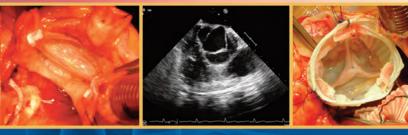


Department of Surgery, Division of Cardiovascular Surgery at the University of Pennsylvania presents

ATH NORTH AMERICAN Aortic Valve Repair Symposium

A CME-ACCREDITED SYMPOSIUM



Friday-Saturday, September 13-14, 2019

Sofitel Philadelphia 120 South 17th Street Philadelphia, PA 19103

In Conjunction With



UNIVERSITY OF OTTAWA HEART INSTITUTE INSTITUT DE CARDIOLOGIE DE L'UNIVERSITÉ D'OTTAWA

Endorsed by:



The Society of Thoracic Surgeons

Course Director: Joseph E. Bavaria, MD

Co-Directors: Prashanth Vallabhajosyula, MD, MS Munir Boodhwani, MD, MMSc John Augoustides, MD



PROGRAM OVERVIEW & TARGET AUDIENCE

The purpose of this educational activity is to provide in-depth analysis and procedural understanding of both bicuspid and 3-cusp aortic valve repair and valve-sparing aortic root surgery. Additionally, this symposium will provide technical and conceptual pearls related to aortic valve repair. Faculty presentations will constitute deep-dive sessions addressing valvular and aortic root pathology in the context of aortic valve preservation, with discussion panels focusing on the technical nuances and detailed differences in aortic valve repair and valve-sparing aortic root techniques. Live on-tape sessions will be complemented with comprehensive didactic coverage of the clinical, technical, and imaging tools required to develop a successful aortic valve repair program.

Learning Objectives

Upon completion of the activity, the participant should be able to:

- Evaluate the aortic root complex to plan for aortic valve repair
- Review techniques of bicuspid and tricuspid aortic valve repair
- Use echocardiography to plan for aortic valve repair
- Perform Echocardiographic and physiologic evaluation of aortic insufficiency after valve repair
- Identify techniques for performing valve-sparing root reimplantation
- Describe clinical and echocardiographic surveillance after aortic valve repair

Hosting Department

The 4th North American Aortic Valve Repair Symposium is hosted by the Department of Surgery, Division of Cardiovascular Surgery at the University of Pennsylvania.



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Accreditation



In support of improving patient care, Penn Medicine is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American

Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Designation of Credit

Penn Medicine designates this live activity for a maximum of 15.5 AMA PRA Category 1 Credits[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Amount of Credit Available By Day: Friday8.75 AMA PRA Category 1 Credits[™] Saturday6.75 AMA PRA Category 1 Credits[™]

Certificates and Transcripts: After the conference has concluded, all participants will receive a follow-up email with instructions and a link with instructions on how to claim their credit. Once participants submit the request for credit, the earned credits will be available for viewing on your transcript or available for printing at https://upenn.cloud-cme.com. Please note that the individual certificate will not be mailed.

Disclosures

Penn Medicine, Office of Continuing Medical and Interprofessional Education, adheres to the ACCME Standards for Commercial Support. Faculty disclosure information will be made available in the conference materials and syllabus. Faculty members are also expected to disclose to participants any discussions of off-label and/or investigational uses of pharmaceutical products within their presentations.



Registration Fees

The registration fees for the *4th North American Aortic Valve Repair Symposium* are the following: \$850 for Physicians and Industry; \$700 for Physicians who are members of the Society of Thoracic Surgeons (STS); \$300 for Healthcare Professionals, Residents and Fellows.

The registration fee includes attendance to the symposium, a course booklet, access to view the presentation slides online, continental breakfast, mid-morning and afternoon breaks and a working lunch on both days. All attendees will also receive a complimentary flash drive.

If you are registering with a credit card, please register online at *https://upenn.cloud-cme.com/avrs2019*. You must log-in with your Penn ID or your email and password or if you do not already have a profile, you must create one before you can register for an event. We cannot accept faxed or mailed registration forms with credit card information. To pay by check, complete the registration form and mail it in with your check. Please see the registration form for mailing information. Please note: mailed registrations can take up to 5-10 business days before they are received. All registrations will be confirmed by email as long as your registration is received no later than August 30, 2019.

