### 8:10 am - 8:30 am

- Questions and Answers

### 8:30 am - 10:00 am

**CL Heart Failure: Transplant and Left Ventricular Assist Devices (LVAD)** - Potomac C  
Chair: *L. Nixon*

#### 8:30 am - 8:40 am

- Normal LVAD Findings *Y. Topilsky*

#### 8:40 am - 8:45 am

- Questions and Answers

#### 8:45 am - 8:55 am

- Inflow Cannula Thrombus *M. Firstenberg*

#### 8:55 am - 9:00 am

- Questions and Answers

#### 9:00 am - 9:10 am

- LVAD Suction Event *J. Estep*

#### 9:10 am - 9:15 am

- Questions and Answers

#### 9:15 am - 9:25 am

- Imaging Percutaneous LVAD *R. Stainback*

#### 9:25 am - 9:30 am

- Questions and Answers

#### 9:30 am - 9:40 am

- Can We Diagnose Transplant Rejection? *J. Kirkpatrick*

#### 9:40 am - 9:45 am

- Questions and Answers

#### 9:45 am - 9:55 am

- Can We Diagnose Transplant Coronary Artery Disease?

#### 9:55 am - 10:00 am

- Questions and Answers

### 8:30 am - 10:00 am

**CS How To: Scanning Congenital Disease in Adults** - National Harbor 4/5  
Chair(s): *K. Kendall, D. Defaria-Yeh*

#### 8:30 am - 8:45 am

- Atrial Septal Defect (ASD) Assessment with Case Studies *K. Koulogiannis*

#### 8:45 am - 9:00 am

- Ventricular Septal Defect (VSD) Assessment with Case Studies *M. Rosenblatt*

#### 9:00 am - 9:15 am

- Bicuspid Aortic Valve and Coarctation with Case Studies *K. Kendall*

#### 9:15 am - 9:30 am

- Tetralogy of Fallot Pre- and Post- Operation with Case Studies *M. Pernetz*

#### 9:30 am - 9:45 am

- Complex Congenital: A Step-by-Step Approach *D. Defaria-Yeh*

#### 9:45 am - 10:00 am

- Questions and Answers

# TUESDAY, JULY 3, 2012

## SCHEDULE

### 8:30 am - 10:00 am

**FI** **All You Wanted to Know About Myocardial Mechanics -**  
National Harbor 2/3  
*Chair(s): Z. Popovic, P. Sengupta*

#### 8:30 am - 8:45 am

- Integrated Imaging of EF/Strain/Mass: Why and How to do it?  
*D. Thavendiranathan*

#### 8:45 am - 9:00 am

- Ejection Fraction: Virtues and Pitfalls *G. Aurigemma*

#### 9:00 am - 9:15 am

- Strain - What Does It Mean and How to Read the Displays  
*P. Sengupta*

#### 9:15 am - 9:30 am

- Speckle Tracking 1: Methodology and Current Applications *B. Ky*

#### 9:30 am - 9:45 am

- Case Presentations: Applying Mechanics to the Patient's  
Presentation *Z. Popovic*

#### 9:45 am - 10:00 am

- Questions and Answers

### 8:30 am - 10:00 am

**PC** **Pediatric Oral Abstracts - Potomac B**  
*Chair: W. Border Co-Chair: L. Mertens*

#### 8:30 am - 8:40 am

- PC-01: Early Changes in Apical Rotation in Genotype Positive  
Children With Hypertrophic Cardiomyopathy Mutations Without  
Hypertrophic Changes in 2D Imaging *J. Forsey*

#### 8:40 am - 8:45 am

- Questions and Answers

#### 8:45 am - 8:55 am

- PC-02: Diastolic Dysfunction and Cerebrovascular Redistribution  
Precede Overt Recipient Twin Cardiomyopathy in Early Stage  
Twin-Twin Transfusion Syndrome *J. Votava-Smith*

#### 8:55 am - 9:00am

- Questions and Answers

#### 9:00 am - 9:10 am

- PC-03: Echocardiographic Predictors of Post Surgical Myocardial  
Dysfunction in Pediatric Patients With Aortic Valve Insufficiency  
*R. Punn*

