I invite you to join me and thousands of our colleagues from around the world at the STS 54th Annual Meeting, January 27–31, 2018, in Fort Lauderdale, Florida.

The STS Annual Meeting is the epicenter of the latest technology, research, and clinical practice in cardiothoracic surgery. This year’s meeting will have new formats, lively discussions, and interactions in every discipline of our specialty. It also will fit all learning styles. Educational sessions will mix debates and surgical videos with the very best scientific research abstracts.

On Sunday, three very popular “How To” sessions will feature video presentations on common cardiothoracic surgical procedures, with speakers offering unique insights. The Opening Reception will highlight approximately 130 exhibiting companies demonstrating their latest products and services. Following the Opening Reception, I invite, welcome, and encourage ALL to attend my President’s Reception at the Marriott Harbor Beach Resort & Spa.

After my Presidential Address on Monday, an important new session will tackle the topic of diversity and inclusion in cardiothoracic surgery. Speakers will discuss how a diverse cardiothoracic surgery workforce can improve patient outcomes by increasing cultural competency and mitigating unconscious provider bias.

On Tuesday, don’t miss the exciting keynotes; details are forthcoming. And don’t forget to register for the popular hands-on STS University courses on Wednesday; new courses have been added on peroral endoscopic myotomy and minimally invasive aortic and mitral valve surgery.

Access to the STS 54th Annual Meeting Online will once again be included with Annual Meeting registration—a bonus that will let you review the outstanding educational content from your home or office throughout the next year. See page 23 for more details.

There’s so much more to the 54th Annual Meeting, and in this preliminary edition of the Advance Program, you’ll find a program outline and course descriptions to help you plan your schedule. You’ll also find registration instructions and information on travel and housing accommodations. A more detailed program will be released online in the coming months.

Please make plans now to join your colleagues in cardiothoracic surgery this January. You can register at www.sts.org/annualmeeting.

I look forward to seeing you in Fort Lauderdale!

Richard L. Prager, MD
President, The Society of Thoracic Surgeons

WHAT’S NEW

• The President’s Reception on Sunday evening will be open to all meeting attendees; there will not be an STS Social Event on Monday.

• Surgical videos will be included in several parallel sessions, rather than in designated surgical motion picture matinees.

• New sessions will explore the role of diversity and inclusion in the cardiothoracic surgery workforce, how physician documentation drives reimbursement, and the experience with left ventricular assist device therapy around the globe.

• Two new STS University courses on peroral endoscopic myotomy and minimally invasive aortic and mitral valve surgery will be offered.

Prior to the Annual Meeting, STS/AATS Tech-Con will focus on new devices and procedures that have yet to be FDA-approved but could be available within 1-3 years from the time of presentation. A highlight of the day will be the Shark Tank session, in which entrepreneurs pitch their innovative cardiothoracic surgery products to the audience, as well as a panel of experts in medical device development. Separate registration is required. See page 6 for details.
The Society of Thoracic Surgeons Education Disclosure Policy

As a sponsor of continuing medical education accredited by the Accreditation Council for Continuing Medical Education (ACCME), The Society of Thoracic Surgeons requires that any individual who is in a position to control the content of an educational activity must disclose all relationships with commercial interests (including known relationships of his or her immediate family, department, and partners). The ACCME defines a commercial interest as “any entity producing, marketing, reselling, or distributing health care goods or services consumed by, or used on, patients. The ACCME does not consider providers of clinical service directly to patients to be commercial interests.” The question of whether a disclosed conflict situation could represent undue influence on the educational activity by a commercial interest or whether the disclosed information is sufficient to consider an abstract, presentation, or other educational enduring material to represent potentially biased information must be resolved prior to an individual’s involvement in STS educational programming.

Required disclosures include (1) a financial interest of any amount (e.g., through ownership of stock, stock options, or bonds) (2) the receipt of any amount of cash, goods or services within the current 12-month period (e.g., through research grants, employment, consulting fees, royalties, travel, or gifts) or (3) a nonremunerative position of influence (e.g., as officer, director, trustee or public spokesperson). EXCLUDED from this disclosure requirement are blind trusts or other passive investments such as mutual funds. In the case of a financial or other relationship disclosure, the company, product/service, and specific nature of the relationship must be noted. Disclosure is mandatory for any person involved in the planning, management, presentation, and/or evaluation of STS educational activities.

Failure to disclose all relationships with commercial interests disqualifies the individual from being a planning committee member, a teacher, or an author of educational materials, and this individual cannot have any responsibility for the development, management, presentation, or evaluation of STS educational activities. This requirement is intended neither to imply any impropriety of such relationships nor to prejudice any individual planner, presenter or author. It is merely to identify such relationships through full disclosure, and to allow STS to assess and resolve potential influences on the educational activity prior to the planning and implementation of an educational activity. If no relationships with commercial interests exist, the individual must indicate this on the disclosure form.

Additionally, the fact that the presentation, paper, or other educational product describes (a) the use of a device, product, or drug that is not FDA approved or (b) an off-label use of an approved device, product, or drug must also be disclosed. This requirement has been adopted in response to FDA policy and case law involving medical societies, and is not intended to prohibit or inhibit independent presentation or discussion regarding the uses of devices, products, and drugs as described in (a) or (b) above.

For live presentations, all disclosures must be stated orally and on a slide at the beginning of the presentation and will be noted in published material related to the activity. Slides, handouts, and other materials utilized as part of an educational activity cannot contain any advertising, trade names or a product group message. Speakers are required to disclose that they have nothing to disclose if this is the case.

Amended by the STS Executive Committee: April 11, 2012
# Program at a Glance

**Friday, January 26, 2018**

<table>
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<tr>
<th>Time</th>
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<tr>
<td>3:00 PM – 6:00 PM</td>
<td>Registration</td>
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**Saturday, January 27, 2018**

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<th>Time</th>
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<tr>
<td>6:30 AM – 6:00 PM</td>
<td>Registration</td>
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<tr>
<td>7:00 AM – 6:30 PM</td>
<td>Tech-Con Exhibits</td>
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<tr>
<td>7:00 AM – 8:00 AM</td>
<td>BREAK—Visit Tech-Con Exhibits</td>
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<tr>
<td>8:00 AM – 9:30 AM</td>
<td>Tech-Con Adult CardiacTrack I: Innovations in Aortic Valve and Aortic Aneurysm Management</td>
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<tr>
<td>8:00 AM – 10:15 AM</td>
<td>Adult Congenital Heart Disease Symposium: Surgical Management</td>
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<td>10:15 AM – 12:00 PM</td>
<td>of Hypertrophic Cardiomyopathy and Anomalous Aortic Origin of a</td>
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<td>Coronary Artery in Children and Adults Practice Management Summit</td>
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<td>STS/AATS Critical Care Symposium: When Things Go Wrong in the CTICU</td>
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<td>and What to Do About It</td>
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**Sunday, January 28, 2018**

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<th>Time</th>
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<tr>
<td>7:00 AM – 8:30 PM</td>
<td>Registration</td>
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<tr>
<td>8:00 AM – 12:00 PM</td>
<td>Adult Congenital Heart Disease Symposium: Surgical Management</td>
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<tr>
<td>1:00 PM – 4:30 PM</td>
<td>Technical Tips to Avoid Pitfalls and Simplify Congenital</td>
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<tr>
<td>4:30 PM – 6:30 PM</td>
<td>How-To Video Session: Technical Tips to Avoid Pitfalls and Simplify</td>
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<tr>
<td>6:30 PM – 8:30 PM</td>
<td>Pediatric Cardiac Surgical Procedures</td>
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**Monday, January 29, 2018**

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<th>Time</th>
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<tr>
<td>3:00 PM – 6:00 PM</td>
<td>Registration</td>
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<tr>
<td>7:00 AM – 7:15 AM</td>
<td>Opening Remarks</td>
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<td>7:15 AM – 8:15 AM</td>
<td>J. Maxwell Chamberlain Memorial Papers</td>
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<td>8:15 AM – 9:00 AM</td>
<td>Abstract Presentations</td>
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<tr>
<td>9:00 AM – 4:30 PM</td>
<td>Exhibit Hall</td>
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<td>4:30 PM – 6:30 PM</td>
<td>Scientific Posters</td>
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*Indicates that a ticket is required to attend.*
Program at a Glance

11:30 AM – 12:30 PM
Adult Cardiac: Arrhythmia/Atrial Fibrillation
Basic Science Research: Adult Cardiac
Basic Science Research: General Thoracic
Congenital: Adult Congenital Critical Care
NEW! Diversity and Inclusion in Cardiothoracic Surgery: What’s In It for Me?
General Thoracic: New Technology
STS/CATS/CSCS: Difficult Decisions in Thoracic Surgery — Advice From Canadian and American Experts

12:30 PM – 1:30 PM
BREAK — Visit Exhibits and Scientific Posters

1:15 PM – 5:15 PM
Clinical Scenarios: Cardiologists and Surgeons Working Together
1:30 PM – 3:30 PM
Adult Cardiac: Aorta I
Adult Cardiac: Ischemic
Congenital: Pediatric Congenital I
General Thoracic: Lung Cancer I
General Thoracic: Lung Transplantation International Symposium: Confronting Infectious Diseases in Young Adults Undergoing Cardiac Surgery
SVS @ STS: Sharing Common Ground for Cardiovascular Problems

3:30 PM – 4:15 PM
BREAK — Visit Exhibits and Scientific Posters

4:15 PM – 5:15 PM
Adult Cardiac: VAD Transplant/ECMO
Ethics Debate: Neighborly Help or Itinerant Surgery?
Research Using the STS National Database
STS Key Contacts: Advocates for Cardiothoracic Surgery

