



COURSE SYLLABUS

August 23 – 24, 2019

Estancia La Jolla Hotel

San Diego, California

Ehtisham Mahmud, MD, FACC, FSCAI

Program Director

UC San Diego
SCHOOL OF MEDICINE

Commercial Support Acknowledgment

We would like to thank the following companies for providing educational support for this activity:

- Abbott
- Abiomed
- BIOTRONIK
- Boston Scientific Corporation
- Chiesi USA
- Corindus Vascular Robotics
- Edwards Lifesciences
- Medtronic

Course Description

Over the course of two days, The San Diego Cardiovascular Interventions Symposium, will focus on disseminating the knowledge and evidence-based data regarding novel and innovative therapeutic options for patients with complex coronary, structural and peripheral vascular disease. The symposium will focus on the use of advanced techniques and technologies including atherectomy, hemodynamic support devices and the use of intravascular imaging and physiology for optimal cardiovascular revascularization. New coronary CTO techniques and tools, indications for left main and bifurcation PCI with appropriate techniques will be reviewed. Outcomes of TAVR, percutaneous mitral and tricuspid valve repair, PFO/ASD closure and left atrial appendage closure will be presented. Adjunctive pharmacotherapy for cardiac interventions will be addressed. Participants will observe live cases and hear from international experts.

Target Audience

The San Diego Cardiovascular Interventions Symposium has been designed to meet the needs of Interventional Cardiologists, Clinical Cardiologists, Internists, Residents and Fellows in Training.

Learning Objectives

At the completion of the conference, participants should be able to:

- ❖ Identify new techniques and technologies for CTO, bifurcation and left main PCI
- ❖ Identify the role of various lesion modifications/atherectomy techniques prior to coronary stenting
- ❖ Identify the utility of adjunctive hemodynamic support to facilitate complete coronary revascularization and high-risk PCI
- ❖ Identify the advantages and utility of robotic PCI
- ❖ Review the data and indications for percutaneous VADs in severe decompensated CHF and cardiogenic shock
- ❖ Review the contemporary data and indications for TAVR
- ❖ Identify the role of left atrial appendage closure and percutaneous mitral valve repair
- ❖ Identify optimal oral and intravenous antiplatelet therapy for PCI
- ❖ Review optimal utilization of FFR, IVUS, and OCT in reducing inappropriate PCI
- ❖ Identify appropriate patients and approaches for peripheral vascular interventions
- ❖ Identify occupational hazards of interventional cardiology and strategies to reduce radiation association risk

PROGRAM AGENDA

FRIDAY, AUGUST 23, 2019

7:15 am **BREAKFAST AND REGISTRATION**
Pacifica Ballroom

8:00 am **Welcome and Introduction**
Ehtisham Mahmud, MD

COMPLEX AND HIGH-RISK INTERVENTIONAL PROCEDURES I

Moderator: *Ori Ben-Yehuda, MD*

8:05 am **Complex PCI: Status in 2019 and Future Directions**
Ehtisham Mahmud, MD

8:20 am **Chronic Total Occlusion Revascularization: Technique and Outcomes**
Mitul P. Patel, MD

8:35 am **Calcified Coronary Lesions: Role of Rotational Atherectomy**
Arthur C. Lee, MD

8:50 am **Coronary Calcification: Orbital Atherectomy and the ECLIPSE Trial**
Michael S. Lee, MD

9:05 am **Q&A / Discussion**

9:15 am **LIVE CASE #1: Complex PCI**
Broadcast Live from Sulpizio Cardiovascular Center at UC San Diego, La Jolla, CA
Operators: *Ehtisham Mahmud, MD; Jad Omran, MD*

LIVE CASE #2: Complex PCI
Broadcast Live from Sulpizio Cardiovascular Center at UC San Diego, La Jolla, CA
Operators: *Belal Al Khiami, MD; Mitul P. Patel, MD*

Panelists: *Ori Ben-Yehuda, MD; Arthur C. Lee, MD; Michael S. Lee, MD; Perwaiz M. Meraj, MD; William Penny, MD*

10:45 am **BREAK / VISIT EXHIBITS**

COMPLEX AND HIGH-RISK INTERVENTIONAL PROCEDURES II

Moderator: *William Penny, MD*

11:00 am **KEYNOTE LECTURE #1:**
Utility of Intravascular Imaging in Optimizing PCI: OCT, IVUS, or Both
Ryan D. Madder, MD

