President’s Message

As President of The Society of Thoracic Surgeons, I invite you to join me for the STS 51st Annual Meeting, January 24–28, 2015. The Annual Meeting will be held in beautiful San Diego, which is known for its picturesque coastline, mild climate, and vibrant neighborhoods.

By attending the STS Annual Meeting—the preeminent event in cardiothoracic surgery—you’ll experience thought-provoking lectures from renowned faculty and guests, exciting hands-on learning, an abundance of networking opportunities, and the chance to view the latest products and services in the specialty.

New offerings at the 51st Annual Meeting include two parallel sessions on mechanical circulatory support, a session on how quality measurement is reshaping clinical practice, and a session exploring the role of stereotactic body radiation therapy in lung cancer treatment.

The upcoming meeting also will expand the opportunities for interaction with colleagues across the globe. STS is partnering with a number of international societies on exciting new programs that will examine a wide range of perspectives on cardiothoracic surgery topics.

Continuing the spirit of multisociety collaboration, STS will welcome two outstanding guest speakers at the General Session on Tuesday, January 27. Pedro J. del Nido, MD, President of the American Association for Thoracic Surgery, will present the Thomas B. Ferguson Lecture, and Patrick T. O’Gara, MD, President of the American College of Cardiology, will give the C. Walton Lillehei Lecture.

In this edition of the Advance Program, you’ll find a program outline and course descriptions to help you plan your schedule for the Annual Meeting. You’ll also find registration instructions and information on travel and housing accommodations.

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 San Diego!

David A. Fullerton, MD
President, The Society of Thoracic Surgeons

What’s New

New sessions include:

- ESTS @ STS
- STS/CATS/CSCS Current and Future Workforce Issues in Cardiothoracic Surgery: Staff and Resident Perspectives From Canada and the US
- Two parallel courses on mechanical circulatory support
- Evidence and Quality Reshaping Practice
- Role of SBRT in Lung Cancer Treatment

A special presentation will be held during the Monday morning General Session to mark the 50th Anniversary of The Annals of Thoracic Surgery. An STS-PAC Reception will be held on Monday night, along with the Social Event on the USS Midway Aircraft Carrier.

Please note: The contents of the program are subject to change.
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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

STS 51st ANNUAL MEETING
The Society of Thoracic Surgeons is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Society of Thoracic Surgeons designates this live activity for a maximum of 34.25 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The American Board of Cardiovascular Perfusion designates this activity for 39.8 Category I CEUs.
Program at a Glance

Friday, January 23, 2015
3:00 PM – 6:00 PM
Registration: STS/AATS Tech-Con 2015 and STS 51st Annual Meeting

Saturday, January 24, 2015
7:00 AM – 6:00 PM
Registration: STS/AATS Tech-Con 2015 and STS 51st Annual Meeting

8:00 AM – 12:30 PM
STS/SCA: The Utility of Perioperative Echocardiography for Surgical Decision Making

8:00 AM – 3:00 PM
STS/CHEST: Primer on Advanced and Therapeutic Bronchoscopy—Theory and Hands-on Session

12:00 PM – 6:30 PM
STS/AATS Tech-Con 2015 Exhibits Open

1:00 PM – 2:30 PM
Cardiopulmonary Bypass Simulation Course

1:00 PM – 5:00 PM
STS/AATS Tech-Con 2015

5:00 PM – 6:30 PM
STS/AATS Tech-Con 2015 Reception

Sunday, January 25, 2015
7:00 AM – 6:30 PM
Registration: STS/AATS Tech-Con 2015 and STS 51st Annual Meeting

7:00 AM – 3:00 PM
STS/AATS Tech-Con 2015 Exhibits Open

7:50 AM – 12:00 PM
Acquired and Congenital Heart Surgery Symposium: Challenges and Management of the Aorta in Adults With Congenital Heart Disease

7:50 AM – 12:00 PM
Practice Management Summit

7:50 AM – 12:00 PM
STS/AATS Critical Care Symposium: Essential Cardiac Critical Care Topics

8:00 AM – 11:45 AM
STS/AATS Tech-Con 2015

Monday, January 26, 2015
6:30 AM – 5:00 PM
Registration: STS 51st Annual Meeting

7:00 AM – 7:15 AM
Opening Remarks

7:15 AM – 8:15 AM
J. Maxwell Chamberlain Memorial Papers

8:15 AM – 9:00 AM
Richard E. Clark Papers

9:00 AM – 4:30 PM
Exhibits Open
Scientific Posters Open

9:00 AM – 9:30 AM
BREAK—Visit Exhibits and Scientific Posters

11:30 AM – 12:30 PM
(8 parallel sessions)
Adult Cardiac Session: Arrhythmia
Adult Cardiac Session: Heart Failure
Basic Science Research: Adult Cardiac
Basic Science Research: General Thoracic
Congenital Session: Adult Congenital Critical Care
General Thoracic Session: New Techniques
STS/CATS/CSCS: Current and Future Workforce Issues in Cardiothoracic Surgery—Staff and Resident Perspectives From Canada and the US

12:30 PM – 1:15 PM
BREAK—Visit Exhibits and Scientific Posters

1:15 PM – 5:15 PM
ACC @ STS Evidence and Quality Reshaping Practice

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

4:15 PM – 5:15 PM
Surgical Motion Picture Matinees: Adult Cardiac, Congenital, and General Thoracic Late-Breaking Abstract Sessions

Tuesday, January 27, 2015
6:30 AM – 4:30 PM
Registration: STS 51st Annual Meeting

7:30 AM – 8:30 AM
Early Riser Sessions

3:00 PM – 4:00 PM
Residents Symposium: Transitioning From Residency to a Successful Practice

1:15 PM – 4:30 PM
Parallel Surgical Symposium: Congenital

1:15 PM – 4:30 PM
Parallel Surgical Symposium: General Thoracic

1:15 PM – 4:30 PM
STS/AATS Tech-Con 2015

2:30 PM – 4:30 PM
CT Surgery Interprofessional Education Symposium: Multidisciplinary Team Approach to ECMO

4:00 PM – 6:30 PM
Scientific Posters Open

4:30 PM – 6:30 PM
Opening Reception in STS Exhibit Hall

5:30 PM – 6:30 PM
Business Meeting (STS Members Only)

6:45 PM – 7:45 PM
STS-PAC Reception: USS Midway Aircraft Carrier Museum

7:00 PM – 10:00 PM
STS Social Event: USS Midway Aircraft Carrier Museum

STS 51st Annual Meeting Advance Program

www.sts.org/annualmeeting

Indicates that a ticket is required to attend.
Program at a Glance

7:30 AM – 8:30 AM
Early Riser Health Policy Forum:
The End of Global Surgical Payments
Under Medicare?

9:00 AM – 10:00 AM
Thomas B. Ferguson Lecture:
Pedro J. del Nido

9:00 AM – 3:00 PM
Exhibits Open

9:00 AM – 4:30 PM
Scientific Posters Open

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:
Patrick T. O’Gara

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

12:00 PM – 1:00 PM
Ethics Debate: Must Surgeons in
Training Programs Allow Residents
to Operate on Their Patients to Satisfy
Board Requirements?

12:00 PM – 1:00 PM
Residents Luncheon

1:00 PM – 3:00 PM
(8 parallel sessions)
Adult Cardiac Session: General I
Adult Cardiac Session: Mitral Valve
Congenital Session: Pediatric Congenital II
General Thoracic Session: Esophageal
General Thoracic Session: Lung Cancer II
Patient Safety Symposium: Building
a High-Performance Team for
Patient Safety
STS/EACTS: Management of the Aortic
Arch in Aortic Dissection
Strategies to Improve Outcomes With
Long-Term Mechanical Circulatory
Support Devices

1:00 PM – 5:00 PM
JCTSE/STS Workforce on
International Relationships:
Globalization of Graduate Surgical
Education in Cardiothoracic Surgery

3:00 PM – 3:30 PM
BREAK—Visit Scientific Posters

3:30 PM – 5:30 PM
(8 parallel sessions)
Adult Cardiac Session: Aortic Valve
Adult Cardiac Session: General II
Cardiothoracic Surgical Education
Congenital Session: Pediatric Congenital III
ESTS @ STS
General Thoracic Session:
Mediastinal/Pulmonary
Role of SBRT in Lung Cancer Treatment
SVS @ STS

Wednesday, January 28, 2015

6:30 AM – 9:30 AM
Registration: STS University

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.
Program Grid

STS 51st Annual Meeting Advance Program
The Society of Thoracic Surgeons is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

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The American Board of Cardiovascular Perfusion designates this activity for 11.2 Category I CEUs.

**STS/AATSTech-Con 2015**

**Registration: STS/AATS Tech-Con 2015 and STS 51st Annual Meeting**

Friday, January 23, 2015 3:00 PM – 6:00 PM
Saturday, January 24, 2015 7:00 AM – 6:00 PM
Sunday, January 25, 2015 7:00 AM – 6:30 PM

**Saturday, January 24, 2015**

12:00 PM – 6:30 PM
STS/AATS Tech-Con 2015 Exhibits Open

1:00 PM – 2:45 PM
Joint Session: Barriers and/or Pathways for Adoption of New Technology: Perspectives From Surgeons, FDA, CMS, Industry, and Hospital Administration

**Moderators:** K. Robert Shen, Rochester, MN, and Vinod H. Thourani, Atlanta, GA

1:00 PM  Welcome and Introduction  K. Robert Shen, Rochester, MN, and Vinod H. Thourani, Atlanta, GA
1:02 PM  Pathways for Getting New Medical Devices Into Humans  Thomas J. Fogarty, Portola Valley, CA
1:10 PM  Barriers for Getting New Medical Devices Into Humans  Todd L. Demmy, Buffalo, NY
1:18 PM  Balancing the Evaluation of New Innovations and Keeping the Patient Safe  John C. Laschinger, Silver Spring, MD
1:26 PM  Perspective From Research and Development: Adult Cardiac Surgery  TBA

1:34 PM  Perspective From Research and Development: General Thoracic Surgery  TBA
1:42 PM  Discussion
2:00 PM  We Have the Technology, But Will Physicians Be Able to Use It?  Michael J. Mack, Dallas, TX
2:08 PM  Decision Making for Pathway of Reimbursement: Hospital and Physician  Tamara Syrek Jensen, Washington, DC*
2:16 PM  “We Love New Technology, But Help Us Not Go Under”: Perspective From a Hospital CEO  Dane C. Peterson, Atlanta, GA
2:24 PM  Discussion
2:40 PM  Closing Remarks

2:45 PM – 3:15 PM
BREAK—Visit STS/AATS Tech-Con 2015 Exhibits

3:15 PM – 5:00 PM
Adult Cardiac Track I: Mitral Valve, Atrial Fibrillation, and the Left Atrial Appendage

**Moderators:** Gorav Ailawadi, Charlottesville, VA, and Richard Lee, St Louis, MO

3:15 PM  Welcome and Introduction  Gorav Ailawadi, Charlottesville, VA, and Richard Lee, St Louis, MO
3:17 PM  New Left Atrial Appendage (LAA) Closure Devices for Open or Closed Chest Techniques  David R. Holmes, Rochester, MN
3:25 PM  The LAA Should Always Be Eliminated During Open Cardiac Surgery  PRO: Richard Lee, St Louis, MO  CON: Vinay Badhwar, Pittsburgh, PA *Invited

**STS/AATS TECH-CON 2015**

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The Society of Thoracic Surgeons designates this live activity for a maximum of 9.25 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The American Board of Cardiovascular Perfusion designates this activity for 11.2 Category I CEUs.
**STS/AATS Tech-Con 2015**

3:41 PM  How I Do It: Robotic Mitral Valve Repair—– Making It Simple and Reproducible  
Douglas A. Murphy, Atlanta, GA

3:49 PM  Discussion

4:06 PM  MitraClip: The Only FDA-Approved Transcatheter Mitral Valve Repair Technology in the US  
Gorav Ailawadi, Charlottesville, VA

4:14 PM  Transcatheter Mitral Valve Replacement Techniques  
Vinod H. Thourani, Atlanta, GA

4:22 PM  Transcatheter Mitral Valve Repair Techniques  
Michael J. Mack, Dallas, TX

4:30 PM  Surgical Management of Atrial Fibrillation in Patients Undergoing Coronary Artery Bypass Grafting (CABG)  
Surgery or Aortic Valve Replacement: Pulmonary Vein Isolation or Bilateral Maze Operation  
Patrick M. McCarthy, Chicago, IL

4:38 PM  Discussion

4:55 PM  Closing Remarks

3:15 PM – 5:00 PM
**General Thoracic Track I: Novel Thoracoscopic Techniques & Tools, New Developments in Management of Lung Tumors**

**Moderators:** Mark F. Berry, Durham, NC, and Sunil Singhal, Philadelphia, PA*

3:15 PM  Welcome and Introduction  
Mark F. Berry, Durham, NC, and Sunil Singhal, Philadelphia, PA*

3:20 PM  Setting Up a Lung Cancer Screening Program  
Daniel J. Boffa, New Haven, CT

3:35 PM  Uniportal VATS Lobectomy in Non-Intubated Patients  
Diego Gonzalez Rivas, Madrid, Spain*

3:50 PM  New Thoracoscopic Tools  
Mark F. Berry, Durham, NC

4:05 PM  Novel Agents for Induction Treatment of Non-Small Cell Lung Cancer  
Mark Onaitis, Durham, NC*

4:20 PM  Intraoperative Local Cancer Therapies  
Shaf H. Kashaype, Toronto, Canada

4:35 PM  Multimodality Treatment of Pulmonary Metastatic Disease  
Jessica S. Donington, New York, NY

4:50 PM  Discussion

5:00 PM – 6:30 PM
**STS/AATS Tech-Con 2015 Reception**

*Invited

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**Sunday, January 25, 2015**

7:00 AM – 3:00 PM

**STS/AATS Tech-Con 2015 Exhibits Open**

8:00 AM – 9:30 AM
**Adult Cardiac Track II: Coronary Artery Disease**

**Moderators:** Robert C. Hagberg, Hartford, CT, and Michael E. Halkos, Atlanta, GA

8:00 AM  Welcome and Introduction  
Robert C. Hagberg, Hartford, CT, and Michael E. Halkos, Atlanta, GA

8:02 AM  How I Do It: Robot-Assisted Coronary Artery Bypass Grafting (CABG), Left Internal Mammary Artery (LIMA)-Left Anterior Descending Grafting  
Francis P. Sutter, Wynnewood, PA

8:12 AM  How I Do It: Totally Endoscopic Coronary Artery Bypass—Getting Past Robotic LIMA Harvest to Robotic Anastomosis  
Johannes Bonatti, Baltimore, MD

8:22 AM  How I Do It: Non-Robotic Minimally Invasive CABG Approaches for Multivessel Coronary Artery Disease  
Marc Ruel, Ottawa, Canada

8:32 AM  Can We Afford Anastomotic Connectors for CABG?  
Husam H. Balkhy, Chicago, IL

8:42 AM  Robotic CABG Disasters  
Bob S. Kiaii, London, Canada

8:52 AM  Hybrid Coronary Revascularization: Who's Eligible?  
Michael E. Halkos, Atlanta, GA

9:02 AM  Cost of Robotic Technology and Financial Implications for Hospital Administration  
Robert S. Poston, Tucson, AZ

9:12 AM  Panel Discussion

9:25 AM  Closing Remarks

8:00 AM – 9:30 AM
**General Thoracic Track II: Integrated Medical Records, 3D Printers for Surgical Planning, Chest Wall Techniques, Artificial Organs, and Simulation**

**Moderators:** K. Robert Shen, Rochester, MN, and Michael F. Reed, Hershey, PA

8:00 AM  Welcome and Introduction  
K. Robert Shen, Rochester, MN, and Michael F. Reed, Hershey, PA

8:05 AM  Expanded Use of Electronic Medical Records  
Cameron D. Wright, Boston, MA
8:17 AM  3D Printers for Surgical Planning
         Jane S. Matsumoto, Rochester, MN, and Jonathan M. Moris, Rochester, MN*  
8:29 AM  Pectus Repair in Adults
         Dawn E. Jaroszewski, Phoenix, AZ  
8:41 AM  Rib Plating for Thoracic Trauma
         Jane Yanagawa, New York, NY  
8:53 AM  Decellularization of Whole Organs as a Platform for Bioengineered Organs
         Harald C. Ott, Boston, MA  
9:05 AM  How to Acquire New Skills Using Simulation
         Shari L. Meyerson, Chicago, IL  
9:17 AM  Discussion  

9:30 AM – 10:15 AM  BREAK—Visit STS/AATS Tech-Con 2015 Exhibits  
10:15 AM – 11:45 AM  Adult Cardiac Track III: Aortic Valve  
Moderators: Michael A. Borger, New York, NY, and Robert W. Emery Jr, Minneapolis, MN  
10:15 AM  Welcome and Introduction
         Michael A. Borger, New York, NY, and Robert W. Emery Jr, Minneapolis, MN  
10:16 AM  How I Do It: A Self-Expanding Sutureless Valve
         Martin Misfeld, Leipzig, Germany  
10:23 AM  Will Sutureless Valves Replace Commercially Available Stented Valves?
         Michael A. Borger, Leipzig, Germany  
10:30 AM  Discussion  
10:37 AM  Pitfalls of Aortic Valve Repair
         Laurent De Kerchove, Brussels, Belgium  
10:44 AM  Most Patients Should Have a Biologic Aortic Valve Since Transcatheter Aortic Valve Replacement (TAVR) Valve-in-Valve is Available
         PRO: G. Michael Deeb, Ann Arbor, MI
         CON: John S. Ikonomidis, Charleston, SC  
10:58 AM  Discussion  
11:06 AM  A Self-Expanding Valve for All Annular Sizes: CoreValve Evolut
         Michael J. Reardon, Houston, TX  
11:11 AM  A New Balloon Expandable Valve With an Anti-Leak Cuff: SAPIEN 3
         Vinod H. Thourani, Atlanta, GA  
11:18 AM  Other Upcoming Technologies for TAVR: Lotus, Portico, and Symetis
         Gregory P. Fontana, New York, NY  
11:24 AM  A Transapical Valve for Aortic Insufficiency: JenaValve
         Hendrik Treede, Hamburg, Germany  
11:31 AM  Transcaval TAVR: Are You Serious?
         Adam B. Greenbaum, Detroit, MI  
11:38 AM  Discussion  
11:44 AM  Closing Remarks  

10:15 AM – 11:45 AM  General Thoracic Track III: New Techniques for Esophageal Disease, Diaphragm Disorders, and Nanotechnology  
Moderators: Shanda H. Blackmon, Rochester, MN, and Inderpal S. Sarkaria, New York, NY*  
10:15 AM  Welcome and Introduction
         Shanda H. Blackmon, Rochester, MN, and Inderpal S. Sarkaria, New York, NY*  
10:20 AM  Endoluminal Suturing Devices
         Shanda H. Blackmon, Rochester, MN  
10:35 AM  Integrating Peroral Endoscopic Myotomy Into Clinical Practice
         Dennis A. Wigle, Rochester, MN*  
10:50 AM  Reoperative Foregut Surgery for Failed Novel Technology
         Steven R. Demeester, Los Angeles, CA  
11:05 AM  Diaphragm Pacing
         Raymond P. Onders, Cleveland, OH  
11:20 AM  Nanotechnology Applications in General Thoracic Surgery
         Yolanda L. Colson, Boston, MA  
11:35 AM  Discussion  

11:45 AM – 12:00 PM  BREAK—Visit STS/AATS Tech-Con 2015 Exhibits  
12:00 PM – 1:00 PM  Lunch  
1:00 PM – 1:15 PM  BREAK—Visit STS/AATS Tech-Con 2015 Exhibits  

*Invited
Adult Cardiac Track IV: Aortic Surgery and Endovascular Interventions

**Moderators:** Himanshu J. Patel, Ann Arbor, MI, and Joseph D. Schmoker, Burlington, VT

1:15 PM  Welcome and Introduction  
Himanshu J. Patel, Ann Arbor, MI, and Joseph D. Schmoker, Burlington, VT

1:16 PM  Valve-Sparing Root Replacement Using the Expandable Aortic Ring  
Emmanuel Lansac, Paris, France

1:24 PM  How I Do It: Valve-Sparing Aortic Root Replacement in a Bicuspid Aortic Valve  
Joseph E. Bavaria, Philadelphia, PA

1:32 PM  Discussion

1:39 PM  Utilization of Hybrid Stent Grafts for the Aortic Arch  
TBA

1:47 PM  Cerebral Protection for Aortic Arch Surgery: Retrograde Cerebral Perfusion Is Optimal  
Leonard N. Girardi, New York, NY

1:55 PM  Cerebral Protection for Aortic Arch Surgery: Antegrade Cerebral Perfusion Is Optimal  
Joseph S. Coscelli, Houston, TX

2:03 PM  Discussion

2:10 PM  Single Limb and Multibranch Grafts in the Descending Aorta  
Himanshu J. Patel, Ann Arbor, MI

2:18 PM  How I Do It: Thoracic Endovascular Aortic Repair (TEVAR) for Type B Aortic Dissection  
Bradley G. Lashnower, Atlanta, GA

2:25 PM  Type B Dissection: Open vs Endovascular Repair  
Michael P. Fischbein, Stanford, CA

2:33 PM  Transapical TEVAR for the Ascending Aorta  
Wilson Y. Szeto, Philadelphia, PA

2:40 PM  Discussion

2:44 PM  Closing Remarks

2:45 PM – 3:10 PM
**BREAK—Visit STS/AATS Tech-Con 2015 Exhibits**

Adult Cardiac Track V: Ventricular Heart Devices

**Moderators:** Nicholas G. Smedira, Cleveland, OH, and Y. Joseph Woo, Stanford, CA

3:10 PM  Welcome and Introduction  
Nicholas G. Smedira, Cleveland, OH, and Y. Joseph Woo, Stanford, CA

3:12 PM  Left Ventricular Assist Device (LVAD) for Class 3b Patients  
Francis D. Pagani, Ann Arbor, MI

3:20 PM  LVAD Plus Stem Cells  
Deborah Ascheim, New York, NY

3:28 PM  Transcutaneous Energy Transfer Technologies  
Hari R. Mallidi, Houston, TX

3:36 PM  Lower Threshold for BiVAD Implantation  
Evgenij P. Potapov, Berlin, Germany

3:44 PM  HeartWare Longhorn  
TBA

3:52 PM  ReinHeart  
Gero Tenderich, Duisburg, Germany

4:00 PM  Carmat Total Artificial Heart  
Mark S. Slaughter, Louisville, KY

4:08 PM  How I Do It: LVAD Implantation  
Nicholas G. Smedira, Cleveland, OH

4:16 PM  Discussion

4:26 PM  Closing Remarks
Saturday, January 24, 2015

7:00 AM – 6:00 PM
Registration: STS/AATS Tech-Con 2015 and STS 51st Annual Meeting

8:00 AM – 12:30 PM

STS/SCA: The Utility of Perioperative Echocardiography for Surgical Decision Making

Anesthesiologist and cardiac surgeon teams will present cases that demonstrate the utility of perioperative echocardiography for facilitating perioperative surgical decision making. This course is presented by STS and the Society of Cardiovascular Anesthesiologists.