#### 9:10 am - 9:15 am

- Questions and Answers

#### 9:15 am - 9:25 am

- PC-04: Abnormal Myocardial Strain and Preserved Ejection  
Fraction in Children at Risk for Chemotherapy-related  
Cardiotoxicity *R. Pignatelli*

#### 9:25 am - 9:30 am

- Questions and Answers

#### 9:30 am - 9:40 am

- PC-05: The Impact of Right Ventricular Myocardial Remodeling  
on Ventricular Function as Assessed by Ultrasound Two-  
Dimensional Speckle Tracking Imaging in Patients With Tetralogy  
of Fallot *M. Xie*

#### 9:40 am - 9:45 am

- Questions and Answers

#### 9:45 am - 9:55 am

- PC-06: Right Ventricular Regional and Global Strain and Strain  
Rate Do Not Predict Long Term Outcome After Norwood  
Procedure in Patients With Hypoplastic Left Heart Syndrome  
*D. Saudek*

#### 9:55 am - 10:00 am

- Questions and Answers

### 8:30 am - 10:00 am

**S** **Live Transmission: TAVR Procedure - Prince George's A**  
*Moderator(s): L. Gillam, S. Kapadia, R. Hahn, C. Bruce*  
*Interventionalist Speaker(s): A. Pichard, L. Satler*  
*Echo Speaker(s): S. Goldstein, Z. Wang*

### 8:30 am - 10:00 am

**S** **State-of-the-Art Echocardiography in Coronary Artery**  
**Disease - Potomac D**  
*Chair: W. Mathias Co-Chair: J. Lowenstein*

#### 8:30 am - 8:45 am

- Comparative Effectiveness Trials for Imaging in Coronary Artery  
Disease: Is There Evidence? *M. Lauer*

#### 8:45 am - 9:00 am

- New Technologies for Contractile Reserve in the Diagnosis of  
Coronary Artery Disease *G. Derumeaux*

#### 9:00 am - 9:15 am

- Myocardial Contrast Echocardiography: Is There an Established  
Role? *S. Kaul*

#### 9:15 am - 9:25 am

- P2-24: Three Dimensional Speckle Tracking in Post-Infarction  
Left Ventricular Remodeling: Relationship of Global Myocardial  
Strains With Scar Burden, Hypertrophy and Akt Upregulation  
*C. Santos-Gallego*

#### 9:25 am - 9:40 am

- Coronary Flow Reserve for Coronary Artery Disease and  
Functional Abnormalities of the Circulation *J. Lowenstein*

#### 9:40 am - 9:55 am

- Echo in the Evaluation of Mechanical Complications of Coronary  
Artery Disease *V. Rigolin*

#### 9:55 am - 10:00 am

- Questions and Answers

### 10:15 am - 11:45am

**CL** **Prosthetic Valve Dysfunction: Illustrative Cases -**  
Potomac C  
*Chair(s): J. Dent, S. Ben Zekry*

#### 10:15 am - 10:25 am

- Mitral Valve Periprosthetic Regurgitation *L. Sugeng*

#### 10:25 am - 10:30 am

- Questions and Answers

#### 10:30 am - 10:40 am

- Transcatheter Aortic Valve Implantation (TAVI) Periprosthetic  
Regurgitation *F. Silvestry*