11:30 am **Hemodynamic Support for High-Risk PCI**
Ryan Reeves, MD

11:45 am **Left Main and Bifurcation PCI**
Ehtisham Mahmud, MD

12:00 pm LUNCH / VISIT EXHIBITS

INTERVENTIONAL ROBOTICS

Moderator: *Giora Weisz, MD*

1:00 pm **Robotic PCI: First-in-Man to Remote PCI**
Giora Weisz, MD

1:15 pm **Robotics: Complex Coronary and Peripheral Interventions**
Ehtisham Mahmud, MD

1:30 pm **Robotic PCI: Telestenting is Here**
Ryan D. Madder, MD

1:45 pm **Q&A / Discussion**

2:00 pm **LIVE CASE #3: ROBOTICALLY ASSISTED PCI**
Broadcast Live from Sulpizio Cardiovascular Center at UC San Diego, La Jolla, CA
Operators: *Lawrence Ang, MD; Ehtisham Mahmud, MD*

LIVE CASE #4: LEFT ATRIAL APPENDAGE CLOSURE
Broadcast from Sulpizio Cardiovascular Center at UC San Diego, La Jolla, CA
Operators: *Jonathan Hsu, MD; Ryan Reeves, MD*

Panelists: *S. Hinan Ahmed, MD; Timothy D. Henry, MD; Rajiv Jauhar, MD; Ryan D. Madder, MD; Giora Weisz, MD*

3:30 pm **BREAK / VISIT EXHIBITS**

IMAGING, PHYSIOLOGY AND COMPLICATIONS

Moderator: *Rajiv Jauhar, MD*

3:45 pm **Assessment of Intermediate Coronary Lesions: FFR, iFR or CT-FFR**
Lawrence Ang, MD

4:00 pm **Complications of High-Risk PCI: Management Approaches**
William Penny, MD

4:15 pm **How to Minimize the Risk of Acute Kidney Injury During PCI**
Perwaiz M. Meraj, MD

4:30 pm **Access Site Complications: Avoid by Using Radial Approach or Ultrasound Guided Femoral Access**
Rajiv Jauhar, MD

4:45 pm **Optimizing PCI Outcomes with 2nd Generation DES**
Ryan Reeves, MD

5:00 pm **Q&A / Discussion**

5:15 pm **Concluding Remarks**
Ehtisham Mahmud, MD

7:15 am **BREAKFAST AND REGISTRATION**
Pacifica Ballroom

7:55 am **Welcome and Introduction**
Ehtisham Mahmud, MD

STRUCTURAL HEART INTERVENTIONS I: CASE-BASED MANAGEMENT

Moderator: *Ryan Reeves, MD*

8:00 am **TAVR: Are We Ready for the Low Risk Patients?**
Rajiv Jauhar, MD

8:15 am **TAVR: Optimal Outcomes are with the Minimalist Approach**
Ehtisham Mahmud, MD

8:30 am **Percutaneous Pulmonic Valve Replacement?**
Howaida El-Said, MD, PhD

8:45 am **Q&A / Discussion**

9:00 am **Percutaneous Mitral Valve Repair: COAPT Has Changed the Paradigm**
Ryan Reeves, MD

9:15 am **Percutaneous Repair of the Tricuspid and Mitral Valve: New Directions**
Ori Ben-Yehuda, MD

9:30 am **Balloon Pulmonary Angioplasty for CTEPH**
Ehtisham Mahmud, MD

9:45 am **Q&A / Discussion**

10:00 am **BREAK / VISIT EXHIBITS**

STRUCTURAL HEART INTERVENTIONS II: CASE-BASED MANAGEMENT

Moderator: *Ehtisham Mahmud, MD*

10:15 am **KEYNOTE LECTURE #2:**
Interventional Heart Failure and Therapeutic Approaches
Timothy D. Henry, MD

10:45 am **PFO Closure: Use ICE and Conscious Sedation**
Mitul P. Patel, MD

11:00 am **Atrial Septal Defect: Use TEE and General Anesthesia**
Howaida El-Said, MD, PhD

11:15 am **New Interventional Technologies to Decompress the Left Atrium in Heart Failure?**
Ehtisham Mahmud, MD

11:30 am **Evaluation of Low Flow / Low Gradient Aortic Stenosis**
S. Hiran Ahmed, MD

