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*The information in this Program Guide is accurate as of December 9, 2014.*
ACCREDITATION STATEMENTS

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.

STS/AATS Tech-Con 2015
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 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.
2015 MOBILE APP

Access the STS 51st Annual Meeting Mobile App by searching for “STS 2015” in the Apple App Store or Google Play. You can also scan the QR code below with your smartphone.

ANNALS MANUSCRIPT SUBMISSION

Each abstract that is presented orally or as a poster during the STS 51st Annual Meeting must be submitted before or at the time of the meeting to The Annals of Thoracic Surgery for publication consideration. Manuscripts must be submitted via The Annals online editorial office (www.atseditorialoffice.org) by Wednesday, January 28, 11:59 PM, Pacific Standard Time. For more information, see page 10 of the STS 51st Annual Meeting Abstract Book.

ANNUAL MEETING ONLINE PRODUCTS

Save 50% when you purchase STS 51st Annual Meeting Online and/or STS/AATS Tech-Con 2015 Online before the end of the meeting! With such a full schedule, it’s impossible 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. All Annual Meeting and Tech-Con scientific sessions—with the exception of the Cardiopulmonary Bypass Simulation Course, Early Riser sessions, STS University wet labs, and the hands-on portion of STS/CHEST: Primer on Advanced and Therapeutic Bronchoscopy—are included.

Visit the Ballroom 20A Foyer to make your purchase today, or purchase online at www.sts.org/annualmeeting. Savings expire after January 28, 2015.

BUSINESS CENTER

A FedEx Office Print & Ship Center is located in Lobby D and provides packing and shipping services, copying, faxing, binding, and office supplies. The center is open at the following times:

- **Saturday, January 24**: 9:00 AM – 5:00 PM
- **Sunday, January 25**: 9:00 AM – 5:00 PM
- **Monday, January 26**: 8:00 AM – 5:00 PM
- **Tuesday, January 27**: 8:00 AM – 5:00 PM
- **Wednesday, January 28**: 8:00 AM – 5:00 PM
CAREER FAIR

Make sure to stop by the STS/CTSNet Career Fair, which will give you the chance to meet face-to-face with top employers. Recruiters will be available to talk with you about career opportunities. The Career Fair will be held in the Exhibit Hall during the following times:

- Monday, January 26: 9:00 AM – 4:30 PM
- Tuesday, January 27: 9:00 AM – 3:00 PM

CHARGING STATIONS

If your smartphone, tablet, or other mobile device is running out of power, stop by any of the Fuel Rod Stations located throughout the convention center to purchase a portable charging unit for $20. The chargers are compatible with both Apple and Android products, and you can swap the Fuel Rod for a fresh one when it runs out of juice. Five stations are located in the lobby, and two stations are on the upper levels near Ballrooms 6 and 20.

COAT & LUGGAGE CHECK

Complimentary coat and luggage check will be provided in Lobby D near the STS Registration Desk. Hours of service are:

- Saturday, January 24: 6:45 AM – 7:00 PM
- Sunday, January 25: 6:30 AM – 7:00 PM
- Monday, January 26: 6:30 AM – 7:00 PM
- Tuesday, January 27: 6:30 AM – 6:00 PM
- Wednesday, January 28: 6:30 AM – 12:00 PM

COMPUTER STATIONS

Visit the Computer Stations in Lobby E and the Ballroom 20D Foyer to access the internet, check e-mail, and review STS University lectures.

CONCIERGE SERVICES

The Concierge Desk is located in Lobby E and can assist you with making restaurant reservations, purchasing tickets for San Diego attractions and tours, and more. You can also get information about the “Show Us Your Badge and Save” discount program, which offers meeting attendees exclusive deals at restaurants, attractions, and more. The Concierge Desk is open at the following times:

- Saturday, January 24: 9:00 AM – 5:30 PM
- Sunday, January 25: 9:00 AM – 5:30 PM
- Monday, January 26: 9:00 AM – 5:30 PM
- Tuesday, January 27: 9:00 AM – 5:30 PM
- Wednesday, January 28: 9:00 AM – 2:00 PM

CONTINUING MEDICAL EDUCATION CREDIT

The STS 51st Annual Meeting utilizes an entirely electronic evaluation and CME/Perfusion CEU credit claim process. Both physicians and perfusionists can use this system to claim credit, complete evaluations, and print CME/Perfusion CEU certificates. Certificates of Attendance are also available for other attendees and international physicians not wishing to
claim CME credit. Attendees will not be able to evaluate and claim CME/Perfusion CEU credit for ticketed sessions unless they have registered for those sessions. Please note that CME credit is not available for the Cardiopulmonary Bypass Simulation Course, Residents Symposium, or Residents Luncheon.

Attendees can complete the overall meeting evaluations and all individual session evaluations onsite at CME Stations located in Lobby E and the Ballroom 20D Foyer. Certificate printing is available.

Attendees can also access evaluations and CME/Perfusion CEU credit by visiting the online evaluation site through personal computers or handheld devices at www.sts.org/2015evaluation. You can also access the site through the STS Mobile App. In order to make this process more convenient for attendees, the meeting evaluations will be available online through Wednesday, February 11, 2015.

Attendees can log in to the website with the following information:

- Username: 6-digit member ID number located at the lower left-hand side of the meeting badge
- Password: First initial and last name

### DINING OPTIONS

Two $5 coupons, good for purchasing food and beverage items from the concession stands located in the Exhibit Hall, were provided in your meeting bag. One coupon can be used on Monday, January 26, and the other can be used on Tuesday, January 27. The concession stands will be open at the following times:

- **Monday, January 26**: 10:00 AM – 2:00 PM
- **Tuesday, January 27**: 10:00 AM – 2:00 PM

Complimentary coffee will be available in the Exhibit Hall at all scheduled breaks on Monday and Tuesday. See the Program at a Glance on page 13 for details on break times.

Starbucks is located in Lobby E and in the Ballroom 20A Foyer. Each location will open at 6:30 AM each day.