**Learning Objectives**

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

- Recognize the utility of intraoperative echocardiography in diagnosing previously undiagnosed findings and guiding surgical decision making
- Explain how intraoperative echocardiography can be used to identify persistent or iatrogenic causes of valvular heart disease in the immediate post cardiopulmonary period and to guide clinical decision making
- Recognize the utility of echocardiography for refining the preoperative plan based upon intraoperative analysis of the primary indication for surgery

**Moderators:** Alina Nicoara, Durham, NC*, and Stanton K. Shernan, Boston, MA

**Faculty:** Vinay Badhwar, Pittsburgh, PA, John V. Conte, Baltimore, MD*, Georges Desjardins, Salt Lake City, UT, and G. Burkhard Mackensen, Seattle, WA

**Session I**

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>8:00 AM</td>
<td>Persistent Mitral Regurgitation After Mitral Valve Repair</td>
<td>Stanton K. Shernan, Boston, MA</td>
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<tr>
<td>8:30 AM</td>
<td>Mitral Regurgitation in Patients Undergoing Aortic Valve Surgery</td>
<td>G. Burkhard Mackensen, Seattle, WA*</td>
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<tr>
<td>9:00 AM</td>
<td>New Mitral Stenosis After Mitral Valve Repair</td>
<td>Stanton K. Shernan, Boston, MA</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>Clinical Utility of Echocardiography in the ICU After Cardiac Surgery</td>
<td>Georges Desjardins, Salt Lake City, UT*</td>
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<tr>
<td>10:00 AM</td>
<td>Break</td>
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**Session II**

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<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>10:30 AM</td>
<td>Aortic Valve—Repair or Replace?</td>
<td>Georges Desjardins, Salt Lake City, UT*</td>
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<tr>
<td>11:00 AM</td>
<td>Unsuspected Aortic Stenosis During Scheduled Coronary Artery Bypass Grafting Surgery</td>
<td>Alina Nicoara, Durham, NC</td>
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11:30 AM

**Mitral Valve Surgery or Myectomy Alone for Hypertrophic Obstructive Cardiomyopathy**

G. Burkhard Mackensen, Seattle, WA

12:00 PM

**Systolic Anterior Motion After Aortic Valve Replacement**

Alina Nicoara, Durham, NC*

8:00 AM – 3:00 PM

STS/CHEST: Primer on Advanced and Therapeutic Bronchoscopy—Theory and Hands-on Session

This course, in conjunction with the American College of Chest Physicians, will introduce participants to the theory and practice of endobronchial ultrasound (EBUS) and interventional bronchoscopy as relevant to the practicing thoracic surgeon. The target is the practicing surgeon who wishes to expand his or her scope of practice and become familiar with the increasing array of technological solutions for lung cancer staging and management of airway obstruction. A combination of lectures, case presentations, and simulation will be used to teach the basics of EBUS, EBUS-guided biopsy, and the management of airway obstruction by stenting and several modalities of tumor ablation. Hands-on workstations will be available for participants to gain exposure and familiarity with EBUS endoscopes, cryoablative technology, rigid bronchoscopes, and airway stent deployment.

**Learning Objectives**

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

- Identify indications, yield, and complications of EBUS
- Recognize benefits and limitations of airway ablative modalities
- State the benefits and limitations of various airway stents

**Moderators:** Momen M. Wahidi, Durham, NC, and Richard I. Whyte, Boston, MA

*Invited

Indicates that a ticket is required to attend.
Saturday, January 24, 2015

8:00 AM Welcome and Introduction
Momen M. Wahidi, Durham, NC, and Richard I. Whyte, Boston, MA

8:10 AM EBUS Mediastinal Anatomy
Kazuhiro Yasufuku, Toronto, Canada

8:30 AM EBUS/Transbronchial Needle Aspiration (TBNA)
Momen M. Wahidi, Durham, NC

8:50 AM Navigational Bronchoscopy and Radial EBUS
Moishe A. Liberman, Montreal, Canada

9:20 AM Panel Discussion

9:40 AM Break

10:00 AM Rigid Bronchoscopy
Stephen R. Hazelrigg, Springfield, IL

10:20 AM Therapeutic Endoscopy: Laser, Cryotherapy, Electrocautery, and Argon Plasma Coagulation (APC)
Richard I. Whyte, Boston, MA

10:40 AM Airway Stents
Michael S. Mulligan, Seattle, WA*

11:00 AM Foreign Body Removal
David Ost, Houston, TX

11:20 AM Endobronchial Valves for Air Leak
Christine Argento, Atlanta, GA

11:40 AM Panel Discussion

12:00 PM Lunch

12:30 PM Hands-on Breakout Sessions

**Station 1:** EBUS/TBNA Airway Models
Kazuhiro Yasufuku, Toronto, Canada, and Robert E. Merrit, Columbus, OH

**Station 2:** Case Discussion
Momen M. Wahidi, Durham, NC, and Richard I. Whyte, Boston, MA

**Station 3:** EBUS Simulator/Endobronchial Valves
Christine Argento, Atlanta, GA, and David Ost, Houston, TX

**Station 4:** Rigid Bronchoscopy and Stents
Michael S. Mulligan, Seattle, WA

**Station 5:** Electrocautery, APC, and Cryotherapy
Alexander C. Chen, St Louis, MO, and Moishe A. Liberman, Montreal, Canada

1:00 PM – 2:30 PM Cardiopulmonary Bypass Simulation Course

Despite the extensive education of a cardiothoracic surgeon, only a small portion of that time is spent studying perfusion. And while there may always be a professional perfusionist in the operating room, it is important for the cardiothoracic surgeon, as team leader in the OR, to understand the role and implications of perfusion related to each procedure. To gain a behind-the-pump perspective, attendees will work together on a simulator to put a virtual patient on and off bypass. During the class, taught by a nationally recognized cardiothoracic surgeon and a perfusionist, a simulator will allow the attendees to experience common problems, as well as uncommon events, and learn how the perfusionist, surgeon, and anesthesiologist should interact effectively to solve problems.

This activity is open to residents, medical students, and any other participants who are part of an interprofessional team within the operating room.

**Learning Objectives**

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

- Develop a systematic approach to initiating, maintaining, and separating from cardiopulmonary bypass
- Discuss how to diagnose and manage various crises and catastrophes that can occur while on cardiopulmonary bypass

**Course Director:** Thomas E. MacGillivray, Boston, MA

*Invited

Indicates that a ticket is required to attend.
Sunday, January 25, 2015

7:00 AM – 6:30 PM
Registration: STS/AATS Tech-Con 2015 and STS 51st Annual Meeting

7:50 AM – 12:00 PM
Acquired and Congenital Heart Surgery Symposium: Challenges and Management of the Aorta in Adults With Congenital Heart Disease

The symposium will encompass two sessions. The first session will focus on the thoracic aorta, specifically the dilated ascending aorta or the hypoplastic aortic arch and aortic isthmus with coarctation. Speakers who represent the adult cardiac and congenital heart surgery communities will discuss indications for surgery versus percutaneous approaches, a controversial topic that continues to evolve.

The second session will focus on the numerous clinical challenges to treating failing Fontan circulation in a growing patient population. An experienced congenital cardiologist will talk about the noncardiac evaluation, which contributes to selection for conventional surgery versus multiple organ transplant, and congenital heart surgeons will discuss unconventional surgical options, options for mechanical circulatory support, and multiple organ transplantation.

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

• Identify the surgical indications and approaches for a dilated ascending aorta and bicuspid aortic valve disease
• Identify the surgical indications and techniques for a dilated ascending aorta in conotruncal anomalies
• Describe the percutaneous and surgical approaches to hypoplasia of the aortic arch or primary coarctation
• Explain a noncardiac evaluation in the preop evaluation for Fontan revision versus transplantation
• Discuss unconventional surgical options for failing Fontan circulation
• List current and future mechanical circulatory support strategies for single ventricle circulation
• State the indications and outcomes of multiorgan transplantation for failing Fontan circulation

Moderators: Emile A. Bacha, New York, NY, Christopher A. Caldarone, Toronto, Canada, Joshua L. Hamson, Seattle, WA, and Thomas E. MacGillivray, Boston, MA

7:50 AM
Welcome
Joseph A. Dearani, Rochester, MN

8:00 AM
Ascending Aorta With Bicuspid Aortic Valve
Joseph E. Bavaria, Philadelphia, PA

8:25 AM
Ascending Aorta With Conotruncal Anomalies
Joseph A. Dearani, Rochester, MN*

8:50 AM
Percutaneous Approaches to the Arch and Isthmus
Grayson Wheatley, Philadelphia, PA

9:15 AM
Surgical Approaches to the Arch and Isthmus
Hazim J. Safi, Houston, TX

9:40 AM
Break

10:00 AM
Noncardiac Evaluation
Michael Landszberg, Boston, MA*

10:25 AM
Unconventional Surgery
Brian E. Kogon, Atlanta, GA

10:50 AM
Ventricular Assist Devices—What’s Now, What’s Next
Mark D. Rodefeld, Indianapolis, IN

11:15 AM
Multiorgan Transplantation
Stephanie M. Fuller, Philadelphia, PA

11:40 AM
Discussion

7:50 AM – 12:00 PM
Practice Management Summit

This session will help participants understand the current changing health care practice landscape as it impacts cardiothoracic surgery. Participants will obtain a working knowledge of the Affordable Care Act, principles of leadership, contracting with health systems, health policy, and the productive management of health delivery units.

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

• Describe the basic components of the Affordable Care Act
• Illustrate a working knowledge of surgeon health system contracts and restrictive covenants
• Explain principles of effective organizational leadership
• Describe the impact of health care reform on the cardiothoracic surgery practice
• Express the value of the cardiothoracic surgeon in an integrated health care delivery system
• Better approach the renegotiation of a second-term contract with a health care organization


7:50 AM
Introduction
Frank L. Fazzalari, Rochester, MI

8:00 AM
Basics of the Affordable Care Act/Free Market
Jim Reilly, Denver, CO

8:20 AM
Contracts and Restrictive Covenants
Mike Heaton, Indianapolis, IN

8:40 AM
Work Relative Value Unit Employment Models: A Bad Choice for Cardiothoracic Surgeons
Michael G. Moront, Toledo, OH

*Invited

Indicates that a ticket is required to attend.
Sunday, January 25, 2015

9:00 AM  The Value of the CT Surgeon Leader in an Integrated Delivery System  
Drew Rector, Rockledge, FL

9:20 AM  One Surgeon’s Observations on Leadership From Public, Private, and Nonprofit Perspectives  
James B. Peake, Washington, DC

9:40 AM  Panel Discussion

9:50 AM – 12:00 PM  STS/AATS Critical Care Symposium: Essential Cardiac Critical Care Topics

This symposium will focus on how to develop a successful cardiothoracic Intensive Care Unit (CT ICU). Topics include endocarditis, glycemic control, nutritional therapy, and delirium in the postoperative cardiothoracic patient. This symposium will be relevant for university- and non-university-based practices. Special attention will be given to providing practical information germane to the entire interdisciplinary team that cares for patients in the CT ICU.

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

• Interpret key echocardiographic imaging findings, medical therapy indications and limitations, and the utility of surgical procedures in patients with native and prosthetic valve endocarditis
• Discuss the importance of appropriate glycemic control in CT ICU patients and gain knowledge of the practical implementation of glycemic protocol relevant to their clinical context
• Describe the importance of appropriate timely nutritional therapy in CT ICU patients and gain knowledge of the practical implementation of nutrition protocols relevant to their clinical context
• Explain the impact of postoperative delirium in the postoperative cardiothoracic patient and gain knowledge of the practical implementation of early mobilization protocols and clinical pathways to identify patients at high risk of developing postoperative delirium

7:50 AM  Welcome and Introduction  
Kevin W. Lobdell, Charlotte, NC

8:00 AM  Diagnosis and Medical Therapy for the Treatment of Endocarditis  
Emily Langdon, Chicago, IL

8:15 AM  Echocardiography Assessment of Endocarditis  
John Symanski, Charlotte, NC

8:30 AM  Why Is Endocarditis a Surgical Problem? Aggressive Surgical Approach to Endocarditis  
Gosta Pettersson, Cleveland, OH

8:50 AM  Question and Answer Session  
Rakesh Arora, Winnipeg, Canada

9:00 AM  The “Correct” Way of Nutritional Support in the CT ICU  
Krishnan Siriram, Chicago, IL

9:20 AM  Current Practice of Nutritional Therapy in the Johns Hopkins CT ICU  
Emily Stewart, Baltimore, MD

9:30 AM  Question and Answer Session  
Vassyl A. Lonchyna, Chicago, IL

9:45 AM  The New Era of Glycemic Control in the CT ICU  
Kevin W. Lobdell, Charlotte, NC

9:50 AM  Current “State of the Art” Strategies for Glycemic Control in the CT ICU  
Harold L. Lazar, Boston, MA

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Indicates that a ticket is required to attend.

www.sts.org/annualmeeting
### Sunday, January 25, 2015

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:10 AM</td>
<td>The Way We Do It</td>
<td>Natasha Brooks, Charlotte, NC, and Elizabeth Martin, Chicago, IL</td>
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<tr>
<td>10:20 AM</td>
<td>Question and Answer Session</td>
<td>Kevin W. Lobdell, Charlotte, NC</td>
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<tr>
<td>10:30 AM</td>
<td>Break</td>
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<tr>
<td>10:45 AM</td>
<td>Delirium 101</td>
<td>Jose Maldonado, Stanford, CA</td>
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<tr>
<td>11:00 AM</td>
<td>ABCDE Bundle: Mobilization in the ICU</td>
<td>Biren Kamdar, Los Angeles, CA</td>
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<tr>
<td>11:15 AM</td>
<td>Developing a Delirium Strategy in Your CT ICU</td>
<td>Rakesh Arora, Winnipeg, Canada</td>
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<tr>
<td>11:25 AM</td>
<td>Question and Answer Session</td>
<td></td>
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<tr>
<td>11:45 AM</td>
<td>Moderated Critical Care Poster Session</td>
<td>Vassyl A. Lonchyna, Chicago, IL, and Nevin M. Katz, Baltimore, MD*</td>
</tr>
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**1:00 PM – 4:00 PM**

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

This symposium will provide cardiothoracic surgery residents with practical information regarding the transition from residency to practice. The first session will include talks related to the job search: how to find the right position, interviewing tips, and negotiating a contract. The second session will include talks related to transitioning into practice: how to bring new technologies to a practice, team building, and early career development. 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:

- Plan a successful job search
- Understand the important elements of a contract
- Discuss the necessary aspects of bringing new technologies into a practice
- Identify the important aspects of early career development

**Moderators:** Sidharta P. Gangadharan, Boston, MA, Sandra L. Starnes, Cincinnati, OH, and Ara A. Vaporciyan, Houston, TX

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<tr>
<td>1:00 PM</td>
<td>Introduction</td>
<td>Sidharta P. Gangadharan, Boston, MA, Sandra L. Starnes, Cincinnati, OH, and Ara A. Vaporciyan, Houston, TX</td>
</tr>
<tr>
<td>1:05 PM</td>
<td>How to Find a Position</td>
<td>Danny Chu, Pittsburgh, PA, and Raja R. Gopaladas, Columbia, MO*</td>
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</table>

**1:25 PM**  
**Keys to a Successful Interview**  
Christine L. Lau, Charlottesville, VA

**1:45 PM**  
**What You Need to Know About Contracts**  
Faiz Y. Bhora, New York, NY

**2:05 PM**  
**Breakout Sessions**

**2:25 PM**  
**Group Discussion**

**2:40 PM**  
**Evaluation Completion/Break**

**2:50 PM**  
**Team Building and Adding New Technologies**  
Edward P. Chen, Atlanta, GA

**3:10 PM**  
**Early Career Development**  
Elizabeth A. David, Sacramento, CA

**3:30 PM**  
**Breakout Sessions**

**3:45 PM**  
**Group Discussion**

**3:55 PM**  
**Evaluation Completion**

**1:15 PM – 4:30 PM**

**Parallel Surgical Symposium: Congenital**

**Congenital Heart Surgery Rounds: Problems, Choices, Action**

The symposium will simulate “Monday Morning Rounds,” where problems are complex, choices must be made, and action undertaken. The agenda will alternate between the presentation of “Tough Problems” and “Clinical Scenarios.” Tough Problems will feature presentations from experts on how they’ve treated difficult clinical problems. For the Clinical Scenarios, volunteers will present a real clinical scenario and at least three reasonable courses of action. Ad hoc panelists, who will not have advance knowledge of the case, will be called upon to select a course of action. Audience members will then be able to share their opinion via electronic polling. Finally, the staff surgeon involved in the clinical scenario will describe the actual course of action taken.

*Invited

*Indicates that a ticket is required to attend.
Sunday, January 25, 2015

Learning Objectives
Upon completion of this activity, participants should be able to:
• Identify options for managing interrupted aortic arch with ventricular septal defect and left ventricular outflow tract obstruction
• Describe options for managing neonatal pulmonary atresia with intact ventricular septum, coronary anomalies, and diminished ventricular function
• Explain options for managing hypoplastic left heart syndrome after stage I palliation with diminished ventricular function, ventilator dependence, and tricuspid insufficiency
• Discuss options for managing borderline hypoplastic left ventricle after two-ventricle repair with residual left-sided lesions
• Identify options after failed repair of obstructed pulmonary veins

Moderators: Christopher A. Caldarone, Toronto, Canada, Jonathan M. Chen, Seattle, WA, and Andrew C. Fiore, St Louis, MO

1:15 PM Introductory Remarks
Christopher A. Caldarone, Toronto, Canada, Jonathan M. Chen, Seattle, WA, and Andrew C. Fiore, St Louis, MO

1:20 PM Tough Problem 1: Infant with interrupted aortic arch and ventricular septal defect with left ventricular outflow tract obstruction
Ralph S. Mosca, New York, NY*

1:40 PM Clinical Scenario 1

1:55 PM Tough Problem 2: Neonate with pulmonary atresia-intact ventricular septum with right ventricular dependent coronary circulation and diminished left ventricular function
James S. Tweddell, Milwaukee, WI*

2:15 PM Clinical Scenario 2

2:25 PM Tough Problem 3: Infant on a ventilator, blood type O, with hypoplastic left heart syndrome after Norwood stage I with diminished ventricular function and severe tricuspid regurgitation
Glen S. Van Arsdell, Toronto, Canada*

2:45 PM Clinical Scenario 3

3:00 PM Break

3:15 PM Tough Problem 4: Infant with borderline left ventricle by size converted to a two-ventricle repair, now with left atrial hypertension, moderate aortic stenosis and regurgitation, and moderate mitral stenosis
Pedro J. del Nido, Boston, MA*

3:35 PM Clinical Scenario 4

3:50 PM Tough Problem 5: Infant with recurrent pulmonary vein stenosis after a sutureless repair of post-repair pulmonary vein stenosis
Christopher A. Caldarone, Toronto, Canada

4:10 PM Clinical Scenario 5

4:25 PM Concluding Remarks
Christopher A. Caldarone, Toronto, Canada, Jonathan M. Chen, Seattle, WA, and Andrew C. Fiore, St Louis, MO

1:15 PM – 4:30 PM Parallel Surgical Symposium: General Thoracic
This symposium will focus on issues that are pertinent to today’s practicing thoracic surgeon and will help attendees address gaps in knowledge on the current treatment of esophageal cancer, the approach to complex resections for lung cancer, and the management of challenging situations in thoracic surgery.

Learning Objectives
Upon completion of this activity, participants should be able to:
• Describe the treatment of early stage esophageal cancer, as well as alternative conduits for esophageal replacement, the effect of the new staging system on treatment decisions, and pitfalls to avoid during minimally invasive esophagectomy
• Outline the management of ground glass pulmonary lesions and the indications and best approaches for segmentectomy, en bloc resection of locally advanced lung cancer, and bronchial sleeve resection
• Describe the repair of a pulmonary artery injury during thoracoscopic lobectomy, airway injury during esophagectomy, and the management of esophageal perforations and intraoperative positive margins

Moderators: Leah M. Backhus, Seattle, WA, Jules Lin, Ann Arbor, MI, and Joseph B. Shrager, Stanford, CA

1:15 PM How the New Staging System Changes Treatment: Update on Esophageal Cancer
Rishindra M. Reddy, Ann Arbor, MI

1:30 PM Treatment of Early Stage Disease: Update on Esophageal Cancer
Steven R. Demeester, Los Angeles, CA

1:45 PM When the Stomach Is Not Available: Update on Esophageal Cancer
Shanda H. Blackmon, Rochester, MN

2:00 PM Minimally Invasive Esophagectomy Tips and Tricks: Update on Esophageal Cancer
James D. Luketich, Pittsburgh, PA*

2:15 PM Segmentectomy Tips and Tricks: Pearls in Lung Cancer Resection
Robert McKenna, Los Angeles, CA*

2:30 PM Bronchial and Pulmonary Arterial Sleeve Resections: Pearls in Lung Cancer Resection
G. Alexander Patterson, St Louis, MO

*Invited
Indicates that a ticket is required to attend.
## Sunday, January 25, 2015

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>2:45 PM</td>
<td>Resecting Locally Invasive Lung Cancer: Pearls in Lung Cancer Resection</td>
<td>Garrett L. Walsh, Houston, TX</td>
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<tr>
<td>3:00 PM</td>
<td>Management of Ground Glass Lesions: Pearls in Lung Cancer Resection</td>
<td>Nasser K. Altorki, New York, NY</td>
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<tr>
<td>3:15 PM</td>
<td>Break</td>
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<tr>
<td>3:30 PM</td>
<td>Pulmonary Artery Injury During VATS Lobectomy: Complicated Scenarios in Thoracic Surgery</td>
<td>Thomas D’Amico, Durham, NC</td>
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<tr>
<td>3:45 PM</td>
<td>Airway Injury During Esophagectomy: Complicated Scenarios in Thoracic Surgery</td>
<td>Jules Lin, Ann Arbor, MI</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>How to Manage Positive Margins During Thoracic Surgery: Complicated Scenarios in Thoracic Surgery</td>
<td>Mark K. Ferguson, Chicago, IL</td>
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<tr>
<td>3:00 PM</td>
<td>The Window of Opportunity: When to Wean and When Not to Wean</td>
<td>William Costello, Nashville, TN</td>
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<tr>
<td>3:15 PM</td>
<td>Establishing an ECMO Program</td>
<td>Kenton J. Zehr, Baltimore, MD</td>
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<tr>
<td>3:30 PM</td>
<td>Simulation Session</td>
<td>Jeffrey Riley, Rochester, MN*</td>
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<tr>
<td>4:10 PM</td>
<td>Panel Discussion</td>
<td>Nicole M. Michaud, Franklin, TN</td>
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### 2:30 PM – 4:30 PM

**CT Surgery Interprofessional Education Symposium:**

**Multidisciplinary Team Approach to ECMO**

The 4th annual CT Surgery Interprofessional Education Symposium will take an in-depth look at the world of extracorporeal membrane oxygenation (ECMO) from different angles of the multidisciplinary heart team. The symposium will offer lectures, as well as scenario-based virtual simulation and ECMO basics.