11:45 am **Q&A / Discussion**

12:00 pm **LUNCH / VISIT EXHIBITS**

INTERVENTIONAL PHARMACOTHERAPY: CASE-BASED MANAGEMENT

Moderator: *Mitul P. Patel, MD*

1:00 pm **Bivalirudin Saves Lives Regardless of Access Site**
Ryan Reeves, MD

1:15 pm **Forget Preload: Intravenous ADP Antagonist for PCI**
Mitul P. Patel, MD

1:30 pm **Utility of GP IIb / IIIa Inhibitors in Contemporary PCI**
Perwaiz M. Meraj, MD

1:45 pm **Q&A / Discussion**

2:00 pm **Duration of Oral Antiplatelet Therapy after Complex PCI**
William Penny, MD

2:15 pm **Antiplatelet Therapy or Anticoagulation After TAVR**
Ori Ben-Yehuda, MD

2:30 pm **DOACs and Thienopyridines in the Management of ACS**
Jonathan Hsu, MD

2:45 pm **Q&A / Discussion**

3:00 pm **Concluding Remarks**
Ehtisham Mahmud, MD

PLANNING COMMITTEE & FACULTY / PRESENTER LIST

Course Director, UC San Diego, La Jolla, CA

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President, Society for Cardiovascular Angiography and Interventions
Edith and William Perlman Chair in Cardiology
Professor and Division Chief, Cardiovascular Medicine
Executive Director, UCSD Cardiovascular Institute-Medicine

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Assistant Professor of Medicine
Interventional Cardiology

Mitul P. Patel, MD, FACC, FSCAI

Associate Professor of Medicine
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Ori Ben-Yehuda, MD, FACC

Professor of Medicine

Ryan Reeves, MD

Assistant Professor of Medicine
Interventional Cardiology

Faculty, UC San Diego, La Jolla, CA

Belal Al Khiami, MD

Structural and Endovascular Fellow
Interventional Cardiology

Jad Omran, MD

Interventional Cardiologist

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Adult Congenital Heart Certified
Director, Cardiac Cath Lab
UCSD/Rady Children's Hospital

William Penny, MD, FSCAI

Professor of Medicine
Director, Catheterization Laboratory
San Diego VA Medical Center

Jonathan Hsu, MD, MAS

Associate Professor of Medicine
Electrophysiology

Guest Faculty

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Structural Heart Program
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San Antonio, Texas

Timothy D. Henry, MD, MSCAI, FACC

Medical Director, The Carl and Edyth Lindner
Center for Research and Education
The Christ Hospital Health Network
Cincinnati, Ohio

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 Chief of Cardiology
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 Director, Cardiac Cath Lab
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Disclosure Summary

It is the policy of the University of California, San Diego School of Medicine to ensure balance, independence, objectivity and scientific rigor. All persons involved in the selection, development and presentation of content are required to disclose any real or apparent conflicts of interest. All conflicts of interest will be resolved prior to an educational activity being delivered to learners through one of the following mechanisms 1) altering the financial relationship with the commercial interest, 2) altering the individual’s control over CME content about the products or services of the commercial interest, and/or 3) validating the activity content through independent peer review. All persons are also required to disclose any discussions of off label/unapproved uses of drugs or devices. Persons who refuse or fail to disclose are disqualified from participating in the CME activity. Participants will be asked to evaluate whether the speaker’s outside interests reflect a possible bias in the planning or presentation of the activity. This information is used to plan future activities.

Faculty Name	Name of Commercial Interest	Nature of Relevant Relationship Employee, Grants/Research Support recipient, Board Member, Advisor or Review Panel member, Consultant, Independent Contractor, Stock Shareholder (excluding mutual funds), Speakers’ Bureau, Honorarium recipient, Royalty recipient, Holder of Intellectual Property Rights, or Other
Belal Al Khiami, MD	Abiomed	Advisory Board
Jonathan Hsu, MD Jonathan Hsu, MD <i>(continued)</i>	Acutus	Equity
	Biosense-Webster, Biotronik, Boston Scientific	Grants/Research Support
	Abbott, Biotronik, Boston Scientific, Bristol-Myers Squibb, Medtronic, Janssen Pharmaceuticals	Honorarium Recipient