### EXHIBIT HALL HOURS

This year, the STS Exhibit Hall plays host to more than 100 companies showcasing the latest in cardiothoracic surgery products and technology. Don’t miss the Exhibit Hall Opening Reception on Sunday, January 25, at 4:30 PM. Certain exhibitors will be offering refreshments and treats during the reception; consult the flyer in your meeting bag for more information.

The STS Exhibit Hall will be open at the following times:

- **Sunday, January 25**: 4:30 PM – 6:30 PM
- **Monday, January 26**: 9:00 AM – 4:30 PM
- **Tuesday, January 27**: 9:00 AM – 3:00 PM
FIRST AID

First aid services are available outside of Ballroom 20A at the following times:

- **Friday, January 23** 2:00 PM – 6:00 PM
- **Saturday, January 24** 6:30 AM – 6:30 PM
- **Sunday, January 25** 6:30 AM – 6:30 PM
- **Monday, January 26** 6:30 AM – 6:30 PM
- **Tuesday, January 27** 6:30 AM – 5:30 PM
- **Wednesday, January 28** 6:30 AM – 11:30 AM

LOOKING TO THE FUTURE

The STS Looking to the Future Scholarship Program was developed to identify and encourage general surgery residents and medical students who are considering, but not yet committed to, a career in cardiothoracic surgery. This year, 25 medical students and 25 general surgery residents were awarded scholarships to attend the STS 51st Annual Meeting. A number of events for the scholarship winners are being held during the Annual Meeting, including:

- **Medical Student/Mentors Reception**
  Saturday, January 24, 6:00 PM – 8:00 PM
- **Medical Student Overview of CT Surgery**
  Sunday, January 25, 8:00 AM – 1:00 PM
- **Reception**
  Sunday, January 25, 5:30 PM – 6:30 PM
- **Resident Program**
  Monday, January 26, 10:45 AM – 12:15 PM

LOST & FOUND

Lost items may be picked up at the Information Booth near Registration on the main level of the convention center. After the meeting, all unclaimed items will be discarded.

PHOTOGRAPHY AND RECORDING POLICY

Please keep in mind that the use of cameras and recording devices is prohibited during scientific sessions at the STS 51st Annual Meeting, unless used by authorized personnel. Thank you for your cooperation.

REGISTRATION

Registration is located in Lobby D on the main level of the San Diego Convention Center and will be open during the following times:

- **Friday, January 23** 3:00 PM – 6:00 PM
- **Saturday, January 24** 7:00 AM – 6:00 PM
- **Sunday, January 25** 7:00 AM – 6:30 PM
- **Monday, January 26** 6:30 AM – 5:00 PM
- **Tuesday, January 27** 6:30 AM – 4:30 PM
- **Wednesday, January 28** 6:30 AM – 9:30 AM
Badges must be worn at all times and are required for admission to scientific sessions and the STS Exhibit Hall. Please note that certain events require the purchase of a separate ticket for admittance; these sessions are designated with in this guide.

**SATELLITE ACTIVITIES**

Satellite activities are programs offered by industry and held in conjunction with the STS 51st Annual Meeting. They are not developed or sponsored by STS.

**Saturday, January 24**

AtriCure, Inc

The Left Atrial Appendage: A New Surgical Frontier

7:00 PM – 10:00 PM

Hard Rock Hotel San Diego – The Edge Ballroom

207 5th Avenue

Baxter Healthcare Corporation/CMEology

Preventing Bleeding-Related Complications: Controversies, Consensus, and Costs

7:00 PM – 10:00 PM

Marriott Marquis & Marina San Diego - Marina Ballroom D, E, F

333 W. Harbor Drive

**Sunday, January 25**

On-X Life Technologies, Inc

New Technology in Mitral Chordal Replacement

7:00 PM – 10:00 PM

Marriott Marquis & Marina San Diego – Marina Ballroom G

333 W. Harbor Drive

**SCIENTIFIC POSTER HOURS**

Scientific posters are located in the Foyer outside Rooms 29-32 and will be available from 2:00 PM on Sunday, January 25, through 5:00 PM on Tuesday, January 27.

Also, join your colleagues at the Scientific Posters and Wine event, 5:00 PM to 6:30 PM on Monday, January 26, in the Ballroom 20D Foyer for a moderated review of select scientific posters.

**SOCIAL EVENT**

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.

The 2015 STS Social Event will be held on Monday, January 26, from 7:00 PM to 10:00 PM. Join your colleagues at this exclusive event by purchasing a ticket at Registration in Lobby D of the convention center.
SOCIAL MEDIA

Like the STS Facebook page at www.facebook.com/societyofthoracicsurgeons and follow STS on Twitter at @STS_CTSurgery for more information about San Diego and the Annual Meeting. Be sure to use the hashtag #STS2015 if you tweet about the STS 51st Annual Meeting.

After the Annual Meeting is over, the STS Facebook and Twitter pages will continue to deliver news on future STS events and educational opportunities.

SPEAKER READY ROOM

The Speaker Ready Room is located in Room 22. All presenters must report to the Speaker Ready Room at least 24 hours prior to their scheduled presentation time to download their PowerPoint into the presentation system.

STS 51ST ANNUAL MEETING ABSTRACT BOOK

Don’t forget to check out the STS 51st Annual Meeting Abstract Book, which was handed to you at registration. This publication contains the full abstracts for more than 250 oral and poster presentations from the Annual Meeting, as well as commercial relationships and regulatory disclosures for all presentations.

STS-PAC RECEPTION

Join us on Monday, January 26, 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 from 6:45 PM to 7:45 PM in the Presidio Room at the San Diego Marriott Marquis. 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.

STS BOOTH

The STS booth (#1111) in the Exhibit Hall offers a one-stop shop for all things STS. Attendees can learn about advocacy efforts, membership benefits, STS National Database initiatives, upcoming educational programs, and more. Additionally, make sure to stop by the display honoring the 50th anniversary of The Annals of Thoracic Surgery, located in the Exhibit Hall (booth #1333).

