21st
Valve Disease, Structural Interventions, and
Diastology Summit

March 8-10, 2019
Loews Portofino Bay Hotel at Universal Orlando™
Orlando, FL

New location!
Bring your family!
Discover three amazing theme parks, unforgettable dining, incredible entertainment, and more at Universal Orlando Resort™.

New this Year!
• Get CME and MOC at the same time!
• How to Sessions on Strain, 3-D, and Diastology
• Guideline-Based Valve Disease Management
• LAA Closure Devices
• New Structural Devices

Register Today! ccfcme.org/echo
Join us for a one of a kind summit tackling the latest issues in valve disease, structural interventions, and diastology!

The 21st Cleveland Clinic Valve Disease, Structural Interventions, and Diastology Summit will focus on mitral, aortic and tricuspid valve diseases as well as the latest advances in structural interventions including TAVR, percutaneous mitral repair and LAA occluder devices. This summit will include case-based lectures and workshops about strain, 3-D and contrast echo.

This will provide you a unique opportunity to receive updates in new and emerging topics from basic to advanced imaging techniques including 3-D echocardiography, strain imaging, echo guidance of transcatheter therapies as well as MRI/CT. The new ASE guidelines on diastolic function will be discussed as well as advances in pericardial and myocardial diseases.

**BY ATTENDING, YOU WILL BE ABLE TO:**

- Apply echocardiography to diagnose the severity, mechanism, etiology, and hemodynamic impact of the many types of valve disease, including mitral regurgitation, mitral stenosis, aortic stenosis, aortic regurgitation and tricuspid valve disorders
- Assess the most recent innovations in structural interventions and describe their clinical use
- Translate new guideline criteria on imaging into current decision-making regarding structural valve interventions, medical treatment, and surgical valve repair/replacement
- Utilize echocardiographic imaging for imaging before, during, and after interventional procedures, including transcatheter valve replacement (aortic and mitral), closure of periprosthetic leaks, LAA closure, and edge-to-edge mitral and tricuspid repair as well LAA occluder devices
- Gain an updated understanding on new and emerging imaging techniques, including 3-D echocardiography, strain imaging, and MRI/CT
- Describe clinical methods to diagnose diastolic dysfunction and manage disorders such as heart failure with preserved ejection fraction, constrictive pericarditis, amyloid heart disease, and hypertrophic cardiomyopathy
- Discuss role of clinical indications and emerging uses of contrast echocardiography

**WHO SHOULD ATTEND?**

Noninvasive and invasive cardiologists, cardiac surgeons, anesthesiologists, sonographers, nurses, fellows, cardiology nurse practitioners, and physician assistants will benefit from attending this summit.

**SUMMIT DIRECTOR**

Allan L. Klein, MD, FRCP(C), FACC, FAHA, FASE, FESC
Past President, American Society of Echocardiography
Professor of Medicine
Director, Pericardial Disease Center
Department of Cardiovascular Medicine
Heart and Vascular Institute
Cleveland Clinic

**SUMMIT CO-DIRECTORS**

Christine Jellis, MD, PhD
Assistant Professor of Medicine
Co-Director Pericardial Disease Center
Cardiovascular Medicine
Heart and Vascular Institute
Cleveland Clinic

Samir Kapadia, MD
Director, Sones Catheterization Laboratories
Cardiovascular Medicine
Heart and Vascular Institute
Cleveland Clinic

L. Leonardo Rodriguez, MD
Program Director, Advanced Imaging Fellowship
Editor in Chief, CASE Cardiovascular Medicine
Heart and Vascular Institute
Cleveland Clinic
GUEST FACULTY

Hisham Dokainish, MD, FRCP(C), FASE
Professor of Medicine
McMaster University
Hamilton, Ontario

Linda Gillam, MD, MPH, FACC, FASE, FESC
Professor of Medicine
Thomas Jefferson University
Chair, Cardiovascular Medicine
Morristown Medical Center/Atlantic Health System
Morristown, NJ

Stephen H. Little, MD, FRCP(C), FACC, FASE
Director, Cardiovascular Fellowship Program
Associate Professor
Weill Cornell Medicine
Houston Methodist Hospital
Houston, TX