**Learning Objectives**

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

- Recognize ECMO candidates as well as types of ECMO to use
- Discuss ECMO basics, such as the role of the oxygenator, the need for anticoagulation, and cannulation techniques
- Identify parameters required to wean patients
- Identify and troubleshoot ECMO complications
- Recognize the requirements and constraints for development of an ECMO program

**Moderators:** Diane E. Alejo, Baltimore, MD*, Nicole M. Michaud, Franklin, TN, and Harmik J. Soukiasian, Los Angeles, CA*

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<tbody>
<tr>
<td>2:30 PM</td>
<td>Who Is a Candidate for ECMO and What Type of ECMO?</td>
<td>Daphne Hardison, Franklin, TN</td>
</tr>
<tr>
<td>2:45 PM</td>
<td>The ABCs of an ECMO Circuit</td>
<td>Britt McIlwain, Trussville, AL</td>
</tr>
<tr>
<td>4:00 PM–6:30 PM</td>
<td>Scientific Posters Open</td>
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<tr>
<td>4:30 PM–6:30 PM</td>
<td>Opening Reception in the STS Exhibit Hall</td>
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*Invited
Monday, January 26, 2015

6:30 AM – 5:00 PM
Registration: STS 51st Annual Meeting

7:00 AM – 10:45 AM
General Session I

Moderators: David A. Fullerton, Aurora, CO, and Keith S. Naunheim, St Louis, MO

7:00 AM
Opening Remarks

7:15 AM
M. S. Allen, F. C. Nichols, S. D. Cassivi, K. Shen, D. A. Wigle
Mayo Clinic, Rochester, MN
Discussant: Joe B. Putnam Jr, Nashville, TN

7:35 AM
J. Maxwell Chamberlain Memorial Paper for Adult Cardiac Surgery: Over 3 Decades of Follow-Up Demonstrates Improved Survival With Bilateral vs Single Internal Mammary Artery Grafting in Elderly Patients
P. A. Kurlansky1, E. Traad2, M. J. Dorman3, D. Galbut1, G. Ebra1
1Florida Heart Research Institute, Miami, 2Palm Beach Gardens Hospital, Boynton Beach, FL
Discussant: Robert A. Guyton, Atlanta, GA

7:55 AM
J. Maxwell Chamberlain Memorial Paper for Congenital Heart Surgery: Improving Cardiac Surgical Site Infection Diagnosis, Adjudication, and Reporting by Using Registry Data for Case Ascertainment
The Children’s Hospital of Philadelphia, PA
Discussant: Donald S. Likosky, Ann Arbor, MI

8:15 AM
1University of Virginia Health System, Charlottesville, 2HCA North Texas Division, Dallas, 3Duke Clinical Research Institute, Durham, NC, 4Johns Hopkins All Children’s Heart Institute, St Petersburg, FL, 5Massachusetts General Hospital, Boston, 6Emory University, Atlanta, GA
Discussant: Farhood Farjah, Seattle, WA

Richard E. Clark Paper for Adult Cardiac Surgery: Comparison of Alternative Access Transcatheter Aortic Valve Replacement Techniques in the US for 6,341 Patients Considered High-Risk or Inoperative for Aortic Valve Replacement and With Severe Aortic Stenosis: An Analysis From the STS/ACC TVT Registry
1Emory University, Atlanta, GA, 2Mayo Clinic, Rochester, MN, 3Duke University Medical Center, Durham, NC, 4University of Colorado, Denver, 5University of Florida, Jacksonville, 6Cleveland Clinic, OH, 7University of Pennsylvania, Philadelphia, 8Columbia University Medical Center, New York, NY, 9Baylor University, Plano, TX, 10Massachusetts General Hospital, Boston
Discussant: A. Pieter Kappetein, Rotterdam, The Netherlands

S. K. Pasquali1, M. L. Jacobs1, J. Gaynor4, X. He5, M. Gaies6, E. Peterson7, J. C. Hirsch-Romano8, J. E. Mayer9, J. P. Jacobs10
1The Johns Hopkins School of Medicine, Baltimore, MD, 2The Children’s Hospital of Philadelphia, PA, 3Duke Clinical Research Institute, Durham, NC, 4University of Michigan, Ann Arbor, 5Michigan Congenital Heart Center, Ann Arbor, 6Boston Children’s Hospital, MA, 7Johns Hopkins All Children’s Heart Institute, St Petersburg, FL
Discussant: David M. Shahian, Boston, MA

Break

9:00 AM
The Annals of Thoracic Surgery

9:30 AM
50th Anniversary Presentation
G. Alexander Patterson, St Louis, MO

*Invited
Names of presenting authors are in bold.
Monday, January 26, 2015

9:40 AM  Introduction of the President
Mark S. Allen, Rochester, MN

9:50 AM  Presidential Address
David A. Fullerton, Aurora, CO

9:00 AM – 4:30 PM  Exhibits Open

9:00 AM – 4:30 PM  Scientific Posters Open

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

11:30 AM – 12:30 PM  Adult Cardiac Session: Arrhythmia
Moderators: Vinay Badhwar, Pittsburgh, PA, and J. Scott Rankin, Nashville, TN

11:30 AM  Should Patients With Over 5 Years’ Duration of Atrial Fibrillation Expect Reasonable Outcomes Following Concomitant Cox Maze Procedure?
N. Ad, H. Je, G. Pritchard, S. Holmes
Inova Heart and Vascular Institute, Falls Church, VA

11:45 AM  Electrophysiological Results After Totally Thoracoscopic Ablation for the Treatment of Lone Persistent Atrial Fibrillation
D. Jeong1, M. Kim1, H. Chang2, Y. Lee1, P. Park1
1Samsung Medical Center, Seoul, Republic of Korea, 2Seoul National University Hospital, Seoul, Republic of Korea

12:00 PM  The Effectiveness of Surgical Ablation in Patients With Atrial Fibrillation and Aortic Valve Disease
M. Henn, C. Lawrence, L. Sinn, J. Miller, R. Schuessler, H. S. Maniar, R. J. Damiano
Washington University School of Medicine, Barnes Jewish Hospital, St Louis, MO

12:15 PM  Update on STS Clinical Practice Guidelines on Surgical Ablation
Vinay Badhwar, Pittsburgh, PA

11:30 AM – 12:30 PM  Adult Cardiac Session: Heart Failure
Moderators: Robert L. Kormos, Pittsburgh, PA, and Matthew A. Romano, Ann Arbor, MI

11:30 AM  Axial vs Centrifugal Flow Left Ventricular Assist Devices
Axial: James W. Long, Salt Lake City, UT*
Centrifugal: Edwin C. McGee, Chicago, IL

12:00 PM  Preoperative Predictors of Right Ventricular Failure Requiring Mechanical Support Following Continuous-Flow Left Ventricular Assist Device Implantation as a Bridge to Transplantation
Royal Brompton and Harefield NHS Foundation Trust, London, United Kingdom

12:15 PM  Do Concomitant Procedures at the Time of Left Ventricular Assist Device Implantation Impact Long-Term Outcomes? Implications by Device Type and Indication
S. Maltais1, F. D. Pagani2, N. Haglund2, M. E. Davis1, J. Schirger1, J. M. Stulak3
1Vanderbilt Heart and Vascular Institute, Nashville, TN, 2University of Michigan Hospital, Ann Arbor, 3Mayo Clinic, Rochester, MN

11:30 AM – 12:30 PM  Basic Science Research: Adult Cardiac
Moderators: Afshin Ehsan, Newton, MA, and Thomas G. Gleason, Pittsburgh, PA*

11:30 AM  The Z-score Normalization of Regional Contractile Function in Dilated Cardiomyopathy Confirms Heterogeneous Contractile Injury
Barnes Jewish Hospital/Washington University, St Louis, MO

*Invited
Names of presenting authors are in bold.
Monday, January 26, 2015

11:40 AM The Impact of Prolonged Atrial Fibrillation on Atrial and Ventricular Function in a Porcine Model

T. Kazui1, M. Henr2, C. Lawrance1, Y. Watanabe1, S. Okada1, J. Greenberg2, R. Schuessler1, R. Damiano1
1Barnes Jewish Hospital/Washington University, St Louis, MO, 2Washington University School of Medicine, St Louis, MO

11:50 AM AKT2 Regulates Bone Marrow Cell–Mediated Aortic Protection in Mice

S. A. LeMaire, S. Zou, P. Ren, L. Zhang, J. S. Coselli, Y. Shen
Baylor College of Medicine, Houston, TX

12:00 PM Enoxinone Protects Myocardial Mitochondrial ATP-Production by Limitation of H+-leak-dependent Improvement of ΔΨm-Stability in Ischemia Reperfusion Injury

S. Sommer1, M. Leistner1, I. Aleksi1, C. Schimmer1, C. Scheler, R. Leyh
University Hospital Würzburg, Germany

12:10 PM Cardioplegia and Cardiopulmonary Bypass Decrease Activation of Signal Transducer and Activator of Transcription 3 Pathway in Diabetic Human Myocardial Tissue

Beth Israel Deaconess Medical Center, Boston, MA

12:20 PM Alcohol and the Heart: A Proteomics Analysis of Pericardium and Myocardium in a Swine Model of Chronic Myocardial Ischemia

N. Y. Elmadun1, A. Sadek1, A. Sabe1, A. D. Lassaletta1, F. W. Sellke2
1Beth Israel Deaconess Medical Center, Boston, MA, 2Baylor College of Medicine, Houston, TX

11:45 AM Triptolide Inhibits Lung Cancer Cell Migration, Invasion, and Metastasis

T. Reno, Y. Li, J. Y. Kim, D. J. Raz
City of Hope National Medical Center, Duarte, CA

12:00 PM Pulmonary Metastases Exhibit Epigenetic Clonality: Implications for Precision Therapy

E. Reardon1, D. Straughan2, J. Hong3, M. Zhang4, M. Rao5, D. Schrum5
1National Cancer Institute, Bethesda, MD, 2National Institutes of Health, Bethesda, MD

12:15 PM Human Lung Fibroblast Inhibits Metastatic Lesion Formation in 4D Lung Cancer Model Seeded With Human Lung Cancer Cell Line

S. Compean1, D. Mishra1, M. Thrall1, X. Liu1, E. Massarelli1, J. Kurie1, M. P. Kim1
1The University of Texas, MD Anderson Cancer Center, Houston, 2The Methodist Hospital - Well Cornell Medical College, Houston, TX

11:30 AM – 12:30 PM

Congenital Session: Adult Congenital

Moderators: Andrew C. Fiore, St Louis, MO*, and Brian E. Kogon, Atlanta, GA

11:30 AM Anomalous Aortic Origin of the Coronary Artery With Inter-arterial Course: Selection for Surgical Repair With Anatomic- and Function-Based Follow-Up

T. E. MacGillivray1, E. N. Feins, D. Defaria Yeh, A. Bhatt, B. Ghoshhajra, I. Inglessis-Azuaje, R. Libertson
Massachusetts General Hospital, Boston

11:45 AM An Empirically Based Tool for Analyzing Mortality Associated With Adult Congenital Heart Surgery

S. M. Fuller1, J. P. Jacobs2, M. L. Jacobs3, S. K. Pasquali1, J. Gaynor1, C. E. Mascio1, K. Hill4, X. He1, Y. Kim5
1Children’s Hospital of Philadelphia/University of Pennsylvania School of Medicine, 2Johns Hopkins All Children’s Heart Institute, St Petersburg, FL, 3The Johns Hopkins School of Medicine, Baltimore, MD, 4The Children’s Hospital of Philadelphia, PA, 5Duke Clinical Research Institute at Duke University, Durham, NC, 6University of Pennsylvania, Philadelphia, 7University of Michigan, Ann Arbor

12:00 PM Durability of Bioprostheses in Tricuspid Position in Patients With Congenital Heart Disease

M. Burri, J. Hoerer, M. Vogt, J. Cleuziou, J. Kasnar-Samprec, R. Lange, C. Schreiber
German Heart Centre Munich

11:30 AM – 12:30 PM

Basic Science Research: General Thoracic

Moderators: Andrew C. Chang, Ann Arbor, MI, and Michael J. Weyant, Aurora, CO*

11:30 AM Using 3D Printing Technology as a Tool for Tracheal Tissue Engineering

1North Shore-LIJ Health System, Manhasset, NY, 2Feinstein Institute for Medical Research, Manhasset, NY, 3North Shore-LIJ Health System, Great Neck, NY, 4North Shore-LIJ Health System, New Hyde Park, NY

*Invited
Names of presenting authors are in bold.
Monday, January 26, 2015

11:30 AM – 12:30 PM

Critical Care

Moderators: James M. Isbell, Charlottesville, VA, and Glenn J. R. Whitman, Baltimore, MD

11:00 AM

Feasibility, Effectiveness, and Safety of Activated Recombinant Factor VII Use for Intractable Bleeding During Extracorporeal Life Support in Adults
H. A. Welp1, A. Rukosu2, H. Deschka3, M. Scherer3, S. Martens
University Hospital Muenster, Germany

11:45 AM

Rotational Thromboelastometry Decreases Blood Product Transfusion in High-Risk Patients Undergoing Cardiac Surgery
University of Virginia Health System, Charlottesville

12:00 PM

Race Is Associated With Mortality in Patients Undergoing Extracorporeal Cardiac Support
T. Chan1, J. Di Gennaro2, R. Farris3, M. Radman4, D. McMullan
Seattle Children’s Hospital, Washington

12:15 PM

Long-Term Survival and Predictors of Mortality in Patients Needing Prolonged Intensive Care Unit Stay Post-Cardiac Surgery
R. Manji1, B. Hiebert2, R. Arora3, M. Moon4, D. Freed5, A. H. Menkis6
1IH. Asper Clinical Research Institute, Winnipeg, Canada
2Winnipeg Regional Health Authority Canada
3St Boniface General Hospital, Winnipeg, Canada
4University of Alberta, Edmonton, Canada
5University of Southern California, Los Angeles, CA
6University of Pittsburgh Medical Center, PA

11:30 AM – 12:30 PM

General Thoracic Session: New Techniques

Moderators: Melanie A. Edwards, St Louis, MO, and K. Robert Shen, Rochester, MN

11:30 AM

Angiopoietin II in Donor Lungs Is an Indicator of Graft Quality And Is Associated With Primary Graft Dysfunction After Lung Transplantation
G. Singh1, J. Costa2, M. Biscotti III2, J. Van Hassel3, J. R. Sonetti4, M. Bacchetta5
1New York Columbia Presbyterian, NY, 2Columbia University Medical Center, New York, NY

11:45 AM

Ex Vivo Evaluation of the Effectiveness of Pulmonary Artery Sealing Using the HARMONIC ACE®+ Shears (HS) for Video-Assisted Thoracoscopic Surgical (VATS) Lobectomy
M. A. Liberman1, M. Khereba1, B. S. Nasir1, E. Goudie2, A. Danino3, J. Giot4, N. Nizard4, R. Hadjieres5, V. Thiffault6, N. Fanrenq7, P. Ferraro1
1CHUM Endoscopic Tracheobronchial and Oesophageal Center (CETOC), University of Montreal, Canada,
2University of Montreal, Canada

12:00 PM

Initial Experience and Outcome With Peroral Endoscopic Myotomy (POEM) by a Thoracic Surgeon
S. G. Worrell1, E. Alcuben2, S. DeMaester2
1University of Southern California, Los Angeles, 2Keck School of Medicine of USC, Los Angeles, CA

12:15 PM

Clinical Utility of Endobronchial Ultrasound-Guided Transbronchial Needle Aspiration (EBUS-TBNA) for the Evaluation of Mediastinal Lymphadenopathy Concerning for Lymphoma
K. S. Nason1, M. J. Schuchert, J. D. Luketich, N. A. Christie, L. Pantanowitz, A. Karunamurthy, S. Monaco
University of Pittsburgh Medical Center, PA

11:30 AM – 12:30 PM

NEW! STS/CATS/CSCS: Current and Future Workforce Issues in Cardiothoracic Surgery—Staff and Resident Perspectives From Canada and the US

The objective of this course, offered by STS, the Canadian Association of Thoracic Surgeons, and the Canadian Society of Cardiac Surgeons, is to discuss workforce issues pertinent to Canadian and American cardiothoracic (CT) surgeons. Experiences and differences in training and certification of CT surgeons in North America will also be reviewed. Leaders in workforce planning research, as well as resident leaders, will provide in-depth perspectives on issues that may impact future workforce planning.

Learning Objectives

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

• Discuss current issues affecting CT surgery workforce planning in North America
• Describe the difference in training between Canadian and American CT training programs
• Review future issues affecting CT surgery workforce planning in North America
• Recognize models for predicting whether there will be sufficient jobs in North America for CT trainees in the future

Moderators: Sean C. Grondin, Calgary, Canada, and John S. Ikonomidou, Charleston, SC

Names of presenting authors are in bold.

www.sts.org/annualmeeting
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<tr>
<th>Time</th>
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<tr>
<td>11:30 AM</td>
<td>Introduction</td>
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</table>
| 11:35 AM      | General Thoracic Surgery in Canada: Staff Perspective  
 Sean C. Grondin, Calgary, Canada |
| 11:45 AM      | General Thoracic Surgery in Canada: Resident Perspective  
 Janet P. Edwards, Calgary, Canada |
| 11:50 AM      | Cardiac Surgery in Canada: Staff Perspective  
 Christopher M. Feindel, Toronto, Canada |
| 12:00 PM      | Cardiac Surgery in Canada: Resident Perspective  
 Maral Ouzounian, Halifax, Canada |
| 12:05 PM      | CT Surgery in the United States: Staff Perspective  
 Richard J. Shemin, Los Angeles, CA |
| 12:15 PM      | CT Surgery in the United States: Resident Perspective  
 David Odell, Pittsburgh, PA |
| 12:20 PM      | Panel Discussion                                                        |

**12:30 PM – 1:15 PM**

**BREAK—Visit Exhibits and Scientific Posters**

**1:15 PM – 5:15 PM**

**ACC @ STS**

This course, presented by STS and the American College of Cardiology, will concentrate on a truly collaborative “Heart Team” approach to treating complex issues facing the practicing physician or affiliate provider. Using a unique and innovative format that highlights the spectrum of adult cardiac diseases, this year’s session will concentrate on the multidisciplinary approach to coronary artery disease (CAD), mitral regurgitation (MR), and atrial fibrillation. Course components include invited technical videos featuring procedural expertise in these disease processes, a critical review of the literature, and an invited lecture regarding research from the STS/ACC TVT Registry™, as well as original scientific abstracts. This session also will utilize patient presentations describing difficult clinical scenarios, followed by an invited commentary.

**Learning Objectives**

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

- Discuss the controversies surrounding the management of CAD
- Review and describe the indications and contraindications for the treatment of ischemic MR
- Describe the construction and makeup of the multidisciplinary “Heart Team” and its influence in improving patient outcomes and fostering communication among specialties
- Identify and explain the optimal management in those patients with specific case scenarios who are evaluated for coronary artery bypass grafting, MR, and atrial fibrillation

**Moderators:** Hersh S. Maniar, St Louis, MO, Patrick T. O’Gara, Boston, MA, Richard W. Smalling, Houston, TX, and Vinod H. Thourani, Atlanta, GA

**Multidisciplinary Management of Coronary Artery Disease (CAD)**

<table>
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<tr>
<th>Time</th>
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| 1:17 PM       | Current Status of Percutaneous CAD Treatment: What to Expect in the Next 5 Years  
 Patrick T. O’Gara, Boston, MA |
| 1:25 PM       | Technical Video for Multiple Arterial Coronary Bypass Grafting (CABG) Surgery  
 Joseph F. Sabik III, Cleveland, OH |
| 1:33 PM       | Putting Together the Long-Term Results of the Randomized SYNTAX Trial  
 Michael J. Mack, Dallas, TX |
| 1:41 PM       | Discussion                                                              |
| 1:46 PM       | Putting Together the Results of Large National Registry Databases Comparing Percutaneous Coronary Intervention (PCI) and CABG Surgery  
 TBA |
| 1:54 PM       | Case Presentation of CAD and Poor Ejection Fraction  
 Jeffrey S. Miller, Atlanta, GA |
| 2:02 PM       | Optimal Evaluation and Intervention for Patients With CAD and Low Ejection Fraction  
 David R. Holmes Jr, Rochester, MN |
| 2:10 PM       | Discussion                                                              |

Names of presenting authors are in **bold**.
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2:15 PM  Comparison of Hybrid Coronary Revascularization vs Coronary Artery Bypass Grafting With Bilateral or Single Internal Mammary Artery Use

J. Rosenblum1, R. Harskamp2, N. Hoedemaker2, H. Liberman1, R. de Winter3, T. A. Vassiliades6, J. Puskaas4, M. E. Halkos1

1Emory University, Atlanta, GA, 2Duke University, Durham, NC, 3Academic Medical Center, Amsterdam, The Netherlands, 4Mount Sinai Beth Israel, New York, NY, 5Medtronic, Inc, Mounds View, MN

Mitral Regurgitation (MR)

2:30 PM  Therapy for Functional MR Guidelines: Appropriate Evaluation and Who We Should Be Treating

Robert O. Bonow, Chicago, IL

2:38 PM  Discussion

2:43 PM  Technical Video for the Treatment of Severe Ischemic MR

Steven F. Bolling, Ann Arbor, MI

2:51 PM  Decision Making for Repair vs Replacement in Severe Ischemic MR: Update From the NIH CTSN Severe IMR Trial

Michael A. Acker, Philadelphia, PA

2:59 PM  Discussion

3:04 PM  Case Presentation of Moderate Ischemic MR With Concomitant CAD

Jacob DeLaRosa, Pocatello, ID

3:09 PM  Current Management of Moderate Ischemic MR: Update From the NIH CTSN Moderate IMR Trial

Vinod H. Thourani, Atlanta, GA

3:17 PM  Discussion

3:22 PM  The Optimal Patient for the Percutaneous MitraClip Technique for Degenerative MR

Saibal Kar, Los Angeles, CA*

3:30 PM  The Percutaneous MitraClip Technique for Functional MR: Update From the European Registries and the COAPT Trial

Francesco Maisano, Milan, Italy*

3:38 PM  Discussion

3:43 PM  Determinants of Late Outcomes in Women Undergoing Repair of Myxomatous Degeneration

V. Chan, E. Elmistekawy, M. Ruel, T. G. Mesana

University of Ottawa Heart Institute, Canada

3:58 PM  Break

Management of Atrial Fibrillation

4:14 PM  Technique for Biatrial Cox-MAZE IV

Vinay Badhwar, Pittsburgh, PA

4:22 PM  Guidelines for Medical or Surgical Management of Atrial Fibrillation: Who, When, and Techniques Used

Patrick T. O’Gara, Boston, MA

4:30 PM  Discussion

4:35 PM  Detection of Atrial Fibrillation Following Surgical Ablation: Conventional vs Continuous Monitoring

R. J. Damiano1, C. Lawrance, L. Saint, M. Henn1, L. Sinn1, J. Kruse2, M. Gleva2, H. S. Muniari3, P. M. McCarthy1, R. Lee4

1Barnes Jewish Hospital/Washington University, St Louis, MO, 2Northwestern Memorial Hospital, Chicago, IL, 3Washington University School of Medicine, St Louis, MO, 4St Louis University, MO

Clinical Case Scenarios: My Worst Recent Scenario and What I Would Have Done Differently

4:50 PM  Two Cases I Wish I Had Sent to Surgery

E. Murat Tuzcu, Cleveland, OH

5:03 PM  Two Cases I Wish I Had Sent for a Percutaneous Procedure

Gorav Ailawadi, Charlottesville, VA

5:11 PM  Discussion

5:29 PM  Conclusions

1:15 PM – 5:15 PM

NEW! Evidence and Quality Reshaping Practice

The STS National Database has been a valuable tool for outcomes assessment in cardiothoracic surgery since 1989. The Database continues evolving to meet the changing needs of physicians in a complex health care delivery system. This program will address new science and evidence that impacts clinical cardiac and thoracic surgery, data-driven public reporting, quality measurement, and clinical practice guideline development. In addition, this important program will describe ways in which the robust data from the Database can be used to implement quality improvement initiatives and drive reimbursement.