STS UNIVERSITY LECTURES

Like last year, STS University wet labs will feature only hands-on learning. No didactic lectures will be given during the activity, so attendees are encouraged to access the lectures online prior to Wednesday morning. You can access the lectures at the Computer Stations located in Lobby E and the Ballroom 20D Foyer. You can also access them from your own computer or handheld device by visiting www.sts.org/annual-meeting.
TECHBAR

Get free technical assistance from the TECHbar, located in the Exhibit Hall. The TECHbar is similar to Apple’s Genius Bar and will provide assistance from three subject matter experts, live demos on technology topics of interest, and a charging station. You can get help with personal and professional issues related to your tablets, mobile devices, apps, e-mail, and more—throughout the entire exhibition.

TRANSPORTATION

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. The shuttles will operate every 25 minutes.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
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<tbody>
<tr>
<td>Friday, Jan 23</td>
<td>2:45 PM – 6:15 PM</td>
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<tr>
<td>Saturday, Jan 24</td>
<td>6:45 AM – 7:00 PM</td>
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<td>Sunday, Jan 25</td>
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<td>Tuesday, Jan 27</td>
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</tr>
<tr>
<td>Wednesday, Jan 28</td>
<td>6:00 AM – 12:00 PM</td>
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</tbody>
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*Times subject to change. Please see the schedule in each hotel’s lobby for the most up-to-date information.

WIRELESS INTERNET

Complimentary wireless internet access is available in the main level lobby areas of the San Diego Convention Center. To connect, select “Free Internet” from your computer or mobile device’s list of available wireless networks. Please note that WiFi is not available in the Exhibit Hall or meeting rooms.
### 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**

- **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**

- **1:00 PM – 5:00 PM**
  - **Cardiopulmonary Bypass Simulation Course**

- **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
  - **Practice Management Summit**
  - **STS/AATS Critical Care Symposium:** Essential Cardiac Critical Care Topics

- **8:00 AM – 11:45 AM**

- **1:00 PM – 4:00 PM**
  - **Residents Symposium:** Transitioning From Residency to a Successful Practice
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

9:30 AM – 9:40 AM
BREAK—Visit Exhibits and Scientific Posters
Complimentary coffee available

9:30 AM – 9:40 AM
The Annals of Thoracic Surgery 50th Anniversary Presentation

9:40 AM – 9:50 AM
Introduction of the President: Mark S. Allen

9:50 AM – 10:50 AM
Presidential Address: David A. Fullerton

10:50 AM – 11:30 AM
BREAK—Visit Exhibits and Scientific Posters
Complimentary coffee available
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**
Complimentary coffee available

1:15 PM – 5:15 PM

**ACC @ STS**

**Evidence and Quality Reshaping Practice**

1:30 PM – 3:30 PM
(7 parallel sessions)

**Adult Cardiac Session: Aortic**
**Adult Cardiac Session: Ischemic**

**Congenital Session: Pediatric Congenital I**
**General Thoracic Session: Lung Cancer I**
**General Thoracic Session: Lung Transplantation**

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

**STS/SCA: Considerations in Perioperative Resuscitation of Cardiothoracic Patients**

3:30 PM – 4:15 PM

**BREAK—Visit Exhibits and Scientific Posters**
Complimentary coffee available

4:15 PM – 5:15 PM

**Surgical Motion Picture Matinees: Adult Cardiac, Congenital, and General Thoracic**

**Late-Breaking Abstract Session**

5:00 PM – 6:30 PM

**Scientific Posters and Wine**

5:30 PM – 6:30 PM

**Business Meeting (STS Members Only)**
PROGRAM AT A GLANCE

6:45 PM – 7:45 PM

STS-PAC Reception

7:00 PM – 10:00 PM

STS Social Event: USS Midway Aircraft Carrier Museum

TUESDAY, JANUARY 27, 2015

6:30 AM – 4:30 PM

Registration: STS 51st Annual Meeting

7:30 AM – 8:30 AM

Early Riser Sessions

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 – 5:00 PM

Scientific Posters Open

10:00 AM – 10:45 AM

BREAK—Visit Exhibits and Scientific Posters
Complimentary coffee available

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
Complimentary coffee available

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

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: Controversial Issues in General Thoracic Surgery—Perspectives From Europe and North America

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)
Please note that Tech-Con registration is separate from Annual Meeting registration.

FRIDAY, JANUARY 23, 2015

3:00 PM – 6:00 PM
Lobby D
Registration: STS/AATS Tech-Con 2015 and STS 51st Annual Meeting

SATURDAY, JANUARY 24, 2015

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

12:00 PM – 6:30 PM
Ballroom 20 Foyer
STS/AATS Tech-Con 2015 Exhibits

1:00 PM – 2:45 PM
Ballroom 20D
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
Richard Olson, Plymouth, MN

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
Ballroom 20 Foyer
BREAK—Visit STS/AATS Tech-Con 2015 Exhibits
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 Jr, 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

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 Biatrial Maze Operation**
Patrick M. McCarthy, Chicago, IL

4:38 pm **Discussion**

4:55 pm **Closing Remarks**

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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 **Uniporal VATS Lobectomy in Non-Intubated Patients**
TBA

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. Keshavjee, 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  Ballroom 20 Foyer

STS/AATS Tech-Con 2015 Reception

SUNDAY, JANUARY 25, 2015

7:00 AM – 6:30 PM  Lobby D

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

7:00 AM – 3:00 PM  Ballroom 20 Foyer

STS/AATS Tech-Con 2015 Exhibits

8:00 AM – 9:30 AM  Ballroom 20D

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
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. Morris, 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 Ballroom 20 Foyer