The Annals Academy: Preparation and Interpretation of National Database Research
NEW! The Importance of Physician Documentation in Reimbursement
Women in Thoracic Surgery: How to Successfully Implement Surgical Innovations and New Technologies Into Practice

5:15 PM – 6:30 PM
Scientific Posters and Wine
5:30 PM – 6:30 PM
Business Meeting (STS Members Only)

Tuesday, January 30, 2018
6:30 AM – 4:30 PM
Registration
9:00 AM – 3:30 PM
Exhibit Hall
9:00 AM – 5:00 PM
Scientific Posters
7:30 AM – 8:30 AM
Meet the Experts
7:30 AM – 8:30 AM
Health Policy Forum
9:00 AM – 10:00 AM
Thomas B. Ferguson Lecture
10:00 AM – 10:45 AM
BREAK — Visit Exhibits and Scientific Posters
10:45 AM – 11:00 AM
Award Presentations
11:00 AM – 12:00 PM
C. Walton Lillehei Lecture
12:00 PM – 1:00 PM
BREAK — Visit Exhibits and Scientific Posters
12:00 PM – 1:00 PM
Residents Luncheon
1:00 PM – 3:00 PM
Adult Cardiac: General
Adult Cardiac: Mitral and Tricuspid Valves
Congenital: Pediatric Congenital II
EACTS @ STS: Bicuspid Aortic Valve Repair With Aortic Valve Insufficiency and Proximal Aortic Aneurysm Repair
NEW! STS/ISHLT Joint Symposium: LVAD Therapy in 2018 – Worldwide Perspectives
General Thoracic: Lung Cancer II
General Thoracic: Mediastinal/Pulmonary

3:30 PM – 4:30 PM
Quality Improvement

Wednesday, January 31, 2018
6:30 AM – 9:30 AM
Registration & Breakfast
7:00 AM – 9:00 AM
STS University
9:30 AM – 11:30 AM
STS University (courses repeated)

Indicates that a ticket is required to attend.
6:30 AM – 6:00 PM
Registration

7:00 AM – 6:30 PM
Tech-Con Exhibits

7:00 AM – 8:00 AM
BREAKFAST—Visit Tech-Con Exhibits

8:00 AM – 9:30 AM
Adult Cardiac Track I: Innovations in Aortic Valve and Aortic Aneurysm Management
MODERATORS: Gorav Ailawadi, Charlottesville, VA, and Wilson Y. Szeto, Philadelphia, PA

8:00 AM  Overview: Current Challenges in Aortic and Endovascular Surgery
Nimesh Desai, Philadelphia, PA

8:04 AM  A Practical Approach to Aortic Valve Repair
Emmanuel Lansac, Paris, France

8:12 AM  Sutureless Aortic Valve Replacement: Prosthesis Selection and Challenging Scenarios
Malak Shrestha, Hanover, Germany

8:20 AM  Submitted Presentation: Bioprosthetic Valve Fracture to Facilitate Valve-in-Valve Transcatheter Aortic Valve Replacement (TAVR)
Keith B. Allen, Kansas City, MO

8:28 AM  Navigating Complex TAVR Scenarios: Managing Left Ventricular Outflow Tract Calcium, Isolated Aortic Insufficiency, Bicuspid Valve, and Others
Arash Salemi, New York, NY

8:36 AM  Panel Discussion

8:47 AM  Submitted Presentation: Advanced Aortic Root Surgery Techniques via Right Minithoracotomy
Joseph Lameis, Miami Beach, FL

8:55 AM  Endovascular Repair in the Ascending Aorta: Is Endo Bentall a Reality?
Ali Khoynezhad, Los Angeles, CA

9:03 AM  Frozen Elephant Trunk and Evolving Arch Surgery Techniques
Eric E. Roselli, Cleveland, OH

9:11 AM  Branched Endografting Techniques in the Arch and Thoracoabdominal Aorta
Gustavo S. Oderich, Rochester, MN

9:19 AM  Panel Discussion

8:00 AM – 9:30 AM
General Thoracic Track I: Emerging and/or Game-Changing Technologies in the Management of Lung Cancer
MODERATORS: Lisa M. Brown, Sacramento, CA, and Brendon M. Stiles, New York, NY

8:00 AM  Submitted Presentation: Electromagnetic Navigational Video-Assisted Thoracoscopic Surgery (N-VATS) for Precision-Guided Resection of Intrathoracic Lesions
Wissam Raad, New York, NY

8:12 AM  Submitted Presentation: 3D Computed Tomography Reconstruction and Mix Reality for Sublobar Resection
Xinghua Cheng, Shanghai, China

8:24 AM  Submitted Presentation: Robotic Bronchoscopy
Kazuhiro Yasufuku, Toronto, Canada

8:36 AM  Use of Ultrasound Imaging for Localizing Nodules Robotically
John F. Lazar, Mechanicsburg, PA

8:48 AM  Radiofrequency Ablation of Lung Tumors
Katie S. Nason, Pittsburgh, PA

9:00 AM  Cryoablation: Update on SOLSTICE Study—Is It Applicable to Primary Lung Cancer?
Matthew R. Callstrom, Rochester, MN

9:12 AM  Energy Sources for Pulmonary Resection
Moishe A. Liberman, Montreal, Canada

9:30 AM – 10:15 AM
BREAK—Visit Tech-Con Exhibits

10:15 AM – 12:00 PM
Adult Cardiac Track II: Cutting-Edge Surgery for Heart Failure and Coronary Artery Disease
MODERATORS: Arash Salemi, New York, NY, and John M. Stulak, Rochester, MN

10:15 AM  Overview: Current Challenges in Heart Failure and Coronary Artery Disease (CAD)
Arash Salemi, New York, NY

10:19 AM  HeartMate 3 Clinical Trial Update
Daniel J. Goldstein, Bronx, NY

10:27 AM  PREVENT II: Rationale and Trial Study Design
Robert Adamson, San Diego, CA

10:35 AM  Thoracotomy Implant of HeartWare HVAD: HVAD LATERAL Study
Simon Maltais, Rochester, MN

PLEASE NOTE: CME WILL NOT BE OFFERED FOR TECH-CON.
10:43 AM  Total Artificial Heart Clinical Trial Update
Francisco A. Arabia, Los Angeles, CA
10:51 AM  Hemocompatibility of Fully Magnetically Levitated Pumps
Nir Uriel, Chicago, IL
10:59 AM  Panel Discussion
11:07 AM  Submitted Presentation: EpicHeart™ Soft Robotic Device to Support Heart Function
William Altman, Houston, TX
11:15 AM  Submitted Presentation: First-in-Human Clinical Trial of a Minimally Invasive Left Ventricular Assist Device
Valluvan Jeewanandram, Chicago, IL
11:23 AM  Coronary Artery Bypass Grafting (CABG) or Percutaneous Coronary Intervention for Ischemic Cardiomyopathy?
David P. Taggart, Oxford, United Kingdom
11:31 AM  External Stent for Saphenous Vein Grafts in CABG
David P. Taggart, Oxford, United Kingdom
11:39 AM  Robotic-Assisted Totally Endoscopic Coronary Artery Bypass for Multivessel CAD: Beyond Most Surgeons’ Reach?
Husam H. Balkhy, Chicago, IL
11:47 AM  Panel Discussion

10:15 AM – 12:00 PM
General Thoracic Track II: Emerging and/or Game-Changing Technologies in the Management of Esophageal Diseases
MODERATORS: Melanie A. Edwards, St Louis, MO, and James D. Luketch, Pittsburgh, PA
10:15 AM  Endoscopic Approach to Zenker’s Diverticulum
Ryan M. Levy, Pittsburgh, PA
10:30 AM  Update on Advances in Antireflux Surgery
Brian E. Louie, Seattle, WA
10:45 AM  Endoluminal Management of Esophageal Leaks
David C. Rice, Houston, TX
11:00 AM  Advances in Peroral Endoscopic Myotomy Technology and Endoscopic Mucosal Closure
TBD
11:15 AM  Robotic Esophagectomy
Inderpal Sarkaria, Pittsburgh, PA
11:30 AM  Endoscopic Techniques in Esophageal Cancer
Wayne L. Hofstetter, Houston, TX
11:45 AM  Submitted Presentation: A Bioengineered Implant for Esophageal Replacement
Saverio La Francesca, Holliston, MA

12:00 PM – 1:00 PM
LUNCH—Visit Tech-Con Exhibits

1:00 PM – 2:30 PM
Adult Cardiac Track III: Contemporary and Future Mitral Valve and Atrial Fibrillation Practice
MODERATORS: Vinay Badhwar, Morgantown, WV, and Tom C. Nguyen, Houston, TX
1:00 PM  Overview: Advances in Surgical Therapy for Mitral Valve Disease and Atrial Fibrillation
Vinay Badhwar, Morgantown, WV
1:04 PM  Defining the Mitral Valve Surgeon of the Future: Time for an Honest Appraisal
T. Sloane Guy, New York, NY
1:12 PM  MitraClip, Transcatheter Mitral Valve Repair (TMVR), Robotics, Port Access, and Open Surgery: Can We Do It All?
Robert L. Smith, Plano, TX
1:20 PM  Robotic Reconstruction for Complex Primary Mitral Regurgitation: No Limits
Vinay Badhwar, Morgantown, WV
1:28 PM  Robotic/Minimally Invasive Cardiac Surgery Treatment Options for Atrial Fibrillation: Better Than Catheter Ablation?
Evelio Rodriguez, Nashville, TN
1:36 PM  Panel Discussion
1:46 PM  Are Apically Delivered Chords Really the Answer?
Tirone E. David, Toronto, Canada
1:54 PM  Transcatheter Mitral Valve Replacement: Global and Early US Experience
Gilbert H. Tang, New York, NY
2:02 PM  Pipeline of TMVR: The Train Has Left the Station!
Michael J. Mack, Plano, TX
2:10 PM  Pipeline of Tricuspid Devices: Fumbling In the Dark or Zeroing In on an Indication?
Francesco Maisano, Zurich, Switzerland
2:18 PM  Panel Discussion

