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

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  
**A. Marc Gillinov, Cleveland OH**

7:50 a.m. – 8:05 a.m. Prerequisites for Successful Launch of a Robotic Cardiac Surgery Program  
**Evelio Rodriguez, Nashville, TN**

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?  
**Husam H. Balkhy, Chicago, IL**

8:20 a.m. – 8:35 a.m. Detailed Steps for Building a Robotic Cardiac Surgery Program  
**T. Sloane Guy, New York, NY**

8:35 a.m. – 8:50 a.m. Individual and Team Training in Robotic Surgery: What Are the options?  
**Douglas A. Murphy, Atlanta, GA**

8:50 a.m. – 9:00 a.m. Panel Discussion

9:00 a.m. – 9:20 a.m. **BREAK**

*Agenda and speakers are subject to change.*
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

Agenda and speakers are subject to change.
### Session 3: Robotic Coronary Artery Bypass Basic Principles

**Moderators:** Daniel M. Bethencourt, Long Beach, CA, and Francis P. Sutter, Wynnewood, PA

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<th>Time</th>
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<th>Speaker</th>
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<tr>
<td>2:15 p.m. – 2:30 p.m.</td>
<td>Robotic Coronary Surgery: Anesthesia Considerations, Patient Positioning, and Port Placement</td>
<td>Richard C. Daly, Rochester, MN</td>
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<td>2:30 p.m. – 2:45 p.m.</td>
<td>Robotic MIDCAB: How I Do It and Lessons from a 15-Year Experience</td>
<td>Daniel M. Bethencourt, Long Beach, CA</td>
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<td>2:45 p.m. – 3:00 p.m.</td>
<td>Robotic MIDCAB: The ‘Micro’ Thoracotomy Approach</td>
<td>Francis P. Sutter, Wynnewood, PA</td>
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<td>3:00 p.m. – 3:15 p.m.</td>
<td>Robotic MIDCAB: Making the Transition from an Off-Pump Coronary Artery Bypass Mindset</td>
<td>John D. Puskas, New York, NY</td>
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<td>3:15 p.m. – 3:30 p.m.</td>
<td>Robotic MIDCAB: Postop Considerations, Fast Track, Pain Management</td>
<td>Nirav C. Patel, New York, NY</td>
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<td>3:30 p.m. – 3:50 p.m.</td>
<td>Panel Discussion</td>
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### Session 4: Mitral Valve Repair Techniques and Avoiding Complications

**Moderators:** Douglas A. Murphy, Atlanta, GA, and T. Sloane Guy, New York, NY

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<tr>
<td>4:10 p.m. – 4:25 p.m.</td>
<td>Robotic Mitral Valve Repair: Resectional Techniques</td>
<td>Joseph A. Dearani, Rochester, MN</td>
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<td>4:25 p.m. – 4:40 p.m.</td>
<td>Robotic Mitral Valve Repair: Non-Resectional Techniques</td>
<td>T. Sloane Guy, New York, NY</td>
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<td>4:40 p.m. – 4:55 p.m.</td>
<td>Robotic Mitral Valve Replacement</td>
<td>Branden R. Reynolds, Spokane, WA</td>
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<td>4:55 p.m. – 5:10 p.m.</td>
<td>Video Session: Complex Robotic Mitral Valve Repairs</td>
<td>Vinay Badhwar, Morgantown, WV</td>
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<td>5:10 p.m. – 5:25 p.m.</td>
<td>Avoiding Complications in Robotic Mitral Valve Repair</td>
<td>A. Marc Gillinov, Cleveland OH</td>
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*Agenda and speakers are subject to change.*
Symposium on Robotic Cardiac Surgery:
Mitral Valve Repair, Coronary Bypass, and More

March 23-24, 2018
Chicago, IL

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<tr>
<th>Time</th>
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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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Symposium on Robotic Cardiac Surgery:
Mitral Valve Repair, Coronary Bypass, and More
March 23-24, 2018
Chicago, IL

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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Robotic Mitral Valve Repair
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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02/07/2018
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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, Sequentialis, 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                                       |

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02/07/2018