



Symposium on Robotic Cardiac Surgery: Mitral Valve Repair, Coronary Bypass, and More

March 23-24, 2018
Chicago, IL

Course Directors

T. Sloane Guy, New York, NY
Joseph A. Dearani, Rochester, MN
Husam H. Balkhy, Chicago, IL

Day 1

Friday, March 23, 2018 (7:00 a.m. – 6:00 p.m.)

7:00 a.m. – 7:30 a.m.	REGISTRATION / BREAKFAST
7:30 a.m. – 9:00 a.m.	Session 1: Building a Foundation for Robotic Cardiac Surgery Moderators: <i>Joseph A. Dearani, Rochester, MN, T. Sloane Guy, New York, NY, and Husam H. Balkhy, Chicago, IL</i>
7:30 a.m. – 7:35 a.m.	Symposium Goals, Welcome, and Introductions
7:35 a.m. – 7:50 a.m.	Current Clinical and Economic Evidence for Robotic Cardiac Surgery <i>A. Marc Gillinov, Cleveland OH</i>
7:50 a.m. – 8:05 a.m.	Prerequisites for Successful Launch of a Robotic Cardiac Surgery Program <i>Evelio Rodriguez, Nashville, TN</i>
8:05 a.m. – 8:20 a.m.	What Does a Fully Committed Robotic Cardiac Surgery Program Look Like and What Procedures Can Be Performed? <i>Husam H. Balkhy, Chicago, IL</i>
8:20 a.m. – 8:35 a.m.	Detailed Steps for Building a Robotic Cardiac Surgery Program <i>T. Sloane Guy, New York, NY</i>
8:35 a.m. – 8:50 a.m.	Individual and Team Training in Robotic Surgery: What Are the options? <i>Douglas A. Murphy, Atlanta, GA</i>
8:50 a.m. – 9:00 a.m.	Panel Discussion
9:00 a.m. – 9:20 a.m.	BREAK

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- 9:20 a.m. – 10:55 a.m.** **Session 2: Robotic Mitral Valve Procedural Details**
Moderators: *Evelio Rodriguez, Nashville, TN, and Vinay Badhwar, Morgantown, WV*
- 9:20 a.m. – 9:35 a.m. Patient Selection for Robotic Mitral Valve Surgery
A. Marc Gillinov, Cleveland OH
- 9:35 a.m. – 9:50 a.m. Circulatory Management Strategy: Transthoracic Clamp Technique
Joseph A. Dearani, Rochester, MN
- 9:50 a.m. – 10:05 a.m. Circulatory Management Strategy: Endoballoon
Douglas A. Murphy, Atlanta, GA
- 10:05 a.m. – 10:20 a.m. Totally Endoscopic Robotic Mitral Valve Repair: Step by Step
T. Sloane Guy, New York, NY
- 10:20 a.m. – 10:35 a.m. Minithoracotomy Robotic Mitral Valve Repair: Step by Step
Simon Maltais, Rochester, MN
- 10:35 a.m. – 10:55 a.m. Panel Discussion
- 10:55 a.m. – 11:15 a.m.** **BREAK**
- 11:15 a.m. – 12:55 p.m.** **Breakout Sessions: Procedure Demonstrations**
- Station 1:** Live Simulation/Demonstration
Robotic Mitral Valve Repair
Douglas A. Murphy, Atlanta, GA
- Station 2:** Live Simulation/Demonstration
Robotic Totally Endoscopic Coronary Artery Bypass (TECAB)
Husam H. Balkhy, Chicago, IL
- Station 3:** Live Simulation/Demonstration
Robotic Minimally Invasive Direct Coronary Artery Bypass (MIDCAB)
Francis P. Sutter, Wynnewood, PA
- Station 4:** Hands-On Robotic Surgery Simulator Exercise
Live Simulation/Demonstration: Advanced Circulatory Management
T. Sloane Guy, New York, NY
- 12:55 p.m. – 2:15 p.m.** **LUNCH / Keynote Speaker**
Robotics in cardiac surgery: Lessons from the past, state of the present, and possibilities for the future
Michael Argenziano, New York, NY