BREAK—Visit STS/AATS Tech-Con 2015 Exhibits

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, New York, NY

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

11:05 AM A Self-Expanding Valve for All Annular Sizes: CoreValve Evolut
Michael J. Reardon, Houston, TX
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>11:11 AM</td>
<td><strong>A New Balloon Expandable Valve With an Anti-Leak Cuff: SAPIEN 3</strong>&lt;br&gt;Vinod H. Thourani, Atlanta, GA</td>
</tr>
<tr>
<td>11:18 AM</td>
<td><strong>Other Upcoming Technologies for TAVR: Lotus, Portico, and Symetis</strong>&lt;br&gt;Gregory P. Fontana, New York, NY</td>
</tr>
<tr>
<td>11:24 AM</td>
<td><strong>A Transapical Valve for Aortic Insufficiency: JenaValve</strong>&lt;br&gt;Hendrik Treede, Hamburg, Germany</td>
</tr>
<tr>
<td>11:31 AM</td>
<td><strong>Transcaval TAVR: Are You Serious?</strong>&lt;br&gt;Adam B. Greenbaum, Detroit, MI</td>
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<tr>
<td>11:38 AM</td>
<td><strong>Discussion</strong></td>
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<tr>
<td>11:44 AM</td>
<td><strong>Closing Remarks</strong></td>
</tr>
<tr>
<td>10:15 AM – 11:45 AM</td>
<td><strong>Room 33ABC</strong> <strong>General Thoracic Track III:</strong> New Techniques for Esophageal Disease, Diaphragm Disorders, and Nanotechnology&lt;br&gt;<strong>Moderator:</strong> Shanda H. Blackmon, Rochester, MN</td>
</tr>
<tr>
<td>10:15 AM</td>
<td><strong>Welcome and Introduction</strong>&lt;br&gt;Shanda H. Blackmon, Rochester, MN</td>
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<tr>
<td>10:20 AM</td>
<td><strong>Endoluminal Suturing Devices</strong>&lt;br&gt;Shanda H. Blackmon, Rochester, MN</td>
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<tr>
<td>10:35 AM</td>
<td><strong>Integrating Peroral Endoscopic Myotomy Into Clinical Practice</strong>&lt;br&gt;Shanda H. Blackmon, Rochester, MN</td>
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<tr>
<td>10:50 AM</td>
<td><strong>Reoperative Foregut Surgery for Failed Novel Technology</strong>&lt;br&gt;Steven R. Demeester, Los Angeles, CA</td>
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<td>11:05 AM</td>
<td><strong>Diaphragm Pacing</strong>&lt;br&gt;Raymond P. Onders, Cleveland, OH</td>
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<tr>
<td>11:20 AM</td>
<td><strong>Nanotechnology Applications in General Thoracic Surgery</strong>&lt;br&gt;Yolonda L. Colson, Boston, MA</td>
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<tr>
<td>11:35 AM</td>
<td><strong>Discussion</strong></td>
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</table>

**Ballroom 20 Foyer**

**Break—Visit STS/AATS Tech-Con 2015 Exhibits**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>12:00 PM – 1:00 PM</td>
<td><strong>Sails Pavilion</strong> <strong>Lunch</strong></td>
</tr>
<tr>
<td>1:00 PM – 1:15 PM</td>
<td><strong>Ballroom 20 Foyer</strong> <strong>Break—Visit STS/AATS Tech-Con 2015 Exhibits</strong></td>
</tr>
</tbody>
</table>
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 – 2:45 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. Coselli, 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. Leshnower, 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

Ballroom 20 Foyer

BREAK—Visit STS/AATS Tech-Con 2015 Exhibits

3:10 pm – 4:30 pm

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  Miniaturized Implantable Intracardiac LVAD
         Mark S. Slaughter, Louisville, KY
3:52 PM  ReinHeart
         Sotirios Spiliopoulos, 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
STS 51st Annual Meeting Program Outline

The information provided here is an outline of the program. Only presenting authors are listed. Please consult the Abstract Book for full abstract text, complete author lists, and disclosures.

SATURDAY, JANUARY 24, 2015

7:00 AM – 6:00 PM Lobby D

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

8:00 AM – 12:30 PM Room 32AB

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

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

Faculty: Vinay Badhwar, Pittsburgh, PA, Georges Desjardins, Salt Lake City, UT, and G. Burkhard Mackensen, Seattle, WA

Session I
8:00 AM Persistent Mitral Regurgitation After Mitral Valve Repair
Stanton K. Shernan, Boston, MA

8:30 AM Mitral Regurgitation in Patients Undergoing Aortic Valve Surgery
G. Burkhard Mackensen, Seattle, WA

9:00 AM New Mitral Stenosis After Mitral Valve Repair
Stanton K. Shernan, Boston, MA

9:30 AM Clinical Utility of Echocardiography in the ICU After Cardiac Surgery
Georges Desjardins, Salt Lake City, UT

10:00 AM Break

Session II
10:30 AM Aortic Valve—Repair or Replace?
Georges Desjardins, Salt Lake City, UT

11:00 AM Unsuspected Aortic Stenosis During Scheduled Coronary Artery Bypass Grafting Surgery
Alina Nicoara, Durham, NC