Learning Objectives

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

• Discuss implications and strategies for physician-level reporting
• Discuss the importance of cost and resource utilization in care delivery
• Define data transparency and describe its importance in improving quality
• Apply strategies for using the feedback report for quality improvement
• Explain the rationale for a multidisciplinary approach in quality improvement
• Create a plan to establish a regional quality improvement collaborative

*Invited

Names of presenting authors are in bold.
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- Describe how STS utilizes data from its National Database to support thoracic surgery relative value recommendations to CMS.
- Identify the evidence recommendations in current and future clinical practice guidelines, such as “Arterial Conduits for Coronary Artery Bypass Grafting” and “The Role of Multimodality Treatment for Cancer of the Esophagus and Gastroesophageal Junction”

**Moderators:** Vinay Badhwar, Pittsburgh, PA, and Jeffrey P. Jacobs, St Petersburg, FL

1:15 PM  
Introduction

**1:20 PM**  
The STS Composite Performance Measure for Surgeons: A Report of the STS Quality Measurement Taskforce  
1Duke Clinical Research Institute, Durham, NC, 2Florida Heart Research Institute, Miami, 3University of Pittsburgh, PA, 4University of Colorado, Aurora, 5University of Michigan Medical School, Rochester, 6Institute for Health Care Research and Improvement, Dallas, TX, 7Starr-Wood Cardiac Group of Portland, PC, OR, 8IHCA North Texas Division, Dallas, 9Vanderbilt University, Nashville, TN, 10Children’s Hospital of Illinois, Peoria, 11Johns Hopkins All Children’s Heart Institute, St Petersburg, FL, 12Massachusetts General Hospital, Boston

1:28 PM  
Discussant  
Joseph E. Bavaria, Philadelphia, PA

1:35 PM  
Successful Linking of STS and CMS Medicare Data to Examine the Penetration, Completeness, and Representativeness of the STS Adult Cardiac Surgery Database  
1Johns Hopkins All Children’s Heart Institute, St Petersburg, FL, 1Duke Clinical Research Institute, Durham, NC, 2University of Pittsburgh, PA, 3University of Colorado, Aurora, 4Starr-Wood Cardiac Group of Portland, PC, OR, 5Florida Heart Research Institute, Miami, 6Vanderbilt University, Nashville, TN, 7Children’s Hospital of Illinois, Peoria, 8IHCA North Texas Division, Dallas, 9Institute for Health Care Research and

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*Invited

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3:45 PM  Quality Measurement—Past, Present, and Future
David M. Shahian, Boston, MA

3:55 PM  Transparency and Public Reporting
Jeffrey P. Jacobs, St Petersburg, FL

4:05 PM  Risk-Adjusted Bundled Care in Cardiac Surgery: Is It Feasible?
University of Virginia Health System, Charlottesville

4:13 PM  Discussant
Frank L. Fazzalari, Rochester MI

4:20 PM  Supporting Cardiothoracic Surgery Reimbursement With STS Data: The Relative Value Scale Update Committee (RUC)
Peter K. Smith, Durham, NC

4:30 PM  Moderated Panel Discussion: The STS Adult Cardiac Surgery Database and the Genesis, Evolution, and Sustainability of Local and Regional Quality Collaboratives
Baron L. Hamman, Dallas, TX, William C. Nugent, Lebanon, NH, and Alan M. Speir, Falls Church, VA

1:30 PM – 3:30 PM
Adult Cardiac Session: Ischemic

Moderators: Michael P. Fischbein, Stanford, CA*, and Wilson Y. Szeto, Philadelphia, PA

1:30 PM  Management of Aortic Arch Aneurysms: How Should It Be Done in ER Patients? Total Open
Thomas E. MacGillivray, Boston, MA

1:45 PM  Management of Aortic Arch Aneurysms: How Should It Be Done in ER Patients? Total Endovascular
Francois Dagenais, Quebec City, Canada

2:00 PM  Management of Aortic Arch Aneurysms: How Should It Be Done in ER Patients? Hybrid
G. Chad Hughes, Durham, NC

2:15 PM  Stent Grafting Acute Aortic Dissection: Comparison of DeBakey Extent I IIA vs IIIb
A. A. Arafat, E. E. Roselli, V. Menon, M. Eagleton
Cleveland Clinic Foundation, OH

2:30 PM  Decision Making for the Management of Type A Dissection Repair in Octogenarians
N. Desai, R. Menon, W. Y. Szeto, J. Gottret, P. Moeller, P. Vallabhajosyula, J. E. Bavaria
Hospital of the University of Pennsylvania, Philadelphia

2:45 PM  Effects of Dual Arterial Perfusion on Outcome of Patients With Acute DeBakey Type I Aortic Dissection
S. Song, T. Kim, K. Yoo
Gangnam Severance Hospital/Yonsei University College of Medicine, Seoul, Republic of Korea

3:00 PM  Thoracic Endovascular Aortic Repair Promotes False Lumen Thrombosis and Remodeling of the Thoracic Aorta in Acute Complicated Type B Aortic Dissection
Hospital of the University of Pennsylvania, Philadelphia

3:15 PM  Complex Cusp Repair in Patients Undergoing David’s Procedure—Is It Worth It?
H. Baumbach1, K. Wachter2, R. Nagib3, R. Yadav1, U. Franke2
1Royal Brompton Hospital, London, United Kingdom, 2Robert Bosch Hospital, Stuttgart, Germany

1:30 PM – 3:30 PM
Adult Cardiac Session: Aortic

Moderators: Michael P. Fischbein, Stanford, CA*, and Wilson Y. Szeto, Philadelphia, PA

1:30 PM  Management of Aortic Arch Aneurysms: How Should It Be Done in ER Patients? Total Open
Thomas E. MacGillivray, Boston, MA

1:45 PM  Management of Aortic Arch Aneurysms: How Should It Be Done in ER Patients? Total Endovascular
Francois Dagenais, Quebec City, Canada

2:00 PM  Management of Aortic Arch Aneurysms: How Should It Be Done in ER Patients? Hybrid
G. Chad Hughes, Durham, NC

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Hospital of the University of Pennsylvania, Philadelphia

*Invited

Names of presenting authors are in bold.
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1:30 PM – 3:30 PM

**Congenital Session: Pediatric Congenital I**

**Moderators:** Christopher A. Caldarone, Toronto, Canada*, and Sitaram M. Emani, Boston, MA*

1:30 PM

Over 2 Decades of a Single-Institution Experience With The Ross Procedure: Lessons Learned


King Faisal Specialist Hospital and Research Center, Riyadh, Saudi Arabia

1:45 PM

Transcatheter Pulmonary Valve Replacement With the Melody Valve in Children and Adults With Right Ventricular Outflow Tract Conduit Dysfunction After the Ross Procedure


1:45 PM

NYU Medical Center, New York, *German Heart Centre Munich, *The Children’s Hospital of Philadelphia, PA, *Yale New Haven Hospital, CT, *Children’s Hospital San Diego, CA, *Children’s Hospital Boston, MA, *Miami Children’s Hospital, FL, *Rigshospitalet-Copenhagen University Hospital, Denmark, *Seattle Children’s Hospital, WA

2:00 PM

The Valved Polytetrafluoroethylene Conduits for Right Ventricular Outflow Tract Reconstruction: Clinical Experience and Mechanical Properties of Bulging Sinuses

**T. Shinkawa**, F. Watanae*, T. Miyazaki*, M. Yamagishi*, M. Imamura*

*Arkansas Children’s Hospital, Little Rock, *University of Arkansas, Little Rock, *Kyoto Prefectural University of Medicine, Japan

2:15 PM

Hybrid Procedure as an Alternative to Surgical Palliation of High-Risk Infants With Hypoplastic Left Heart Syndrome and Its Variants: Mid-Term Outcome


Guy’s & St Thomas’/Evelina London Children’s Hospital, United Kingdom

2:30 PM

Distal Transverse Arch to Left Carotid Artery Ratio Helps Identify Neonates With Aortic Arch Hypoplasia


*Newcastle Upon Tyne, United Kingdom, *Freeman Hospital, Newcastle Upon Tyne, United Kingdom

2:45 PM

Evolving Technical Approach and Results in Hypoplastic Left Heart Syndrome With Intact or Highly Restrictive Atrial Septum


*Newcastle Upon Tyne, United Kingdom, *Freeman Hospital, Newcastle Upon Tyne, United Kingdom

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*Invited

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<th>Presenters</th>
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<tr>
<td>3:00 PM</td>
<td>Potential Molecular Mechanism of Retrograde Aortic Arch Stenosis in the Hybrid Approach to Hypoplastic Left Heart Syndrome</td>
<td>N. Hibino, M. Cismowski, B. Lilly, P. MaConnell, T. Shinoka, J. Cheatham, P. Lucchesi, M. E. Galantowicz, A. Trask (Nationwide Children’s Hospital, Columbus, OH)</td>
</tr>
<tr>
<td>3:15 PM</td>
<td>Complex Aortic Arch Reconstruction Using Moderate Hypothermia and Antegrade Cerebral Perfusion in Newborns and Children</td>
<td>B. Gupta, A. Dodge-Khatami, D. Maposa, J. Knudson, J. D. Salazar (University of Mississippi Medical Center, Jackson)</td>
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**General Thoracic Session: Lung Cancer I**

**Moderators:** Jules Lin, Ann Arbor, MI, and Sandra L. Stames, Cincinnati, OH

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<tr>
<td>1:30 PM</td>
<td>Free Margin Distance Does Not Influence Recurrence and Survival Rate After R0 Wedge Resection for Stage I Non-Small Cell Lung Cancer</td>
<td>G. Maurizi, A. D’Andrilli, A. Ciccone, M. Ibrahim, C. Andreetti, S. Tierno, C. Poggi, F. Venuta, E. A. Randina (University of Rome, Italy, Sapienza University of Rome, Italy)</td>
</tr>
<tr>
<td>1:45 PM</td>
<td>Outcomes Following Surgery in High-Risk Patients With Early Stage Lung Cancer</td>
<td>M. S. Sanchez, J. Melvan, R. Medbery, F. G. Fernandez, T. Gillespie, Q. Li, J. Binongo, A. Pickens, S. D. Force (Emory University, Atlanta, GA)</td>
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<tr>
<td>2:00 PM</td>
<td>Video-Assisted Thoracoscopic Surgery is a Safe and Effective Alternative to Open Approach in Anatomical Segmentectomy for Treatment of Non-Small Cell Lung Cancer Patients</td>
<td>G. Ghaly, M. Kamel, A. Nasar, S. Paul, P. Lee, J. Port, B. M. Stiles, N. K. Altorki (New York Presbyterian Hospital/Weill Cornell Medical Center, New York)</td>
</tr>
<tr>
<td>2:15 PM</td>
<td>Robotic Lobectomy Does Not Increase Nodal Upstaging Compared to Video-Assisted Thoracoscopic Surgical (VATS) Lobectomy in Clinically Node-Negative Patients With Lung Cancer</td>
<td>B. E. Lee, R. J. Korst, M. Shapiro, E. Ketsman (The Valley Hospital, Ridgewood, NJ)</td>
</tr>
<tr>
<td>2:30 PM</td>
<td>Diameter of Solid Tumor Component Alone Should Be Used to Establish T-Stage in Lung Adenocarcinoma</td>
<td>B. M. Burt, A. Leung, M. Yanagawa, W. Chen, C. D. Hoang, V. Nair, J. B. Shrag (Stanford University School of Medicine, CA, Osaka University Graduate School of Medicine, Japan)</td>
</tr>
<tr>
<td>2:45 PM</td>
<td>Angiogenesis Biomarkers May Be Useful in the Management of Patients With Indeterminate Pulmonary Nodules</td>
<td>C. W. Seder, J. Kubasiak, E. Davila, R. Medaors, R. Pithadia, I. Tarhoni, E. Davila, R. Medairos, I. Tarhoni, C. Fhied, H. Alnajjar (Rush University Medical Center, Chicago, IL, University of Illinois at Chicago)</td>
</tr>
<tr>
<td>3:00 PM</td>
<td>Long-Term Effect of an Interdisciplinary Supportive Care Intervention for Lung Cancer Survivors Following Surgery</td>
<td>D. J. Raz, V. Sun, J. Y. Kim, A. Williams, M. Koczywas, M. Cristea, K. Peckamp, H. Jennifer, B. Tiep, B. Ferrell (City of Hope National Medical Center, Duarte, CA)</td>
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**General Thoracic Session: Lung Transplantation**

**Moderators:** Seth D. Force, Atlanta, GA, and Eric L. Grogan, Nashville, TN

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<tr>
<td>1:30 PM</td>
<td>Spontaneously Breathing Extracorporeal Membrane Oxygenation Support Provides the Optimal Bridge to Lung Transplantation</td>
<td>M. Schechter, A. M. Ganapathi, B. R. Englum, P. Speicher, B. Gulack, S. Hirji, R. Davis, M. G. Hartwig (Duke University Medical Center, Durham, NC)</td>
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Names of presenting authors are in **bold**.
Monday, January 26, 2015

1:45 PM  Venous Thromboembolic Complications of Lung Transplantation in the Era of the Lung Allocation Score

C. F. Evans, F. Cheema, J. Kim, I. Timofte, S. Pham, B. P. Griffith, A. Iacono, K. Rajagopal
University of Maryland, Baltimore

2:00 PM  Risky Business: Taking the Stigma Out of High-Risk Donation in Lung Transplantation

S. Bansal1, J. A. Hayanga2, D. D. Odel2, K. Jeong1, A. Fabi1, J. D. Luketich1, J. D’Cunha2
1University of Pittsburgh, PA, 2Spectrum Health/Michigan State University, Grand Rapids

2:15 PM  Extracorporeal Membrane Oxygenation as a Bridge to Lung Transplantation: Is There a Volume Threshold for Optimized Survival?

J. A. Hayanga1, A. Woodwyk1, C. McGraw1, A. Lira3, H. Kaiser3, R. Girgis3, J. D’Cunha2, A. Khaghani2
1Spectrum Health/Michigan State University, Grand Rapids, 2University of Pittsburgh Medical Center, PA, 3The Johns Hopkins Medical Institutions, Baltimore, MD

2:30 PM  Warm, Ex Vivo Lung Preservation and Transport

Abbas Ardehali, Los Angeles, CA

3:00 PM  Lung Donor Offer Score: How Can We Use This?

Gabriel Loor, Chanhausen, MN

1:30 PM – 3:30 PM

NEW! Managing Cardiogenic Shock or Pulmonary Failure: Short-Term Mechanical Circulatory Support

Advanced mechanical device technologies for cardiac and pulmonary support are providing new opportunities for both temporary and long-term patient treatment options. Two sessions, one on Monday and the other on Tuesday, will cover the complexities of patient management and new mechanical circulatory support (MCS) device technologies associated with initiating and maintaining an advanced technologies program.

This session offers a series of lectures, followed by abstract presentations on short-term MCS, including extracorporeal membrane oxygenation (ECMO), and will address patient selection, new technologies and devices, and how to tailor devices to patients.

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

• Identify a comprehensive selection of short-term devices
• Explain the importance of proper patient selection and timing of intervention
• Demonstrate and describe how to tailor a specific device to the patient
• Describe the complex infrastructure necessary to support a mechanical circulatory assist program

Moderator: Shaf H. Keshavjee, Toronto, Canada*

1:30 PM  Short-Term Circulatory Support Options for Acute Cardiogenic Shock: New Technologies and Approaches for Success

Charles W. Hoopes, Lexington, KY

1:45 PM  Defining a Destination for the Patient on Short-Term Circulatory Support: Steps to Increase Options

Christian Bermudez, Pittsburgh, PA

2:00 PM  Strategies for Pulmonary Failure

Matthew D. Bacchetta, New York, NY

2:15 PM  Networking to Improve Short-Term Mechanical Circulatory Support Outcomes

Michael F. McGrath, Norfolk, VA

2:30 PM  Subclavian Intra-aortic Balloon Pump—Use as an Intermediate Duration Bridge to Decision Device

S. Tuladhar, D. Onsager, V. A. Lorchyna, S. Fedson, G. Sayer, G. Kim, N. Uriel, V. Jaevanandam
The University of Chicago Medical Center, IL

2:45 PM  Perioperative Risk Factors for Mid-Term Mortality in Patients Bridged to Transplant With a Continuous-Flow Left Ventricular Assist Device

A. H. Healy1, J. Stehlik1, L. Edwards2, S. H. McKellar1, S. Drakos1, C. H. Selzman1
1University of Utah, Salt Lake City, 2International Society for Heart and Lung Transplantation, Addison, TX

3:00 PM  Should Marginal Donors Be Utilized in Patients Undergoing Heart Transplantation With Left Ventricular Assist Device Implantation?

S. Maltais1, M. E. Davis1, J. M. Stulak2, N. Haglund3
1Vanderbilt Heart and Vascular Institute, Nashville, TN, 2Mayo Clinic, Rochester, MN

3:15 PM  Does Postoperative Blood Pressure Control Influence Development of Aortic Regurgitation Following Continuous-Flow Left Ventricular Assist Device Implantation?


*Invited
Names of presenting authors are in bold.
Monday, January 26, 2015

**1:30 PM – 3:30 PM**

STS/SCA: Considerations in Perioperative Resuscitation of Cardiothoracic Patients

This session, presented by STS and the Society of Cardiovascular Anesthesiologists, will focus on considerations in perioperative resuscitation and coagulopathy management of cardiac surgery patients. Discussion topics will include choosing the appropriate fluid for perioperative administration, optimizing resuscitation of the bleeding patient, and understanding the role of pharmacological adjuncts and rational endpoints of blood component therapy in managing coagulopathy. The panel will consist of cardiac surgeons, cardiac anesthesiologists, and intensivists.

**Learning Objectives**

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

- Recognize the evidence, strengths, and drawbacks in the choices of colloid and crystalloid for fluid resuscitation
- Assess the practical roles of massive transfusion protocols and point-of-care goal-directed strategies in resuscitation of cardiac patients
- Discuss rational triggers and endpoints for transfusing blood components in the perioperative period
- Describe the role and the risk-benefit ratio for use of available pharmacological adjuncts in treating perioperative coagulopathy

**Moderators:** Aaron M. Cheng, Seattle, WA, and Jay G. Shake, Temple, TX

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<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenter/Institution</th>
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<tr>
<td>1:30</td>
<td>Colloid, Crystalloid, and the Appeal for Balanced Solutions: What’s the Evidence and Does It Really Matter?</td>
<td>Andrew Shaw, Nashville, TN</td>
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<td>1:50</td>
<td>Discussion</td>
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<td>2:00</td>
<td>Massive Transfusion Protocols and Point of Care Directed Bleeding Management: Are They Worth Following in Our Patients?</td>
<td>Victor A. Ferraris, Lexington, KY</td>
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<tr>
<td>2:20</td>
<td>Discussion</td>
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<td>2:30</td>
<td>Beyond Packed Red Blood Cell Transfusion—Plasma, Cryo, Platelets: Deciding Rational Triggers and Endpoints in the Perioperative Period</td>
<td>Bruce Spiess, Richmond, VA</td>
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<td>2:50</td>
<td>Discussion</td>
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<td>3:00</td>
<td>Can We Do Better? Pharmacological Adjuncts in Treating Perioperative Coagulopathy—What Are They, Who Gets Them, and Are They Safe?</td>
<td>Linda Shore-Lesserson, Hempstead, NY</td>
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<td>3:20</td>
<td>Discussion</td>
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**3:30 PM – 4:15 PM**

BREAK—Visit Exhibits and Scientific Posters

**4:15 PM – 5:15 PM**

Surgical Motion Picture Matinee: Adult Cardiac

**Moderators:** Todd M. Dewey, Dallas, TX*, and Y. Joseph Woo, Stanford, CA*

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<th>Time</th>
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<tr>
<td>4:15</td>
<td>Advanced Measured Tube Technique for Ensuring the Correct Length of Artificial Chordae in Mitral Valvuloplasty</td>
<td>Y. Matsui, Y. Naito, Y. Shingu, S. Wakasa, T. Ooka, T. Tachibana Hokkaido University Graduate School of Medicine, Sapporo, Japan</td>
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<tr>
<td>4:27</td>
<td>Hemi-Commando Procedure With Aortic Valve Homograft: Surgical Technique for Double Valve Endocarditis</td>
<td>J. L. Navia, G. Olivares Cleveland Clinic Foundation, OH</td>
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<td>4:51</td>
<td>Mitral Valve Replacement for Repair Failure Using a Stentless Mitral Valve Made From Autologous Pericardium</td>
<td>H. Kasegawa, T. Fukui, K. Naito, A. Shimizu, S. Takahashi Sakakibara Heart Institute, Tokyo, Japan</td>
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*Invited

Names of presenting authors are in **bold**.
| Time          | Session Title                                                                 | Moderators                                                                                           | Presenters                                                                                          | Institution                                                                                      |
|--------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 5:03 PM      | Repair of Left Ventricular Pseudoaneurysm Following Transapical TAVR          | **B. Ramlawi**, O. Aljabbari, W. Abu Saleh, C. Barker, M. Reardon                                  | Houston Methodist Hospital, TX                                                                       |
| 4:15 PM – 5:15 PM | Surgical Motion Picture Matinee: Congenital                                      | **Moderators:** Andrew C. Fiore, St Louis, MO, and Mark D. Rodefeld, Indianapolis, IN                 |
| 4:15 PM      | Modified Nikaidoh Operation in a Newborn With Transposition of Great Arteries With a Ventricular Septal Defect and Pulmonary Stenosis | **M. Nosal**, M. Sagat, R. Poruban, P. Valentík                                                   | Children’s Heart Centre Slovak Republic, Bratislava, Slovakia                                        |
| 4:39 PM      | Right Ventricular Overhaul Operation in Patient With Pulmonary Atresia/Intact Ventricular Septum: Successful Biventricular Conversion After One and a Half Repair Operation | **N. Ota**, S. Sivalingam, S. Sano, M. Yakub                                                   | 1National Heart Institute, Kuala Lumpur, Malaysia, 2Okayama University Graduate School of Medicine and Dentistry, Japan |
| 4:51 PM      | Robot-Assisted Transitional Atrioventricular Canal Defect Repair and Maze Procedure via Left Atrial Approach | **K. Mandal**, A. Srivastava, L. W. Nifong, W. Chitwood                                             | The Johns Hopkins University School of Medicine, Baltimore, MD, 1East Carolina Heart Institute, Greenville, NC, 2Brady School of Medicine at East Carolina University, Greenville, NC |
| 5:03 PM      | Partial Sternotomy to Avoid Compression of Right Ventricle to Pulmonary Artery Conduit in the Adult Patients With Transposition of Great Arteries With Ventricular Septal Defect and Pulmonary Stenosis | **J. Kwak**, C. Lee                                                                              | 1Sejong General Hospital, Seoul, Republic of Korea, 2Sejong General Hospital, Bucheon, Republic of Korea |

4:15 PM – 5:15 PM Surgical Motion Picture Matinee: General Thoracic

**Moderators:** Moishe A. Liberman, Montreal, Canada, and Betty C. Tong, Durham, NC

4:15 PM Use of Forced Sternal Elevation in Adult Minimally Invasive Pectus Excavatum Repair

**D. E. Jaroszewski**, J. Lackey, L. McMahon

D. Notrica

1Mayo Clinic, Phoenix, AZ, 2Phoenix Children’s Hospital, AZ, 3Pediatric Surgeons of Phoenix, AZ

4:27 PM Successful Treatment of Recurrent Catamenial Pneumothorax With a Combined Laparoscopic and Video-AssistedThoracoscopic (VATS) Approach

**M. J. Magee**, R. Aronoff

1HCA North Texas Division, Dallas, 2Medical City Dallas Hospital, TX

4:39 PM Single-Port Thymectomy Using a Subxiphoid Approach

**T. Suda**, D. Tochii, S. Ashikari, S. Tochi, Y. Takagi

Fujita Health University, Toyoake, Japan

4:51 PM Laparoscopic Resection of a Giant Epiphrenic Diverticulum

**A. Ashfaq**, K. Harold, D.E. Jaroszewski

1Mayo Clinic, Phoenix, AZ, 2Mayo Clinic, Scottsdale, AZ

5:03 PM Pressurized Cadaver Model in Cardiothoracic Surgical Simulation

**C. L. Greene**, M. Minneti, M. Sullivan, C. Baker

Keck School of Medicine of the University of Southern California, Los Angeles

5:00 PM – 6:30 PM Late-Breaking Abstract Sessions

5:00 PM – 6:30 PM Scientific Posters and Wine

5:30 PM – 6:30 PM Business Meeting (STS Members Only)

Names of presenting authors are in **bold**.

www.sts.org/annualmeeting
Monday, January 26, 2015

6:45 PM – 7:45 PM
NEW! STS-PAC Reception: USS Midway Aircraft Carrier Museum

Join us for a special reception in support of STS-PAC, the only political action committee representing the interests of cardiothoracic surgery. The reception will be held aboard the USS Midway Aircraft Carrier Museum to meet invited guest Congressman Larry Bucshon (R-IN), a cardiothoracic surgeon and STS member. Come learn about how STS-PAC is helping to support STS advocacy in Washington, DC. This event is open to US members of STS who contribute to STS-PAC in 2015. Contributions will be accepted at the door. (Note: Tickets to the STS Social Event are sold separately.)

7:00 PM – 10:00 PM
STS Social Event: USS Midway Aircraft Carrier Museum

Join us aboard a piece of American history—the USS Midway—for an evening of dancing, food, and cocktails. Mingle with colleagues on the flight deck while admiring a 360-degree view of San Diego’s sparkling skyline, Coronado Island, and San Diego Bay’s bridge. Browse meticulously restored airplanes and helicopters while savoring a renewed appreciation for courage, freedom, and service to the United States. It will be a night to remember as the evening ends with a breathtaking fireworks show over the bay.

Photo courtesy of the USS Midway Museum.
Tuesday, January 27, 2015

6:30 AM – 4:30 PM
Registration: STS 51st Annual Meeting

7:30 AM – 8:30 AM

Early Riser Session 1: Women in Thoracic Surgery—Practice Management
Robert S. D. Higgins, Columbus, OH, Peter K. Smith, Durham, NC, Richard I. Whyte, Boston, MA, and Valerie A. Williams, Cincinnati, OH

Practice management is now more important than ever. Economic pressures, health care redesign, and the political uncertainty around the Affordable Care Act have catapulted practice management to the forefront. The speakers will briefly discuss negotiating, practice growth, and coding and billing. Participants will be armed with valuable information that will foster additional thoughts on outlining a strategy to effectively manage their practice.