#### 10:40 am - 10:45 am

- Questions and Answers

#### 10:45 am - 10:55 am

- Prosthesis Patient Mismatch *S. Ben Zekry*

#### 10:55 am - 11:00 am

- Questions and Answers

#### 11:00 am - 11:10 am

- Prosthetic Mitral Valve Thrombosis *S. Litwin*

#### 11:10 am - 11:15 am

- Questions and Answers

#### 11:15 am - 11:25 am

- Prosthetic Valve Endocarditis *J. Dent*

#### 11:25 am - 11:30 am

- Questions and Answers

#### 11:30 am - 11:40 am

- Prosthetic Aortic Valve Stenosis *J. Tam*

#### 11:40 am - 11:45 am

- Questions and Answers

# TUESDAY, JULY 3, 2012

## SCHEDULE

### 10:15 am - 11:45 am

**CS** **How To: Valvular Disease** - National Harbor 4/5  
Chair(s): *Y. Zang, J. Walker*

#### 10:15 am - 10:25 am

- Aortic Regurgitation: Assessment and Quantification of Severity  
*K. Chin*

#### 10:25 am - 10:35 am

- Aortic Stenosis: Assessment and Quantification of Severity *P. Knoll*

#### 10:35 am - 10:45 am

- Mitral Regurgitation: Assessment and Quantification of Severity  
*Y. Zhang*

#### 10:45 am - 10:55 am

- Mitral Stenosis: Assessment and Quantification of Severity *J. Neary*

#### 10:55 am - 11:10 am

- Evaluation of Prosthetic Valves with Case Studies *L. Elvert*

#### 11:10 am - 11:25 am

- Evaluation of Endocarditis with Case Studies *C. Taub*

#### 11:25 am - 11:40 am

- What the Surgeon Needs to Know *J. Walker*

#### 11:40 am - 11:45 am

- Questions and Answers

### 10:15 am - 11:45 am

**FI** **Innovation and Challenges in the Echo Lab** -  
National Harbor 2/3  
Chair(s): *R. Weiner, N. Weissman*

#### 10:15 am - 10:30 am

- Implementing AUC *P. Ward*

#### 10:30 am - 10:45 am

- How to Implement CQI *A. Armour*

#### 10:45 am - 11:00 am

- The Use of Simultaneous Tissue/Blood Doppler for Continuous  
Cardiac Monitoring: Another Application of Ultracompact  
Ultrasound *G. Lancaster*

#### 11:00 am - 11:15 am

- Echo and the Web *A. Keller*

#### 11:15 am - 11:30 am

- Echo Lab 2015: Predictions? *A. Pearlman*

#### 11:30 am - 11:45 am

- Questions and Answers

### 10:15 am - 11:45 am

**PC** **Controversies in Pediatric Echocardiography** - Potomac B  
Chair: *G. Kung* Co-Chair: *C. Altman*

#### 10:15 am - 10:30 am

- It IS all about the Right Ventricle Volume in Pulmonary Valve  
Replacement *L. Mertens*

#### 10:30 am - 10:45 am

- It is NOT all about the Right Ventricle Volume in Pulmonary Valve  
Replacement *T. Geva*

#### 10:45 am - 11:00 am

- It IS all about the Left Ventricle Volume in Aortic Valve  
Replacement *M. Cohen*

#### 11:00 am - 11:15 am

- It is NOT all about the Left Ventricle Volume in Aortic Valve  
Replacement *T. Tacy*

#### 11:15 am - 11:30 am

- The Borderline Left Ventricle: It IS all about the Mitral Valve  
*M. Quartermain*

#### 11:30 am - 11:45 am

- The Borderline Left Ventricle: It is NOT all about the Mitral Valve  
*M. Lewin*

### 10:15 am - 11:45 am

**R** **Rapid Fire Oral Abstracts: Echo for Assessing the Ventricle:  
From Molecules to Outcomes** - Chesapeake 4-6  
Chair: *G. Aurigemma* Co-Chair(s): *L. Gillam, M. Garcia*

#### 10:15 am - 10:20 am

- P2-143: Improvement of Mechanical Dyssynchrony and Its  
Relation to Recovery of Cardiac Function In Patients Supported by  
a Continuous Flow Left Ventricular Assist Device *A. Mano*

#### 10:20 am - 10:25 am

- Questions and Answers

#### 10:25 am - 10:30 am

- P2-28: Detection of Pulmonary Congestion Using the Newly-  
developed Pocket-sized Transthoracic Echocardiographic  
Imaging Device in Patients With Heart Failure *R. Takemoto*

#### 10:30 am - 10:35 am

- Questions and Answers

#### 10:35 am - 10:40 am

- P2-36: Determining Myocardial Fiber Structure of Intact Hearts In  
Vitro From Analyses of Echocardiographic Images *M. Holland*

#### 10:40 am - 10:45 am

- Questions and Answers

#### 10:45 am - 10:50 am

- P2-148: Adaptive Left Ventricle Hypertrophy in Soccer Players: An  
Echocardiographic Follow Up *G. Galanti*

#### 10:50 am - 10:55 am

- Questions and Answers

#### 10:55 am - 11:00 am

- P1-05: Clinical Utility of Right Ventricular End-Diastolic Wall  
Stress in Patients With Pulmonary Hypertension *K. Addetia*