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- 2:15 p.m. – 3:50 p.m.** **Session 3: Robotic Coronary Artery Bypass Basic Principles**
Moderators: *Daniel M. Bethencourt, Long Beach, CA, and Francis P. Sutter, Wynnewood, PA*
- 2:15 p.m. – 2:30 p.m. Robotic Coronary Surgery: Anesthesia Considerations, Patient Positioning, and Port Placement
Richard C. Daly, Rochester, MN
- 2:30 p.m. – 2:45 p.m. Robotic MIDCAB: How I Do It and Lessons from a 15-Year Experience
Daniel M. Bethencourt, Long Beach, CA
- 2:45 p.m. – 3:00 p.m. Robotic MIDCAB: The ‘Micro’ Thoracotomy Approach
Francis P. Sutter, Wynnewood, PA
- 3:00 p.m. – 3:15 p.m. Robotic MIDCAB: Making the Transition from an Off-Pump Coronary Artery Bypass Mindset
John D. Puskas, New York, NY
- 3:15 p.m. – 3:30 p.m. Robotic MIDCAB: Postop Considerations, Fast Track, Pain Management
Nirav C. Patel, New York, NY
- 3:30 p.m. – 3:50 p.m. Panel Discussion
- 3:50 p.m. – 4:10 p.m.** **BREAK**
- 4:10 p.m. – 6:00 p.m.** **Session 4: Mitral Valve Repair Techniques and Avoiding Complications**
Moderators: *Douglas A. Murphy, Atlanta, GA, and T. Sloane Guy, New York, NY*
- 4:10 p.m. – 4:25 p.m. Robotic Mitral Valve Repair: Resectional Techniques
Joseph A. Dearani, Rochester, MN
- 4:25 p.m. – 4:40 p.m. Robotic Mitral Valve Repair: Non-Resectional Techniques
T. Sloane Guy, New York, NY
- 4:40 p.m. – 4:55 p.m. Robotic Mitral Valve Replacement
Branden R. Reynolds, Spokane, WA
- 4:55 p.m. – 5:10 p.m. Video Session: Complex Robotic Mitral Valve Repairs
Vinay Badhwar, Morgantown, WV
- 5:10 p.m. – 5:25 p.m. Avoiding Complications in Robotic Mitral Valve Repair
A. Marc Gillinov, Cleveland OH

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5:25 p.m. – 5:40 p.m. When, Why, and How to Convert from Robotics to Open Surgery
Simon Maltais, Rochester, MN

5:40 p.m. – 6:00 p.m. Panel Discussion

Day 2

Saturday, March 24, 2018 (7:00 a.m. – 5:00 p.m.)

7:00 a.m. – 7:30 a.m. REGISTRATION / BREAKFAST

7:30 a.m. – 9:05 a.m. Session 5: TECAB

Moderators: *Husam H. Balkhy, Chicago, IL, and Johannes Bonatti, Abu Dhabi*

7:30 a.m. – 7:45 a.m. The Case for TECAB: Value of Robotic TECAB versus Robotic MIDCAB
Johannes Bonatti, Abu Dhabi

7:45 a.m. – 8:00 a.m. Robotic TECAB: Port Placement, Taking Down the RIMA
Husam H. Balkhy, Chicago, IL

8:00 a.m. – 8:15 a.m. Robotic Beating Heart TECAB: Stabilizer, Hand-Sewn Anastomosis
Louis Labrousse, Bordeaux, France

8:15 a.m. – 8:30 a.m. Robotic TECAB: The Arrested Heart Approach
Johannes Bonatti, Abu Dhabi

8:30 a.m. – 8:45 a.m. Robotic TECAB: Using the Coronary Anastomotic Connector
Husam H. Balkhy, Chicago, IL

8:45 a.m. – 9:05 a.m. Panel Discussion

9:05 a.m. – 9:25 a.m. BREAK

9:25 a.m. – 11:00 a.m. Session 6: Robotic Intracardiac Surgery, More than Just the Mitral!