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 Room 30E

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

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

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
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
<th>Location</th>
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<tbody>
<tr>
<td>8:30 AM</td>
<td>EBUS/Transbronchial Needle Aspiration (TBNA)</td>
<td>Momen M. Wahidi, Durham, NC</td>
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<tr>
<td>8:50 AM</td>
<td>Navigational Bronchoscopy and Radial EBUS</td>
<td>Alexander C. Chen, St Louis, MO</td>
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<tr>
<td>9:20 AM</td>
<td>Panel Discussion</td>
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<td>9:40 AM</td>
<td>Break</td>
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<tr>
<td>10:00 AM</td>
<td>Rigid Bronchoscopy</td>
<td>Stephen R. Hazelrigg, Springfield, IL</td>
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<tr>
<td>10:20 AM</td>
<td>Therapeutic Endoscopy: Laser, Cryotherapy, Electrocautery, and Argon Plasma Coagulation (APC)</td>
<td>Moishe A. Liberman, Montreal, Canada</td>
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<tr>
<td>10:40 AM</td>
<td>Airway Stents</td>
<td>Michael S. Mulligan, Seattle, WA</td>
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<td>11:00 AM</td>
<td>Foreign Body Removal</td>
<td>David E. Ost, Houston, TX</td>
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<td>11:20 AM</td>
<td>Endobronchial Valves for Air Leak</td>
<td>Christine Argento, Atlanta, GA</td>
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<tr>
<td>11:40 AM</td>
<td>Panel Discussion</td>
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<tr>
<td>12:00 PM</td>
<td>Lunch</td>
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<tr>
<td>12:30 PM</td>
<td>Hands-on Breakout Sessions</td>
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<td>Room 30CD</td>
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<tr>
<td></td>
<td>Station 1: EBUS/TBNA Airway Models</td>
<td>Kazuhiko Yasufuku, Toronto, Canada, and Robert E. Merritt, Columbus, OH</td>
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<td></td>
<td>Station 2: Case Discussion</td>
<td>Momen M. Wahidi, Durham, NC, and Richard I. Whyte, Boston, MA</td>
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<td></td>
<td>Station 3: Endobronchial Valves</td>
<td>Christine Argento, Atlanta, GA, and David E. Ost, Houston, TX</td>
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<td>Station 4: Rigid Bronchoscopy and Stents</td>
<td>Michael S. Mulligan, Seattle, WA</td>
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<td></td>
<td>Station 5: Electrocautery, APC, and Cryotherapy</td>
<td>Alexander C. Chen, St Louis, MO, and Moishe A. Liberman, Montreal, Canada</td>
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<td>1:00 PM</td>
<td>Cardiopulmonary Bypass Simulation Course</td>
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<td>Room 31ABC</td>
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<td></td>
<td>Course Director: Thomas E. MacGillivray, Boston, MA</td>
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</table>
## Acquired and Congenital Heart Surgery Symposium: Challenges and Management of the Aorta in Adults With Congenital Heart Disease

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

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>7:50 AM</td>
<td>Welcome</td>
<td>Joseph A. Dearani, Rochester, MN</td>
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<tr>
<td>8:00 AM</td>
<td>Ascending Aorta With Bicuspid Aortic Valve</td>
<td>Joseph E. Bavaria, Philadelphia, PA</td>
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<tr>
<td>8:25 AM</td>
<td>Ascending Aorta With Conotruncal Anomalies</td>
<td>Joseph A. Dearani, Rochester, MN</td>
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<tr>
<td>8:50 AM</td>
<td>Percutaneous Approaches to the Arch and Isthmus</td>
<td>Grayson H. Wheatley, Philadelphia, PA</td>
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<tr>
<td>9:15 AM</td>
<td>Surgical Approaches to the Arch and Isthmus</td>
<td>Hazim J. Safi, Houston, TX</td>
</tr>
<tr>
<td>9:40 AM</td>
<td>Break</td>
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<tr>
<td>10:00 AM</td>
<td>Noncardiac Evaluation</td>
<td>Michael Landzberg, Boston, MA</td>
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<tr>
<td>10:25 AM</td>
<td>Unconventional Surgery</td>
<td>Brian E. Kogon, Atlanta, GA</td>
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<tr>
<td>10:50 AM</td>
<td>Ventricular Assist Devices—What’s Now, What’s Next</td>
<td>Mark D. Rodefeld, Indianapolis, IN</td>
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<tr>
<td>11:15 AM</td>
<td>Multiorgan Transplantation</td>
<td>Stephanie M. Fuller, Philadelphia, PA</td>
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<tr>
<td>11:40 AM</td>
<td>Discussion</td>
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</table>

## Practice Management Summit

**Moderators:** Greg A. Bowman, Pueblo, CO, Frank L. Fazzalari, Rochester, MI, Paul S. Levy, Jonesboro, AR, Drew Rector, Rockledge, FL, and V. Seenu Reddy, Nashville, TN

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<tr>
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<tbody>
<tr>
<td>7:50 AM</td>
<td>Introduction</td>
<td>Frank L. Fazzalari, Rochester, MI</td>
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<tr>
<td>8:00 AM</td>
<td>Basics of the Affordable Care Act/Free Market</td>
<td>Chris McBride, Denver, CO</td>
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<td>8:20 AM</td>
<td>Contracts and Restrictive Covenants</td>
<td>Mike Heaton, Indianapolis, IN</td>
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<tr>
<td>8:40 AM</td>
<td>Work Relative Value Unit Employment Models: A Bad Choice for Cardiothoracic Surgeons</td>
<td>Michael G. Moront, Toledo, OH</td>
</tr>
<tr>
<td>9:00 AM</td>
<td>The Value of the CT Surgeon Leader in an Integrated Delivery System</td>
<td>Drew Rector, Rockledge, FL</td>
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</tbody>
</table>
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

10:10 AM Break

10:20 AM Washington Perspective: Health Policy in the Final Years of the Obama Presidency and Longer-Term Outlook
Joseph Antos, Washington, DC

10:40 AM The Real Economics of Care Delivery
Paul Taheri, New Haven, CT

11:00 AM A Realistic, Practical Assessment of Health Care Reform on Cardiothoracic Surgery
Nathan Kaufman, San Diego, CA

11:20 AM Transitions From Practice: Pathway Opportunities Outside of the OR
Stephen C. Yang, Baltimore, MD

7:50 am – 12:00 pm Room 30E

STS/AATS Critical Care Symposium: Essential Cardiac Critical Care Topics
Moderators: Rakesh Arora, Winnipeg, Canada, Kevin W. Lobdell, Charlotte, NC, and Vassyl A. Lonchyna, Chicago, IL

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

9:00 am The “Correct” Way of Nutritional Support in the CT ICU
Krishnan Sriram, 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

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

10:10 am The Way We Do It
Natasha Brooks, Charlotte, NC, and Elizabeth Martin, Chicago, IL