Please note: Speakers and presentation titles are subject to change.
### 1:00 PM – 2:30 PM

**General Thoracic Track III: Emerging and/or Game-Changing Minimally Invasive Surgery and Other Technologies**

**MODERATORS:** Michael F. Reed, Hershey, PA, and Inderpal S. Sarkaria, New York, NY

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<tr>
<td>1:00 PM</td>
<td>Novel Suture Technologies</td>
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<td>Michael F. Reed, Hershey, PA</td>
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<td>1:12 PM</td>
<td>Chest Wall Reconstruction Technologies</td>
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<td>Shanda H. Blackmon, Rochester, MN</td>
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<td>1:24 PM</td>
<td>Advanced Imaging Technologies</td>
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<td>Yolonda L. Colson, Boston, MA</td>
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<td>1:36 PM</td>
<td><strong>Submitted Presentation:</strong> Articulated Minimally Invasive Surgery Instrumentation</td>
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<td>Joel Dunning, Middlesbrough, United Kingdom</td>
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<td>1:48 PM</td>
<td><strong>Submitted Presentation:</strong> Immersive Video Operating Room Training</td>
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<td>Douglas R. Johnston, Cleveland, OH</td>
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<td>2:00 PM</td>
<td><strong>Submitted Presentation:</strong> Autonomous Camera System</td>
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<td>Traves Crabtree, St Louis, MO</td>
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<td>2:12 PM</td>
<td><strong>Submitted Presentation:</strong> Alternate New Device for Chest Access</td>
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<td></td>
<td>Daniel L. Miller, Marietta, GA</td>
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### 2:30 PM – 3:00 PM

**BREAK—Visit Tech-Con Exhibits**

### 3:00 PM – 5:00 PM

**Joint Session: Robotic Cardiothoracic Innovations and “Shark Tank” — Rapid-Fire Pitches of Revolutionary Technology**

**MODERATORS:** Richard Lee, St Louis, MO, and James D. Luketich, Pittsburgh, PA

**“SHARK TANK” JUDGES:** Rick Anderson, Austin, TX, Steven F. Bolling, Ann Arbor, MI, and William E. Cohn, Houston, TX

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<tr>
<td>3:00 PM</td>
<td>Debate: Robotic Mitral Valve Repair Is a Critical Part of the Future of Our Specialty</td>
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<td><strong>CON:</strong> David H. Adams, New York, NY</td>
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<td><strong>PRO:</strong> T. Sloane Guy, New York, NY</td>
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<tr>
<td>3:30 PM</td>
<td>Debate: Robotic Thoracic Surgery Is a Critical Part of the Future of Our Specialty</td>
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<td><strong>CON:</strong> Mark S. Allen, Rochester, MN</td>
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<td><strong>PRO:</strong> Robert J. Cerfolio, New York</td>
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<td>3:50 PM</td>
<td>What’s New in Robotic Cardiothoracic Surgical Technology: Updates From Robotic Companies That Are Leading the Way—Intuitive Surgical</td>
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<td>David Stoffel, San Francisco, CA</td>
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<td>4:00 PM</td>
<td>What’s New in Robotic Cardiothoracic Surgical Technology: Updates From Robotic Companies That Are Leading the Way—Medtronic</td>
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<td>Paul Hermes, North Haven, CT</td>
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<td>4:10 PM</td>
<td>What’s New in Robotic Cardiothoracic Surgical Technology: Updates From Robotic Companies That Are Leading the Way—Verb Surgical</td>
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<td>Scott Huennekens, Mountain View, CA</td>
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<td>4:20 PM</td>
<td><strong>Submitted Presentation:</strong> Novel Nanoparticle for Enhanced Pulmonary Nodule Identification</td>
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<td>Jeff Port, New York, NY</td>
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<td>4:30 PM</td>
<td><strong>Submitted Presentation:</strong> Left Ventricular Inflow Stent Reduces Suction Events and Improves Mechanical Circulatory Support</td>
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<td>James H. Mehall, Charlottesville, VA</td>
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<td>4:40 PM</td>
<td><strong>Submitted Presentation:</strong> Videoscope Cleaning Trocar for Minimally Invasive Surgery</td>
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<td>Bryan Burt, Houston, TX</td>
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### 5:00 PM – 6:30 PM

**RECEPTION—Visit Tech-Con Exhibits**
Adult Congenital Heart Disease Symposium: Surgical Management of Hypertrophic Cardiomyopathy and Anomalous Aortic Origin of a Coronary Artery in Children and Adults

Hypertrophic cardiomyopathy (HCM) and anomalous aortic origin of a coronary artery (AAOCA) can lead to sudden death in children and adults. Only a few centers perform a high volume of septal myectomy operations each year, and even fewer have experience treating mid-cavitary obstruction and non-obstructive HCM through the transventricular approach. Adult and pediatric cardiac surgeons may find it difficult to begin doing these types of cases and even more difficult to master a reproducible technique that maximizes benefits and minimizes risks. Also, cardiologists may not know when to refer patients. In this session, pediatric and adult cardiac surgeons, as well as cardiologists, will discuss age-related differences in surgical technique, indications for surgery, and how to encourage bidirectional communication between surgeons and cardiologists about the referral timing of these patients.

Learning Objectives

Upon completion of this activity, participants should be able to:
- List the indications for surgery for HCM and AAOCA
- Describe a transventricular approach to septal myectomy for mid-cavitary obstruction in hypertrophic obstructive cardiomyopathy (HOCM)
- Summarize a combined aortic/transventricular approach to septal myectomy for difficult-to-reach obstruction in HOCM
- Explain the risks associated with a variety of coronary anomalies
- List two methods for surgical management of coronary anomalies

Practice Management Summit

The business of health care is evolving and being reshaped by payers, who are demanding value for their dollars. This paradigm shift away from volume of services delivered has many physicians questioning their current practice patterns. Gaining a better understanding of these fundamental changes, as well as hearing first-hand accounts of surgeons who have successfully navigated this new arena, will provide attendees with viable countermeasure options.

Learning Objectives

Upon completion of this activity, participants should be able to:
- Describe how to negotiate a contract from a position of strength
- Explain the value proposition of individual practice types
- Discuss the direction of health care and cardiothoracic surgery
- List the practice transition options available to cardiothoracic surgeons
- Describe how to leverage the cardiovascular service line structure to promote value
- Explain the dangers associated with variability in health care delivery

STS/AATS Critical Care Symposium: When Things Go Wrong in the CTICU and What to Do About It

It is increasingly apparent that there is a rapidly evolving demographic of the “typical” cardiothoracic surgery patient. Increasing use of technology in an older and more frail population requires the health care team to be well versed in patient optimization, maintenance of safety and quality, and ethical decision making for high-cost interventions. This joint session by STS and the American Association for Thoracic Surgery will provide attendees with a comprehensive review of the roles and responsibilities of interdisciplinary team members and potential pitfalls in the context of increasingly complex patients.

Learning Objectives

Upon completion of this activity, participants should be able to:
- Discuss the pearls and pitfalls of implementing an ERATS/ERACS program
- Describe the rationale behind handoff checklists
- Identify that failure to rescue from postoperative morbidity is a proposed metric of program quality
- Discern and discuss beneficence vs social justice and how to approach this tenuous balance as it impacts clinical and patient-centered decision making

CHEST @ STS: Advanced Bronchoscopy and Surgical Airway Symposium

Cardiothoracic surgeons are essential in the diagnosis and treatment of lung nodules and lung cancer. New technology, such as endobronchial ultrasound (EBUS), navigational bronchoscopy, and cutting-edge endobronchial therapeutics, have changed the approach of lung cancer staging and should be learned by cardiothoracic surgeons. Additional training in therapeutic bronchoscopy is needed to help patients with newly diagnosed lung nodules, as well as palliation of malignant airway obstruction. This joint session by STS and the American College of Chest Physicians will provide attendees with the knowledge they need to navigate this evolving field.

Learning Objectives

Upon completion of this activity, participants should be able to:
- Identify indications, yield, and complications of EBUS and navigational bronchoscopy
- Recognize the benefits and limitations of airway ablative modalities
- State the benefits and limitations of various airway stents
8:00 am – 12:00 pm

**SCA @ STS: Integrating Perioperative Echocardiography Into Cardiac Surgical Clinical Decision Making**

This joint session by STS and the Society of Cardiovascular Anesthesiologists will address recent advances in the field of echocardiography, continuously changing technology for the treatment of valvular disease, and new evidence regarding the appropriateness of established procedures. New guidelines for assessment of native valvular regurgitation, updated guidelines on the treatment of ischemic mitral regurgitation, catheter-based procedures for mitral valve regurgitation, and procedural complications diagnosed by intraprocedural echocardiography will be reviewed.

**Learning Objectives**

Upon completion of this activity, participants should be able to:

- Recognize the utility of echo anatomy and intraoperative echocardiographic analysis in surgical decision making for open and percutaneous procedures
- Discuss the integration of echocardiographic measurements with new clinical evidence in certain patient populations
- Identify and apply echocardiographic findings to case studies

10:00 am – 4:30 pm

**“My Tube” Adult Cardiac How-To Video Session**

This session is designed for all practicing adult cardiac surgeons—experienced and novice, academic and private practice. This video-based session will emphasize technical tips to help surgeons improve their practice and outcomes immediately. Topics will include heart failure surgery, coronary disease, valvular disease, and aortic/great vessel disease.