#### 11:00 am - 11:05 am

- Questions and Answers

#### 11:05 am - 11:10 am

- P2-149: Noninvasive Measures of Ventricular-Vascular Interaction  
Predict Adverse Outcome in Chronic Heart Failure *A. Kahn*

#### 11:10 am - 11:15 am

- Questions and Answers

#### 11:15 am - 11:20 am

- P2-151: Left Ventricular Segmental 'Lengthening-Constrictions' in  
Myopathic Hearts are Maladapted to the Distribution of Intra-  
cavity Vortex Circulation *A. Nakabo*

#### 11:20 am - 11:25 am

- Questions and Answers

#### 11:25 am - 11:30 am

- P2-144: Right Ventricular Regional Systolic Function and  
Dyssynchrony in Patients With Pulmonary Hypertension  
Evaluated by Three-Dimensional Echocardiography *D. Kong*

#### 11:30 am - 11:35 am

- Questions and Answers

#### 11:35 am - 11:40 am

- P2-147: Effect of Surgical Correction of Tetralogy of Fallot  
on Short-Term Right Ventricular Function as Determined by  
Ultrasound Two-Dimensional Speckle Tracking Imaging *M. Xie*

#### 11:40 am - 11:45 am

- Questions and Answers

# TUESDAY, JULY 3, 2012

## SCHEDULE

### 10:15 am - 11:45 am

- S** **Rapid-Fire Debates from the Greats** - Potomac A  
Chair(s): *H. Rakowski, B. Byrd*

#### 10:15 am - 10:30 am

- Echo for Patient Selection for CRT Debate: Dysynchrony Measurements by Echocardiography Play a Major Role in Patient Selection for CRT *J. Gorcsan*

#### 10:30 am - 10:45 am

- Echo for Patient Selection for CRT Debate: Dysynchrony Measurements Are Not Needed for Patient Selection for CRT *R. Grimm*

#### 10:45 am - 10:52 am

- Rebuttal *J. Gorcsan*

#### 10:52 am - 11:00 am

- Rebuttal *R. Grimm*

#### 11:00 am - 11:15 am

- TEE versus CT as Initial Diagnostic Modality for Aortic Dissection Debate: TEE is the Initial Diagnostic Modality for Diagnosis of Aortic Dissection *J. Kisslo*

#### 11:15 am - 11:30 am

- TEE versus CT as Initial Diagnostic Modality for Aortic Dissection Debate: CT is the Initial Diagnostic Modality for Diagnosis of Aortic Dissection *U. Hoffmann*

#### 11:30 am - 11:37 am

- Rebuttal *J. Kisslo*

#### 11:37 am - 11:45 am

- Rebuttal *U. Hoffmann*

### 10:15 am - 11:45 am

- S** **Contrast Echocardiography: Putting Bubbles to Work** - Potomac D Chair: *R. Senior* Co-Chair: *T. Porter*

#### 10:15 am - 10:27 am

- The Basics of Bubbles: What the Clinician Needs to Know *M. Monaghan*

#### 10:27 am - 10:39 am

- Seamless Integration of Contrast in a Busy Echo Lab *P. Burgess*

#### 10:39 am - 10:51 am

- Advanced Use of Left Ventricular Opacification: Beyond Wall Motion *S. Mulvagh*

#### 10:51 am - 11:01 am

- P2-12: Improved Sonothrombolysis Utilizing a Low Mechanical Index Therapeutic Ultrasound Impulse Containing a Longer Pulse Duration *T. Kumar*

#### 11:01 am - 11:13 am

- Myocardial Perfusion: What Does It Provide Incremental Information? *T. Porter*

#### 11:13 am - 11:25 am

- Therapeutic Applications of Microbubbles: Sonothrombolysis and Gene/Drug Delivery *H. Leong-Poi*

#### 11:25 am - 11:37 am

- Niche Applications for Contrast - Case Illustrations *K. Wei*

#### 11:37 am - 11:45 am

- Questions and Answers

### 12:00 pm - 1:15 pm

- Hearts in Space: NASA, Remote Diagnosis by Ultrasound, and the Impact of Weightlessness on Cardiac Function** - Prince George's A

#### 12:00 pm - 12:15 pm

- Cardiovascular Physiology in Space Flight *B. Levine*

#### 12:15 pm - 12:30 pm

- Training and Remote Guidance of Ultrasound in Space: Noncardiac Applications *S. Dulchavsky*