Learning Objectives
Upon completion of this activity, participants should be able to:
• Explain how to frame a negotiation and the importance of negotiating from all perspectives
• Describe the concept of “BATNA” (best alternative to a negotiated agreement)
• Identify practice growth strategies
• Explain the physician fee-for-service schedule and its components
• Recognize the current and future importance of evaluation and management services for surgeons

Early Riser Session 2: Maintaining Quality Outcomes in Low-Volume Cardiac Surgery Programs: The Dilemma Facing US Government-Managed Hospitals
B. Zane Atkins, Sacramento, CA, William P. Gunnar, Washington, DC, and Theodore C. Koutlas, Coeur d’Alene, ID

This session will examine challenges faced by low-case-volume cardiac surgery programs in US military and Veterans Administration (VA) medical centers, especially in the context of the recent scandal regarding quality and access of care within the VA hospital system. The session will further touch upon the longstanding debate regarding the possible relationship between quality parameters, such as operative mortality, and volume of cases handled within a cardiac surgery program. Program speakers will also address the challenges and opportunities for the US Government-managed health system within the new era of the Affordable Care Act. Finally, the session will examine issues surrounding cardiothoracic surgery resident training within these institutions.

Learning Objectives
Upon completion of this activity, participants should be able to:
• Discuss the challenges faced by cardiac surgeons practicing in low-volume centers at US military and VA medical centers
• Explain the debate regarding the potential link between operative mortality and volume of cases handled within a cardiac surgery program, and discuss quality measures used to evaluate a cardiac surgery program other than operative mortality
• Discuss the Veterans Health Administration’s dilemma of providing far-reaching access to health care for US veterans, while preserving the highest quality of care
• Identify some of the advantages and disadvantages of a health services system administered by the US Government, especially in the new era of the Affordable Care Act
• Explain the issues surrounding cardiothoracic surgery resident training within these low-volume cardiac surgery programs

Early Riser Session 3: Ask the Experts—Esophageal Benign Disease
Shanda H. Blackmon, Rochester, MN, Christine L. Lau, Charlottesville, VA, and M. Blair Marshall, Washington, DC

The session is designed to cover benign disease of the esophagus, reviewing evaluation, surgical approaches, and surgical videos of minimally invasive techniques. The learner will be exposed to various diseases, which include, but are not limited to, diverticular disease, motility diseases, foregut cysts, and perforations. The approaches will cover standard open techniques, as well as laparoscopic, thoracoscopic, and robotic approaches. Attendees will receive a video of many techniques used in the session.

Learning Objectives
Upon completion of this activity, participants should be able to:
• Describe the standard approaches to evaluating a patient with benign esophageal disease
• Describe the operative options when surgically correcting or treating patients with various esophageal disorders
• Recognize pitfalls in certain techniques and approaches

Early Riser Session 4: Clinical Trials in General Thoracic Surgery
Gail E. Darling, Toronto, Canada, Linda W. Martin, Baltimore, MD, and Dennis A. Wigle, Rochester, MN

Clinical trials in thoracic surgical oncology form the basis for how we treat patients with thoracic malignancies. Thoracic surgeon engagement, participation, and patient enrollment are critical elements to successful studies. We will review currently accruing and pending studies relevant to thoracic surgeons.

Learning Objectives
Upon completion of this activity, participants should be able to:
• Explain accruing and pending studies in thoracic surgical oncology
• Discuss knowledge gaps in clinical trial evidence
• Identify ongoing studies for participation

*Invited
Indicates that a ticket is required to attend.
Early Riser Session 5: Ask the Experts—Pulmonary Regurgitation With Tetralogy of Fallot

James A. Quintessenza, St Petersburg, FL, James S. Tweddell, Milwaukee, WI*, and Ross M. Ungerleider, Winston-Salem, NC*

An expert panel will discuss issues surrounding pulmonary insufficiency in Tetralogy of Fallot (TOF), including the problem's scope, indications for surgery, and options for surgical interventions in patients ranging from newborns through adults. Short talks with diagrams/videos of surgical techniques will be used. Ample time for discussion with the experts will be available.

Learning Objectives
Upon completion of this activity, participants should be able to:
• Recognize the importance of acute and chronic pulmonary insufficiency in TOF
• Identify the surgical options for valve preservation and repair in the neonate/infant with TOF
• Discuss the various surgical prosthetic options, relevant surgical techniques, and long-term outcomes for the older patient

Early Riser Session 6: Ask the Experts—Controversies in Mitral Valve and Atrial Fibrillation Surgery

Niv Ad, Falls Church, VA, Anelechi C. Anyanwu, New York, NY, Vinay Badhwar, Pittsburgh, PA, Steven F. Bolling, Ann Arbor, MI, Lawrence H. Cohn, Boston, MA, James Cox, Denver, CO, James Gammie, Baltimore, MD, A. Marc Gillinov, Cleveland, OH, Patrick M. McCarthy, Chicago, IL, J. Scott Rankin, Nashville, TN, and Rakesh Suri, Rochester, MN

Several controversies exist in mitral valve repair, including handling complex bileaflet disease, minimally invasive and robotic approaches, ischemic restrictive disease, and rheumatic pathology. Atrial fibrillation controversies extend to case selection associated with cardiac concomitant complications, lone atrial fibrillation, and lesion sets. The objective of this session is to review these latest controversies and openly debate them with esteemed faculty and audience input.

Learning Objectives
Upon completion of this activity, participants should be able to:
• Review pathology-directed strategies in complex degenerative and restrictive mitral valve disease
• Identify technique options and case selection for minimally invasive and robotic mitral surgery
• Identify techniques and lesion sets used for surgical ablation of atrial fibrillation

Early Riser Session 7: Early Career—First 5 Years in Practice

Gorav Ailawadi, Charlottesville, VA, Ahmet Kelic, Columbus, OH, John R. Mehall, Colorado Springs, CO, and Y. Joseph Woo, Stanford, CA*

The first few years after training are critical and formative to developing a cardiothoracic surgery practice. From private practice to academic settings, a number of pathways to success exist. Junior surgeons are faced with competition, case complexity, and demands for excellent outcomes. This session will focus on finding a niche, developing relationships with referring doctors, and building a successful clinical practice.

Learning Objectives
Upon completion of this activity, participants should be able to:
• Identify the importance of building personal relationships with patients, families, and referring doctors
• Identify different options for developing a clinical niche and leverage a research niche to help grow the practice
• Recognize that outcomes are of utmost importance and when to not take on challenging cases

Early Riser Session 8: Transitions in Your Career—From Clinician to Administrator

Paul J. Corso, Washington, DC, W. Randolph Chitwood, Greenville, SC, and Alan M. Speir, Falls Church, VA

An unintended consequence of the Affordable Care Act has been the disruption of both the administration and delivery of health care. Practices and health systems have been uniformly affected as the uncertainty and confusion over coverage and reimbursement have grown. Cardiothoracic surgeons, as a result of their experience with clinical outcomes in the STS National Database and focus on cost containment, are in a unique position to guide and govern their institutions through these challenging times in health care delivery.

Learning Objectives
Upon completion of this activity, participants should be able to:
• Identify additional training or credentials that might be necessary in order to transition from a clinical to an administrative role
• Recognize process strategies to accomplish such a career alternative
• Learn to anticipate and circumvent the barriers that exist to obstruct such a career change
• Recognize the resources that may aid in the career transition

Early Riser Session 9: Impact of a Functional Heart Team on Prevention and Management of TAVR Complications—A Case-Based Discussion

Richard W. Smalling, Houston, TX, Wilson Y. Szeto, Philadelphia, PA, Vinod H. Thourani, Atlanta, GA, and E. Murat Tuzcu, Cleveland, OH*

In the modern era, patients undergoing cardiac surgery have a choice in endovascular or open traditional surgical therapies. In addition to transcatheter aortic valve replacement (TAVR), which is utilized in patients with severe aortic stenosis, endovascular technology for mitral and aortic"
disease is becoming more common ground. To accommodate this new technology, practicing cardiac surgeons, as a part of a heart team, will be required to integrate changes in their practice, including the infrastructure for patient evaluation, procedural success, and postoperative long-term follow-up. One of the most important aspects of this changing field is the decision for endovascular vs open surgical techniques. Using case-based scenarios, this session will help attendees further appreciate tips and tricks required for mitigating and managing complications associated with endovascular structural heart techniques. Speakers are experts in the use of the hybrid team for optimal patient care.

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

• Evaluate the components required for mitigating complications with TAVR
• Evaluate the steps required to mitigate complications with endovascular mitral valve repair
• Evaluate the components required to mitigate complications associated with endovascular aortic repair

Early Riser Session 10: Charitable Surgical Missions—How to Set Them Up and Things to Avoid

This session will review the basic strategies required to set up a charitable surgical mission. Key structural and process elements necessary to create and sustain a successful charitable surgical mission will be discussed. Potential pitfalls and problems will be considered.

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

• Organize a charitable surgical mission
• Describe the key components necessary to organize a charitable surgical mission
• Recognize the needs assessment necessary to create a charitable surgical mission
• Operationalize the concept of “twinning”

Early Riser Session 11: Coding and Billing in the ICU as a CT Surgeon
Julie R. Painter, Denver, CO, and Jay G. Shake, Temple, TX

This course will provide attendees with the framework to appropriately code and bill for critical care and subsequent care in the cardiothoracic intensive care unit.

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

• Explain current coding systems and outline the appropriate documentation for coding
• Review critical care coding
• Explain coding for physicians in training and non-physician providers
• Identify non-critical care codes
• Identify the utility of extracorporeal membrane oxygenation and ventricular assist device notes

Early Riser Session 12: ABTS 5-Year and 10-Year Milestones
Bryan F. Meyers, St Louis, MO, and Richard J. Shemin, Los Angeles, CA

In response to elevated expectations by the American Board of Medical Specialties (ABMS) and in accordance with trends seen in all other member certifying boards, the American Board of Thoracic Surgery (ABTS) has fine-tuned the requirements for diplomates who face 5-year and 10-year milestones in the Maintenance of Certification (MOC) process. This Early Riser Session will clearly outline expectations that diplomates may face during this process. This session will be useful and pertinent to all ABTS diplomates, but it will be most useful for those in the 4th, 5th, 9th, and 10th year of the ABTS MOC cycle.

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

• Recite their specific requirements for the upcoming 5-year or 10-year MOC milestone
• Describe a suitable QI/QA activity that will satisfy MOC-IV criteria
• Relate to others the evidence and rationale for the MOC process
• Provide feedback to ABTS and ABMS about the process and its impact on their professional activities

7:30 AM – 8:30 AM

Early Riser Health Policy Forum: The End of Global Surgical Payments Under Medicare?
Peter K. Smith, Durham, NC, Larry Bucshon, Newburgh, IN*, and Courtney Yohe, Washington, DC

This session will cover proposed changes to Medicare global payments for surgery. Participants will learn from STS leaders and government officials how new Medicare policies will affect their practice revenue—now and in the future—and what can be done to prevent potentially devastating changes from taking place. An open forum will allow attendees to ask questions about Medicare payment issues.

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

• Describe pending changes to Medicare policy
• Explain how Medicare policy will affect their coding and reimbursement practices and bottom line
• Engage in at least one advocacy activity to prevent harmful changes from taking place

*Invited
 Indicates that a ticket is required to attend.
Tuesday, January 27, 2015

9:00 AM – 12:00 PM
General Session II

Moderators: David A. Fullerton, Aurora, CO, and Keith S. Naunheim, St Louis, MO

9:00 AM  Thomas B. Ferguson Lecture
Pedro J. del Nido, Boston, MA

10:00 AM  Break

10:45 AM  Award Presentations

11:00 AM  C. Walton Lillehei Lecture
Patrick T. O’Gara, Boston, MA

9:00 AM – 3:00 PM
Exhibits Open

9:00 AM – 4:30 PM
Scientific Posters Open

10:00 AM – 10:45 AM
BREAK—Visit Exhibits and Scientific Posters

12:00 PM – 1:00 PM
Residents Luncheon

This luncheon, which is open to all residents, facilitates mentorship and discussion between experienced cardiothoracic surgery leaders and resident attendees. Each attendee will be provided with discussion topics to encourage engagement. Discussion topics will address various types of cardiothoracic surgery training programs, identification of gaps in training, and how STS can continue to support residents as they prepare to enter the workforce. Participants consistently rate the discussions and interaction with leaders as the most valued and appreciated aspect of the luncheon.

1:00 PM – 3:00 PM
Adult Cardiac Session: General I

Moderators: Juan A. Crestanello, Columbus, OH, and Thomas E. MacGillivray, Boston, MA

1:00 PM  Low Incidence of Paravalvular Leakage With the Balloon-Expandable SAPIEN 3 Transcatheter Heart Valve
West-German Heart Center, University of Duisburg-Essen, Germany

1:15 PM  Transcatheter Aortic Valve Replacement (TAVR) With a Self-Expanding Valve and Surgical Aortic Valve Replacement (SAVR) for Aortic Stenosis (AS) in Patients With Prior Coronary Artery Bypass Grafting (CABG)

Names of presenting authors are in bold.

*Invited

Indicates that a ticket is required to attend.

Ethics Debate: Must Surgeons in Training Programs Allow Residents to Operate on Their Patients to Satisfy Board Requirements?

Surgeons are reluctant to allow residents to operate on their patients for many reasons, including concern for patient safety and increasing external scrutiny of surgical results. Yet, to obtain board certification, residents must satisfy requirements for number of operations performed. As the volume of relatively simple operations diminishes, are surgeons in teaching hospitals obligated to allow residents to operate on their patients?

Learning Objectives

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

- Discuss balancing conflicting obligations to teach and care for patients
- Decide how much responsibility to allow residents on ethical grounds
- Identify relevant risks to consider when assigning resident operative responsibilities

Facilitator: Robert M. Sade, Charleston, SC

PRO: Richard G. Ohye, Ann Arbor, MI

CON: James Jaggers, Aurora, CO*

*Invited
Tuesday, January 27, 2015

A Recalibration Tool to Correct the Overestimation of Risk Provided by the STS Online Risk Calculator for Patients Presenting for AVR After Prior CABG: An Analysis Using the STS Adult Cardiac Surgery Database

C. M. Vassilev¹, S. F. Aranki², M. Brennan³, T. Kaneko⁴, X. He⁵, J. S. Gammie⁶, R. M. Sun⁷, V. H. Thourani¹, S. R. Hazelrigg⁸, P. M. McCarthy⁸

¹Southern Illinois University School of Medicine, Springfield, ²Brigham and Women’s Hospital, Boston, MA, ³Mount Sinai Medical Center, New York, NY, ⁴Houston Methodist Hospital, TX, ⁵University of Michigan Health System, Ann Arbor, ⁶University of Pittsburgh, PA, ⁷Aurora Health, Milwaukee, WI, ⁸Kansas University Medical Center, Kansas City, ⁹Beth Israel Deaconess Medical Center, Boston, MA

1:30 PM

Dissection in Patients With Bicuspid Aortic Valve-Associated Aneurysms

C. Wojnarski, J. Idrees, E. E. Roselli, E. Blackstone, L. G. Svennsson, B. W. Lytle

Cleveland Clinic Foundation, OH

1:45 PM

Hemodialysis Patients Undergoing Transcatheter Aortic Valve Replacement in the United States: A Propensity-Matched Comparison

D. Kobrin¹, F. H. McCarthy¹, H. Hermann², S. Anwaruddin¹, S. Kobrin¹, W. Y. Szefo¹, J. E. Bavaria¹, P Groeneveld³, N. Desai¹

¹University of Pennsylvania, Philadelphia, ²Hospital of the University of Pennsylvania, Philadelphia

2:00 PM

Long-Term Outcome of Tricuspid Valve Repair for Functional Tricuspid Regurgitation: The Berlin Experience

A. Khan, E. B. Delno Walter, T. Komoda, R. Hetzer

Deutsches Herzzentrum Berlin, Germany

1:30 PM

Magnitude of Negative Impact of Preoperative Heart Failure on Mortality During Aortic Valve Replacement in the Medicare Population

C. M. Vassileva¹, T. Tellia¹, S. Markwell¹, S. R. Hazelrigg¹

¹Southern Illinois University School of Medicine, Springfield, ²Wayne State University, Detroit, MI

2:15 PM

Diagnostic Balloon Aortic Valvuloplasty as a Modality to Triage Aortic Valve Replacement in Patients With an STS Risk of >15%

K. L. Greason

Mayo Medical Center, Rochester, MN

2:30 PM

Prospective, Randomized Clinical Trial of Titanium Fasteners Compared to Hand-Tied Knots in Open Aortic Valve Surgery: Assessment of Time Savings, Cost, and Safety

C. Y. Lee, J. Lehoux, P. A. Knight

University of Rochester Medical Center, NY

1:00 PM – 3:00 PM

Adult Cardiac Session: Mitral Valve

Moderators: Gorav Allawadi, Charlottesville, VA, and Vinay Bachwar, Pittsburgh, PA

1:00 PM

100% Repairability of Degenerative Mitral Regurgitation: Results of a Dynamic Engineered Approach

G. M. Lawrie¹, W. A. Zoghibi², S. H. Little³, E. A. Earle⁴, N. Earle⁴, D. Shah⁴

¹Texas Surgical Associates, Houston, ²Houston Methodists DeBakey Heart & Vascular Center, TX

1:15 PM

Gender Differences in Patient Presentation, Procedural Aspects, and Early Outcome in Isolated Mitral Valve Surgery

M. Mokhles¹, S. Siregar², M. Versteegh², L. Noyez², B. van Putte¹, A. Vonk³, J. Roos-Hesselink³, A. Bogers¹, J. Takkenberg²

¹Erasmus University Medical Center, Rotterdam, The Netherlands, ²Leiden University Medical Center, The Netherlands, ³University Hospital Nijmegen St Radboud, The Netherlands, ⁴St Antonius Hospital, Nieuwegein, The Netherlands, ⁵VU Medical Center, Amsterdam, The Netherlands

1:30 PM

The Expanding Role of Robotics in Mitral Valve Surgery With and Without Concomitant Procedures: A Single Institutional Experience of 1,257 Consecutive Cases

D. Murphy¹, J. Miller², S. K. Macheers², J. Olsen², A. Herzog¹, S. Drobra², E. L. Sarin², V. H. Thourani², R. Guyton¹, M. E. Halkos²

¹Emory University, Atlanta, GA, ²Emory St Joseph’s Hospital, Atlanta, GA

1:45 PM

The Early Results of Mitral Valve Repair in Barlow Disease With Partial or Complete Rigid Rings: A Propensity-Matched Analysis

C. Muneretto, G. Biskeri, L. Bagozzi, A. Repossini, C. Giacomini, N. Berlinghieri, E. Chiarini

University of Brescia Medical School, Italy

2:00 PM

Early Results of Mitral Valve Repair in Barlow Disease With Partial or Complete Rigid Rings: A Propensity-Matched Analysis

C. Muneretto, G. Biskeri, L. Bagozzi, A. Repossini, C. Giacomini, N. Berlinghieri, E. Chiarini

University of Brescia Medical School, Italy

Names of presenting authors are in bold.
Tuesday, January 27, 2015

2:15 PM
Barlow’s Mitral Valve Disease: A Comparison of Neochordal (Loops) and Edge-to-Edge (Alfieri) Minimally Invasive Repair Techniques
J. da Rocha e Silva, R. Spampinato, B. Pfannmüller, M. Misfeld, F. W. Mohr, M. A. Borger
Leipzig Heart Center, Germany

2:30 PM
Debate: 45-Year-Old, Obese Woman With Barlow’s Valve
Use of Open Resection: David H. Adams, New York, NY*
Use of Minimally Invasive Non-Resection: Michael A. Borger, Leipzig, Germany

1:00 PM – 3:00 PM
Congenital Session: Pediatric Congenital II

Moderators: Jeffrey P. Jacobs, St Petersburg, FL*, and Frank G. Scholl, Hollywood, FL

1:00 PM
Does the Type of Primary Repair Influence Mode of Postrepair Pulmonary Vein Stenosis and Reintervention in Patients With Total Anomalous Pulmonary Venous Drainage?
M. Lo Rito, T. Gazzaz, A. Saedl, D. Chetan, G. S. Van Arsdell, C. A. Cauldronce, S. Yoo, O. Honjo
The Hospital for Sick Children, Toronto, Canada

1:15 PM
Surgical Repair of Pulmonary Atresia/Ventricular Septal Defect/Major Aortopulmonary Collaterals With Absent Intra-pericardial Pulmonary Arteries
S. Carrillo1, R. D. Maitwaring2, W. Patrick2, N. Watanabe1, V. M. Reddy1, F. L. Hanley4
1Lucile Packard Children’s Hospital at Stanford University, Palo Alto, CA, 2Stanford University School of Medicine, CA, 3Stanford University - Falk Center CRVB, CA, 4Stanford University, CA

1:30 PM
Results of Primary Repair vs Shunt Palliation in Ductal-Dependent Infants With Pulmonary Atresia and Ventricular Septal Defect
Emory University, Atlanta, GA

1:45 PM
Surgical Reconstruction of Peripheral Pulmonary Arteries: Strategies, Outcomes, and New Classification
A. Alkhaldi, O. Tamimi
King Abdulaziz Medical City, Riyadh, Saudi Arabia

2:00 PM
Improving Surgical Outcome of Patients With Right Atrial Isomerism Complicated With Pulmonary Atresia and Major Aortopulmonary Collateral Arteries
Y. Ide, M. Murata, K. Sakamoto
Mt Fuji Shizuoka Children’s Hospital, Japan

2:15 PM
Metrics of Surgical Quality Predict Hospital Length of Stay in Patients With Congenital Heart Disease
E. Johnson1, M. Zubari1, L. Armsby1, G. Burch1, M. Good1, M. Lasarevi1, A. Muraida1, S. M. Langley1
1Oregon Health and Science University, Portland, 2Doernbecher Children’s Hospital at Oregon Health and Science University, Portland

2:30 PM
Is Atrioventricular Valve Regurgitation a Risk Factor in Functional Single Ventricle With Heterotaxy Syndrome?
K. Na1, W. Kim1, E. Choi1, S. Cho1
1Seoul National University Hospital, Republic of Korea, 2Seoul National University Children’s Hospital, Republic of Korea

2:45 PM
Skeletonization of the Recurrent Laryngeal Nerve During Norwood and Aortic Arch Repair
K. Sugimoto1, H. Pratap2, C. P. Brizard3, I. Konstantinov1, Y. D’Udekem2
1Royal Children’s Hospital, Melbourne, Australia, 2Royal Children’s Hospital, Parkville, Australia

1:00 PM – 3:00 PM
General Thoracic Session: Esophageal

Moderators: Katie S. Nason, Pittsburgh, PA, and K. Robert Shen, Rochester, MN

1:00 PM
Predictors of Lymph Node Metastasis in Surgically Resected T1 Esophageal Cancer
A. Dubecz1, M. Schweigert1, N. Solymosi1, H. Stein1
1Klinikum Nuremberg, Germany, 2Klinikum Dresden Friedrichstadt, Germany, 3Szent István University, Budapest, Hungary

1:15 PM
Preoperative Chemoradiation Therapy vs Chemotherapy in Patients Undergoing En Bloc Esophagectomy for Locally Advanced Esophageal Adenocarcinoma: Does Radiation Add Value?
J. Spicer1, B. M. Stiles2, M. Sudarshan3, A. Correa4, L. E. Ferri1, N. K. Altorki5, W. L. Hofstetter1
1University of Texas MD Anderson Cancer Center, Houston, 2Weill Cornell Medical College, New York, NY, 3SUNY Stony Brook, 4University of Pittsburgh, 5University of Virginia Health System, Lexington, VA