10:20 am Question and Answer Session
10:30 AM  Break

10:45 AM  Delirium 101  
Jose Maldonado, Stanford, CA

11:00 AM  ABCDE Bundle: Mobilization in the ICU  
Biren Kamdar, Los Angeles, CA

11:15 AM  Developing a Delirium Strategy in Your CT ICU  
Rakesh Arora, Winnipeg, Canada

11:25 AM  Question and Answer Session

11:45 AM  Moderated Critical Care Poster Session  
Vassyl A. Lonchyna, Chicago, IL, and Nevin M. Katz, Baltimore, MD

1:00 PM – 4:00 PM  Room 28CD

Residents Symposium: Transitioning From Residency to a Successful Practice

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

1:00 PM  Introduction  
Sidharta P. Gangadharan, Boston, MA, Sandra L. Starnes, Cincinnati, OH, and Ara A. Vaporciyan, Houston, TX

1:05 PM  How to Find a Position  
Danny Chu, Pittsburgh, PA, and Raja R. Gopaldas, Columbia, MO

1:25 PM  Keys to a Successful Interview  
TBA

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  Room 32AB

Parallel Surgical Symposium: Congenital

Congenital Heart Surgery Rounds: Problems, Choices, Action

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
Clinical Scenario 1
1:40 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. Caldareone, Toronto, Canada

4:10 pm
Clinical Scenario 5

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

Parallel Surgical Symposium: General Thoracic
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
TBA

2:15 pm
Segmentectomy Tips and Tricks: Pearls in Lung Cancer Resection
Robert J. McKenna, Los Angeles, CA

2:30 pm
Pulmonary Artery Injury During VATS Lobectomy: Complicated Scenarios in Thoracic Surgery
Michael S. Mulligan, Seattle, WA
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<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker/Location</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>Bronchial and Pulmonary Arterial Sleeve Resections: Pearls in Lung Cancer Resection</td>
<td>G. Alexander Patterson, St Louis, MO</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>
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<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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2:00 PM – 6:30 PM

Rooms 29-32 Foyer

Scientific Posters Open

2:30 PM – 4:30 PM

Room 30E

CT Surgery Interprofessional Education Symposium:
Multidisciplinary Team Approach to ECMO

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

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<th>Time</th>
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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>
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<tr>
<td>2:45 pm</td>
<td>The ABCs of an ECMO Circuit</td>
<td>Britt McIlwain, Trussville, AL</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 T. Costello, Nashville, TN</td>
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<tr>
<td>3:30 pm</td>
<td>Establishing an ECMO Program</td>
<td>Kenton J. Zehr, Baltimore, MD</td>
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<tr>
<td>4:10 pm</td>
<td>Simulation Session</td>
<td>Jeffrey Riley, Rochester, MN</td>
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<td>4:30 pm – 6:30 pm</td>
<td>Opening Reception in the STS Exhibit Hall</td>
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Exhibit Hall
MONDAY, JANUARY 26, 2015

6:30 AM – 5:00 PM

Lobby D

Registration: STS 51st Annual Meeting

9:00 AM – 4:30 PM

Exhibit Hall

Exhibits Open

9:00 AM – 4:30 PM

Rooms 29-32 Foyer

Scientific Posters Open

7:00 AM – 10:50 AM

Ballroom 20ABC

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
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. Kurlansky
Florida Heart Research Institute, Miami

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

V. Nayar
The Children’s Hospital of Philadelphia, PA

Discussant: Donald S. Likosky, Ann Arbor, MI

8:15 AM


B. D. Kozower
University of Virginia Health System, Charlottesville

Discussant: Farhood Farjah, Seattle, WA
8:30 AM  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 Inoperable for Aortic Valve Replacement and With Severe Aortic Stenosis: An Analysis From the STS/ACC TVT Registry™
V. H. Thourani
Emory University, Atlanta, GA
Discussant: A. Pieter Kappetein, Rotterdam, The Netherlands

8:45 AM  Richard E. Clark Paper for Congenital Heart Surgery: Characteristics of Patients Undergoing Congenital Heart Surgery Vary Across US Children’s Hospitals and Impact Assessment of Hospital Performance: An Analysis of The Society of Thoracic Surgeons Congenital Heart Surgery Database
S. K. Pasquali
University of Michigan, Ann Arbor
Discussant: David M. Shahian, Boston, MA

9:00 AM  BREAK—Visit Exhibits and Scientific Posters
Complimentary coffee available

9:30 AM  The Annals of Thoracic Surgery 50th Anniversary Presentation
G. Alexander Patterson, St Louis, MO

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

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

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

11:30 AM – 12:30 PM  Room 31ABC

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
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. Jeong
Samsung Medical Center, Seoul, Republic of Korea

12:00 PM  The Effectiveness of Surgical Ablation in Patients With Atrial Fibrillation and Aortic Valve Disease
M. Henn
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  
**Room 33ABC**

**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 Jr, 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**  
N. P. Patil  
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. Maltais  
Vanderbilt Heart and Vascular Institute, Nashville, TN

11:30 AM – 12:30 PM  
**Room 30E**

**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**  
M. Henn  
Barnes Jewish Hospital/Washington University, St Louis, MO

11:40 AM  
**The Impact of Prolonged Atrial Fibrillation on Atrial and Ventricular Function in a Porcine Model**  
T. Kazui  
Barnes Jewish Hospital/Washington University, St Louis, MO

11:50 AM  
**AKT2 Regulates Bone Marrow Cell–Mediated Aortic Protection in Mice**  
S. A. LeMaire  
Baylor College of Medicine, Houston, TX

12:00 PM  
**Enoximone Protects Myocardial Mitochondrial ATP-Production by Limitation of H+-leak-dependent Improvement of ΔΨm-Stability in Ischemia Reperfusion Injury**  
S. Sommer  
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**  
K. Owais  
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. Elmadhun
Beth Israel Deaconess Medical Center, Boston, MA