#### 12:30 pm - 12:45 pm

- The Heart in Space: Changes in Shape, Size, and Function *J. Thomas*

#### 12:45 pm - 1:00 pm

- The View from Space: Observations of an Ultrasound-Savvy Astronaut *L. Chiao*

#### 1:00 pm - 1:15 pm

- Questions and Answers

### 1:15 pm - 2:45 pm

- S** **ASE 2012 Scientific Sessions Wrap-Up** - Potomac A  
Chair: *S. Nagueh* Co-Chair: *J. Hung*

#### 1:15 pm - 1:25 pm

- Valvular Heart Disease *R. Hahn*

#### 1:25 pm - 1:35 pm

- Congenital Heart Disease *W. Border*

#### 1:35 pm - 1:45 pm

- Vascular Imaging Speaker *V. Nambi*

#### 1:45 pm - 1:55 pm

- Myocardial Function *G. Aurigemma*

#### 1:55 pm - 2:05 pm

- Stress Echocardiography *S. Wieggers*

#### 2:05 pm - 2:15 pm

- Contrast Echocardiography *J. Lindner*

#### 2:15 pm - 2:25 pm

- Atrial Function *A. Klein*

#### 2:25 pm - 2:35 pm

- 3D Imaging *J. Hung*

#### 2:35 pm - 2:45 pm

- Questions and Answers

### 3:00 pm - 4:30 pm

- FI** **Prosthetic Valve Assessment** - National Harbor 2/3  
Chair(s): *S. Wilansky, N. Weissman*

#### 3:00 pm - 3:15 pm

- Pearls and Pitfalls *S. Wilansky*

#### 3:15 pm - 3:30 pm

- Prosthetic Valve Endocarditis - Assessment and Treatment *J. Aragam*

#### 3:30 pm - 3:45 pm

- Patient Prosthetic Mismatch - Does the Data Support Aggressive Sizing of Aortic Valve Replacement *W. Vernick*

#### 3:45 pm - 4:00 pm

- Percutaneous Valve Repair - Where Are We With the Data? *N. Weissman*

#### 4:00 pm - 4:15 pm

- Difficult Cases - Is the Valve the Problem? *S. Shames*

#### 4:15 pm - 4:30 pm

- Questions and Answers

# TUESDAY, JULY 3, 2012

## SCHEDULE

### 3:00 pm - 4:30 pm

- CL** **Cases in Stress Echocardiography** - Potomac C  
Chair(s): *P. Pellikka, S. Govind*

#### 3:00 pm - 3:10 pm

- Role of Exercise Echocardiography in Patients with Mitral Regurgitation *J. Hung*

#### 3:10 pm - 3:15 pm

- Questions and Answers

#### 3:15 pm - 3:25 pm

- Illustrative Cases in Coronary Artery Disease *K. Kurrelmeyer*

#### 3:25 pm - 3:30 pm

- Questions and Answers

#### 3:30 pm - 3:40 pm

- Stress Echocardiography for Viability *S. Sawada*

#### 3:40 pm - 3:45 pm

- Questions and Answers

#### 3:45 pm - 3:55 pm

- Dobutamine Stress Echocardiography (DSE) and Pre-operative Assessment - When is It Appropriate and What Should You be Looking Out For? *T. Hsu*

#### 3:55 pm - 4:00 pm

- Questions and Answers

#### 4:00 pm - 4:10 pm

- Role of Exercise Echocardiography in Asymptomatic Patients with Aortic Stenosis *M. Barbosa*

#### 4:10 pm - 4:15 pm

- Questions and Answers

#### 4:15 pm - 4:25 pm

- Role of Stress Echocardiography in Evaluation of Dyspnea *J. Ha*

#### 4:25 pm - 4:30 pm

- Questions and Answers

### 3:00 pm - 4:30 pm

- CS** **Educator's Summit: Overcoming Barriers to Improve Student Scanning Success** - National Harbor 4/5  
Moderator(s): *M. Bremer, C. Mitchell, R. Palma, J. Ehrsam*

### 3:00 pm - 4:30 pm

- PC** **Hands-on Knobology, Image Acquisition and Post-Processing: Practical Techniques from the Experts** - Potomac B  
Chair: *M. Friedberg* Co-Chair: *G. Marx*