1:30 PM
Identifying Esophageal Cancer Patients at Risk for Pre- vs Postdischarge Venous Thromboembolism After Esophagectomy and the Case for Selective Extended Chemoprophylaxis
J. T. Martin1, A. Mahan1, V. A. Ferraris2, S. P. Saha3, T. W. Muller4, J. B. Zwischenberger5, C. Tseng1
1University of Kentucky, Lexington, 2University of Kentucky Chandler Medical Center, Lexington, 3Stanford University, 4Baylor College of Medicine, 5University of Texas Medical Branch, Galveston, TX

*Invited

Names of presenting authors are in bold.
Tuesday, January 27, 2015

1:00 PM – 3:00 PM

General Thoracic Session: Lung Cancer II

Moderators: Jessica S. Donington, New York, NY, and Michael Lanuti, Boston, MA

1:00 PM

A Decision and Cost-Effectiveness Analysis of Surgical Resection in Clinical Stage IIIA Non-Small Cell Lung Cancer at Academic and Non-Academic Centers


1Washington University in St Louis School of Medicine, MO; 2Washington University School of Medicine, St Louis, MO; 3Barnes-Jewish Hospital/ Washington University in St Louis, MO; 4St Luke’s Hospital, Chesterfield, MO

1:15 PM

The Impact of Lymph Nodes Downstaging on Survival

After Induction Chemotherapy for pN2 Non-Small Cell Lung Cancer

L. Spaggiari, M. Casiraghi, A. Borri, F. Petrella, P. Solli, J. Guarize, P. Maisonneuve

European Institute of Oncology, Milan, Italy

1:30 PM

The Effects of a Multidisciplinary Care Conference on the Timeliness, Quality, and Cost of Care in Patients With Non-Small Cell Lung Cancer

R. K. Freeman, A. J. Ascioti, M. Dake, R. Mahidhara

St Vincent Hospital and Health System, Indianapolis, IN

1:45 PM

Salvage Pulmonary Resection for Stage III Non-Small Cell Lung Cancer After High-Dose Chemoradiotherapy

K. Suzuki1, S. Oh2, T. Matsunaga2, K. Takamochi2

1Juntendo School of Medicine, Tokyo, Japan; 2Juntendo University, Tokyo, Japan

2:00 PM

Debate: Persistent N2 Disease Following Induction Therapy

PRO: Stephen G. Swisher, Houston, TX

CON: Scott J. Swanson, Boston, MA

1:45 PM

Development of a Risk Score Model Using Preoperative Variables to Predict Mortality and Major Morbidity After Esophagectomy

J. J. Reinersman1, E. Habermann1, M. S. Allen1, C. Deschamps2, K. Thomsen3, F. C. Nichols1, K. Shen1, D. A. Wigle1, S. D. Cassivi1

1Mayo Clinic, Rochester, MN; 2Fletcher Allen Health Care - University of Vermont, Burlington

2:00 PM

Minimally Invasive vs Open Esophagectomy for Esophageal Cancer: A Comparison of Outcomes From The Society of Thoracic Surgeons National Database

S. Siha0g, A. Kosinski2, P. H. Schipper2, H. Gaisser1

1Massachusetts General Hospital, Boston, 2Duke Clinical Research Institute, Durham, NC; 3Oregon Health and Science University, Portland

2:15 PM

Measuring Survival Benefit of Postresection Adjuvant Chemotherapy for Patients With Positive Lymph Nodes After Induction Chemoradiotherapy and Resection of Esophageal Cancer

A. Brescia1, J. Musick2, J. Bell3, T. Crabtree2, B. Meyers4

1St Louis University School of Medicine, MO; 2Barnes-Jewish Hospital/Washington University in St Louis, MO; 3Washington University School of Medicine, St Louis, MO; 4Washington University School of Medicine, St Louis, MO

2:30 PM

Optimizing Functional Outcome After Esophagectomy

Kenneth A. Kesler, Indianapolis, IN

2:45 PM

Serial Drain Amylase Levels Are Better than Barium Swallow in Ruling Out Anastomotic Leak Following Esophagectomy and May Safely Allow for Early Discharge

P. A. Linden, Y. Perry, J. Kwong

University Hospitals Case Medical Center, Cleveland, OH

1:00 PM – 3:00 PM

Patient Safety Symposium: Building a High-Performance Team for Patient Safety

Cardiothoracic surgeons oversee multidisciplinary teams in a complex environment, not unlike high-functioning teams in sports, aviation, and the military. The competencies addressed in this symposium are targeted at team building and include: adopting tools to assess situational awareness in the operating room, using simulation training to enhance technical skills, employing checklists to optimize team performance during crisis situations, and developing leadership skills related to information transfer and communication. These competencies will be addressed through a series of individual lectures, panel discussions, and audience interactions.

Learning Objectives

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

• Identify characteristics of high-functioning teams
• Describe strategies to assess and develop leadership skills
• Identify ways to implement simulation team training for new technology
• Describe the benefit of crisis checklists and drills for team training
• Define opportunities for team building and training with patient safety objectives

Moderators: Stephen D. Cassivi, Rochester, MN, and J. Michael DiMiao, Dallas, TX
### Tuesday, January 27, 2015

<table>
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<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
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<td>1:00 PM</td>
<td>Welcome and Introduction</td>
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<tr>
<td>1:05 PM</td>
<td>Building Leadership in Patient Safety Within the Hospital Setting</td>
<td>Susan D. Moffatt-Bruce, Columbus, OH</td>
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<td>1:30 PM</td>
<td>Standardization: Why Bother?</td>
<td>Dann Runik, Dallas, TX</td>
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<td>2:05 PM</td>
<td>Building a Culture of Teamwork: Lessons From the Battlefield</td>
<td>Walter B. Franz III, Rochester, MN*</td>
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<td>2:30 PM</td>
<td>Panel Discussion and Questions</td>
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<td>2:55 PM</td>
<td>Summary</td>
<td>J. Michael DiMaio, Dallas, TX</td>
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### 1:00 PM – 3:00 PM

**STS/EACTS: Management of the Aortic Arch in Aortic Dissection**

This session, presented by STS and the European Association for Cardio-Thoracic Surgery, concentrates on dilemmas at the arch faced by all cardiac surgeons who repair acute type A aortic dissections.

**Learning Objectives**

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

- Explain the rationale for arch reconstruction in acute type A aortic dissection
- Evaluate when to proceed with hemiarch vs extensive total arch reconstruction in acute type A dissection
- Identify the role of distal aortic endografting and potential aortic remodeling during the treatment of acute type A dissection

**Moderators:** Joseph E. Bavaria, Philadelphia, PA, and Ruggero De Paulis, Rome, Italy

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<th>Time</th>
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<tr>
<td>1:00 PM</td>
<td>Technical Arch Options for Type A Dissection</td>
<td>Joseph E. Bavaria, Philadelphia, PA, and Ruggero De Paulis, Rome, Italy</td>
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<td></td>
<td></td>
<td>*Second University of Naples, Italy, Az dei Colli, Naples, Italy, Monaldi Hospital, Naples, Italy</td>
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<td>1:30 PM</td>
<td>Hybrid Type II Debranching Arch for Acute DeBakey I Dissection</td>
<td>Jehangir J. Appoo, Calgary, Canada</td>
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### 1:45 PM

**Aggressive Aortic Arch Replacement Strategy for Type A Dissection Based on Carotid Arterial Involvement or Intra-Arch Tear: Following a Strict Neurocerebral Protection Protocol Improves Outcomes**

D. Trivedi, F. Navid, J. Babiz, T. G. Gleason

University of Pittsburgh, PA

<table>
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<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
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<tr>
<td>2:00 PM</td>
<td>Frozen Elephant Trunk for DeBakey Type I Dissection</td>
<td>Malak L. Shrestha, Hannover, Germany</td>
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<td>2:15 PM</td>
<td>Optimal Technical Strategy for Acute DeBakey I Dissection: The Zone 2 Arch (Video)</td>
<td>Nimesh Desai, Philadelphia, PA</td>
</tr>
<tr>
<td>2:45 PM</td>
<td>Optimal Technical Strategy for Acute DeBakey I Dissection: Antegrade Thoracic Endovascular Aneurysm Repair With Hemi-Arch Procedure</td>
<td>Alberto Pochettino, Rochester, MN*</td>
</tr>
</tbody>
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### 2:00 PM – 4:00 PM

**NEW! Strategies to Improve Outcomes With Long-Term Mechanical Circulatory Support Devices**

Advanced mechanical device technologies for cardiac and pulmonary support are providing new opportunities for both temporary and long-term patient treatment options. Two sessions, one on Monday and the other on Tuesday, will cover the complexities of patient management and new mechanical circulatory support (MCS) device technologies associated with initiating and maintaining an advanced technologies program.

This session offers a series of lectures, followed by abstract presentations on long-term MCS, including durable implantable devices, and will address patient selection and new technologies and devices.

**Learning Objectives**

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

- Identify a comprehensive selection of long-term devices
- Explain the importance of proper patient selection and timing of intervention
- Describe the complex infrastructure necessary to support a mechanical circulatory assist program
- Identify pitfalls in peri- and postoperative management
- Describe regulatory oversight of MCS therapy

**Moderators:** Joseph C. Cleveland Jr, Aurora, CO, and Nahush A. Mokadam, Seattle, WA

*Invited Names of presenting authors are in **bold.**
Tuesday, January 27, 2015

1:00 PM  
Alternative Surgical Approaches to Device Implantation: Evidence for a Better Outcome?  
Edwin C. McGee, Chicago, IL*

1:15 PM  
Putting the Pulse Back Into Continuous Flow Pumps: Importance of Pulse and MCS Device Complications  
Robert L. Kormos, Pittsburgh, PA

1:30 PM  
Optimal Management of Valvular Heart Disease at MCS Device Implant  
Scott C. Silvestry, St Louis, MO

1:45 PM  
Increasing Frequency of Left Ventricular Assist Devices Exchange in the United States: Is There Cause for Concern?  
F. H. McCarthy¹, D. Kobrin¹, J. Rame¹, P. Groeneveld², M. A. Acker¹, N. Desai⁵  
¹University of Pennsylvania, Philadelphia, ²University of Pennsylvania Medical Center, Philadelphia

2:00 PM  
Left Ventricular Assist Device Inflow Position and Pump Migration Adversely Impact LVAD Function  
T. Kazui¹, A. Zhang¹, J. Greenberg³, A. Itoh¹, A. Keith¹, G. Ewald¹, S. C. Silvestry⁶  
¹Barnes-Jewish Hospital/Washington University in St Louis, MO, ²Washington University School of Medicine, St Louis, MO, ³Barnes-Jewish Hospital/Washington University in St Louis, MO

2:15 PM  
Contributory Role of PET-CT in Diagnosis and Clinical Management of Infections in Patients Supported With a Continuous-Flow Left Ventricular Assist Device  
A. Maria Dell Aquila¹, S. Mastrobuoni², S. Alles¹, J. Sindermann¹, M. Scherer¹  
¹University Hospital Münster, Germany, ²St Luc’s Hospital, Universite Catholique du Louvain, Brussels, Belgium

*Invited
Names of presenting authors are in bold.

2:30 PM  
Long-Term Progression of Aortic Insufficiency Is Less in Patients Supported With HVAD LVADs Compared to HeartMate II Patients  
S. C. Silvestry¹, T. Kazui¹, A. Keith¹, G. Ewald¹, A. Itoh³  
¹Washington University in St Louis, MO, ²Washington University School of Medicine, St Louis, MO, ³Barnes-Jewish Hospital/Washington University in St Louis, MO

2:45 PM  
Discussion

1:00 PM – 5:00 PM  
JCTSE/STS Workforce on International Relationships: Globalization of Graduate Surgical Education in Cardiothoracic Surgery

This session, from the Joint Council on Thoracic Surgery Education, Inc and the STS Workforce on International Relationships, will focus on new educational approaches to cognitive and technical skills acquisition for trainees in cardiothoracic surgery. Featured speakers from around the world will explain how the Internet and electronic options, such as learning management systems, are rapidly allowing the globalization of educational approaches from preschool to graduate medical education. This session will also describe how these options can be implemented into surgical education on a global scale and how the global population of patients with cardiothoracic disease will be impacted.

Learning Objectives

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

- Outline what role e-learning systems can play in the instruction and assessment of cardiothoracic surgical training
- Define the global initiatives in cardiothoracic surgical education
- Discuss if current electronic content and learning management systems can contribute to the globalization of quality resident education
- Evaluate how much individualization of e-learning systems is necessary for adoption in the global marketplace
- Estimate the reasonable cost expectations in e-learning should the thoracic surgical community consider such a direction
- Identify the barriers to globalizing resident education in cardiothoracic surgery

Moderator: Edward D. Verrier, Seattle, WA

1:00 PM  
Welcome and Introduction

1:10 PM  
Standards for Technical Skill Proficiency: Can Such Skills Be Measured and Applied?  
James I. Fann, Stanford, CA, and Paul T. Sergeant, Leuven, Belgium

1:25 PM  
Discussion
Tuesday,
January 27, 2015

1:40 PM  JCTSE Creation of a Content and Learning Management System: Potential Global Applicability
Craig J. Baker, Los Angeles, CA, and Stephen C. Yang, Baltimore, MD

1:55 PM  Discussion

2:10 PM  Intercollegiate Surgical Curriculum Programme: Lessons Learned in Curriculum Development/Can Such Efforts Be Globalized?
Chris Munsch, Leeds, United Kingdom

2:25 PM  Discussion

2:40 PM  Can Formative Feedback and Electronic Curriculum Design Provide Meaningful Alternatives to Summative Examinations?
Ara A. Vaporciyan, Houston, TX

2:55 PM  Discussion

3:10 PM  Break

3:25 PM  Perspectives of the European Board of Thoracic and Cardiovascular Surgery: Are Credentialing Standards Local?
Timothy R. Graham, Birmingham, United Kingdom, and Jose L. Pomar, Barcelona, Spain

3:40 PM  Discussion

3:55 PM  Perspectives of the Asian Society of Cardiovascular and Thoracic Surgery: Representing 60% of the World Population and Immense Surgical Training Challenges
Yuichi Ueda, Nara, Japan

4:10 PM  Discussion

4:20 PM  Perspectives of the Brazilian Society of Cardiovascular Surgery: Would Standardizing the Curriculum Improve Competency?
Adib D. Jatene, São Paulo, Brazil, and Walter J. Gomes, São Paulo, Brazil

4:35 PM  Discussion

4:45 PM  Panel Discussion
Friedhelm Beyersdorf, Freiburg, Germany, Kotturathu M. Cherian, Chennai, India, Kazuhiro Hashimoto, Tokyo, Japan, and A. Pieter Kappetein, Rotterdam, The Netherlands

3:30 PM – 5:30 PM
Adult Cardiac Session: Aortic Valve

Moderators: Wilson Y. Szeto, Philadelphia, PA, and Vinod H. Thourani, Atlanta, GA

3:30 PM  Transfemoral Transcatheter Aortic Valve Replacement Will Replace Aortic Valve Replacement in Aortic Stenosis Patients by 2017: Will You Be Left Behind?
Joseph E. Bavaria, Philadelphia, PA

3:45 PM  Techniques for and State-of-the-Art Lecture for Aortic Valve Repair in Patient With Aortic Insufficiency
Gebrine El-Khoury, Brussels, Belgium

4:00 PM  The Prognostic Impact of Chronic Lung Disease in 12,139 Patients Undergoing Transcatheter Aortic Valve Replacement: Results From the STS/ACC TVT Registry™

4:15 PM  Early Surgery for Infective Endocarditis With Cerebral Emboli Is Not Associated With Worsened Postoperative Outcomes

3:00 PM – 3:30 PM
BREAK—Visit Scientific Posters
Tuesday, January 27, 2015

3:30 PM – 5:30 PM
Adult Cardiac Session: General II

**Moderators:** Rosemary F. Kelly, Minneapolis, MN, and Alan M. Speir, Falls Church, VA

**3:30 PM**

Frailty in the Cardiac Surgical Patient: How Should We Measure It?
L. Halpin, S. Holmes, C. Miller, D. Lamont, D. Shuman, N. Ad
Inova Heart and Vascular Institute, Falls Church, VA

**3:45 PM**

HITting the Target: A Retrospective Quality Review of the Diagnosis and Treatment of Heparin-Induced Thrombocytopenia (HIT) in a Quaternary Center
J. Konen, K. Nguyen, C. Swenson, M. Merren, T. Wainscott, A. Timek, P. Wilton

West Michigan Cardiothoracic Surgeons PLC, Grand Rapids, MI, Michigan State University College of Human Medicine, East Lansing, Michigan State University College of Human Medicine, East Lansing/Spectrum Health, Grand Rapids, MI

**4:00 PM**

Outcomes of Elective Ascending Aorta Repair: Comparison of Isolated vs Multicomponent Operations
Cleveland Clinic Foundation, OH

**4:15 PM**

Preoperative Renal Function Predicts Hospital Costs and Length of Stay in Coronary Artery Bypass Grafting: A Society of Thoracic Surgeons National Database Analysis

Mid-Atlantic Cardiotoracic Surgeons Ltd, Norfolk, VA, University of Virginia, Charlottesville, University of Virginia Health System, Charlottesville, Virginia Commonwealth University, Richmond, Cardiac Vascular & Thoracic Surgery Associates, Falls Church, VA

**4:30 PM**

Renal Dysfunction and Hemodilution: What Is the Acceptable Hematocrit Threshold on Cardiopulmonary Bypass?
P. Narayan, R. Ghatakanth, A. Tel, K. Roy Chowdhuri, A. Mondal, G. Sengupta, M. Datta

NH RN Tagore Hospital, Kolkata, India, SSKM Hospital and IPGME&R, Kolkata, India, Shri B.M.Patil Medical College, Bijapur, India

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Names of presenting authors are in **bold**.

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4:30 PM
Sutureless vs Sutured Bioprostheses: A Single Center, Propensity-Matched Study
A. Messina, E. Villa, M. Cirillo, M. Dalla Tomba, G. Troise
Policlinico Foundation Hospital, Brescia, Italy

4:45 PM
Transcatheter Aortic Valve Replacement in 531 Nonagenarians: An Analysis of the PARTNER Randomized and Nonrandomized Continued Access Trial

Emory University, Atlanta, GA, University of Washington, Seattle, Cleveland Clinic, OH, Mayo Clinic, Rochester, MN, University of Washington Medical Center, Seattle, Columbia University Medical Center, New York, NY, Cardiovascular Intervention Center, Los Angeles, CA, Medstar Washington Hospital Center, Washington, DC, University of Pennsylvania, Philadelphia, Emory University School of Medicine, Atlanta, GA, University of Virginia Health System, Charlottesville, Washington University School of Medicine, St Louis, MO, Baylor University, Plano, TX

5:00 PM
Contemporary Outcomes of Reoperative Aortic Valve Replacement: A Reference Guide to Valve-In-Valve Transcatheter Aortic Valve Replacement—Findings From the STS Adult Cardiac Surgery Database

Brigham and Women’s Hospital, Boston, MA, Southern Illinois University School of Medicine, Springfield, Duke University Medical Center, Durham, NC, Mayo Clinic, Rochester, MN, Emory University, Atlanta, GA, Duke University, Durham, NC

5:15 PM
Five-Year Clinical and Hemodynamic Outcomes Following Transcatheter Aortic Valve Implantation

University of Padova, Italy
Tuesday, January 27, 2015

4:45 PM  Establishing the “Real World” Cost-Effectiveness of Transcatheter Aortic Valve Replacement: A Propensity-Matched STS National Database Analysis
G. Alsalwadi1, D. J. LaPar2, A. M. Speir1, R. K. Ghanta2, I. Crosby2, M. A. Quader2, J. B. Rich1
1Cardiac, Vascular & Thoracic Surgery Associates, Falls Church, VA, 2University of Virginia Health System, Charlottesville, 3University of Virginia, Charlottesville, 4Virginia Commonwealth University, Richmond, 5Mid-Atlantic Cardiotoracic Surgeons Ltd, Norfolk, VA

5:00 PM  Is Ascending Aorta Replacement During Aortic Valve Replacement Free of Risk?
J. Goldberg1, J. Kim2, S. Melnitchouk2, J. N. Baker2, J. D. Walker1, G. Vlahakes2, T. E. MacGillivray2, T. M. Sundt1
1Massachusetts General Hospital, Harvard Medical School, Boston, 2Kobe University Graduate School of Medicine, Japan

5:15 PM  Mid-Term Results of Valve-Sparing Aortic Root Replacement in Patients With Expanded Indications
S. Miyahara1, K. Yamanaka1, Y. Nomura1, N. Morimoto, T. Inoue1, M. Matsumori2, K. Okada2, Y. Okita2
1Kobe University, Japan

3:30 PM – 5:30 PM  Cardiothoracic Surgical Education
Moderators: Shari L. Meyerson, Chicago, IL, and Ara A. Varpociyan, Houston, TX

3:30 PM  Automated Video Analysis of Surgical Dexterity Correlates Highly With Expert Evaluation: Proof of Concept for a New Technique to Expand Surgical Simulation Training
E. L. Sarin1, Y. Sharma2, M. E. Hakos1, V. H. Thouarani1, I. Essa2
1Emory University, Atlanta, GA, 2Georgia Institute of Technology, Atlanta

3:45 PM  A Decade of Change: Training and Career Paths of Cardiothoracic Surgery Residents 2003-2014
1Columbia University, New York, NY, 2Emory University, Atlanta, GA, 3University of Virginia, Charlottesville, 4University of Rochester Medical Center, NY, 5Pinnacle Health, Harrisburg, PA, 6Duke University Medical Center, Durham, NC, 7Bluhm Cardiovascular Institute of Northwestern University, Chicago, IL, 8University of Rochester Medical Center, NY, 9Texas Children’s Hospital / Baylor College of Medicine, Houston, 10University of Iowa Hospitals and Clinics, Iowa City, 11University of Mississippi Medical Center, Jackson, 12University of Texas Houston - Memorial Hermann, 13University of Pittsburg, PA, 14Cleveland Clinic Foundation, OH, 15Medical University of South Carolina, Charleston, 16University of Texas Health Science Center at San Antonio, 17Massachusetts General Hospital, Boston, 18University of Washington, Seattle

4:00 PM  A Case Simulator to Help Evaluate Residency Program Volume in an Era of Changing Technology
T. Grenda1, T. Ballard1, A. Obi1, W. Pozehl1, R. Chen1, J. Daskin1, F. Seagull1, A. Cohn1, R. M. Reddy1
1University of Michigan, Ann Arbor, 2University of Michigan Medical School, Ann Arbor, 3Center for Healthcare Engineering and Patient Safety, University of Michigan, Ann Arbor

4:15 PM  Predictors of Career Choice Among Cardiothoracic Surgery Trainees
1University of Rochester Medical Center, NY, 2Pinnacle Health, Harrisburg, PA, 3Duke University Medical Center, Durham, NC, 4Bluhm Cardiovascular Institute of Northwestern University, Chicago, IL, 5Columbia University, New York, NY, 6University of Texas Houston - Memorial Hermann, 7University of Virginia, Charlottesville, 8University of Pittsburgh, PA, 9Cleveland Clinic Foundation, OH, 10Emory University, Atlanta, GA, 11University of North Carolina, Chapel Hill, 12University of Texas Health Science Center at San Antonio, 13Massachusetts General Hospital, Boston, 14University of Washington, Seattle

4:30 PM  Recruiting the Best and Brightest Into Cardiothoracic Surgery: Medical Student Summer Scholars Program Revisited
R. S. Higgins1, A. Kilic1, V. C. Daniel1, R. E. Merritt1, S. D. Moffatt-Bruce1, J. A. Crestanello1, B. A. Whittington1, C. Ferguson1, T. Williams1, P. Ross1
1The Ohio State University, Columbus, 2The Ohio State University Wexner Medical Center, Columbus