Maurice Sarano, MD
Cardiovascular Disease
Mayo Clinic
Rochester, MN

Igal A. Sebag, MD, FRCP(C), FACC, FASE
Associate Professor of Medicine,
McGill University
Director, Echocardiography and Medical Diagnostics
Director, Fellowships in Echocardiography and Integrated Cardiac Imaging
Sir Mortimer B. Davis–Jewish General Hospital
Montreal, Quebec

Cleveland Clinic Faculty

Robert J. Cubeddu, MD
Chair, Department of Cardiovascular Medicine
Cleveland Clinic Florida

Amy Dillenbeck, MS, RDCS, FASE
Coordinator, Education and Training
Cardiovascular Medicine

Richard Grimm, DO
Director, Echocardiography Laboratory
Cardiovascular Medicine

William J. Stewart, MD
Cleveland Clinic Lerner College of Medicine of Case Western Reserve University

Lars G. Svensson, MD, PhD
Chairman, Heart and Vascular Institute
Thoracic and Cardiovascular Surgery

REGISTER ONLINE AT ccfcme.org/echo

Cleveland Clinic employee fees and registration are available online only.

Fees

Fee includes: continental breakfast, refreshment breaks, and faculty PowerPoint presentations available online.

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<tr>
<th></th>
<th>Fee on or before Jan 4, 2019</th>
<th>Fee after Jan 4, 2019</th>
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<tbody>
<tr>
<td>Physician</td>
<td>$875</td>
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<tr>
<td>ASE Physician</td>
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<td>Cleveland Clinic Alumnus</td>
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*Letter from program director is required to receive the discounted fee. If letter is not received two weeks prior to the activity, the full physician fee will be charged.

Registration and Cancellation

Preregistrations are accepted until 2:00 pm ET March 5, 2019. Register on-site after this date.

In case of cancellation, email notification is required to process your refund. A full refund will be issued if canceled by February 8, 2019. After February 8, 2019, a $150 cancellation fee will be deducted from your refund. No refunds will be issued after March 1, 2019.

For questions about registration or cancellation, email us at cmeregistration@ccf.org or call 216-444-9990.
# AGENDA

**FRIDAY, MARCH 8, 2019**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>5:15 AM</td>
<td>Registration, Continental Breakfast, and Visit Exhibits</td>
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<tr>
<td>6:00 AM</td>
<td>Coffee with the Experts: Informal Discussion on Mitral Valve and Structural Interventions</td>
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<tr>
<td>6:50 AM</td>
<td>Introduction Allan L. Klein, MD; Christine Jellis, MD, PhD; and L. Leonardo Rodriguez, MD</td>
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## SESSION 1
**VALVE DISEASE: FOCUS ON THE MITRAL VALVE**

Moderators: Maurice Sarano, MD, and William J. Stewart, MD

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>7:00 AM</td>
<td>Complexities of the Mitral Valve Structure and Mechanics Maurice Sarano, MD</td>
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<td>7:20 AM</td>
<td>Mitral Regurgitation: Etiology and How this Impacts on Treatment Linda Gillam, MD, MPH</td>
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<tr>
<td>7:40 AM</td>
<td>Basic to Advanced Quantification of MR: What Do the New ASE Guidelines Say? Allan L. Klein, MD</td>
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<td>8:00 AM</td>
<td>Management of MR: Past Controversies and Current ACC/AHA/ESC Guideline-Based Recommendations Stephen H. Little, MD</td>
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<tr>
<td>8:20 AM</td>
<td>Ischemic/Secondary Mitral Regurgitation – Who, Who-Not, and When to do Surgery? Lars G. Svensson, MD, PhD</td>
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<td>8:40 AM</td>
<td>Asymptomatic Severe Mitral Regurgitation: Choosing the Golden Moment William J. Stewart, MD</td>
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<td>9:00 AM</td>
<td>Calcific Mitral Stenosis: Percutaneous and Surgical Options and Challenges Samir Kapadia, MD</td>
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<td>9:20 AM</td>
<td>Panel Discussion Moderator: L. Leonardo Rodriguez Linda Gillam, MD, MPH; Samir Kapadia, MD; Allan L. Klein, MD; Maurice Sarano, MD; William J. Stewart, MD; and Lars G. Svensson, MD, PhD</td>
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<tr>
<td>9:40 AM</td>
<td>Refreshment Break and Visit Exhibits</td>
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## SESSION 2
**STRUCTURAL INTERVENTIONS: MITRAL VALVE AND LEFT ATRIUM**