Cancellation and Refund Policy

In order to process refunds for course withdrawals, cancellations must be received in writing by August 30, 2019 (subject to a service charge of 10% of the registration fee but not less than \$15.00). No refunds will be issued after August 30, 2019. The University reserves the right to cancel or postpone any course due to unforeseen circumstances. In the event of cancellation or postponement, the University will refund registration fees but is not responsible for related costs or expenses to participants, including cancellation fees assessed by hotels, airlines, and travel agencies.



Meeting Location

The 4th North American Aortic Valve Repair Symposium will be held Friday-Saturday, September 13-14, 2019 at the Sofitel Philadelphia, 120 South 17th Street, Philadelphia, PA 19103. For more information on Sofitel Philadelphia, please visit their website at: *http://www.sofitel-philadelphia.com* or to reach them directly, please call 215-569-8300.

The Sofitel Philadelphia is offering a special group rate (single or double-occupancy) of \$269.00 per night. These rates do not include the 15.5% sales and occupancy tax. The special room rate is only available until Thursday, August 15, 2019 or until the block has filled (whichever comes first). Rates are subject to availability once the room block has filled. Please call the Sofitel Philadelphia directly at 215-569-8300 and identify yourself as a participant of the "*Penn Medicine 4th AVRS 2019*" in order to receive the discounted overnight room rate. Please visit *http://tinyurl.com/h38q3gc* in order to make your reservations online.

Parking: The Sofitel Philadelphia offers valet-only parking. The daily parking rate is \$36. For guests staying overnight Monday-Thursday, the rate is \$50.24 and guests staying overnight Friday-Saturday, the rate is \$45.33. The symposium will not validate or discount any parking expenses.



COURSE DIRECTOR

Joseph E. Bavaria, MD

Vice Chief Division of Cardiovascular Surgery Brooke Roberts-William M. Measey Professor of Surgery Director, Thoracic Aortic Surgery Program Penn Medicine Philadelphia, PA Past President, Society of Thoracic Surgeons (STS)

CO-DIRECTORS

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Munir Boodhwani, MD, MMSc, FRCSC

Surgical Director of Aortic Clinic Cardiac Surgeon University of Ottawa Heart Institute Ottawa, Ontario, Canada

John G. Augoustides, MD

Professor of Anesthesiology and Critical Care Department of Anesthesiology and Critical Care Penn Medicine Philadelphia, PA

KEYNOTE SPEAKER

Hans-Joachim Schäfers, MD

Director, Professor of Surgery Dept. of Thoracic and Cardiovascular Surgery Saarland University Medical Center Homburg, Saarland, Germany

HONORARY SPEAKER

Laurent De Kerchove, MD

Cardiovascular Surgeon Cliniques Universitaires Saint-Luc Chirurgie Cardiothoracique Et Vasculaire Brussels, Belgium

GUEST SPEAKERS

Talal Al-Atassi, MD, CM, MPH, FRCSC

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George J. Arnaoutakis, MD

Assistant Professor of Thoracic and Cardiovascular Surgery University of Florida College of Medicine Miami, FL

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Maral Ouzounian, MD, PhD

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Services for the Disabled If special arrangements are required for an individual with a disability to attend this meeting, please contact the Office of Continuing Medical and Interprofessional Education no later than August 30, 2019 at 215-898-8005.

Himanshu J. Patel, MD

Associate Professor of Cardiac Surgery Joe D. Morris Collegiate Professor University of Michigan Health System Ann Arbor, MI

Alberto Pochettino, MD

Professor of Surgery Mayo Clinic Rochester, MN

Benjamin Sohmer, MD, MEd

Associate Professor Department of Anesthesiology Director of Faculty Development Department of Anesthesiology University of Ottawa Heart Institute Ottawa, Ontario, Canada

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4TH NORTH AMERICAN Aortic Valve Repair Symposium Friday-Saturday, September 13-14, 2019

AGENDA

DAY 1 – Friday, September 13, 2019

6:45 ам – 7:40 ам	Registration & Continental Breakfast
7:50 am – 8:00 am	Opening remarks: Overview of the Symposium Joseph Bavaria, MD ර Munir Boodhwani, MD
7:40 ам – 7:50 ам	Opening the Session: Critical Challenges Regarding AI Worldwide Joseph Bavaria, MD

MORNING SESSION 1

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AORTIC ROOT COMPLEX – ANATOMIC AND PHYSIOLOGIC PRINCIPLES GUIDING VALVE REPAIR