**Learning Objectives**

Upon completion of this activity, participants should be able to:

- Describe the technical aspects of complex operations commonly performed in adult cardiac surgery
- Discuss the pitfalls of critical steps in complex cardiac surgery
- Identify novel tricks to make cardiac operations easier, safer, and more reproducible

12:00 pm – 1:00 pm

**BREAK**

1:00 pm – 4:00 pm

**Residents Symposium: Transitioning From Residency to a Successful Practice**

This symposium will help cardiothoracic surgery residents navigate the challenges of completing training and beginning practice. The first session will explain the process of finding a position: reasons for choosing private or academic practice, logistics and best practices for the job search, and considerations in contract negotiation. The second session will cover essential aspects of growing a new practice: building a clinical practice, benchmarks to set during the beginning of one’s career, health care/individual surgeon finances, and achieving work-life balance. Each session will be followed by small group table discussions led by experienced surgeons and a larger group discussion with the speakers.

**Learning Objectives**

Upon completion of this activity, participants should be able to:

- Outline the elements of a successful job search
- Explain the decision making behind choosing academic or private practice
- Describe the basic elements of contract negotiation
- Delineate benchmarks for early career development and clinical program development
- Discuss how cardiothoracic surgeons’ individual finances relate to health care financing
- Identify aspects of work-life balance that are important to consider in career planning
1:00 pm – 4:30 pm

**How-To Video Session: Technical Tips to Avoid Pitfalls and Simplify Congenital and Pediatric Cardiac Surgical Procedures**

Textbooks and peer-reviewed publications are not ideal formats for showing the technical nuances of challenging operations. This video session will help congenital, pediatric, and adult congenital surgeons master difficult operative scenarios, such as complex atrioventricular valve disease and complex biventricular repairs. In addition, attendees will be exposed to emerging technology and unique strategies for improved surgical management of heart failure, mechanical support, and cardiac transplantation.

**Learning Objectives**

Upon completion of this activity, participants should be able to:

- List the technical aspects of complex operations performed in congenital and pediatric cardiac surgery
- Discuss pitfalls of critical steps in complex congenital and pediatric cardiac surgery
- Identify novel surgical approaches to make congenital and pediatric cardiac operations safer and more reproducible
- Describe the technical nuances for operative interventions that are not commonly seen in clinical practice

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1:00 pm – 4:30 pm

**How-To Video Session: Tips and Tricks to Maximize Efficiency in Minimally Invasive General Thoracic Surgery**

This video session will focus on technical tips and tricks to make difficult, minimally invasive general thoracic surgeries more efficient. Topics include maximizing efficiency in robotic and thoracoscopic segmentectomy and lobectomy, as well as esophagectomy. Speakers also will discuss systems-based approaches to efficiency in the perioperative and postoperative periods, advice on nodule localization, and endoscopic approaches to esophageal cancer.

**Learning Objectives**

Upon completion of this activity, participants should be able to:

- Describe techniques to improve efficiency in the conduct of minimally invasive lobectomy, segmentectomy, and esophagectomy
- Discuss methods for identifying lung nodules amenable to segmentectomy and for nodule localization
- Explain endoscopic approaches to esophageal cancer, including selection criteria and potential complications
- Describe systems-based methods to improve efficiency in the operative and postoperative setting

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2:00 pm – 6:30 pm

**Scientific Posters**

4:30 pm – 6:30 pm

**Opening Reception in STS Exhibit Hall**

7:00 pm – 10:00 pm

**President’s Reception**

Network with STS surgeon leaders and fellow meeting attendees at the President’s Reception on Sunday, January 28. This high-profile event will be held on an oceanfront terrace at the luxurious Fort Lauderdale Marriott Harbor Beach Resort & Spa. While a tropical-themed band plays in the background, enjoy gourmet food stations and an open bar. Colorful tropical birds will be on hand to help set the mood. This reception takes the place of the STS Social Event, which previously had been held on Monday evening. Tickets can be purchased for $95. Don’t miss this opportunity to connect with leaders in cardiothoracic surgery in a picturesque, informal setting.
Monday

JANUARY 29, 2018

6:30 AM – 5:00 PM
Registration

9:00 AM – 4:30 PM
Exhibit Hall
Scientific Posters

7:00 AM – 10:50 AM
General Session I
7:00 AM  Opening Remarks
7:15 AM  J. Maxwell Chamberlain Memorial Papers
8:15 AM  Abstract Presentations
9:00 AM  BREAK—Visit Exhibits and Scientific Posters
9:40 AM  Introduction of the President: Keith S. Naunheim
9:50 AM  Presidential Address: Richard L. Prager

10:50 AM – 11:30 AM
BREAK—Visit Exhibits and Scientific Posters

11:30 AM – 12:30 PM
Adult Cardiac: Arrhythmia/Atrial Fibrillation

11:30 AM – 12:30 PM
Basic Science Research: Adult Cardiac

11:30 AM – 12:30 PM
Basic Science Research: General Thoracic

11:30 AM – 12:30 PM
Congenital: Adult Congenital

11:30 AM – 12:30 PM
Critical Care

11:30 AM – 12:30 PM
NEW! Diversity and Inclusion in Cardiothoracic Surgery: What’s In It for Me?

At this new session, organized by the STS Task Force on Diversity and Inclusion, attendees will learn how diversity and inclusion can be valuable to their practice and service lines, training efforts, and relationships in the communities in which they practice. Speakers will address the role of diversity and inclusion in the cardiothoracic surgery workforce and explore why physicians who are underrepresented in medicine are important for the optimal delivery of cardiothoracic surgery specialty care without cultural bias.

Learning Objectives
Upon completion of this activity, participants should be able to:
- Define diversity as it relates to the health care workforce and the care of diverse patient populations
- Define inclusion as it relates to the health care workforce, health care leadership, and the care of diverse patient populations
- Define underrepresented minority (URM)
- Discuss how a diverse cardiothoracic surgery workforce can improve patient outcomes by increasing cultural competency and mitigating implicit provider bias
- Explain how the inclusion of URM trainees and junior faculty and staff helps increase URM pipeline to the clinical workforce and make successful diversification efforts

11:30 AM – 12:30 PM
General Thoracic: New Technology

11:30 AM – 12:30 PM
STS/CATS/CSCS: Difficult Decisions in Thoracic Surgery—Advice From Canadian and American Experts

This session represents the collaborative efforts of STS, the Canadian Association of Thoracic Surgeons, and the Canadian Society of Cardiac Surgeons and will provide current perspectives from the United States and Canada on difficult problems in general thoracic surgery. Expert thoracic surgeons from each country will discuss management of airway injuries post-esophagectomy, management of N2 disease in non-small cell lung cancer (NSCLC), and more.

Learning Objectives
Upon completion of this activity, participants should be able to:
- Discuss intraoperative measures to reduce the chance of airway injury during esophagectomy
- Review the options for management of airway-conduit fistulae and airway injuries post-esophagectomy
- Explain the potential role of extracorporeal membrane oxygenation in the repair of complex airway injuries post-esophagectomy
- Discuss inclusion and exclusion criteria for the surgical management of N2 disease in NSCLC
- List the potential neoadjuvant options in N2 disease

12:30 PM – 1:30 PM
BREAK—Visit Exhibits and Scientific Posters
**Learning Objectives**

Upon completion of this activity, participants should be able to:

- Discuss ethical boundaries for surgery in remote locations
- Describe the requirements for postoperative care when the operating surgeon is not available
- Structure outreach cardiac surgical programs in a way that is ethically acceptable
- Discuss the ethical boundaries for surgery in remote locations

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### Clinical Scenarios: Cardiologists and Surgeons Working Together

This session will concentrate on a true collaborative “heart team” approach to treating complex issues facing the practicing physician or affiliate provider. Using a unique and innovative format highlighting the spectrum of adult cardiac diseases, speakers will discuss the multidisciplinary approach to mitral stenosis and regurgitation, tricuspid regurgitation, aortic stenosis and regurgitation, and surgical management of heart failure. Session components include invited technical videos, a critical review of the literature, case-based presentations describing difficult clinical scenarios, and an interactive panel discussion.

**Learning Objectives**

Upon completion of this activity, participants should be able to:

- Discuss the controversies surrounding the management of tricuspid valve disease
- Describe the indications and contraindications for the treatment of mitral regurgitation
- Describe the construction and makeup of the multidisciplinary “heart team” and its influence in improving patient outcomes and fostering communication between specialties
- Explain the optimal management of patients with specific case scenarios who are evaluated for aortic stenosis, congestive heart failure, mitral regurgitation, and tricuspid regurgitation

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### International Symposium: Confronting Infectious Diseases in Young Adults Undergoing Cardiac Surgery

As increasing numbers of young adults are treated for infectious heart disease (especially as a result of the current opioid epidemic), there are practice gaps in relation to both the ethics of repetitively operating on opioid addicts for infectious heart disease, as well as the optimal approaches for carrying out cardiac surgical procedures on young adults afflicted with such disease. By providing an international perspective on the surgical treatment of infectious heart disease, the symposium will give learners valuable insights into related cardiac surgical strategies utilized in a range of different countries and different scenarios.

**Learning Objectives**

Upon completion of this activity, participants should be able to:

- Discuss optimal approaches for conducting a variety of cardiac surgery procedures on young adults
- Explain central challenges involved in treating infectious heart disease in the young adult population
- Discuss ethical and disease management dilemmas implicated in the treatment of infectious heart disease in young adults

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### SVS @ STS: Sharing Common Ground for Cardiovascular Problems

Many cardiac surgeons continue to incorporate the care of patients with vascular disease into their practices, while many vascular surgeons are now treating pathology that previously was purely in the domain of cardiovascular surgeons. This session from STS and the Society for Vascular Surgery will offer topics relevant to both fields and provide each perspective.