Names of presenting authors are in bold.
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
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| 4:45 PM   | Training Surgical Assistants Can Improve the Process of Adoption of Video-Assisted Thoracic Surgery (VATS) Lobectomy | S. L. Meyerson*, S. Balderson*, T. D’Amico*  
*Northwestern University, Chicago, IL,  
*Duke University Medical Center, Chapel Hill, NC |
| 5:00 PM   | Basic Cardiac Surgery Skills on Sale for $22.50                               | M. Kunkala, P. G. Rowse, R. Ruparel, Z. Li, D. Farley, L. D. Joyce, J. M. Stulak  
Mayo Clinic, Rochester, MN |
| 4:00 PM   | The Impact of Thoracic Residents on Surgical Outcomes and Failure to Rescue Patients Having Noncardiac Thoracic Operations | V. A. Ferraris*, J. T. Martin*, A. Mahan*, S. R. Saha*  
*University of Kentucky Chandler Medical Center, Lexington,  
*University of Kentucky, Lexington |

### 3:30 PM – 5:30 PM

**Congenital Session: Pediatric Congenital III**

**Moderators:** Bret A. Mettler, Nashville, TN, and Glen S. Van Arsdell, Toronto, Canada*

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<th>Time</th>
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<td>3:30 PM</td>
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*Royal Children’s Hospital, Melbourne, Australia,  
*The Hospital for Sick Children, Toronto, Canada,  
*Royal Children’s Hospital, Parkville, Australia |
| 4:00 PM   | Cardiopulmonary Bypass Prime Volume Impacts Perioperative Adverse Outcomes in Pediatric Cardiac Surgery | A. Muralidaran*, M. Zubair*, A. Hohimer*, M. Lasarev*, J. You*, S. M. Langley*  
*Doenbecher Children’s Hospital at Oregon Health & Science University, Portland,  
*Oregon Health & Science University, Portland |

### 4:00 PM – 5:00 PM

**General Thoracic Session: Mediastinal/Pulmonary**

**Moderators:** Leah M. Backhus, Seattle, WA, and Christopher R. Morse, Boston, MA

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<th>Time</th>
<th>Topic</th>
<th>Authors</th>
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Emory University, Atlanta, GA |
| 4:30 PM   | Perioperative Vasopressin Results in Reduced Length of Hospital Stay After the Fontan Operation | T. S. Kumar*, C. J. Knott-Craig*  
*Rama Krishna Nursing Home, Trichy, India,  
*Le Bonheur Children’s Hospital, Memphis, TN |
| 4:45 PM   | Anomalous Aortic Origin of the Coronary Arteries With Intramural Course: Mid-Term Results Using Patch Angioplasty | N. Carvalho Guerra*, G. Nesseris*, S. Ramanan*, X. G. Roques*, F. Roubertie*  
*Hospital de Santa Maria, Lisbon, Portugal,  
*University of Padova, Italy,  
*Medical College of Calicut, India,  
*Bordeaux Heart University Hospital, Pessac, France,  
*CHU Bordeaux, France |

*Invited
Names of presenting authors are in **bold.**
### 3:45 PM
**PET-Negative Mediastinum Does Not Assure Freedom From N1 and N2 Lymph Nodes in Clinical Stage 1A and 1B Lung Cancer**

_H. J. Soukiasian, D. Liou, H. Merry, R. McKenna_
Cedars-Sinai Medical Center, Los Angeles, CA

### 4:00 PM
**Pneumonectomy for Locally Advanced Non-Small Cell Lung Cancer (NSCLC): The Impact of Neoadjuvant Therapy**


1. St Luke's Hospital, Chesterfield, MO
2. Washington University School of Medicine, St Louis, MO
3. Barnes-Jewish Hospital/Washington University in St Louis, MO

### 4:15 PM
**Idiopathic Subglottic Stenosis: Factors Affecting Outcome Following Single-Stage Repair**

_H. Wang, C. D. Wright, J. C. Wain, H. C. Ott, D. J. Mathisen_
Massachusetts General Hospital, Boston

### 4:30 PM
**Surgical Techniques and Long-Term Results of Pulmonary Artery Reconstruction in Patients With Non-Small Cell Lung Cancer**

_D. Galetta, A. Borri, R. Gasparri, F. Petrella, L. Spaggiari_
European Institute of Oncology, Milan, Italy

### 4:45 PM
**Incidence and Factors Associated With Hospital Readmission Following Pulmonary Lobectomy**

New York Presbyterian Hospital - Weill Cornell Medical College, NY

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**NEW! ESTS @ STS: Controversial Issues in General Thoracic Surgery—Perspectives From Europe and North America**

This collaborative session by STS and the European Society of Thoracic Surgeons will provide current perspectives from Europe and North America on a variety of controversial issues in general thoracic surgery. Expert thoracic surgeons will discuss topics, including the surgical management of malignant mesothelioma, CT screening for lung cancer, credentialing surgeons for new technologies and procedures, and the role of robotics in the surgical management of lung and esophageal malignancies.

**Learning Objectives**

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

- Describe the surgical treatment options for malignant mesothelioma
- Review the challenges in CT screening for lung cancer
- Recognize the challenges for safely credentialing general thoracic surgeons in new technologies or procedures
- Discuss the role of robotics in the surgical management of lung and esophageal malignancies

**Moderators:** Sean C. Grondin, Calgary, Canada, and Dirk E. M. Van Raemdonck, Leuven, Belgium

### 3:30 PM – 5:30 PM

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<th>Session Title</th>
<th>Presenter(s)</th>
<th>Location</th>
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<tr>
<td>3:30 PM</td>
<td>Introduction</td>
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<tr>
<td>3:32 PM</td>
<td>Surgical Management of Malignant Mesothelioma: European Perspective</td>
<td>Isabelle Opitz, Zurich, Switzerland</td>
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<tr>
<td>3:42 PM</td>
<td>Surgical Management of Malignant Mesothelioma: North American Perspective</td>
<td>Marc De Perrot, Toronto, Canada</td>
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<td>3:52 PM</td>
<td>Panel Discussion</td>
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<tr>
<td>4:00 PM</td>
<td>Challenges in CT Screening for Lung Cancer: European Perspective</td>
<td>Gaetano Rocco, Naples, Campania, Italy</td>
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<tr>
<td>4:10 PM</td>
<td>Challenges in CT Screening for Lung Cancer: North American Perspective</td>
<td>Douglas E. Wood, Seattle, WA</td>
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<td>4:20 PM</td>
<td>Panel Discussion</td>
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<td>4:30 PM</td>
<td>Challenges in Credentialing Surgeons in New Technologies or Procedures: European Perspective</td>
<td>Gilbert Massard, Strasbourg, France</td>
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### Tuesday, January 27, 2015

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>4:40 PM</td>
<td>Challenges in Credentialing Surgeons in New Technologies or Procedures: North American Perspective</td>
<td>Shanda H. Blackmon, Rochester, MN</td>
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<tr>
<td>4:50 PM</td>
<td>Panel Discussion</td>
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<tr>
<td>5:00 PM</td>
<td>Role of Robotics in the Surgical Management of Lung and Esophageal Malignancies: European Perspective</td>
<td>Alper S. Toker, Istanbul, Turkey*</td>
<td>47</td>
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<td>5:10 PM</td>
<td>Role of Robotics in the Surgical Management of Lung and Esophageal Malignancies: North American Perspective</td>
<td>Robert J. Cerfolio, Birmingham, AL</td>
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<td>5:20 PM</td>
<td>Panel Discussion</td>
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<td>5:28 PM</td>
<td>Closing Remarks</td>
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#### 3:30 PM – 5:30 PM

**SVS @ STS**

This session will focus on vascular surgery topics relevant to practicing cardiothoracic surgeons. Cardiothoracic and vascular surgeons will provide perspectives on the contemporary management of type B aortic dissection—both acute (uncomplicated/complicated) and chronic dissection—as well as on the management of severe carotid stenosis (asymptomatic/symptomatic) in patients undergoing coronary artery bypass grafting (CABG) surgery.

**Learning Objectives**

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

- Formulate a plan based on published data for management of patients with severe carotid stenosis undergoing CABG surgery
- Identify treatment options for patients with acute and chronic type B dissection
- Describe the advantages and disadvantages of best medical management vs endovascular intervention in type B dissection

**Moderators:** A. Michael Borkon, Kansas City, MO*, and Jason T. Lee, Stanford, CA

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<tr>
<td>3:30 PM</td>
<td>Long-Term Survival and Quality of Life After Extent II Thoracoabdominal Repair in Marfan Syndrome</td>
<td>R. Ghanta¹, M. Price¹, C. Naty², O. A. Preventza², K. de la Cruz², S. A. Lemaire², J. S. Coselli²</td>
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<tr>
<td></td>
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<td>¹Baylor College of Medicine/Texas Heart Institute, Houston, ²Baylor College of Medicine, Houston, TX</td>
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<td>3:45 PM</td>
<td>Nationwide Outcomes Following Open Descending Thoracic Aortic Repair: An Analysis of Over 5,000</td>
<td>J. Schaffer¹, B. Lingala¹, M. Dake¹, Y. J. Woo¹, R. Mitchell¹, D. Miller¹</td>
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<td>Medicare Patients</td>
<td>¹Stanford Hospital and Clinics, Palo Alto, CA, ²Stanford University School of Medicine, CA, ³Stanford University Medical Center, CA</td>
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<td>4:00 PM</td>
<td>Vascular Access for TEVAR/TAVR: Thinking Out of the Box</td>
<td>Keith B. Allen, Kansas City, MO</td>
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<td>4:15 PM</td>
<td>Results and Experience With Open vs Endoconduits for Femoral Approaches</td>
<td>Ravi Veeraswamy, Atlanta, GA</td>
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<tr>
<td>4:30 PM</td>
<td>Management of Descending Aorta With Type A Dissection</td>
<td>Eric E. Roselli, Cleveland, OH</td>
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<td>4:45 PM</td>
<td>Lessons Learned With TEVAR in the Ascending Aorta</td>
<td>Rodney A. White, Torrance, CA</td>
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<td>5:00 PM</td>
<td>Traumatic Aortic Disruption: Prioritizing Repair</td>
<td>Anthony L. Estrera, Houston, TX</td>
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<td>5:15 PM</td>
<td>Controversies Surrounding Traumatic TEVAR</td>
<td>Mark A. Farber, Chapel Hill, NC</td>
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*Names of presenting authors are in **bold**.

**NEW! Role of SBRT in Lung Cancer Treatment**

Stereotactic body radiation therapy (SBRT) is becoming a frequent choice for treatment of lung cancer in high-risk or non-surgical patients. This session is designed to update the latest available data on SBRT and debate its potential role in surgically appropriate patients. Included is a discussion of how a surgeon can get involved in an SBRT program.

**Learning Objectives**

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

- Describe contemporary results of SBRT in lung cancer
- Outline the essential elements and practical aspects of starting an SBRT program with surgeon involvement
- Explain the role of alternative minimally invasive treatments for lung cancer in high-risk surgical patients

**Moderators:** Neil A. Christie, Pittsburgh, PA*, and Stephen R. Hazelrigg, Springfield, IL

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<tr>
<td>3:30 PM</td>
<td>Contemporary Results With SBRT</td>
<td>Robert Timmerman, Dallas, TX</td>
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<td>4:00 PM</td>
<td>Comparison of Surgical Results and SBRT</td>
<td>Traves Crabtree, St Louis, MO</td>
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<tr>
<td>4:30 PM</td>
<td>Role of Alternate Minimally Invasive Treatments for Lung Cancer</td>
<td>Hiran C. Fernando, Boston, MA</td>
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<tr>
<td>4:45 PM</td>
<td>Integration of SBRT/Ablative Techniques Into a Surgeon’s Practice—The UPMC Approach</td>
<td>Neil A. Christie, Pittsburgh, PA*</td>
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<td>5:00 PM</td>
<td>Roundtable Discussion: The Future Role of SBRT in Early Stage Lung Cancer</td>
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*Invited
Wednesday, January 28, 2015

**6:30 AM – 9:30 AM**
Registration: STS University

**7:00 AM – 9:00 AM and repeated 9:30 AM – 11:30 AM**
STS University

STS University provides attendees with hands-on experience in a variety of cardiothoracic procedures. No didactic lectures are given; instead, lecture materials will be posted online prior to the meeting. Registrants will be e-mailed a link to course videos. Check www.sts.org/annualmeeting for updates.

**Course 1: TAVR/TEVAR, Guidewires, and Sheaths**
**Course Directors:** Michael P. Fischbein, Stanford, CA, and Wilson Y. Szeto, Philadelphia, PA

New wire skills are required for transcatheter aortic valve replacement (TAVR) and thoracic endovascular aortic repair (TEVAR). This course will introduce attendees to wires, catheters, and novel endovascular techniques for the treatment of aortic stenosis and thoracic aortic disease. The hands-on lab experience will provide participants with the opportunity to either practice or observe an expert perform a variety of procedures utilizing the latest technology, including transfemoral, direct aortic, left subclavian, and transapical TAVR, as well as all aspects of TEVAR.

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

- Compare techniques for transfemoral, direct aortic, subclavian artery, and TAVR
- Classify the techniques required to expertly perform TEVAR and practice the implant procedure with consideration of technical pitfalls
- Compare and appraise techniques with different wires and catheters used to perform TAVR and TEVAR

**Course 2: Mitral Valve Repair**
**Course Directors:** Gorav Ailawadi, Charlottesville, VA, and Harold G. Roberts Jr, Aventura, FL

Surgical correction for mitral valve disease can often be a technical challenge and requires a thorough understanding of the pathophysiology for any given patient. Recent data have suggested equivalent short-term outcomes comparing repair to replacement in the setting of severe ischemic mitral regurgitation (MR). Meanwhile, an alarmingly high rate of replacement is performed in patients with degenerative MR, particularly with bileaflet and anterior leaflet prolapse. Finally, the armamentarium for the surgeon now includes less invasive approaches, such as robotic mitral valve surgery and percutaneous mitral repair with the MitraClip system.

This course will provide hands-on experience with total chordal-sparing mitral valve replacement, papillary muscle sling for ischemic MR, MitraClip procedure, posterior leaflet techniques, bileaflet prolapse techniques, and robotic mitral surgery.

**Course 3: Valve-Sparing Aortic Root Replacement**
**Course Directors:** Duke E. Cameron, Baltimore, MD, and Edward Chen, Atlanta, GA

This course will provide interactive, hands-on instruction on the surgical techniques and critical steps necessary for performing a successful valve-sparing aortic root replacement (VSRR). Faculty members and proctors who are familiar with the operation will be readily available to provide assistance and consultation throughout the course.

**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 successful performance of a VSRR
- Apply different methods in choosing a graft size
- Discuss leaflet repair and annuloplasty methods

Indicates that a ticket is required to attend.
Wednesday, January 28, 2015

Course 4: Aortic Root Enlarging Procedures

Course Directors: John W. Brown, Indianapolis, IN, and S. Adil Husain, San Antonio, TX

This course will review the anatomic approaches and surgical techniques employed in performing aortic root enlarging procedures. Surgical strategies addressed will include Nicks, Manougian, Mavroudis, Ross Konno, upsizing the aortic root—Bentall type procedure, and myectomy/myotomy techniques.

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

Course 5: ICU/ECHO

Course Directors: Haney Mallemat, Baltimore, MD, and Glenn J. R. Whitman, Baltimore, MD

This course will review the utilization of a focused ultrasound examination of the heart and major vessels, such as the aorta and IVC. Attendees will gain hands-on experience with live models. Topics will include basic cardiac anatomy and physiology as visualized by three common transthoracic views, inferior vena cava (IVC) evaluation to determine intravascular volume, and ultrasound techniques for central vein visualization and cannulation.

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

• Generate an echocardiographic parasternal, apical, and subcostal view of the heart
• Evaluate the IVC to help determine volume status
• Evaluate the abdominal aorta for potential abnormality
• Use ultrasound to safely accomplish subclavian and internal jugular venous cannulation

Course 6: Long-Term Circulatory/Respiratory Support

Course Directors: Ashish Shah, Baltimore, MD, and Scott C. Silvestry, St Louis, MO

Advanced mechanical device technologies for cardiac and pulmonary support offer new treatment options for patients with end-stage cardiopulmonary disease. Medical centers not performing heart or lung transplantation are able to utilize these technologies as a bridge to recovery or decision making, bridge to transplantation, or as permanent cardiac therapy.

Faculty will demonstrate techniques for short- and long-term cardiac and pulmonary support with an emphasis on longer-term support. Basic and advanced implantation LVAD techniques, management options, and surgical decision making at the time of implant will be taught by leaders in the field. Interactive hands-on stations will cover the treatment options for potential intra-operative and post-implant problems, such as right heart failure, infection, and device failure.

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

• Identify a comprehensive selection of short- and long-term devices
• Explain the importance of proper patient selection and timing of intervention
• Determine which concomitant procedures should be considered and executed
• Identify pitfalls in peri- and postoperative management
• Access hands-on knowledge of implant techniques, speed adjustments, and troubleshooting
Wednesday, January 28, 2015

Course 7: Advanced Endotracheobronchial Procedures

Course Directors: Rafael Andrade, Minneapolis, MN, and Moishe A. Liberman, Montreal, Canada

Endobronchial ultrasound (EBUS) and endoscopic ultrasound (EUS) have attained firm places in the endoscopic diagnostic and staging armamentarium of mediastinal lymph nodes. Electromagnetic navigation bronchoscopy (ENB) is an interesting technology aimed at facilitating the endoscopic biopsy of peripheral lung lesions. Airway stenting and rigid bronchoscopy are important tools for the palliation of malignant disease and the treatment of benign disease in general thoracic surgical practice. In this course, leaders in the field will direct focused, hands-on stations where attendees can practice these techniques on models and simulators. Small group sessions will facilitate opportunities for close instructor/learner interaction.

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

- Discuss how EBUS and EUS are used in mediastinal staging
- Explain the complementary roles of EBUS and EUS
- Describe potential indications and limitations of ENB
- Identify potential pitfalls and ways in which to avoid complications during rigid bronchoscopy and airway stent insertion

Course 8: VATS Lobectomy

Course Directors: Shanda H. Blackmon, Rochester, MN, and Shari L. Meyerson, Chicago, IL

This course will review the indications, patient selection, technical steps, and recent advances for performance of video-assisted thoracoscopic surgical (VATS) lobectomy. This session is dedicated to hands-on training utilizing porcine heart-lung blocks for course participants to perform a VATS left upper lobectomy. Stations include multiple instrument and energy device options.

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

- Describe the indications and steps to perform a VATS lobectomy
- Discuss potential pitfalls and strategies for intraoperative troubleshooting to successfully achieve minimally invasive lobectomy
- Identify instruments and other technologies available for performance of minimally invasive lobectomy

Course 9: Advanced Esophageal and Tracheal Procedures

Course Directors: Sidharta P. Gangadharan, Boston, MA, and Thomas K. Varghese Jr, Seattle, WA

Tracheal and esophageal resection and reconstruction require unique technical skills to achieve success and minimize complications, such as leaks and stricture. Unfortunately these cases are relatively few in number nationwide, and many practitioners have difficulty in achieving competence during their training programs. Participants will be introduced to several techniques for airway and esophageal reconstruction with emphasis on the different technical aspects (“pearls”) of the anastomosis from content experts.

The course will provide a hands-on experience for two tracheobronchial techniques—tracheal sleeve anastomosis and tracheobronchoplasty—and two esophageal anastomotic techniques—hybrid linear stapled anastomosis and hand-sewn anastomosis. Skills learned in the course by participants can be incorporated into practice.

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

- Utilize principles of tracheal resection/anastomosis and sleeve resection/reconstruction
- Demonstrate the tracheobronchoplasty procedure for tracheomalacia
- Perform two types of esophageal stapled anastomosis—hybrid linear and end-to-end
- Perform a hand-sewn esophagogastric anastomosis

Course 10: Atrial Switch, Double Switch: The Mustard and the Senning

Course Directors: Sitaram M. Emani, Boston, MA, and John E. Mayer Jr, Boston, MA

Learn how to perform this essential part of a double switch. Patients who undergo atrial switch procedures and survive to adulthood may present with complications from their repair. It is essential for today’s surgeon to be facile with yesterday’s techniques. In this course, you will learn the complexities of Mustards and Sennings from the masters.

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

- Explain the surgical options for creating atrial level re-routing of systemic and pulmonary venous return
- Describe the techniques of the Mustard and Senning procedures with particular attention to avoidance of systemic and pulmonary venous obstruction and damage to the sino-atrial and atrioventricular nodal tissue
- Recognize the indications for applying these two techniques in the management of complex congenital defects, including L-transposition of the great arteries, D-transposition of the great arteries, and certain forms of heterotaxy syndrome anatomy
Scientific Posters

Adult Cardiac

Impact of Energy Source on Rhythm Restoration by Left Atrial Size and Duration of Atrial Fibrillation Following the Cox-Maze Procedure: Propensity-Score Matched Analysis
H. Je, S. Holmes, G. Pritchard, N. Ad
Inova Heart and Vascular Institute, Falls Church, VA

Determinants of Operative Mortality in Patients With Acute Ruptured Type A Aortic Dissection
1University of Texas Health Science Center, Houston, 2The University of Texas Medical School, Houston, 3University of Texas Houston - Memorial Hermann

Transcatheter Aortic Valve Replacement Results in Significant Improvement of Pulmonary Function Testing Postoperatively in Patients With Severe Aortic Stenosis
1Emory University, Atlanta, GA, 2The Emory Clinic, Inc, Atlanta, GA

Routine Genetic Testing for Thoracic Aortic Aneurysm in a Clinical Setting
Yale University School of Medicine, New Haven, CT

Endovascular Repair for Thoracic Aortic Pseudoaneurysms: Single Center Experience in 98 Patients
W. Ma, Y. Xue, W. Zhang, L. Sun, L. Huang
1Yale University School of Medicine, New Haven, CT, 2Beijing Anzhen Hospital of Capital Medical University and Beijing Institute of Heart, Lung and Blood Vessel Diseases, China

Characterization of Intraoperative Electroencephalography During Aortic Hemarch Replacement With Moderate Hypothermic Circulatory Arrest
Duke University Medical Center, Durham, NC

Outcomes of Isolated Aortic Valve Replacement in the Pre- and Post-Transcatheter Aortic Valve Implantation Era
E. Martin, F. Dagenais, D. Kalavrouziotis, E. Dumont, P. Voisine, D. Doyle, S. Mohammadi
Quebec Heart & Lung Institute, Quebec City, Canada

Gene Expression Is Uniquely Correlated in Patients With Atrial Fibrillation and Neurocognitive Decline After Cardiopulmonary Bypass
A. Sabe, R. Dalal, N. Y. Elmadhun, B. Ramlawi, F. W. Sellke
1Rhode Island Hospital, Providence, 2Brown Medical School/Rhode Island Hospital, Providence, 3Houston Methodist Hospital, TX

Does Preexisting Mitral Valve Insufficiency Impact the Early Outcome and Long-Term Results in Patients Undergoing TAVI?
H. Baumbach, K. Wachter, S. Ahad, T. Schauefele, U. Franke
Robert Bosch Hospital, Stuttgart, Germany

Aortic No-Touch Off-Pump Coronary Artery Bypass Grafting With Full Skeletonized In Situ Arterial Grafts in SYNTAX Era
K. Tachibana, T. Higami, Y. Miyak, T. Hagiwara, A. Yamashita
1Sapporo Medical University School of Medicine, Japan, 2Sapporo Medical University, Japan

Are Continuous-Flow Left Ventricular Assist Devices (CF-LVAD) on Track to Compete With Heart Transplantation? A Propensity-Score Matched Analysis of CF-LVAD vs Heart Transplant for Patients in United Network for Organ Sharing Status II (UNOS-II)
S. Mastrobuoni, A. Poncelet, A. Dell’Aquila, L. Jacquet, J. Garcia
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The SYNTAX Score: Does It Explain the Gender Difference in Mortality Following Coronary Artery Bypass Surgery?
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Conversion After Off- or On-Pump Coronary Artery Bypass Grafting: Insights From a Large Multinational Randomized Trial
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SYNTAX Score Affects Long-Term Outcomes of Conventional Coronary Artery Bypass Grafting for Complex Coronary Artery Disease
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Blood Transfusion Modifies the Impact of Preoperative Hematocrit on Perioperative Outcomes Following Non-Emergent Coronary Artery Bypass Surgery

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Trends, Predictors, and Outcomes of Stroke After Surgical Aortic Valve Replacement in the United States

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What Is the Best Surgical Approach for Aortic Valve Stenosis in Elderly Patients With Previous CABG? A Comparison Between Traditional Aortic Valve Replacement and Transapical TAVR From Two Real-World Multicenter Surgical Registries

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Is Conventional Open Surgery Still a Good Option for Aortic Arch Aneurysm in Patients of Advanced Age?