#### 3:00 pm - 3:20 pm

- Deformation Imaging Acquisition - Strain, Speckle Tracking, Twist and Torsion *C. Slorach*

#### 3:20 pm - 3:40 pm

- Deformation Imaging Post-Processing *M. Friedberg*

#### 3:40 pm - 4:00 pm

- 3D Volume Acquisition

#### 4:00 pm - 4:20 pm

- 3D Volumetrics *G. Marx*

#### 4:20 pm - 4:30 pm

- Questions and Answers

### 3:00 pm - 4:30 pm

- S** **Legends Stumping Other Legends** - Potomac A  
Chair(s): *H. Feigenbaum, S. Wiegers*

#### 3:00 pm - 3:18 pm

- Case 1 *G. Aurigemma*

#### 3:18 pm - 3:36 pm

- Case 2 *N. Schiller*

#### 3:36 pm - 3:54 pm

- Case 3 *L. Gillam*

#### 3:54 pm - 4:12 pm

- Case 4 *M. Vannan*

#### 4:12 pm - 4:30 pm

- Case 5 *J. Roelandt*

### 3:00 pm - 4:30 pm

- S** **Echocardiography in Cardiomyopathy** - Potomac D  
Chair: *J. Liu* Co-Chair: *J. Plana*

#### 3:00 pm - 3:12 pm

- Genotype and Phenotype in Hypertrophic Cardiomyopathy *H. Rakowski*

#### 3:12 pm - 3:24 pm

- Chemotherapy-Induced Cardiomyopathy: Emerging Role of Myocardial Imaging *J. Liu*

#### 3:24 pm - 3:36 pm

- Restrictive Cardiomyopathy *A. Klein*

#### 3:36 pm - 3:46 pm

- P2-25: Incremental Prognostic Value of Left Ventricular Global Longitudinal Strain in Patients With Heart Failure *H. Motoki*

#### 3:46 pm - 3:58 pm

- Echocardiography in Guiding Device Therapy - CRT *J. Gorcsan*

#### 3:58 pm - 4:10 pm

- Echocardiography in Guiding Device Therapy - LVAD *J. Estep*

#### 4:10 pm - 4:22 pm

- Stress-Induced Cardiomyopathy *J. Plana*

#### 4:22 pm - 4:30 pm

- Questions and Answers



# ORIGINAL SCIENCE POSTER PRESENTATION SCHEDULE

## Meet the Investigators

Daily attendee viewing hours are listed for each poster session. Investigators will be attending their posters in the Exhibit & Poster Hall during these scheduled viewing times.

### POSTER SESSION 1 (P1) IN THE EXHIBIT & POSTER HALL SUNDAY, JULY 1, 2012 | PAGES 41-57

**Presented 9:30 am – 4:30 pm**  
**Meet the Investigators 12:15 pm – 1:45 pm**

#### Research Topics

Late-Breaking Science.....	LB-01 through LB-04
Echo in Systemic Disease: CMP, DM, HTN, Obesity, Cancer .....	P1-01 through P1-50
Intraoperative Echocardiography .....	P1-51 through P1-54
Ischemic Heart Disease/Stress Echocardiography .....	P1-55 through P1-73
Pediatric and Adult Congenital Heart Disease.....	P1-74 through P1-98
Quality/Outcomes/Appropriateness/ Echo in Clinical Trials .....	P1-99 through P1-118
Valvular Heart Disease .....	P1-119 through P1-170
Vascular Disease .....	P1-171 through P1-183

### POSTER SESSION 2 (P2) IN THE EXHIBIT & POSTER HALL MONDAY, JULY 2, 2012 | PAGES 64-81

**Presented 9:30 am – 4:30 pm**  
**Meet the Investigators 12:15 pm – 1:45 pm**

#### Research Topics

Cardiac Source of Embolism .....	P2-01 through P2-11
Contrast Echocardiography.....	P2-12 through P2-23
Novel Technologies: 3D/Tissue/ Molecular Imaging .....	P2-24 through P2-92
Pericardial Disease.....	P2-93 and P2-94
Pediatric and Adult Congenital Heart Disease.....	P2-95 through P2-119
Quality/Outcomes/Appropriateness/ Echo in Clinical Trials .....	P2-120 through P2-134
Ventricular Function .....	P2-135 through P2-203

# 2012 ABSTRACT GRADERS

ASE sincerely thanks this year's volunteers for their time in reviewing the original science abstract submissions.