Moderators: Linda Gillam, MD, MPH and L. Leonardo Rodriguez, MD

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<th>Time</th>
<th>Event</th>
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<tr>
<td>10:00 AM</td>
<td>Exercise Testing in Mitral Valve Disease: What do the Guidelines Say? Stephen H. Little, MD</td>
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<tr>
<td>10:40 AM</td>
<td>Percutaneous Mitral Valve Repair—Intra-Procedural TEE Guidance: 3-D and Biplane Echo Maurice Sarano, MD</td>
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<tr>
<td>11:00 AM</td>
<td>Left Atrial Size and Function – How to Evaluate and Implications in Management of Patients with Valvular Heart Disease Linda Gillam, MD, MPH</td>
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<tr>
<td>11:20 AM</td>
<td>LAA Occluder Devices – Current Indications Samir Kapadia, MD</td>
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<tr>
<td>11:40 AM</td>
<td>How Does the Sonographer Acquire Quality 2-D and 3-D Data for the Mitral Valve and the Left Atrium Amy Dillenbeck, RDGS</td>
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<tr>
<td>12:00 PM</td>
<td>Panel Discussion Moderator: Samir Kapadia, MD Robert J. Cubeddu, MD; Amy Dillenbeck, RDGS; Stephen H. Little, MD; L. Leonardo Rodriguez, MD; and Maurice Sarano, MD</td>
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### Simultaneous Sessions

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<th>Time</th>
<th>Event</th>
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<tr>
<td>12:20 PM</td>
<td>How to Do Session A: 3-D Reconstruction and Cropping in Valve Disease Moderators: Amy Dillenbeck, RDGS and Richard Grimm, DO Linda Gillam, MD, MPH and Christine Jellis, MD, PhD</td>
</tr>
<tr>
<td>12:20 PM</td>
<td>Case Workshops: Robotic MV Surgery, Functional vs. Degenerative MR, Percutaneous MV Surgery, LAA Closure, Contrast Cases 3-D Printing Moderator: Robert J. Cubeddu, MD Samir Kapadia, MD; Stephen H. Little, MD; L. Leonardo Rodriguez, MD; Maurice Sarano, MD; William J. Stewart, MD; and Lars G. Svensson, MD, PhD</td>
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1:30 PM Adjourn
SATURDAY, MARCH 9, 2019

5:30 AM  Registration, Continental Breakfast, and Visit Exhibits

6:00 AM  Coffee with the Experts: Informal Discussion on Aortic Valve and Structural Interventions

SESSION 3

VALVE DISEASE: FOCUS ON THE AORTIC VALVE

Moderators: Stephen H. Little, MD and Lars G. Svensson, MD, PhD

7:00 AM  Aortic Valve Morphology and Common Associations
L. Leonardo Rodriguez, MD

7:20 AM  Paradoxical or Not: Low Flow, Low Gradient Aortic Stenosis
William J. Stewart, MD

7:40 AM  Stress Echo in Aortic Stenosis – Indications, Methods, Impact on Management
Christine Jellis, MD, PhD

8:00 AM  Aortic Root Anatomy – Utilizing the Best of Echo and CT Imaging to Optimize TAVR Outcomes
Richard Grimm, DO

8:20 AM  TAVR – New Devices and Expanding Indications
Samir Kapadia, MD

8:40 AM  How to Choose between TAVR vs. SAVR
Lars G. Svensson, MD, PhD

9:00 AM  Aortic Regurgitation: Mechanism and Quantification by Multimodality Imaging and Impact on Treatment
Hisham Dokainish, MD