Moderators: *Douglas A. Murphy, Atlanta, GA, and A. Marc Gillinov, Cleveland OH*

9:25 a.m. – 9:40 a.m. Redo Robotic Mitral Valve Surgery
Clifton T. Lewis, Birmingham, AL

9:40 a.m. – 9:55 a.m. Atrial Fibrillation Techniques in Robotics
Evelio Rodriguez, Nashville, TN

9:55 a.m. – 10:10 a.m. Tricuspid Valve Repair and Replacement
Clifton T. Lewis, Birmingham, AL

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- 10:10 a.m. – 10:25 a.m. Atrial Septal Defect Closure and Cardiac Tumor Resection
Branden R. Reynolds, Spokane, WA
- 10:25 a.m. – 10:40 a.m. Postoperative Management
Joseph A. Dearani, Rochester, MN
- 10:40 a.m. – 11:00 a.m. Panel Discussion
- 11:00 a.m. – 12:40 p.m. Breakout Sessions: Procedure Demonstrations**
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 Douglas A. Murphy, Atlanta, GA
- Station 2:** Live Simulation/Demonstration
 Robotic TECAB
 Husam H. Balkhy, Chicago, IL
- Station 3:** Live Simulation/Demonstration
 Robotic MIDCAB
 Francis P. Sutter, Wynnewood, PA
- Station 4:** Hands-On Robotic Surgery Simulator Exercise
 Live Simulation/Demonstration: Advanced Circulatory
 Management
 T. Sloane Guy, New York, NY
- 12:40 p.m. – 1:30 p.m. LUNCH**
- 1:30 p.m. – 3:05 p.m. Session 7: Robotic Coronary Artery Bypass: Avoiding Problems**
Moderators: *Richard C. Daly, Rochester, MN, and Nirav C. Patel, New York, NY*
- 1:30 p.m. – 1:45 p.m. Robotic Coronary Surgery: Avoiding Pitfalls during Port
 Placement/Minithoracotomy
 Francis P. Sutter, Wynnewood, PA
- 1:45 p.m. – 2:00 p.m. Robotic Coronary Surgery: Avoiding Internal Mammary Artery Injury and
 Finding the Correct Target
 Louis Labrousse, Bordeaux, France
- 2:00 p.m. – 2:15 p.m. Robotic Coronary Surgery: Intraoperative Graft Patency Assessment: Is
 Routine Angiography Necessary?
 Daniel M. Bethencourt, Long Beach, CA
- 2:15 p.m. – 2:30 p.m. Robotic Coronary Surgery: When and How to Convert to Open Surgery
 Nirav C. Patel, New York, NY

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- 2:30 p.m. – 2:45 p.m. Robotic Coronary Surgery: Avoiding Postoperative Complications (Bleeding, Pericarditis)
Richard C. Daly, Rochester, MN
- 2:45 p.m. – 3:05 p.m. Panel Discussion
- 3:05 p.m. – 3:25 p.m. BREAK**
- 3:25 p.m. – 4:45 p.m. Session 8: Advanced Robotic Coronary Artery Bypass Concepts**
Moderators: *John D. Puskas, New York, NY, and Husam H. Balkhy, Chicago, IL*
- 3:25 p.m. – 3:40 p.m. Advanced Techniques: Y Grafts, Sequentials, Multivessel TECAB
Johannes Bonatti, Abu Dhabi
- 3:40 p.m. – 3:55 p.m. The Case for Hybrid Coronary Revascularization
Nirav C. Patel, New York, NY
- 3:55 p.m. – 4:10 p.m. Examples of Hybrid Cases: Advanced (Complex) Hybrids
Francis P. Sutter, Wynnewood, PA
- 4:10 p.m. – 4:25 p.m. Elements of a Successful Hybrid Program and the NIH Trial
John D. Puskas, New York, NY
- 4:25 p.m. – 4:45 p.m. Panel Discussion
- 4:45 p.m. – 5:00 p.m. FINAL COMMENTS AND ADJOURNMENT**