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# YOUNG INVESTIGATOR'S AWARD

## 2012 ARTHUR E. WEYMAN YOUNG INVESTIGATOR'S AWARD COMPETITION

ASE congratulates this year's finalists and thanks the National Board of Echocardiography™ (NBE) for its continued support of this annual competition.

### Poster Presentations:

Sunday, July 1 and Monday, July 2 in the Exhibit & Poster Hall

### Oral Presentations:

Monday, July 2, 10:45 am-12:15 pm in Potomac A

#### Research Topics

Contrast Echocardiography..... YIA-1  
Novel Technologies: 3D/Tissue/Molecular Imaging..... YIA-2  
Ventricular Function ..... YIA-3  
Ischemic Heart Disease/Stress Echocardiography..... YIA-4

*The presenters have no disclosures to make.*

#### YIA-1

##### Ultrasound-Mediated Anti-Apoptotic Gene Therapy For Doxorubicin Cardiomyopathy

Paul J.H. Lee, Dmitriy Rudenko, Michael A. Kuliszewski, Christine Liao, Vanessa Shen, Golam Kabir, Kim A. Connelly, Howard Leong-Poi. St. Michael's Hospital, Toronto, ON, Canada

*Presented by Paul J.H. Lee, MSc*

#### YIA-2

##### Designing Microbubble for Long Term *in vivo* Stem Cell Tracking Using Contrast Ultrasound

Huili Fu, Jianjun Wang, Xucai Chen, Xiaoping Leng, Stephen Thorne, Flordeliza Villanueva. University of Pittsburgh, Pittsburgh, PA

*Presented by Huili Fu, PhD*

#### YIA-3

##### Visualization and Assessment of Depolarization Events With Ultrasound

Cooper Moore<sup>1</sup>, Zainab Samad<sup>2</sup>, Niels Risum<sup>2</sup>, Kevin Jackson<sup>2</sup>, John Castellucci<sup>1</sup>, Joseph Kisslo<sup>2</sup>, Olaf von Ramm<sup>1</sup>. <sup>1</sup>Duke University, Durham, NC; <sup>2</sup>Duke University Medical Center, Durham, NC

*Presented by Cooper Moore, BSE*

#### YIA-4

##### Association of Left Atrial Dysfunction With Abnormal LV Filling Pressure Response to Exercise

Kenya Kusunose, Hirohiko Motoki, Zoran B. Popovic, James D. Thomas, Allan L. Klein, Thomas H. Marwick. Cleveland Clinic, Beachwood, OH

*Presented by Kenya Kusunose, MD, PhD*

## 2011 EUROPEAN ASSOCIATION OF ECHOCARDIOGRAPHY (EAE) YOUNG INVESTIGATOR'S AWARD WINNER

### Poster Presentation:

Sunday, July 1 and Monday, July 2 in the Exhibit & Poster Hall

#### Research Topic

Novel Technologies: 3D/Tissue/Molecular Imaging..... EAE-1

*The presenter has no disclosures to make.*

#### EAE-1

##### Quantitative Assessment of Myocardial Stiffness Using Shear Wave Imaging in Normal and Hypertrophic Isolated Rat Hearts

*Presented by Mathieu Couade, PhD, Supersonic Imagine, Aix en Provence, France*

## 2012 JAPANESE SOCIETY OF ECHOCARDIOGRAPHY (JSE) YOUNG INVESTIGATOR'S AWARD COMPETITION

### Poster Presentation:

Sunday, July 1 and Monday, July 2 in the Exhibit & Poster Hall

#### Research Topic

Novel Technologies: 3D/Tissue/Molecular Imaging.....JSE-1

*The presenter has no disclosures to make.*

#### JSE-1

##### Three-Dimensional Quantitative Analysis of Aortic Valve Apparatus in Functional Classification of Aortic Regurgitation

*Presented by Kentaro Shibayama, MD, Tokyo Bay Urayasu - Ichikawa Medical Center, Chiba, Japan*

# 2012 PROGRAM FACULTY INDEX

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7. Corporate research collaboration (including trials/product testing)
8. Honoraria

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Adams, D. ....	Edwards Lifesciences (6); Medtronic (6, 7)
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Badano, L. ....	GE (1, 4)
Baker, J. ....	Mindray (2); GE (2)
Banchs, J. ....	None
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These meetings are by invitation only and subject to change.