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Hybrid Coronary Revascularization Is Better Than Multivessel PCI-Stenting: A Propensity-Matched Analysis

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Diagnostic and Therapeutic Role of Emergency Postoperative Coronary Angiography After Cardiac Surgery

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Effect of STEMI vs NSTEMI on Outcomes in Patients Undergoing Non-Emergent Coronary Artery Bypass Grafting After Acute Myocardial Infarction

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The Transcaval Approach as an Alternative to Transapical Access for Valve Delivery During Transcatheter Aortic Valve Replacement: Is It as Crazy as It Sounds?

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Outcome of Extreme-Risk Transapical TAVI Patients (mean log EuroSCORE >30%) With Impaired vs Normal Left Ventricular Function: Who Benefits More?

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Safety and Efficacy of del Nido Cardioplegia for Acquired Heart Disease in Adults

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Safe Surgery Saves Lives (SSSL): Quality and Safety Improvement in Cardiac Surgery—A Single-Center Experience

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Abandon the Pump in CABG to Prevent Renal Injury? A Prospective Randomized Trial

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Long-Term Results of the Freestyle Aortic Bioprosthesis in Patients 60 Years Old and Younger

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An Economic Analysis of Distant Referral Surgery for Mitral Valve Disease

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The Relationship Between Predicted Risk of Mortality and Transfusion in Isolated Primary Valve Surgery

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Coronary Artery Bypass After Prior Percutaneous Intervention Confers Higher Risk When Compared to Primary Surgery: A Meta-Analysis

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Evaluation of Graft Patency in Off-Pump vs On-Pump CABG: The PATENCY-CORONARY Trial
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Is There Any Benefit to Using the Radial Artery as an Additional Arterial Conduit During Bilateral In Situ Internal Thoracic Artery Grafting? A Propensity Score-Matched Study
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Maximizing the Efficacy of Mitral Valve Repair Surgery in a Completely Video-Guided, Minimally Invasive Fashion: Rings and Neochordae in the “Respect Rather Than Resect” Era
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Should Bicuspid Aortic Valve Resuspension Be Prohibited in Acute Type A Aortic Dissection Patients?
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Outcomes of Reoperative Aortic Arch Repair in Patients With Chronic DeBakey Type I Dissection
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Development of a Risk Prediction Model for Aortic Surgery Using the National Institute for Cardiovascular Outcomes Research (NICOR) Database
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Transaortic Approach: Impact on Clinical Outcomes for Patients Receiving Transcatheter Aortic Valve Replacement (TAVR)
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Off-Pump Bilateral Internal Thoracic Artery Grafting
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Late Outcomes of Long Left-Sided Coronary Artery Endarterectomy for Diffuse in Operable Coronary Artery Disease
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Aortic Valve Replacement in the Moderately Elevated Risk Patient: A Population-Based Analysis of Outcomes
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Early and Long-Term Results of Mitral Valve Surgery Are Not Altered by Concomitant Tricuspid Ring Valveplasty
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Basic Science
Constructive Myocardial Remodeling of a Tissue-Engineered Extracellular Matrix Cardiac Patch Confirmed by Cardiac Magnetic Resonance Imaging
A. Tanaka, K. Kawaji, A. Patel, T. Ota
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An Innovative Needleless Liquid Jet Injection Delivery Method Featuring S100A1 Gene Therapy Demonstrates Cardiac Specific Expression and Preserves Left Ventricular Function in Ischemic Cardiomyopathy
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Evaluation of Spinal Cord Protective Threshold of Serum Memantine, an NMDA Receptor Antagonist, in a Rabbit Model of Paraplegia
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Adult Bone Marrow-Derived Stem Cell Therapy Preserves the Ischemic Cardiomyocytic Mitochondrial Membrane Potential During Reperfusion
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Miniplegia vs Blood Cardioplegia With Buckberg Solution in Elective Aortic Valve Replacement: A Prospective, Randomized, Non-Inferiority Controlled Trial
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Effect of Hydrogel in Cell-based Therapy in a Porcine Model of Chronic Myocardial Ischemia
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Interleukin-6 Is Critical to Experimental Thoracic Aortic Aneurysm Formation
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Cardiothoracic Surgical Education
Declining Cardiothoracic Surgeon Involvement in the Management of Aortic Dissections: Impact of Endovascular Technologies and Implications for Training
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The Mid-Term Outcomes of Bioprosthetic Pulmonary Valve Replacement in Children
T. Shinkawa, C. Chipman, T. Bozzay, X. Tang, J. Gossett, M. Imamura
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Perioperative Blood Management Program in Infants Undergoing Open Heart Surgery
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Current Outcomes and Risk Factors for the Norwood Operation in Patients With Hypoplastic Left Heart Syndrome
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Impacts of Aortic Valve Morphology and Annular Size of Aortic Valve on Left Ventricular Outflow Tract Obstruction After Primary Repair of Coarctation of the Aorta or Interruption of the Aortic Arch With Ventricular Septal Defect
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Norwood Stage I Palliation in Patients Less Than 2.5 kg: Outcomes and Risk Analysis
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Long-Term Durability of Mitral Valve Repair Performed Before the Age of Five
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Surgical Strategy for Pulmonary Atresia, Ventricular Septal Defect, and Major Aortopulmonary Collateral Arteries (PA/VSD/MAPCA) With Absent or Hypoplastic Central Pulmonary Artery
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Complications and Risk Assessment of 21 Years in Pediatric Pacing
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Fast-Track Staged Approach Is Beneficial for Systemic Oxygen Saturation After Fontan Completion
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Effect of Intercurrent Operation and Systemic Hemodynamics on Developmental Trajectory in Infants and Children With Congenital Heart Disease
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Blalock-Taussig Shunt in Neonates With Functionally Univentricular Heart
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Patient Selection Minimizes Recurrent Arch Obstruction in Patients Undergoing Aortic Coarctation Repair via Left Thoracotomy
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Does Prior Innominate Vein Occlusion Preclude Successful Bidirectional Superior Cavopulmonary Connection Creation?
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Augmentation of the Lesser Curvature With an Autologous Vascular Patch in Complex Aortic Coarctation and Interruption
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Transesophageal Echocardiogram-Guided Minimally Invasive Perventricular Device Closure of Perimembranous Ventricular Septal Defects
X. Pan, S. Li, K. Pang, W. Ouyang, S. Hu, Y. Liu, D. Zhang, F. Zhang
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High Prevalence of Hypertension and End-Organ Damage Late After Coarctation Repair in Patients With Normal Transverse Arches Detected Using Noninvasive Techniques
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Updates on the 20-Year Outcome of Simultaneous Anterior Mitral Leaflet Retention Plasty and Septal Myectomy in Hypertrophic Obstructive Cardiomyopathy
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Performance Assessment of the Temporary Viscous Impeller Pump in Total Cavopulmonary Connections With Various Offsets
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Prolonged White Matter Inflammation After Cardiopulmonary Bypass in a Juvenile Porcine Model
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Critical Care

Blood Pressure Management After Cardiac Surgery Is Associated With Gial Fibrillary Acidic Protein Release
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Sequentially Updated Discharge Model for Optimizing Hospital Resource Use and Surgical Patients’ Satisfaction
M. Tong, G. Pattakos, E. Blackstone, J. He, J. Rajeswaran, M. Kattan, W. Barsoum, D. R. Johnston
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A Prediction Model for Unplanned Cardiac Surgery Intensive Care Unit (CSICU) Readmissions
M. Kashihons, G. J. Whitman, B. McGuinness, S. Russell, M. Orlando, M. S. Sussman
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General Thoracic

A Biomimetic Model of Lung Cancer Culture Based on Native Lung Scaffolds Allows for Ex Vivo Testing of Therapeutic Agents
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Why General Surgeons Perform Lobectomies in the United States
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What Is the Optimal Transplant for Elderly Patients With Idiopathic Pulmonary Fibrosis?
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Gastroesophageal Reflux Aspiration in the Post-Lung Transplant Patient: A Targeted Bile Acid Metabolomic and Lipidomic Approach
Columbia University Medical Center, New York, NY

Allogeneic Blood Transfusion After Lung Transplantation—Impact on Early Rejection, Function, and Late Survival Outcomes
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Left Upper Lobectomy After Coronary Artery Bypass Grafting
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Pathologic Upstaging in Patients Undergoing Resection for Stage I Non-Small Cell Lung Cancer (NSCLC): Are There Modifiable Predictors?
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Risk Stratification of Resected Esophageal Adenocarcinoma: Analysis of Driver Mutations and Gene Amplifications
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Clinical Outcomes of Reoperation for Failed Antireflux Surgery
Swedish Medical Center, Seattle, WA

Pre-Treatment Dysphagia in Esophageal Cancer May Eliminate the Need for Staging by Endoscopic Ultrasonography
Memorial Sloan Kettering Cancer Center, New York, NY

Nonanatomic Prognostic Factors in Surgically Resected T1-3N0 Esophageal Squamous Cell Carcinoma
J. Jeon, H. Yang, M. Kim, J. Lee
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Impact of Positive Margins on Survival in Patients Undergoing Esophagectomy for Esophageal Cancer
J. Javidfar, P. Speicher, T. D’Amico, M. G. Hartwig, M. Berry
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Endoscopic Ultrasound Estimates for Tumor Depth at the Gastroesophageal Junction Are Less Accurate for Early Mid-Stage Patients: Implications for the Liberal Use of Endoscopic Resection
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Feasibility of Segmentectomy in Clinical-T1b Lung Cancer Patients With Radiological Solid Dominant Appearance on Thin-Section CT Scan
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Thoracic Revised Cardiac Risk Index Is Associated With Prognosis After Resection for Stage I Lung Cancer
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Impact of Surveillance on Long-Term Outcomes for Early Stage Non-Small Cell Lung Cancer Following Surgical Resection
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Chest Wall Sarcomas: Impact of Adjuvant Radiation Therapy on Survival Following Surgical Resection in a Propensity Score-Matched Large Population Cohort
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The Safety of Thoracoscopic Surgery for Lung Cancer in Patients Taking Antiplatelet Agents Without Interruption
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Logistic Regression Decision Aid for In-hospital Mortality in 1,082 Flail Chest Patients
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Discharging Patients Home Using a Digital Chest Tube Drainage System
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Prognostic Score of Long-Term Survival After Extrapleural Pneumonectomy for Malignant Pleural Mesothelioma
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Clinical Prediction of Pathologic Complete Response in Superior Sulfur Non-Small Cell Lung Cancer: Is There a Role for Selective Surgery?
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Pleurodesis for Prolonged Alveolar Air Leakage Could Set Off the Advantage of Preserved Lung Function Following Segmentectomy for Lung Cancer
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Survival After Lung Retransplantation in the Last Decade (2004–2013): Better or Worse?
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Single-Port Video-Assisted Thoracoscopic Lung Resection—A Multi-institutional Series of 208 Cases
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Ivor Lewis Esophagectomy With Extended Two-Field Lymphadenectomy for Esophageal Cancer: A Single Institution Experience of 1,342 Consecutive Patients
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Improving Operating Room Resource Utilization Through Optimized Scheduling of Major Pulmonary Resections
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Prognostic Value of the Protocadherin 10 Promoter Methylation Status in Curatively Resected Pathological Stage I Non-Small Cell Lung Cancer
H. Harada1, K. Miyamoto2, Y. Yamashita3, M. Kuwahara4, K. Taniyama5, M. Okada2
1National Hospital Organization Kure Medical Center and Chugoku Cancer Center, Hiroshima, Japan, 2Hiroshima University, Japan

Achalasia Subtype Determines Clinical Presentation and Response to Laparoscopic Heller Myotomy
A. Tschoner1, C. Chan2, M. Lada1, M. Han1, C. E. Jones1, C. Peyre1, T. J. Watson1, J. Peters1
1University of Rochester Medical Center, NY, 2Queen Elizabeth Hospital, Hong Kong, China, 3University of Rochester, New York, NY, 4University of Rochester, School of Medicine & Dentistry, NY, 5University Hospitals Cleveland, OH

Quality Improvement
Predictors of Prolonged Length of Stay After Lobectomy: Can We Define the At-Risk Group?
A. Hodari, K. Park, Z. T. Hammoud, I. Rubinfeld
Henry Ford Health System, Detroit, MI

Cardiac Arrest After Open Heart Surgery: Improved Processes Save Lives
S. J. Ley1, V. A. Gaudiani2, G. D. Egrie2, R. E. Shaw2, J. Brewster2
1Pacific Coast Cardiac & Vascular Surgeons, Redwood City, CA, 2Palo Alto Medical Foundation, San Francisco, CA, 3California Pacific Medical Center, San Francisco

Impact of a Multidisciplinary Rapid Assessment of Complex Pleural Effusion (RACE) Program on Efficiency of Patient Care
K. Czarnecka1, M. Zubrinic1, T. Waddell1, A. Pierre1, G. Darling1, M. De Perrot2, M. Cypel2, A. Garcia3, T. Stuart-McEwan3, M. Neary1, S. H. Keshavjee1, K. Yasufuku1
1University Health Network, Toronto, Canada, 2Toronto General Hospital, Canada

A Review of Medical Malpractice Claims Involving Cardiothoracic and Vascular Surgeons
M. S. Kent1, S. Seabury2, R. I. Whyte1, S. P. Gangadharan1, J. Berman1, E. Hellend1, J. Berman1, S. Gilbert1
1Beth Israel Deaconess Medical Center, Boston, MA, 2University of Southern California, Los Angeles, 3Harvard Medical School, Boston, MA, 4Claremont McKenna College, CA
Registration and Housing Instructions

PLEASE NOTE: Registration is required in order to reserve Annual Meeting housing.

Registration and Housing are available online only at www.sts.org/annualmeeting

Deadline: Early bird registration will end Monday, December 1, 2014. Please note: Registration fees will increase after this date. Additionally, you must register by January 2, 2015, to be able to reserve housing at the special Annual Meeting rate.

Questions about registration? Contact the Society’s official registration partner, Experient, at (866) 229-2386 (toll free), (301) 694-5243 (for international callers), or sts@experient-inc.com.

REGISTRATION CATEGORIES
Registration is open to all physicians and other individuals in the health care field and includes a name badge, Program Guide, Abstract Book, and admission to the Exhibit Hall and all sessions other than those indicated as ticketed events. Pricing for ticketed sessions is itemized on page 59.

Please note that STS members are NOT automatically registered for the Annual Meeting.

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

PENDING ACTIVE AND INTERNATIONAL MEMBERS:
Cardiothoracic surgeons who are not currently STS members but have submitted their completed application materials for Active or International Membership by October 15, 2014.

STS ASSOCIATE MEMBER PHYSICIANS—NON-CT SURGEONS: STS member physicians who work with cardiothoracic surgeons.

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 CT surgery.

STS PRE-CANDIDATE AND CANDIDATE MEMBERS:
Pre-Candidate: Medical students and general surgery residents who are STS members. Candidate: Cardiothoracic surgery residents/fellows who are STS members.

NON-MEMBER PHYSICIANS: Non-member cardiothoracic surgeons and other physicians who work with cardiothoracic surgeons.

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 51st Annual Meeting, non-member medical students, general surgery residents, and cardiothoracic surgery residents/fellows must complete a registration certification form, which can be found at www.sts.org/annualmeeting. Completed forms must be uploaded to the applicant’s STS profile page. Residents and fellows must have their chief of service sign the certification form, and medical students must send a copy of their current student identification card.

BECOME AN STS MEMBER!
Non-members interested in attending the STS 51st Annual Meeting can gain numerous benefits by applying for STS Membership.

The deadline for submission of completed Active and International Membership applications to be considered at the 51st Annual Meeting was October 15, 2014. Non-members with a “pending” application status can register for the STS 51st Annual Meeting at a reduced rate. See page 59 for details.

Applications for Associate, Candidate, or Pre-Candidate Membership must be submitted by January 15, 2015, to allow time for processing. Those approved for membership can attend the STS 51st 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, Member Services Coordinator, at sforeman@sts.org.

SEPARATE REGISTRATIONS
Please note that registering for the STS 51st Annual Meeting does NOT register you for any of the following, which require separate registration:

- STS/AATS Tech-Con 2015
- Ticketed Sessions

TICKETED SESSIONS AND STS UNIVERSITY
The courses in this program marked with tickets to attend. Please see the chart on page 59 for pricing details.

CANCELLATION POLICY
All cancellation requests must be made in writing and e-mailed to stshqarters@sts.org or postmarked to The Society of Thoracic Surgeons, 633 N Saint Clair St, Floor 23, Chicago, IL, 60611 by Friday, January 16, 2015. Requests for refunds will not be honored if submitted after that date. A processing fee of $100 will be charged for all cancellations.

ONSITE REGISTRATION INFORMATION
Onsite registration will be located on the main level of the San Diego Convention Center during the following times:

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday, January 23, 2015</td>
<td>3:00 PM – 6:00 PM</td>
</tr>
<tr>
<td>Saturday, January 24, 2015</td>
<td>7:00 AM – 6:00 PM</td>
</tr>
<tr>
<td>Sunday, January 25, 2015</td>
<td>7:00 AM – 6:30 PM</td>
</tr>
<tr>
<td>Monday, January 26, 2015</td>
<td>6:30 AM – 5:00 PM</td>
</tr>
<tr>
<td>Tuesday, January 27, 2015</td>
<td>6:30 AM – 4:30 PM</td>
</tr>
<tr>
<td>Wednesday, January 28, 2015</td>
<td>6:30 AM – 9:30 AM</td>
</tr>
</tbody>
</table>

HOUSING INFORMATION
STS has secured discounted rates at the San Diego Marriott Marquis & Marina, Manchester Grand Hyatt San Diego, and Omni San Diego Hotel. You can reserve housing while you are registering for the Annual Meeting at www.sts.org/annualmeeting. Attendee housing requests must be completed online no later than Friday, January 2, 2015.

Questions about housing? Contact the Society’s official housing partner, Experient, at (866) 229-2386 (toll free), (301) 694-5243 (for international callers), or sts@experient-inc.com.
## Pricing

<table>
<thead>
<tr>
<th>Session Type</th>
<th>STS Members</th>
<th>Non-Members</th>
</tr>
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<tbody>
<tr>
<td>STS 51st Annual Meeting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Through December 1</td>
<td>$250</td>
<td>$825</td>
</tr>
<tr>
<td>After December 1</td>
<td>$350</td>
<td>$975</td>
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<tr>
<td>STS/AATS Tech-Con 2015</td>
<td></td>
<td></td>
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<tr>
<td>Through December 1</td>
<td>$400</td>
<td>$825</td>
</tr>
<tr>
<td>After December 1</td>
<td>$500</td>
<td>$975</td>
</tr>
<tr>
<td>Ticketed Sessions (Must be registered for the STS Annual Meeting or Tech-Con to attend.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice Management Summit</td>
<td>$75</td>
<td>$75</td>
</tr>
<tr>
<td>STS/CHEST</td>
<td>$300</td>
<td>$400</td>
</tr>
<tr>
<td>STS/SCA</td>
<td>$225</td>
<td>$275</td>
</tr>
<tr>
<td>General Thoracic Surgical Symposium (with Tech-Con registration)</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>General Thoracic Surgical Symposium (without Tech-Con registration)</td>
<td>$75</td>
<td>$75</td>
</tr>
<tr>
<td>Congenital Surgical Symposium (with Tech-Con registration)</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Congenital Surgical Symposium (without Tech-Con registration)</td>
<td>$75</td>
<td>$75</td>
</tr>
<tr>
<td>Ticketed Sessions (Must be registered for the STS Annual Meeting to attend.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acquired and Congenital Heart Surgery Symposium</td>
<td>$200</td>
<td>$250</td>
</tr>
<tr>
<td>STS/AATS Critical Care Symposium</td>
<td>$225</td>
<td>$275</td>
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<tr>
<td>Monday Night Social Event</td>
<td>$125</td>
<td>$125</td>
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<tr>
<td>Early Riser Session (each)</td>
<td>$40</td>
<td>$40</td>
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<tr>
<td>Health Policy Forum</td>
<td>$40</td>
<td>$40</td>
</tr>
<tr>
<td>Ethics Debate</td>
<td>$40</td>
<td>$40</td>
</tr>
<tr>
<td>STS University Course (each)</td>
<td>$150</td>
<td>$150</td>
</tr>
<tr>
<td>STS 51st Annual Meeting Online (Must be registered for the STS Annual Meeting to get the Pre-Meeting price.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Meeting (through January 22)</td>
<td>$125</td>
<td>$225</td>
</tr>
<tr>
<td>Meeting (January 23-28)</td>
<td>$250</td>
<td>$450</td>
</tr>
<tr>
<td>Post-Meeting (after January 28)</td>
<td>$500</td>
<td>$900</td>
</tr>
<tr>
<td>STS/AATS Tech-Con 2015 Online (Must be registered for Tech-Con to get the Pre-Meeting price.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Meeting (through January 22)</td>
<td>$125</td>
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<td>$450</td>
</tr>
<tr>
<td>Post-Meeting (after January 28)</td>
<td>$500</td>
<td>$900</td>
</tr>
</tbody>
</table>

*Must have submitted completed application materials by October 15, 2014.*
Travel Information

AIR TRAVEL
The San Diego International Airport (SAN) is located approximately 3 miles from the San Diego Convention Center and all official STS hotels.

GROUND TRANSPORTATION FROM SAN
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 (405) 749-4434. To receive the special STS rate, reference convention number (CV#) 04XS0002 when making your car rental reservations.

Taxi Service
If you require a taxi upon arrival at SAN, follow the signs leading to the Transportation Piazzas. A uniformed Transportation Coordinator will place you with the first available taxi. The approximate one-way cost to the hotels or convention center is $15.

Shuttle Service / Private Car
Airport shuttle and private car services are available through SuperShuttle. Shuttle service can be accessed from the Transportation Piazzas across from Terminals 1 and 2 and curbside at the Commuter Terminal. Call SuperShuttle directly or visit the website to find the shuttle that best suits your needs. Shuttle service is approximately $8 per person from SAN to the official STS hotels; private car service is approximately $40 one way. For reservations, call (800) 9-SHUTTLE [(800) 974-8885] or visit supershuttle.com.

TRANSPORTATION TO/FROM THE CONVENTION CENTER
All official STS hotels are located within walking distance of the San Diego Convention Center; however, supplemental complimentary shuttle service will be provided between the hotels and convention center beginning Friday, January 23, 2015. A schedule will be posted in each hotel’s lobby.

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 lets nationals of certain 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/visa/temp/without/without_1990.html.

Letters of Invitation
If you need a personalized letter of invitation, please 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 SAN DIEGO AND THE US
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.sandiego.com (San Diego Tourism Authority)
- www.visitsandiego.com (San Diego Convention Center)
- www.san.org (San Diego International Airport)
- www.travel.state.gov (US State Department)
- www.cbp.gov (Customs and Border Protection)
- www.dhs.gov/how-do-i/visit-united-states (Department of Homeland Security)
- www.usembassy.gov (US Embassy)
Order now during registration to take advantage of special pre-meeting prices!

STS 51st Annual Meeting Online & STS/AATS Tech-Con 2015 Online

With such a full schedule, it’s difficult to attend every presentation of interest. Through these web-based video presentations, earn CME credit for sessions you were unable to attend or give yourself the opportunity to review sessions of special interest in the comfort of your home or office. You’ll be able to experience presenter slide animation, cursor movement, and full audio from the vast majority of sessions.

When registering for the STS 51st Annual Meeting and STS/AATS Tech-Con 2015, don’t forget to sign up for both online products at special discounted meeting registrant rates. After January 22, 2015, pricing will be significantly higher.

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 51st Annual Meeting Online: The Society of Thoracic Surgeons designates this enduring material for a maximum of 105.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

STS/AATS Tech-Con 2015 Online: The Society of Thoracic Surgeons designates this enduring material for a maximum of 14.0 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.
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 51st Annual Meeting program.

Joseph C. Cleveland Jr
Chair, Workforce on Annual Meeting

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