**Learning Objectives**

Upon completion of this activity, participants should be able to:

- Formulate a plan based on published data and expert recommendations for the management of malperfusion in the setting of type A dissection
- Describe the current state of open and endovascular repair of thoracoabdominal aneurysms

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### Research Using the STS National Database

The STS National Database is a valuable tool for both quality improvement and research, and research utilizing the Database has grown exponentially in recent years. Still, many researchers may not be familiar with the different methods available for performing such research. This session will cover several Database-related research programs, including the new Participant User File Research Program. In addition, speakers will discuss opportunities to pursue funded research using STS National Database data.

**Learning Objectives**

Upon completion of this activity, participants should be able to:

- Describe the process for creating a data request to access data from the STS National Database for research
- Discuss the differences between major data requests and minor data requests
- Explain the process of developing a hypothesis, specific aims, and a research plan
- Discuss research options for longitudinal follow-up or linking to other registries
- List available options, rules, and policies for obtaining investigator access to de-identified patient-level data for analysis at their own institutions
**STS Key Contacts: Advocates for Cardiothoracic Surgery**

One way that cardiothoracic surgeons can have a direct impact on federal policy affecting the specialty is by participating in the STS Key Contact program, which offers grassroots advocacy opportunities. This session will explain how the program works, discuss the current health care debate, and describe how STS-PAC enhances these advocacy efforts.

In addition, experienced Key Contacts will role-play a meeting with a member of Congress, the Key Contact of the Year and other awards will be announced, and attendees will be able to socialize and network.

**Learning Objectives**

Upon completion of this activity, participants should be able to:

- Describe how to meet or speak with their members of Congress
- Discuss the Society’s legislative priorities
- Explain how to utilize their peer Key Contacts as resources

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**The Annals Academy: Preparation and Interpretation of National Database Research**

The publication of research using national databases has risen exponentially over the past decade. Unfortunately, common methodological mistakes are made when preparing manuscripts and interpreting the results from published manuscripts. This session will address common limitations and errors made with national database research.

**Learning Objectives**

Upon completion of this activity, participants should be able to:

- Explain the difference between association and causality in observational research
- Explain the difference between statistical and clinical significance in large databases
- Describe common performance metrics for multivariable modeling
- Discuss options for merging STS National Database data with other longitudinal databases to obtain long-term outcomes

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**NEW! The Importance of Physician Documentation in Reimbursement**

This session will address how physician documentation drives reimbursement. Attendees will learn how to efficiently and effectively capture the key aspects of patient encounters to accurately communicate why a service was provided, define the services rendered, support the medical necessity, and capture relevant quality elements for an encounter. The session also will highlight the increasing importance of creating an active partnership between cardiothoracic surgeons and hospitals to enable maximal reimbursement for both.

**Learning Objectives**

Upon completion of this activity, participants should be able to:

- Identify the documentation necessary to support relevant diagnoses, services rendered, medical necessity, and quality measures for a patient encounter
- Describe how hospitals utilize physician documentation for reimbursement
- Explain the role that diagnosis coding plays in hospital reimbursement (CC and MCC)
- Recognize the importance of specificity and identification of services provided in a patient encounter
- Identify coding and reimbursement criteria so that they can identify and capture relevant documentation elements efficiently
- List the global periods relevant to cardiothoracic surgical procedures and the implications those global periods have on reimbursement

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**Women in Thoracic Surgery: How to Successfully Implement Surgical Innovations and New Technologies Into Practice**

A growing number of new technologies are becoming available in cardiothoracic surgery to improve quality of care, reduce costs, and/or improve treatment. The introduction of innovations and cutting-edge technologies by established surgeons or recent trainees can pose problems in institutions not familiar with these newer surgical techniques. This session will cover the important aspects relevant to the successful introduction and use of surgical innovations in a health system and practice.

**Learning Objectives**

Upon completion of this activity, participants should be able to:

- Describe the framework of privileging and credentialing as it pertains to new technology
- Discuss the importance of monitoring outcomes
- State strategies to identify multidisciplinary partners in developing or augmenting service lines that would benefit from new technology
- Recognize their need for new technology acquisition

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**Scientific Posters and Wine**

5:30 pm – 6:30 pm

**Business Meeting (STS Members Only)**
Tuesday, January 30, 2018

6:30 AM – 4:30 PM
Registration

9:00 AM – 3:30 PM
Exhibit Hall

9:00 AM – 5:00 PM
Scientific Posters

7:30 AM – 8:30 AM
MEET THE EXPERTS SESSION 1
Management of Esophageal Leaks
This session will explore the diagnosis and management of esophageal leaks following surgical procedures. Through case examples and a panel discussion, attendees will be shown when conservative measures are appropriate and when reoperation is indicated.

Learning Objectives
Upon completion of this activity, participants should be able to:
• Describe current data on the incidence of anastomotic leaks associated with esophagogastrectomy
• Assess diagnostic modalities for identifying anastomotic leak or focal conduit necrosis
• Discuss the evolving pattern of treatment options for leaks and regional conduit necrosis
• Outline the short- and long-term ramifications of anastomotic leak following esophageal resection
• Discuss the presentation, diagnosis, and outcomes of esophageal leaks and fistula following surgical procedures

MEET THE EXPERTS SESSION 2
Minimally Invasive and Robotic Mitral Valve Repair

MEET THE EXPERTS SESSION 3
Universal Conundrums in ECMO: Tips and Tricks for Veno-Arterial ECMO in Cardiogenic Shock
Venoarterial extracorporeal membrane oxygenation (ECMO) is an established platform that provides mechanical pulmonary and circulatory support for patients with cardiogenic shock from multiple etiologies refractory to standard medical therapy. ECMO, unlike definitive mechanical support systems, presents myriad unique therapeutic challenges that require optimization to advance the patient to the next management platform.

This session will focus on the major problems associated with ECMO through four clinical scenarios. An expert panel will delineate how the clinical challenges demonstrated by patients on ECMO are addressed regionally and internationally, and therapeutic tips will be presented for each management platform.

Learning Objectives
Upon completion of this activity, participants should be able to:
• Identify methods of weaning a patient recovering from ventricular dysfunction off ECMO to recovery
• Describe methods for transitioning a patient from ECMO to a stable temporary or permanent platform
• Outline new technologies that can be utilized as adjuncts to the ECMO platform
• Discuss futility in the ECMO platform

MEET THE EXPERTS SESSION 4
Advanced Surgical Techniques in Ischemic Heart Disease
This session will focus on advanced techniques in the surgical treatment of ischemic heart disease that routinely can be applied by practicing adult cardiac surgeons. Speakers will present their techniques and tips in a video-rich format, followed by a Q&A with the audience. Best practices in the management of diffuse coronary artery disease, arterial grafting, and off-pump coronary artery bypass grafting (CABG) surgery will be discussed in detail, with a focus on providing attendees with useful skills and technical tips that they can take home to their practices.

Learning Objectives
Upon completion of this activity, participants should be able to:
• Identify the alternative techniques to revascularize a diffusely diseased coronary artery, including full metal jacket
• Recall surgical techniques of all-arterial grafting, including bilateral internal thoracic artery and radial artery combinations
• Explain how to do off-pump CABG safely, reliably, and precisely
MEET THE EXPERTS SESSION 5
How to Be Successful in a Small-to-Mid Size Congenital Heart Program

Small-to-moderate sized congenital heart programs can be successful in achieving optimal outcomes for their patients, but their resources may be limited. This session will provide expert opinion from successful practitioners at small-to-moderate programs that will help attendees learn how to manage limited resources.

Learning Objectives
Upon completion of this activity, participants should be able to:

• Compare patient complexity with program resources
• Identify the complex, high-risk patient that may overutilize scarce resources or require additional expertise not available
• Manage limited resources, including human resources, in order to maximize performance

MEET THE EXPERTS SESSION 6
End-Stage Heart Failure

Mechanical circulatory support is a complex and evolving field. There are certain clinical scenarios for which diverging approaches exist within the ventricular assist device community. Examples include biventricular heart failure in destination therapy populations, left ventricular thrombus, recurrent ventricular dysrhythmias, patients with multiple prior sternotomies, existing mechanical aortic valves, and patients with a history of thrombophilia.

Learning Objectives
Upon completion of this activity, participants should be able to:

• Describe the best approaches for right ventricular performance assessment and the different options in managing right ventricular dysfunction following durable left ventricular assist device implantation
• Recall the implications, severity, and approaches to left ventricular thrombus in patients undergoing left ventricular assist device implantation, highlighting the limitations and merits of each
• Explain evidence suggesting adverse events associated with in situ mechanical aortic valves in patients undergoing left ventricular assist device implantation and different strategies that can be employed in this setting
• Describe the preoperative, intraoperative, and postoperative strategies to mitigate recurring arrhythmias in patients with refractory ventricular dysrhythmia
• Identify the different strategies employed in implantation procedures for patients with multiple sternotomies

MEET THE EXPERTS SESSION 7
Management of the Small Aortic Root

Standard practice for aortic valve replacement (AVR) aims to use the largest possible valve without enlarging or replacing the root. The literature documents that small valves reduce life expectancy, but measures to alter or replace the aortic root have been underused and actively discouraged because of perceived (and actual) increase in risk. This session aims to identify patients who could benefit from more aggressive surgery and encourage development of the skills to do this safely.