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## Friday, June 29

### 2:30 pm-5:30 pm

- ASE Board of Directors  
*Cherry Blossom Ballroom*

### 6:00 pm-9:00 pm

- Council on Pediatric and Congenital Heart Disease Board  
*Potomac 5*

## Saturday, June 30

### 8:00 am - 10:00 am

- Council on Cardiovascular Sonography Business Meeting  
*Potomac 5*

### 8:30 am - 10:30 am

- JASE Editorial Board  
*Cherry Blossom Ballroom*

### 10:30 am - 12:30 pm

- Public Relations Committee  
*Potomac 6*

### 12:00 pm - 1:00 pm

- Nominating Committee  
*Chesapeake 10*

### 1:30 pm - 2:30 pm

- Awards Committee  
*Chesapeake 10*

### 2:30 pm - 4:30 pm

- International Relations Task Force  
*Potomac 5*

### 3:30 pm - 4:30 pm

- Research Awards Committee  
*Potomac 6*

## Sunday, July 1

### 8:00am - 9:30 am

- New Practice Applications Task Force  
*Chesapeake 11*

### 8:30 am - 10:00 am

- Council on Cardiovascular Sonography Board  
*Chesapeake 10*

### 9:15 am - 10:30 am

- Membership Committee  
*Chesapeake 12*

### 9:30 am - 11:00 am

- ACCME Committee  
*Chesapeake 11*

### 10:30 am - 11:30 am

- Committee on Accreditation for Advanced Cardiovascular Sonography  
*Chesapeake 10*

### 12:15 pm - 1:15 pm

- ACS Credentialing Exam Task Force  
*Chesapeake 10*

### 12:15 pm - 1:45 pm

- Guidelines and Standards Committee  
*Potomac 5*

### 12:15 pm - 1:45 pm

- FASE Committee  
*Potomac 6*

### 12:15 pm - 1:45 pm

- Information Technology Committee  
*Chesapeake 11*

### 12:15 pm - 1:45 pm

- Advocacy Committee  
*Chesapeake 12*

### 1:00 pm - 1:45 pm

- Foundation Annual Appeal Task Force  
*Azalea 1*

### 2:00 pm - 3:00 pm

- JASE Contract Task Force  
*Chesapeake 10*

## Monday, July 2

### 7:00 am - 8:30 am

- 3D Editorial Board  
*Chesapeake 10*

### 7:00 am - 9:00 am

- Research Committee  
*Potomac 5*

### 8:00 am - 9:00 am

- Finance Committee  
*Potomac 6*

### 2:00 pm - 4:00 pm

- Strain Standardization Task Force  
*Chesapeake 11/12*

### 2:30 pm - 3:30 pm

- International Sonographer Training Task Force  
*Potomac 6*

### 2:00 pm - 3:30 pm

- Education Committee  
*Potomac 5*

### 3:00 pm - 4:00 pm

- Bylaws and Ethics Committee  
*Chesapeake 10*

### 3:30 pm - 4:30 pm

- Scientific Sessions Task Force  
*Potomac 5*

## Tuesday, July 3

### 7:00 am - 8:00 am

- Scientific Sessions Program Committee  
*Potomac 5*

### 7:00 am - 8:30 am

- Vascular Council Board Meeting  
*Potomac 6*

### 11:45 am - 1:15 pm

- Pediatric Echo Lab Directors Meeting  
*Chesapeake 11/12*

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Please note, the above list  
was updated as of December 2011

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Listed below are new FASE members from the March, June, September and December 2011 cycles. For a complete list, please visit [www.SeeMyHeart.org](http://www.SeeMyHeart.org). Learn more about applying for FASE at [www.asecho.org](http://www.asecho.org) or stop by ASE Headquarters booth #434.

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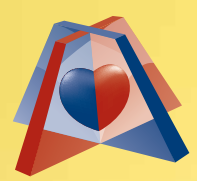
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