9:20 AM  Panel Discussion
Moderator: Richard Grimm, DO
Hisham Dokainish, MD; Christine Jellis, MD, PhD; Samir Kapadia, MD; William J. Stewart, MD; and Lars G. Svensson, MD, PhD

9:40 AM  Refreshment Break and Visit Exhibits

SESSION 4

STRUCTURAL INTERVENTIONS: TRICUSPID VALVE, RIGHT VENTRICLE and THORACIC AORTA

Moderators: Robert J. Cubeddu, MD and Igal A. Sebag, MD

10:00 AM  Thoracic Aortic Involvement: Timing of Intervention and Surgical Techniques
Lars G. Svensson, MD, PhD

10:20 AM  Clinical Presentation of Right-Sided Heart Disease – “Look-alikes” and Evaluation
Linda Gillam, MD, MPH

10:40 AM  Tricuspid Valve Dysfunction – Subtypes and Outcomes
Stephen H. Little, MD

11:00 AM  Surgical Approach to Tricuspid Regurgitation: When and How?
Lars G. Svensson, MD, PhD

11:20 AM  Percutaneous Treatment of Tricuspid Regurgitation: Which Patients and What Devices?
Samir Kapadia, MD

11:40 AM  How Does the Sonographer Acquire Quality 2-D and 3-D Data for the Tricuspid Valve and Right-Sided Chambers
Amy Dillenbeck, RDCS

12:00 PM  Panel Discussion
Moderator: Robert J. Cubeddu, MD
Amy Dillenbeck, RDCS; Linda Gillam, MD, MPH; Stephen H. Little, MD; Maurice Sarano, MD; and Lars G. Svensson, MD, PhD

Simultaneous Sessions

12:20 PM  How to Do Session B: Strain and Diastology Implementation and Interpretation
Moderators: Amy Dillenbeck, RDCS and Christine Jellis MD, PhD
Hisham Dokainish, MD and Richard Grimm, DO

12:20 PM  Case Workshop – Low Flow, Low Gradient Aortic Stenosis, Choosing TAVR vs SAVR
Tricuspid Regurgitation, Right Ventricle and Contrast Cases
Moderator: William J. Stewart, MD
Robert J. Cubeddu, MD; Samir Kapadia, MD; Stephen H. Little, MD; Maurice Sarano, MD; Igal A. Sebag, MD; and Lars G. Svensson, MD, PhD

1:30 PM  Adjourn
SUNDAY, MARCH 10, 2019

5:45 AM  Continental Breakfast and Visit Exhibits

6:00 AM  Coffee with the Experts: Informal Discussion on Diastology and Strain

SESSION 5
DIASTOLIC FUNCTION EVALUATION
Moderators: Hisham Dokainish, MD and Allan L. Klein, MD

7:00 AM  Physiology of Left Ventricular Diastolic Function: Is it Really That Complicated?  Hisham Dokainish, MD

7:20 AM  Estimating LV Filling Pressures with Doppler Echo  L. Leonardo Rodriguez, MD

7:40 AM  Hemodynamic Correlates of Diastolic Dysfunction: What Do the Studies Show?  Richard Grimm, DO

8:00 AM  Practical Approach to Diastolic Function: Limitations and Pitfalls  Amy Dillenbeck, RDCS

8:20 AM  State of the Art: American Society of Echocardiography Guidelines Diastology Update  Hisham Dokainish, MD

8:40 AM  Diastolic Dysfunction in Special Populations  Christine Jellis, MD, PhD

9:00 AM  Constriction and Amyloid: Diastolic Dysfunction  Allan L. Klein, MD

9:20 AM  Panel Discussion  Moderator: Allan L. Klein, MD  Amy Dillenbeck, RDCS; Hisham Dokainish, MD; Richard Grimm, DO; Christine Jellis, MD, PhD and L. Leonardo Rodriguez, MD

9:40 AM  Refreshment Break and Visit Exhibits

SESSION 6
MYOCARDIAL AND PERICARDIAL DISEASES
Moderators: Amy Dillenbeck, RDCS and Igal A. Sebag, MD

10:00 AM  How to Differentiate Athlete's Heart from Non-obstructive Hypertrophic Cardiomyopathy – Management Pearls  Christine Jellis, MD, PhD