Learning Objectives
Upon completion of this activity, participants should be able to:

• Identify patients at risk for poor outcomes because of small aortic roots
• Explain when aortic root enlargement should be considered and its limitations
• Choose appropriate patients for aortic root replacement to avoid hemodynamic mismatch
• Discuss the importance of surgical valve size for future valve-in-valve options
• Select patients who might be best served by primary transcatheter AVR for hemodynamic reasons
• Describe the principles of sutureless AVR implantation and how to choose appropriate patients for this procedure

MEET THE EXPERTS SESSION 8
Minimally Invasive Esophageal and Pulmonary Procedures, Including Robotics and POEM

This session will present novel ways to perform minimally invasive lung surgery robotically, posterior to anterior.

Learning Objectives
Upon completion of this activity, participants should be able to:

• Choose ideal candidates for minimally invasive lung surgery
• Describe optimal methods to perform the posterior approach to minimally invasive surgery, anterior approach to minimally invasive surgery, minimally invasive esophagectomy, and esophageal-gastric anastomosis

7:30 am – 8:30 am

HEALTH POLICY FORUM

The Changing Medicare Quality Reporting and Payment Landscape

The Medicare Access and CHIP Reauthorization Act changed the way physicians are paid under the Medicare program. As the Centers for Medicare & Medicaid Services (CMS) works to implement provisions of the new policy over the next few years, cardiothoracic surgeons will need to stay apprised of changes in reporting requirements and performance benchmarks. At this session, attendees will learn how they can be successful under either aspect of the Medicare Quality Payment Program: the Merit-Based Incentive Payment System (MIPS) or Alternative Payment Models (APMs).

Learning Objectives
Upon completion of this activity, participants should be able to:

• List new quality reporting requirements under MIPS
• State new advancing care information reporting requirements under MIPS
• Describe new clinical practice improvement reporting requirements under MIPS
• Recognize how to successfully participate in an APM that prioritizes value over volume of services
• Discuss what STS is doing to advocate for cardiothoracic surgeons participating in these programs
9:00 am – 12:00 pm

**General Session II**

9:00 am  
Thomas B. Ferguson Lecture

10:00 am  
BREAK—Visit Exhibits and Scientific Posters

10:45 am  
Award Presentations

11:00 am  
C. Walton Lillehei Lecture

12:00 pm – 1:00 pm  
BREAK—Visit Exhibits and Scientific Posters

12:00 pm – 1:00 pm  
Residents Luncheon

1:00 pm – 3:00 pm  
**Adult Cardiac: General**

1:00 pm – 3:00 pm  
**Adult Cardiac: Mitral and Tricuspid Valves**

1:00 pm – 3:00 pm  
**Congenital: Pediatric Congenital II**

1:00 pm – 3:00 pm  
**EACTS @ STS: Bicuspid Aortic Valve Repair With Aortic Valve Insufficiency and Proximal Aortic Aneurysm Repair**

In this session, presented by STS and the European Association for Cardio-Thoracic Surgery (EACTS Vascular Domain), international experts will examine the treatment options available for bicuspid aortic valve disease associated with pure aortic valve insufficiency and root dilation. Technical considerations, conduct of operation, surgical decision making, and the most up-to-date data will be presented.

**Learning Objectives**

- Describe the reconstructive options available for repair of bicuspid aortic valve insufficiency with aortic root aneurysm
- Identify all bicuspid aortic valve phenotypes and consider which surgical treatment should be utilized

1:00 pm – 3:00 pm  
**NEW! STS/ISHLT Joint Symposium: LVAD Therapy in 2018 – Worldwide Perspectives**

This joint symposium between STS and the International Society for Heart and Lung Transplantation will feature contemporary experience with left ventricular assist device (LVAD) therapy around the globe. The latest clinical trials and registry data will be presented, and areas of ongoing advanced research will be highlighted. This session also will cover innovative approaches to LVAD therapy, including minimally invasive implantation and LVAD decommissioning.

**Learning Objectives**

Upon completion of this activity, participants should be able to:

- Explain the results of recent multicenter clinical trials of LVAD therapy, including survival and expected complications of the most commonly used pumps
- Describe the data provided by international LVAD registries and further questions that may be addressed through registry data
- Discuss the advantages and disadvantages of minimally invasive LVAD implantation and minimally invasive LVAD decommissioning
- Identify differences and commonalities between European, Asian, and American experiences with LVAD therapy

1:00 pm – 3:00 pm  
**General Thoracic: Lung Cancer II**

1:00 pm – 3:00 pm  
**General Thoracic: Mediastinal/Pulmonary**

1:00 pm – 5:30 pm  
**Patient Safety Symposium**

Cognitive biases have been implicated as a cause of errors in diagnosis and treatment. Thus, physicians who become familiar with common cognitive biases should be able to better recognize biases in their clinical practice. In spite of research evidence and clinical guidelines, there are variances in surgical diagnosis and treatment (eg, blood transfusion practices and antibiotic usage). The aim of this symposium is to better understand the ways by which cognitive biases and heuristics (general rules of thumb) impact how we practice cardiothoracic surgery and how we identify and learn from errors (eg, root cause analysis).

**Learning Objectives**

Upon completion of this activity, participants should be able to:

- Discuss cognitive biases and heuristics in health care delivery
- Recognize how these biases impact medical decision making
- Conduct more effective error analysis, such as root cause analysis
- Demonstrate how to communicate with others regarding variances in medical judgment and practice

3:00 pm – 3:30 pm  
**BREAK—Visit Exhibits and Scientific Posters**

3:30 pm – 4:30 pm  
**Cardiothoracic Surgical Education**

3:30 pm – 5:30 pm  
**Adult Cardiac: Aorta II**

3:30 pm – 5:30 pm  
**Adult Cardiac: Aortic Valve**
Advanced Therapies for End-Stage Cardiopulmonary Disease

The successful use of durable mechanical circulatory support requires careful patient selection, infrastructure with specialized knowledge, and an institutional commitment. This course is an interactive and didactic session presented by leading authorities on practice recommendations regarding patient selection, infrastructure building, and surgical techniques in the field of durable mechanical circulatory support. Clinical practice guidelines from major societies and regulatory agencies will be covered, along with results of recent large-scale clinical trials. There will be ample time for audience questions on this complex and rapidly evolving field.

Learning Objectives
Upon completion of this activity, participants should be able to:
• Describe the impact of preoperative variables on durable ventricular assist device outcomes, including the use of temporary mechanical circulatory support, vasoconstrictors, mechanical ventilation, and evidence of end organ injury
• Explain the roles of various mechanical circulatory support team members, including ventricular assist device coordinators, data collection personnel, occupational and physical therapists, social workers, clinical psychologists, financial specialists, heart failure cardiologists, and surgeons
• Discuss the essentials of maintaining and documenting competence of each of these individuals with respect to mechanical circulatory support, including the certification requirements of various regulatory agencies
• Explain the economics of mechanical circulatory support programs, including potential revenue streams and estimated operational costs
• Recognize the various surgical techniques employed in the MOMENTUM 3 clinical trial with an emphasis on measures that were associated with improved quality

ESTS @ STS: Controversial Issues in General Thoracic Surgery – Perspectives From Europe and North America

Level 1 evidence is often missing in thoracic surgical practice due to a lack of randomized controlled trials. Standard treatment, therefore, may vary between continents, and controversies in management persist. The aim of this session is to compare the current practice in four areas of general thoracic surgery between Europe and North America. The actual outcomes in these domains may not fit the ideal patient outcomes on each continent.

Learning Objectives
Upon completion of this activity, participants should be able to:
• Describe the adjuvant treatment for resected thymic malignancies
• Identify the potential of donation after cardiac death donors for lung transplantation
• Discuss the role of lung volume reduction surgery for emphysema in the modern era
• Describe the management of spontaneous esophageal perforations

General Thoracic: Esophageal

Quality Improvement
STS University courses feature only hands-on learning. No didactic lectures will be given during the activity, so attendees are encouraged to access the lectures online prior to Wednesday morning. More information will be provided when the lectures are available.

Course 1: Essentials of TAVR
COURSE DIRECTORS: Basel Ramlawi, Winchester, VA, and George Zorn, Kansas City, KS
FACULTY: William T. Brinkman, Plano, TX, Isaac George, New York, NY, Kevin L. Greason, Rochester, MN, Jefferson Lyons, Columbus, OH, S. Chris Malaisrie, Chicago, IL, Hersh S. Maniar, St Louis, MO, Himanshu J. Patel, Ann Arbor, MI, Liam Ryan, Alexandria, VA, and Eric L. Sarin, Atlanta, GA
Proficiency in transcatheter aortic valve replacement (TAVR) requires the acquisition of multiple endovascular principles and techniques. This course will introduce attendees to balloon-expandable and self-expanding TAVR platforms, as well as the various sheaths, guidewires, and catheters relevant to TAVR. Basics of alternative TAVR access will be discussed, and all participants will gain operational knowledge of the various delivery systems.

Learning Objectives
Upon completion of this activity, participants should be able to:
• Describe the decision-making process for choosing a TAVR access point (transfemoral, direct aortic, subclavian artery, and transapical)
• State the salient differences in the deployment of balloon-expanded vs self-expanded devices
• Describe the various types of sheaths and guidewires used during the TAVR procedure and understand reasons for their use

Course 2: TEVAR and Aortic Arch Debranching Procedures
COURSE DIRECTORS: Ali Khoynezhad, Los Angeles, CA, and Ourania A. Preventza, Houston, TX
FACULTY: Derek R. Brinster, New York, NY, Ankur Gupta, Long Beach, CA, and Rodney White, Long Beach, CA
This course will review basic catheter and wire skills for thoracic endovascular aortic repair (TEVAR). Participants will have hands-on experience with thoracic stent grafts and intravascular ultrasound (IVUS), as well as using vascular plugs from the brachial or femoral approach. Surgical techniques for zone 0-2 aortic arch debranching procedures will be discussed.