Moderators: Joseph Bavaria, MD, Bonnie Milas, MD

8:00 am - 8:10 am	Aortic Valve Anatomy and Function Shinichi Fukuhara, MD
8:10 am – 8:25 am	Threshold for Surgical Intervention in Ascending Aortic Aneurysms: Comparison of American, Canadian, and European Guidelines <i>Arminder Jassar, MBBS</i>
8:25 am – 8:45 am	MRI Versus Echo in Aortic Insufficiency: What is the Gold Standard in Quantification? MRI: Victor Ferrari, MD Echocardiography: Jared Feinman, MD
8:45 am – 9:00 am	Natural History of Aortic Insufficiency and Guidelines for Medical and Surgical Management Robert Bonow, MD
9:00 ам – 9:20 ам	Panel Discussion
9:20 am – 9:40 am	Repair Focused Echocardiographic Assessment of the Aortic Valve and Root <i>Benjamin Sohmer, MD</i>
9:40 am – 10:00 am	Mechanisms of Aortic Insufficiency: Implications for Valve Repair Munir Boodhwani, MD
0:00 am – 10:20 am	Debate: 45 Year Old Active Male With Severe Asymptomatic AI: Surgery or Watchful Waiting? Moderator: Munir Boodhwani, MD Pro Surgery: Joseph Bavaria, MD Watchful Waiting: Robert Bonow, MD
0:20 ам – 10:40 ам	Break

MORNING SESSION 2 SURGICAL APPROACHES TO AORTIC ROOT/VALVE DISEASE

Moderators: Munir Boodhwani, MD, Prashanth Vallabhajosyula, MD, MS

10:40 am - 10:50 am	Introduction to Aortic Valve Repair – What's in the Surgeon's Armamentarium? Prashanth Vallabhajosyula, MD, MS
10:50 am - 11:10 am	Valve Sparing Root Reimplantation Technique – Step-by-step Approach Munir Boodhwani, MD
11:10 am - 11:30 am	Valve Sparing Root Remodeling Technique – Step-by-step Approach [Live-in-box] Hans-Joachim Schäfers, MD
11:30 am - 11:50 am	Valve Repair: Asymmetric BAV Versus Symmetric BAV Respect valve asymmetry: Joseph Bavaria, MD Conversion to symmetric or 3-cusp valve: Laurent De Kerchove, MD
11:50 am - 12:05 pm	BAV Repair With Internal Subannular Aortic Ring – Step-by-step Approach – Duke Experience G. Chad Hughes, MD
12:05 рм – 12:35 рм	 Focused Session: Learn from the Experts: Case Presentations Moderator: Joseph Bavaria, MD Panel members: Laurent De Kerchove, MD, Hans-Joachim Schäfers, MD, G. Chad Hughes, MD, Alberto Pochettino, MD, Michael Fischbein, MD, Munir Boodhwani, MD Case 1: Severe AI, VAJ dilated, aortic root 4.1 cm Case 2: Marfan patient, severe root dilation, no AI Case 3: Cusp prolapse with fenestrations Case 4: Type 1A Ascending aortic aneurysm and moderate AI, non-dilated VAJ 1) Root reimplantation or repair with external ring 2) Remodeling versus reimplantation 3) Valsalva versus straight tube graft
12.25 12.45	Dereit D'erreiten

12:35 PM – 12:45 PM Panel Disscussion

AFTERNOON SESSION 1

1:00 рм – 2:15 рм	Working Lunch With Debate/Discussion
	Moderators: Munir Boodhwani, MD &
	Prashanth Vallabhajosyula, MD, MS
	Panel: Joseph Bavaria, MD, G. Chad Hughes, MD,
	Robert Bonow, MD, Hans-Joachim Schäfers, MD,
	Laurent De Kerchove, MD, Michael Fischbein, MD,
	Maral Ouzounian, MD, PhD, Himanshu Patel, MD,
	Ismail El-Hamamsy, MD, PhD
	Debate: Annular ectasia in BAV repair, how best to manage? Remodel with annular ring, external and STJ ring, VSRR, internal annular ring?
	Debate: Debate on factors influencing repair versus replacement – consider thresholds of age, low EF, enlarged left ventricle
	Debate: Complex BAV repair with remodeling/ reimplantation versus Ross procedure in young patients