10:20 AM  Radiation Associated Cardiac Disease  Igal A. Sebag, MD

10:40 AM  Complicated Pericarditis: A New Imaging Guided Approach  Allan L. Klein, MD

11:00 AM  LV Strain in Cardio-Oncology  Igal A. Sebag, MD

11:20 AM  Role of Contrast Echo in Assessing Left and Right Heart Function  Amy Dillenbeck, RDCS

11:40 AM  Panel Discussion  Moderator: Allan L. Klein, MD  Amy Dillenbeck, RDCS; Christine Jellis, MD, PhD and Igal A. Sebag, MD

12:00 PM  Case Workshop – Constriction, Restriction, Pericarditis, Cardio-Oncology, Contrast Echo  Moderator: Christine Jellis, MD, PhD  Robert J. Cubeddu, MD; Amy Dillenbeck, RDCS; Hisham Dokainish, MD; Allan L. Klein, MD; L. Leonardo Rodriguez, MD; and Igal A. Sebag, MD

1:00 PM  Question and Answer

1:30 PM  Adjourn
GENERAL INFORMATION

Location
Loews Portofino Bay Hotel at Universal Orlando™
5601 Universal Blvd.
Orlando, FL 32819
Phone: 407.503.1000

Hotel Accommodations
A limited block of rooms has been reserved at the Loews Portofino Bay Hotel only until Thursday, February 14, 2019. Rooms are $269 per night plus tax and are on a first-come, first-served basis so hurry to reserve yours now!

To make your reservations, contact the hotel at 866-360-7395 and identify yourself as an attendee for the Cleveland Clinic Diastology Summit or go online at www.ccfcme.org/ValveHotel

When staying at the Loews Portofino Bay Hotel, you’ll receive special benefits to the theme parks including complimentary water taxis, and shuttle busses to all three Universal Orlando™ theme parks and Universal CityWalk™ as well as complimentary access to select live entertainment venues at Universal’s CityWalk™. Some restrictions apply, call the hotel for details.

Universal Orlando™ Theme Parks
Bring your family to Universal Orlando™ for a fabulous get-away they’ll always remember!

Immerse yourself in the next generation of blockbuster entertainment at Universal Studios Florida™. Journey through legendary worlds of incredible heroes at Universal’s Islands of Adventure™. Enjoy the thrills and relaxation of a tropical paradise like no other at the all-new Universal’s Volcano Bay™ water theme park. With three amazing theme parks and the dining and entertainment of Universal CityWalk™, it’s days and nights of endless fun for every member of the group and only at Universal Orlando Resort™.

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Accreditation
The Cleveland Clinic Foundation Center for Continuing Education is accredited by the Accreditation Council for Continuing Medical Education (ACRME) to provide continuing medical education for physicians.

The Cleveland Clinic Foundation Center for Continuing Education designates this live activity for a maximum of 21.75 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Participants claiming CME credit from this activity may submit the credit hours to the American Osteopathic Association for Category 2 credit.

American Board of Internal Medicine MOC
Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 21.75 MOC points in the American Board of Internal Medicine’s (ABIM) Maintenance of Certification (MOC) program. Participants will earn MOC points equivalent to the amount of CME credits claimed for the activity. It is the MOC activity provider’s responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

MOC is available for full course attendance only.

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

Faculty Disclosure
The Cleveland Clinic Foundation Center for Continuing Education has implemented a policy to comply with the current Accreditation Council for Continuing Medical Education Standards for Commercial Support requiring resolution of all faculty conflicts of interest. Faculty declaring a relevant commercial interest will be identified in the activity syllabus.

Americans with Disabilities Act
The Cleveland Clinic Foundation Center for Continuing Education fully intends to comply with the legal requirements of the Americans with Disabilities Act. If you need assistance, please notify us at least two weeks prior to the activity.

Information
For further information about this activity, visit the Cleveland Clinic Center for Continuing Education website: ccfcme.org/echo

Study References
Faculty presentations will be available online in PDF format on a password protected website. You will have access prior to and after the activity to allow you to download or print the slides.
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