Learning Objectives
Upon completion of this activity, participants should be able to:
• Identify the most common catheters and wires for TEVAR
• Describe the deployment of commercially available stent grafts
• Explain the use of IVUS and vascular plugs for subclavian artery occlusion
• Describe the surgical techniques used in aortic arch debranching

Course 3: Mitral Valve Repair
COURSE DIRECTORS: Steven F. Bolling, Ann Arbor, MI, and Evelio Rodriguez, Nashville, TN
FACULTY: A. Marc Gillinov, Cleveland, OH, and Matthew A. Romano, Ann Arbor, MI
In this course, participants will be able to practice different mitral valve repair strategies for both anterior and posterior leaflet pathologies. These will include leaflet resection and non-resection techniques, commissural repair strategies, and different chordal approaches. In addition, different surgical therapies for secondary mitral regurgitation, including ring selection, leaflet extension techniques, and mitral valve replacement, will be reviewed.

Learning Objectives
Upon completion of this activity, participants should be able to:
• Describe different leaflet resection and non-resection approaches, in addition to different chordal techniques required for successful mitral valve repair
• Identify advance repair techniques for both primary and secondary mitral regurgitation
• Demonstrate proper mitral valve replacement techniques
Upon completion of this activity, participants should be able to:

Learning Objectives
- Describe the anatomy of the aortic root
- Summarize the technical steps necessary for a successful VSRR
- List different methods in choosing a graft size
- Identify the key steps of tracheobronchoplasty
- Perform airway anastomoses and recognize technical pitfalls associated with the various techniques
- Identify and perform the appropriate esophageal anastomosis technique
- Identify the key steps of thoracoscopic lobectomy
- Perform airway anastomoses and repair in a variety of cases
- Demonstrate how to implant a type I bicuspid aortic valve in the context of its neoroot and explain what the different bicuspid subtypes mean for orienting the repaired valve when performing a root reimplantation

Course 4: Valve-Sparing Aortic Root Replacement
COURSE DIRECTORS: Duke E. Cameron, Baltimore, MD, Edward P. Chen, Atlanta, GA, and Bo Yang, Ann Arbor, MI

This course will provide interactive, hands-on instruction of the surgical techniques and critical steps necessary for performing a successful valve-sparing aortic root replacement (VSRR).

Learning Objectives
Upon completion of this activity, participants should be able to:
- Describe the anatomy of the aortic root
- Summarize the technical steps necessary for a successful VSRR
- List different methods in choosing a graft size
- Identify leaflet repair and annuloplasty methods

Course 5: Aortic Root Enlargement Procedures and Aortic Valve Leaflet Reconstruction
COURSE DIRECTORS: S. Adil Husain, San Antonio, TX, and Prashanth Vallabhajosyula, Philadelphia, PA
FACULTY: Arminder Singh Jassar, Boston, MA, Alberto Pochettino, Rochester, MN, Edward Y. Sako, San Antonio, TX, and Ibrahim Sultan, Pittsburgh, PA

This course will review two specialized subareas of technical expertise required to perform complex aortic root surgery. Participants will learn the anatomic approaches and surgical techniques employed in performing aortic root enlargement procedures, as well as aortic valve leaflet reconstructive techniques and the importance of providing annular stabilization in the context of a repaired aortic valve. Surgical strategies for root enlargement will include Nicks, Manougian, and Ross Konno. Surgical techniques involving aortic valve leaflet reconstruction will include primary simple cusp plication techniques, patch augmentation technique, Gore-Tex free margin shortening technique, and orienting the repaired bicuspid aortic valve into its aortic neoroot.

Learning Objectives
Upon completion of this activity, participants should be able to:
- Identify the anatomy and appropriate surgical landmarks in the left ventricular outflow tract and aortic valve apparatus
- Describe the incision sites and overall surgical techniques for a variety of root enlargement strategies
- Discuss surgical pitfalls associated with each strategy and mechanisms by which to delineate options based upon patient and anatomic substrate
- Describe how to set up and expose the aortic root for primary valve repair and identify the risk factors for repair failure based on the anatomy of the aortic valve
- Recall the different aortic annual stabilization techniques and recognize the impact of each technique on valve repair – subcommissural annuloplasty, external aortic ring, and root reimplantation

Course 6: VATS Lobectomy
COURSE DIRECTORS: Duy Khanh P. Ceppa, Indianapolis, IN, and Betty C. Tong, Durham, NC
FACULTY: Mara B. Antonoff, Houston, TX, Mark F. Berry, Stanford, CA, William R. Burtfrind, Bethlehem, PA, Todd L. Demmy, New Brunswick, NJ, Eric L. Grogan, Nashville, TN, John A. Howerton, Nashville, TN, Sandeep Jitendra Khandhar, Falls Church, VA, Jeremiah Martin, Portsmouth, OH, and Scott I. Reznik, Dallas, TX

This course will review the indications, patient selection, technical steps, and recent advances for performance of lobectomy using video-assisted thoracic surgery (VATS). Participants will be able to perform a VATS left upper lobectomy on porcine heart-lung blocks.

Learning Objectives
Upon completion of this activity, participants should be able to:
- Describe the indications and steps to perform VATS
- Discuss potential pitfalls and strategies for intraoperative troubleshooting to successfully achieve minimally invasive lobectomy
- Identify instruments and other technologies available to perform minimally invasive lobectomy

Course 7: Advanced Open Esophageal and Tracheal Procedures
COURSE DIRECTORS: Sidharta P. Gangadharan, Boston, MA, and Sandra L. Starnes, Cincinnati, OH
FACULTY: Rafael S. Andrade, Minneapolis, MN, Scott M. Atay, Los Angeles, CA, Andrew Chang, Ann Arbor, MI, James Huang, New York, NY, Robert E. Merritt, Columbus, OH, John D. Mitchell, Aurora, CO, K. Robert Shen, Rochester, MN, and Jennifer L. Wilson, Boston, MA

This course will provide hands-on training for several esophageal anastomosis techniques, as well as airway anastomosis and repair. These advanced operative techniques are not frequently utilized in most general thoracic surgery practices, but competence in these techniques is important. Participants will be introduced to several techniques for airway and esophageal reconstruction with emphasis in the different technical aspects (“pearls”) of the anastomosis from content experts.

Learning Objectives
Upon completion of this activity, participants should be able to:
- Identify and perform the appropriate esophageal anastomosis technique depending on anatomic or other considerations
- Perform airway anastomoses and recognize technical pitfalls associated with the various techniques
- Identify the key steps of tracheobronchoplasty
NEW! Course 8: Chest Wall Resection, Reconstruction, and Pectus Surgery

COURSE DIRECTORS: Dawn E. Jaroszewski, Phoenix, AZ, Daniel L. Miller, Marietta, GA, and Matthew Thomas, Jacksonville, FL

FACULTY: Staci Beamer, Phoenix, AZ

In this hands-on course, participants will learn the various techniques for reconstruction of large chest wall defects after resection. Other highlights of the course include stabilization of rib and sternal fractures using the most current reconstruction systems and minimally invasive repair of adult pectus excavatum defects. At the end of this course, participants should be able to independently design and perform reconstruction of the chest wall for various indications.

Learning Objectives

Upon completion of this activity, participants should be able to:

• Perform rigid and semi-rigid reconstruction of chest wall defects after resection, including the ribs and sternum
• Demonstrate how to stabilize single and multiple rib fractures using rib fixation devices
• Use sternal fixation devices to stabilize the sternum
• Perform minimally invasive repair of adult pectus excavatum defects

NEW! Course 9: Minimally Invasive Aortic and Mitral Valve Surgery

COURSE DIRECTORS: Tom C. Nguyen, Houston, TX, and Vinod H. Thourani, Washington, DC

FACULTY: Kevin D. Accola, Orlando, FL, Glenn Bamhart, Seattle, WA, Kuan-Ming Chiu, Taipei, Taiwan, Borut Gersak, Ljubljana, Slovenia, Peter A. Knight, Rochester, NY, S. Chris Malaisrie, Chicago, IL, Carmelo Mignosa, Catania, Italy, Kazuma Okamoto, Akashi, Japan, and Konstadinos Plestis, Wynnewood, PA

Cardiothoracic surgeons face an increased demand to adopt minimally invasive valve techniques. Unfortunately, acquiring this skillset can be difficult in real-world practice. The objective of this course is to provide hands-on experience with the newest techniques in minimally invasive aortic and mitral valve surgery. Participants will work in alternating pairs at each station to learn critical exposure and cannulation techniques for minimally invasive aortic (right anterior thoracotomy and hemi-sternotomy) and mitral (lateral thoracotomy) surgery. Participants will then have an opportunity to perform aortic and mitral valve repair/replacement using simulators under both direct vision and via thorascopic guidance. For aortic valve replacements, participants will gain exposure to sutureless and rapid deployment technologies. At the conclusion of the course, a handout will be distributed with a list of key instruments for minimally invasive valve surgery and suggested steps for building a minimally invasive valve program.

Learning Objectives

Upon completion of this activity, participants should be able to:

• Explain exposure (right anterior thoracotomy, hemi-sternotomy, and lateral thoracotomy), cannulation, and cardioprotection techniques for minimally invasive valve surgery
• Identify key operative steps for successful minimally invasive aortic and mitral valve surgery, including sutureless and rapid deployment technologies
• Describe the indications and contraindications for minimally invasive valve surgery

NEW! Course 10: POEM Skills

COURSE DIRECTORS: Ralph W. Aye, Seattle, WA, and Inderpal S. Sarkaria, Pittsburgh, PA

FACULTY: Francisco A. Arabia, Los Angeles, CA, David A. D’Alessandro, Bronx, NY, Richard H. Feins, Chapel Hill, NC, Akinobu Itoh, St Louis, MO, Duc Thinh Pham, Boston, MA, Pablo Sanchez, Baltimore, MD, Jacob N. Schroder, Durham, NC, and Hiroo Takayama, New York, NY

This is a practical, hands-on course for learning peroral endoscopic myotomy (POEM) using an explant model. Participants will learn how to plan landmarks for the procedure, how to access the submucosal space and create a long submucosal tunnel extending through the gastroesophageal junction, how to perform myotomy, and how to close the mucosotomy. The standard tools and electrothermy instruments for performing the procedure will be explored in detail.