2:15 рм – 2:30 рм	Break
2:30 рм – 2:35 рм	Introduction to Keynote Speaker
2:35 рм – 3:05 рм	KEYNOTE
	25-year Experience With Aortic Valve Repair -
	Evolution of Cusp Repair and Root
	Remodeling Techniques
	Hans-Joachim Schäfers, MD

AFTERNOON SESSION 2

TRILEAFLET AORTIC VALVE REPAIR – DEEP DIVE Moderators: G. Chad Hughes MD

	moderators. G. Onda magnes, mb
3:05 рм – 3:20 рм	Complex Trileaflet Aortic Valve Repair Munir Boodhwani, MD
3:20 рм – 3:35 рм	Valve Sparing Surgery in Aortic Dissection Indications, Technique, Outcomes, Where

- Indications, Technique, Outcomes, Where do you Draw the Line? *Himanshu Patel*, *MD* 3:35 PM – 3:45PM Valve Sparing Surgery in Aortic Dissection II – Live-in-box Presentation *Nimesh Desai*, *MD*, *PhD*
- 3:45 PM 4:00PM How to Manage Cusp Calcification and Restriction? Laurent De Kerchove, MD
- 4:00 PM 4:20 PM Break

AFTERNOON SESSION 3

OUTCOMES AND ALTERNATIVES TO AORTIC VALVE REPAIR

Moderators: Nimesh Desai, MD, PhD

4:20 рм – 4:30 рм	Outcomes of Aortic Valve Repair: Focus on Mortality and Valve Related Events Maral Ouzounian, MD, PhD
4:30 pm – 4:40 pm	When Repair is not Possible: Outcomes of Biologic Versus Mechanical Prostheses in Young Adults and Outcomes of Preserving Sinus Segment With Ascending Arch Resection Prashanth Vallabhajosyula, MD, MS
4:40 рм – 4:50 рм	Outcomes of Aortic Valve Repair II: Long Term Results of BAV Repair and Risk Factors for Failure <i>George Arnaoutakis, MD</i>
4:50 pm – 5:10 pm	Ross Procedure in Aortic Insufficiency – When to do it, how to do it Ismail El-Hamamsy, MD, PhD
5:10 рм – 5:40 рм	STCVS Debate: Size Threshold for Intervention on the Aortic Root and Ascending Aorta in Patients With Concomitant Aortic Insufficiency Moderator: Mohamad Bashir, MD, PhD Panel: Joseph Bavaria, MD, Robert Bonow, MD, Laurent De Kerchove, MD, Hans-Joachim Schäfers, MD G. Chad Hughes, MD, Himanshu Patel, MD, Munir Boodhwani, MD
5:40 рм – 5:45 рм	Closing Remarks Joseph Bavaria, MD

DAY 2 – Saturday, September 14, 2019	
7:00 ам – 7:45 ам	Registration/Breakfast
7:45 ам – 8:00 ам	Opening Remarks, Answer Questions on Previous Day's Session With Panel of Experts
MORNING SESSION 1	
	IC VALVE REPAIR – MASTERCLASS SESSION Moderators: Joseph Bavaria, MD
8:00 am – 8:20 am	Anatomy and Repair Oriented Classification of Bicuspid Aortic Valve Insufficiency Laurent De Kerchove, MD
8:20 am – 8:40 am	An Algorithmic Approach to BAV Decision Making (+/- Root Aneurysm) Joseph Bavaria, MD
8:40 am – 8:50 am	BAV Repair Techniques for Type 0, I Valves Case presentations: Prashanth Vallabhajosyula, MD & George Arnaoutakis, MD 1) Type 0 2) Type I
8:50 am – 9:05 am	BAV Root Reimplantation – Concepts and Case Presentation [Live-in-box] Munir Boodhwani, MD
9:05 am – 9:20 pm	BAV Root Remodeling – Concepts and Case Presentation [Live-in-box] Hans-Joachim Schäfers, MD
9:20 am – 9:35 am	BAV Repair with External Subannular Aortic Ring [Live-in-box] Joseph Bavaria, MD
9:35 am – 9:50 am	Internal Subannular Aortic Ring for 3-cusp Aortic Valve Repair. Live-in-box Presentation with Comparative Aanalysis to Internal Ring for BAV Repair Arnar Geirsson, MD
9:50 ам – 10:10 ам	Panel Discussion
10:10 ам – 10:25 ам	Break
10:25 ам – 10:30 ам	Introduction to Honorary Speaker
10:30 ам – 10:55 ам	HONORARY LECTURE 30-year Experience with Bicuspid Aortic Valve Repair and Root Reimplantation Techniques Laurent De Kerchove, MD
10:55 am - 11:10 am	Symmetric Versus Asymmetric Reconstruction of the BAV: the Stanford Approach Michael Fischbein, MD
11:10 ам – 11:20 ам	BAV Analysis: What Would You Do? (Intra-Op Video) Discussion with Audience Participation Joseph Bavaria, MD