11:30 AM – 12:30 PM Room 29D

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
T. Goldstein
North Shore-LIJ Health System, Manhasset, NY

11:45 AM Triptolide Inhibits Lung Cancer Cell Migration, Invasion, and Metastasis
T. Reno
City of Hope National Medical Center, Duarte, CA

12:00 PM Pulmonary Metastases Exhibit Epigenetic Clonality: Implications for Precision Therapy
E. Reardon
National Cancer Institute, Bethesda, MD

12:15 PM Human Lung Fibroblast Inhibits Metastatic Lesion Formation in 4D Lung Cancer Model Seeded With Human Lung Cancer Cell Line
M. P. Kim
The Methodist Hospital – Weill Cornell Medical College, Houston, TX

11:30 AM – 12:30 PM Room 30AB

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
E. N. Feins
Massachusetts General Hospital, Boston

11:45 AM An Empirically Based Tool for Analyzing Mortality Associated With Adult Congenital Heart Surgery
S. M. Fuller
Children’s Hospital of Philadelphia/University of Pennsylvania School of Medicine

12:00 PM Durability of Bioprostheses in Tricuspid Position in Patients With Congenital Heart Disease
M. Burri
German Heart Centre Munich

12:15 PM Patterns of Aortopathy and Valve Pathology Differ in Children and Young Adults With Bicuspid Aortic Valve and Marfan’s Syndrome
M. Ruzmetov
Children’s Hospital of Illinois, Peoria
**Critical Care**

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

**11:30 AM**

**Feasibility, Effectiveness, and Safety of Activated Recombinant Factor VII Use for Intractable Bleeding During Extracorporeal Life Support in Adults**

H. A. Welp
University Hospital Muenster, Germany

**11:45 AM**

**Rotational Thromboelastometry Decreases Blood Product Transfusion in High-Risk Patients Undergoing Cardiac Surgery**

K. Yount
University of Virginia Health System, Charlottesville

**12:00 PM**

**Race Is Associated With Mortality in Patients Undergoing Extracorporeal Cardiac Support**

T. Chan
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. Manji
I.H. Asper Clinical Research Institute, Winnipeg, Canada

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**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. Singh
New York Columbia Presbyterian, 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. Liberman
CHUM Endoscopic Tracheobronchial and Oesophageal Center (CETOC), University of Montreal, Canada

**12:00 PM**

**Initial Experience and Outcome With Peroral Endoscopic Myotomy (POEM) by a Thoracic Surgeon**

S. G. Worrell
University of Southern California, Los Angeles

**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. Nason
University of Pittsburgh Medical Center, PA
11:30 AM – 12:30 PM Room 32AB

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

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

11:30 AM **Introduction**
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 D. Odell, Pittsburgh, PA
12:20 PM **Panel Discussion**

12:30 PM – 1:15 PM

**BREAK—Visit Exhibits and Scientific Posters**
Complimentary coffee available

1:15 PM – 5:15 PM Room 33ABC

**ACC @ STS**

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

1:15 PM **Introduction**
Patrick T. O’Gara, Boston, MA, and Vinod H. Thourani, Atlanta, GA

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

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

2:15 PM  Comparison of Hybrid Coronary Revascularization vs Coronary Artery Bypass Grafting With Bilateral or Single Internal Mammary Artery Use
J. Rosenblum
Emory University, Atlanta, GA

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
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. Damiano
Barnes Jewish Hospital/Washington University, St Louis, 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

1:15 PM – 5:15 PM Room 29AB

Evidence and Quality Reshaping Practice
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
D. M. Shabian
Massachusetts 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
J. P. Jacobs
Johns Hopkins All Children’s Heart Institute, St Petersburg, FL

1:43 PM  Discussant
Sara K. Pasquali, Ann Arbor, MI

1:50 PM  The Impact of Modifiable Clinical Variables on Length of Stay Following First-Time Cardiac Surgery
N. Ad
Inova Heart and Vascular Institute, Falls Church, VA

1:58 PM  Discussant
Thomas E. MacGillivray, Boston, MA

2:05 PM  Late Operating Room Start Times Impact Mortality and Cost for Nonemergent Cardiac Surgery
K. Yount
University of Virginia Health System, Charlottesville, VA

2:13 PM  Discussant
V. Seenu Reddy, Nashville, TN

2:20 PM  Development, Implementation, and Feasibility of Surgeon-Specific Outcome Reports and of a Surgeon-Led, Continuous Quality Improvement Program in Thoracic Surgery
J. Ivanovic
University of Ottawa, Canada

2:28 PM  Discussant
Daniel L. Miller, Marietta, GA

2:35 PM  Moderated Panel Discussion: New Perspectives on STS Clinical Practice Guidelines
Gabriel S. Aldea, Seattle, WA, Alex G. Little, Tucson, AZ, and John D. Mitchell, Aurora, CO
MONDAY, JANUARY 26, 2015

3:00 PM  Break

3:15 PM  Moderated Panel Discussion: New Perspectives of the STS National Database
Marshall L. Jacobs, Newtown Square, PA, Benjamin D. Kozower, Charlottesville, VA, and Richard L. Prager, Ann Arbor, MI

3:45 PM  Quality Measurement—Past, Present, and Future
David M. Shabian, 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?
K. Yount
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  Room 31ABC

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
François 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 IIIA vs IIIB
A. A. Arafat
Cleveland Clinic Foundation, OH

2:30 PM  Decision Making for the Management of Type A Dissection Repair in Octogenarians
N. Desai
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
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  J. Gottret  
Hospital of the University of Pennsylvania, Philadelphia

3:15 PM  Complex Cusp Repair in Patients Undergoing David’s Procedure—Is It Worth It?  
H. Baumbach  
Robert Bosch Hospital, Stuttgart, Germany

1:30 PM – 3:30 PM  Room 32AB

**Adult Cardiac Session: Ischemic**

**Moderators:** James R. Edgerton, Dallas, TX, and Frank W. Sellke, Providence, RI

1:30 PM  Total Arterial Coronary Revascularization Is Achievable and Prognostically Effective: A Multi-institutional Analysis  
J. Tatoulis  
Private Medical Centre, Victoria, Australia