Learning Objectives

Upon completion of this activity, participants should be able to:

• Determine the proper landmarks for beginning and completing the procedure
• Create a submucosal tunnel
• Perform an endoscopic myotomy within the tunnel
• Close the mucosotomy
Registration and housing are available online only at www.sts.org/annualmeeting.

**Please note:** Registration is required in order to reserve Annual Meeting housing.

**Deadline:** Early bird registration will end November 19, 2017; registration fees will increase after this date. Additionally, you must register by Thursday, January 4, 2018, to reserve housing at the special Annual Meeting rates.

Questions about registration? Contact the Society’s official registration partner, Experient, at (800) 424-5249 (toll free), 00-1-847-996-5829 (for international callers), or sts@experient-inc.com.

**Registration Categories**

Annual Meeting registration is open to everyone with an interest in cardiothoracic surgery. Please note that STS members are NOT automatically registered for the Annual Meeting.

**STS SURGEON MEMBERS:** STS Active, International, and Senior Members.

**STS ASSOCIATE MEMBER PHYSICIANS (NON-CT SURGEONS):** STS member physicians with an interest in cardiothoracic surgery who are not eligible to become Active, International, Candidate, or Pre-Candidate Members.

**STS ASSOCIATE MEMBER NON-PHYSICIANS:** STS members who are PhD research scientists, physician assistants, perfusionists, nurses, nurse practitioners, practice administrators, data managers, and others with an interest in cardiothoracic surgery.

**STS PRE-CANDIDATE AND CANDIDATE MEMBERS:**

*Pre-Candidate:* Medical students and general surgery residents who are STS members.

*Candidate:* Cardiothoracic surgery residents/fellows/trainees who are STS members.

**NON-MEMBER PHYSICIANS:** Non-member cardiothoracic surgeons and other physicians with an interest in cardiothoracic surgery.

**NON-MEMBER NON-PHYSICIANS:** Non-member PhD research scientists, physician assistants, perfusionists, nurses, nurse practitioners, practice administrators, data managers, and others with an interest in cardiothoracic surgery.

**NON-MEMBER RESIDENTS, FELLOWS, AND MEDICAL STUDENTS:** In order to register for the STS 54th Annual Meeting, non-member general surgery residents and cardiothoracic surgery residents/fellows must complete a registration certification form during the online registration process. Non-member medical students must upload a copy of their current student identification card to the registration website.

**Separate Registrations**

STS/AATS Tech-Con 2018 and the STS 54th Annual Meeting require separate registration.

Tech-Con registration provides access only to the educational sessions on Saturday, January 27.

Annual Meeting registration provides access only to the educational sessions on Sunday, January 28, Monday, January 29, and Tuesday, January 30. You also will receive complimentary access to Annual Meeting Online.

Separate ticket purchases are required to attend the President’s Reception (Sunday, January 28) and STS University courses (Wednesday, January 31).

**Become an STS Member!**

Non-members interested in attending the STS 54th Annual Meeting can gain numerous benefits by applying for STS membership.

Applications for Associate, Candidate, or Pre-Candidate Membership must be submitted by **Monday, January 8, 2018, to allow time for processing**. Those approved for membership can attend the STS 54th Annual Meeting as members and immediately begin enjoying member benefits, such as discounted registration fees.

For membership information and an application, visit www.sts.org/membership or contact Sarah Foreman, Senior Coordinator, Member Services, at sforeman@sts.org.

**Cancelation Policy**

All cancelation requests must be made in writing and e-mailed to meetings@sts.org by January 19, 2018. Requests for refunds will not be honored if submitted after that date. A processing fee of $100 will be charged for all cancelations.

**Onsite Registration Information**

Onsite registration will be located on the first floor of the Greater Fort Lauderdale/Broward County Convention Center.

- **Friday, January 26**: 3:00 PM – 6:00 PM
- **Saturday, January 27**: 6:30 AM – 6:00 PM
- **Sunday, January 28**: 7:00 AM – 6:30 PM
- **Monday, January 29**: 6:30 AM – 5:00 PM
- **Tuesday, January 30**: 6:30 AM – 4:30 PM
- **Wednesday, January 31**: 6:30 AM – 9:30 AM
# Pricing

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## STS 54TH ANNUAL MEETING (INCLUDES ANNUAL MEETING ONLINE)

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## STS/AATS TECH-CON 2018

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## TICKETED EVENTS (MUST BE REGISTERED FOR THE STS ANNUAL MEETING)

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## STS 54TH ANNUAL MEETING

### ONLINE

Access to the STS 54th Annual Meeting Online is included with Annual Meeting registration. With such a full meeting schedule, it’s impossible to attend every presentation of interest. This web-based video presentation will let you earn CME credit for sessions you were unable to attend—or review sessions of special interest—in the comfort of your home or office. The Online product will be available approximately 1 month after the conclusion of the Annual Meeting and will be accessible for up to a year.

**Accreditation Statement:** The Society of Thoracic Surgeons is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

**STS 54th Annual Meeting Online:** The Society of Thoracic Surgeons designates this enduring material for a maximum of 107.75 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.
Meeting Location

All educational programming for the STS 54th Annual Meeting and STS/AATS Tech-Con 2018 will take place at the Greater Fort Lauderdale/Broward County Convention Center.

★ Greater Fort Lauderdale/Broward County Convention Center
1950 Eisenhower Blvd
Fort Lauderdale, FL 33316
(954) 765-5900
www.ftlauderdalecc.com

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<td>Hyatt Regency Pier Sixty-Six</td>
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<td>8</td>
<td>Lago Mar Beach Resort &amp; Club</td>
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<td>Renaissance Fort Lauderdale Cruise Port Hotel</td>
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<td>10</td>
<td>Westin Fort Lauderdale Beach Resort</td>
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Housing and Travel Information

Housing Information
You can reserve housing while you are registering for the Annual Meeting at www.sts.org/annualmeeting. The housing deadline is Thursday, January 4, 2018.

Complimentary shuttle service will be provided between all official STS hotels and the convention center beginning Friday, January 26, 2018. Schedules will be posted in the lobby of each hotel.

Questions about housing? Contact the Society’s official housing partner, Experient, at (800) 424-5249 (toll free), 00-1-847-996-5829 (for international callers), or sts@experient-inc.com.

Air Travel
The Fort Lauderdale–Hollywood International Airport (FLL) is located approximately 3 miles from the Greater Fort Lauderdale/ Broward County Convention Center.

Ground Transportation
Car Rental
STS has negotiated special car rental rates from Hertz Rent a Car. Reservations may be placed at www.hertz.com or at (800) 654-2240 from within the United States and Canada; from international locations, call 00-1-405-749-4434. To receive the special STS rate, reference convention number (CV#) 04R50005 when making your car rental reservations. Parking at the Greater Fort Lauderdale/Broward County Convention Center is $15 per day.

Taxi Service
Approximate taxi fare from the airport to official STS hotels is $20 one way.

Shuttle Service / Private Car
Discounted airport shuttle and private car services are available to STS attendees through GO Airport Shuttle. Shuttle service to official STS hotels is $11.50 per person one way. Private car service is $41.40 per person one way. For reservations, visit www.sunny.org/sts and select “Airport Transportation.”

Information for International Attendees
Visa Information
If you are not a US citizen and plan to attend the STS Annual Meeting, advance planning is critical! Attendees from outside the United States may need to apply for a visa at the American embassy, consulate, or other visa-issuing office in their country of origin. Please begin your visa application process as soon as possible. The application and interview process varies from country to country and can take up to 90 days to complete. Learn more about the visa process at www.travel.state.gov.

The Visa Waiver Program allows citizens of participating countries travel to the United States for 90 days or less without a visa, provided that they meet all program requirements and have a valid Electronic System for Travel Authorization (ESTA) approval from the US government. For more information about the Visa Waiver Program, visit www.travel.state.gov/content/visas/en/visit/visa-waiver-program.html.

Letters of Invitation
If you need a personalized letter of invitation, visit www.sts.org/annualmeeting and complete the Letter of Invitation Request Form. Once you have completed the request form, STS will e-mail a personalized letter of invitation to you within 1 business week. Please note: STS cannot promise that you or your colleagues will receive a visa, nor can it change the decision of any governmental agency should your application be denied.

About Fort Lauderdale and the United States
Even for the seasoned traveler, a trip may require some advance planning. Learn more about essential information, helpful travel tips, and answers to common questions at these websites:
www.sunny.org (Greater Fort Lauderdale Convention & Visitors Bureau)
www.fll.net (Fort Lauderdale–Hollywood International Airport)
www.travel.state.gov (US State Department)
www.cbp.gov (US Customs and Border Protection)
Annual Meeting Task Forces and Abstract Reviewers

As Chair of the Workforce on Annual Meeting, I would like to thank the members of the Annual Meeting Task Forces and all abstract reviewers who volunteered their time, energy, and expertise in developing the STS 54th Annual Meeting program.

Himanshu J. Patel
Chair, Workforce on Annual Meeting

The Society also would like to thank the following individuals for their assistance in planning the Tech-Con program:

Vinay Badhwar (Morgantown, WV), Brendon M. Stiles (New York, NY), Arash Salerni (New York, NY), and Inderpal S. Sarkaria (Pittsburgh, PA)
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