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11:20 ам – 11:30 ам	Unicuspid Aortic Valve Repair: Should we do it? Munir Boodhwani, MD
11:30 am - 11:45 am	Bentall Aortic Root Procedure – How I do it and Review of the Mayo Clinic Experience Alberto Pochettino, MD
11:45 am – 12:00 pm	Conduit Choice in BAV Root Reimplantation/ Remodeling – 2 Schools of Thought: Straight Versus Valsalva grafts Michael Fischbein, MD
12:00 рм – 12:15 рм	Panel Discussion
12:15 рм – 12:30 рм	Pick-up Lunch
12:30 рм – 1:30 рм	Working Lunch
	SESSION ON REPAIR FAILURES Controversial and Repair Failure Cases – Audience asks the experts questions about decision making and avoiding pitfalls Moderators: Munir Boodhwani, MD, Joseph Bavaria, MD, Benjamin Sohmer, MD, Jared Feinman, MD, Laurent De Kerchove, MD, G. Chad Hughes, MD, Alberto Pochettino, MD
	・ TAV Repair Failure – Roland Assi, MD & John Augoustides, MD
	・ BAV Repair Failure – Christopher Mehta, MD & Jared Feinman, MD
	・Redo Valve Repair – Have we Gone too far? – Munir Boodhwani, MD & Benjamin Sohmer, MD
1:30 рм – 1:45 рм	Break



AFTERNOON SESSION

REGISTRIES, OUTCOMES WITH AORTIC VALVE REPAIR EXPERIENCE

Moderators: Moderators: Michael Fischbein, MD, Prashanth Vallabhajosyula, MD, MS

1:45 pm – 2:00 pm	Outcomes in BAV Repair for Different Root Stabilization Techniques Derek Brinster, MD
2:00 рм – 2:15 рм	Outcomes Based Arguments for Preservation Versus Resection for BAV Insufficiency – Is the Failing Bicuspid Valve a Pathologic Valve? <i>G. Chad Hughes, MD</i>
2:15 рм – 2:30 рм	Outcomes With Root Remodeling Versus Reimplantation Maral Ouzounian, MD, PhD
2:30 pm – 2:50 pm	Emerging Role of TAVR in Treating Aortic Insufficiency <i>Talal Al-Atassi, MD</i>
2:50 рм – 3:10 рм	Panel Discussion
3:10 рм	Closing Remarks

4TH NORTH AMERICAN Aortic Valve Repair Symposium Friday-Saturday, September 13-14, 2019 If you are registering using your credit card, please register online at: https://upenn.cloud-cme.com/avrs2019 Questions? Contact us at: Phone: 215-898-6400 or 215-898-8005 • penncme@pennmedicine.upenn.edu Please note we are unable to accept faxed registration forms. Please print or type Name (First) (Last) Academic Degree Medical Specialty Affiliation (Hospital, Office, or Company) Address (Affiliation or Home) City State Zip Phone Fax E-mail

Registration Fee (pre-payment is required to be officially registered)

- □ \$850.00 for Physicians and Industry
- □ \$700.00 for Physicians who are members of the Society of Thoracic Surgeons (STS)
- □ \$300.00 Healthcare Professionals, Residents and Fellows

Payment Method

- If you are paying by credit card, please register online at https://upenn.cloud-cme.com/avrs2019
- If you are paying by check, you may mail your completed registration form and check made payable to **The Trustees of the University of Pennsylvania/CME** to:
 - Conference Coordinator, Perelman School of Medicine at the University of Pennsylvania, Office of Continuing Medical Education 150 Anatomy/Chemistry Building, 3620 Hamilton Walk Philadelphia, PA 19104-6061
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Please Note: Walk-in registrants must bring payment to the program. Seating may be limited for walk-in registrants.