Arthur Lee, MD	Boston Scientific	Honorarium Recipient
Ryan Madder, MD	Corindus Vascular Robotics, Inc.	Grants/Research Support Recipient, Member of Scientific Advisory Board
Ehtisham Mahmud, MD	Abbott Vascular	Speakers Bureau and Educational Programs
	Abiomed	Stock Shareholder
	Boston Scientific	Advisory Board
	Corindus, CSI	Research Support
	Medtronic	Speakers Bureau
Perwaiz Meraj, MD	Abiomed	Research Grants
Mitul Patel, MD	Abbott Vascular, Boston Scientific, Cardiovascular Systems, Inc., Chiesi, Medtronic, Terumo	Consultant, Speaker's Bureau
Giora Weisz, MD	Corindus	Medical Advisory Board, Stock Options
	Filterlex	Partial Ownership, Medical Advisory Board, Consultation Fees
	Trisol	Advisory Board

The following have no relevant financial relationships to disclose:

- S. Hinan Ahmed, MD
- Lawrence Ang, MD
- Ori Ben-Yehuda, MD
- Howaida El-Said, MD, PhD
- Timothy Henry, MD
- Rajiv Jauhar, MD
- Michael Lee, MD
- Jad Omran, MD
- William Penny, MD
- Ryan Reeves, MD

The CME staff, meeting planners, planning committee and CME committee reviewers do not have any relevant financial relationships to disclose.

This educational activity may contain discussion of unlabeled and/or investigational uses of agents that are not approved by the FDA. Please consult the prescribing information for each product.

The views and opinions expressed in this activity are those of the faculty and do not necessarily reflect the views of the University of California, San Diego School of Medicine.

Accreditation Statement

This activity has been planned and implemented in the accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME)

through the joint providership of University of California, San Diego School of Medicine and Gaffney Events. The University of California, San Diego School of Medicine is accredited by the ACCME to provide continuing medical education for physicians.

Physician Continuing Education

The University of California, San Diego School of Medicine designates this live activity for a maximum of **13.50 AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Credit for Nurses

For the purpose of recertification, the American Nurses Credentialing Center accepts AMA PRA Category 1 Credits™ issued by organizations accredited by the ACCME. Nurses who attend an activity certified for Category 1 credit can complete the continuing education hours section of the ANCC Professional Development Record to document the courses attended and the hours obtained.

PARTICIPATION REQUIREMENTS AND OBTAINING CREDIT CERTIFICATE

1. Review the Course Syllabus (www.SDInterventions.com/accreditation) prior to engaging in this CME activity.
2. Check-in at Registration Desk, pick-up badge and scan each day to record attendance.
3. Attend accredited sessions.
4. Complete the *Course Evaluation Survey* following the conclusion of this activity to claim credit.
5. The survey will be available beginning Sunday, August 25, 2019
Login to: https://www.surveymonkey.com/r/SDCI_2019 or scan the **QR code** below.
6. After completing the survey, your certificate will be emailed to you within 10 days.
7. If you have any questions, contact cme@gaffneyevents.com.



Cultural and Linguistic Competency

This activity is in compliance with California Assembly Bill 1195 which requires continuing medical education activities with patient care components to include curriculum in the subjects of cultural and linguistic competency. Cultural competency is defined as a set of integrated attitudes, knowledge, and skills that enables health care professionals or organizations to care effectively for patients from diverse cultures, groups, and communities. Linguistic competency is defined as the ability of a physician or surgeon to provide patients who do not speak English or who have limited ability to speak English, direct communication in the patient's primary language. Cultural and linguistic competency was incorporated into the planning of this activity. Additional resources can be found on the UC San Diego CME website.

EXHIBITOR ACKNOWLEDGEMENT

We would like to acknowledge the following companies and organizations for exhibiting at this conference.

<i>Abbott</i>	<i>Boston Scientific Corporation</i>	<i>Penumbra, Inc.</i>
<i>Abiomed</i>	<i>Chiesi USA</i>	<i>Philips IGD-T</i>
<i>Amgen</i>	<i>Corindus Vascular Robotics</i>	<i>Teleflex</i>
<i>Avinger</i>	<i>Edwards Lifesciences</i>	<i>Terumo Interventional Systems</i>
<i>BIOTRONIK</i>	<i>Medtronic</i>	

Thank you for your participation in the San Diego Cardiovascular Interventions Symposium. We look forward to your feedback in the Speaker and Course Evaluation Survey and hope to see you again next year!

*Please check the symposium website at **www.SDInterventions.com** in the coming months for the announcement of the 2020 date and location.*

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