1:45 PM  Multi vs Single Arterial Coronary Artery Bypass Surgery Across the Left Ventricular Ejection Fraction Spectrum: A Multi-institutional Analysis  
T. A. Schwann  
University of Toledo Medical Center, OH

2:00 PM  Hospital-Level Variation in Infection Rates After Coronary Artery Bypass Grafting Surgery: An Analysis From The Society of Thoracic Surgeons Adult Cardiac Surgery Database  
D. S. Likosky  
University of Michigan Health System, Ann Arbor

2:15 PM  Greater Volume of Acute Normovolemic Hemodilution May Aid in Reducing Blood Transfusions After Cardiac Surgery  
J. Goldberg  
Massachusetts General Hospital/Harvard Medical School, Boston

2:30 PM  Red Blood Cell Transfusions Impact Pneumonia Rates After Coronary Artery Bypass Grafting Surgery  
D. S. Likosky  
University of Michigan Health System, Ann Arbor

2:45 PM  Impact of Comprehensive STS Quality Improvement on Outcomes and Failure to Rescue  
D. Chu  
University of Pittsburgh Medical Center, PA

3:00 PM  Debate: 65-Year-Old Diabetic Female With Triple Vessel Disease and BMI of 35  
Bilateral IMA: TBA  
LIMA and Veins: Robert A. Guyton, Atlanta, GA
**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**  
Z. Y. Al Halees  
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**  
D. McElhinney  
NYU Medical Center, New York

2:00 PM  
**The Valved Polytetrafluoroethylene Conduits for Right Ventricular Outflow Tract Reconstruction: Clinical Experience and Mechanical Properties of Bulging Sinuses**  
T. Shinkawa  
Arkansas Children's Hospital, Little Rock

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 Outcomes**  
M. O. Murphy  
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**  
M. F. Swartz  
University of Rochester-Strong Memorial Hospital, NY

2:45 PM  
**Evolving Technical Approach and Results in Hypoplastic Left Heart Syndrome With Intact or Highly Restrictive Atrial Septum**  
F. De Rita  
Newcastle Upon Tyne, United Kingdom

3:00 PM  
**Potential Molecular Mechanism of Retrograde Aortic Arch Stenosis in the Hybrid Approach to Hypoplastic Left Heart Syndrome**  
N. Hibino  
Nationwide Children’s Hospital, Columbus, OH

3:15 PM  
**Complex Aortic Arch Reconstruction Using Moderate Hypothermia and Antegrade Cerebral Perfusion in Newborns and Children**  
J. D. Salazar  
University of Mississippi Medical Center, Jackson
1:30 PM – 3:30 PM

**Ballroom 20D**

**General Thoracic Session: Lung Cancer I**

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

1:30 PM  
**Free Margin Distance Does Not Influence Recurrence and Survival Rate After R0 Wedge Resection for Stage I Non-Small Cell Lung Cancer**

G. Maurizi  
University of Rome, Italy

1:45 PM  
**Outcomes Following Surgery in High-Risk Patients With Early Stage Lung Cancer**

M. S. Sancheti  
Emory University, Atlanta, GA

2:00 PM  
**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**

G. Ghaly  
New York Presbyterian Hospital/Weill Cornell Medical Center, New York

2:15 PM  
**Robotic Lobectomy Does Not Increase Nodal Upstaging Compared to Video-Assisted Thoracoscopic Surgical (VATS) Lobectomy in Clinically Node-Negative Patients With Lung Cancer**

B. E. Lee  
The Valley Hospital, Ridgewood, NJ

2:30 PM  
**Diameter of Solid Tumor Component Alone Should Be Used to Establish T-Stage in Lung Adenocarcinoma**

B. M. Burt  
Stanford University School of Medicine, CA

2:45 PM  
**Angiogenesis Biomarkers May Be Useful in the Management of Patients With Indeterminate Pulmonary Nodules**

C. W. Seder  
Rush University Medical Center, Chicago, IL

3:00 PM  
**Long-Term Effect of an Interdisciplinary Supportive Care Intervention for Lung Cancer Survivors Following Surgery**

D. J. Raz  
City of Hope National Medical Center, Duarte, CA

3:15 PM  
**The Impact of Zero-Day Global Reimbursement on Lung Cancer Care**

Keith S. Naunheim, St Louis, MO

1:30 PM – 3:30 PM

**Room 29D**

**General Thoracic Session: Lung Transplantation**

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

1:30 PM  
**Spontaneously Breathing Extracorporeal Membrane Oxygenation Support Provides the Optimal Bridge to Lung Transplantation**

M. Schechter  
Duke University Medical Center, Durham, NC
1:45 pm  Venous Thromboembolic Complications of Lung Transplantation in the Era of the Lung Allocation Score  
C. F. Evans  
University of Maryland, Baltimore

2:00 pm  Risky Business: Taking the Stigma Out of High-Risk Donation in Lung Transplantation  
S. Bansal  
University of Pittsburgh, PA

2:15 pm  Extracorporeal Membrane Oxygenation as a Bridge to Lung Transplantation: Is There a Volume Threshold for Optimized Survival?  
J. A. Hayanga  
Spectrum Health/Michigan State University, Grand Rapids

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, Minneapolis, MN

1:30 pm – 3:30 pm  Room 30E

Managing Cardiogenic Shock or Pulmonary Failure: Short-Term Mechanical Circulatory Support  
Moderators: Shaf H. Keshavjee, Toronto, Canada, and Francis D. Pagani, Ann Arbor, MI

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  
V. Jeevanandam  
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. Healy  
University of Utah, Salt Lake City

3:00 pm  Should Marginal Donors Be Utilized in Patients Undergoing Heart Transplantation With Left Ventricular Assist Device Explantation?  
S. Maltais  
Vanderbilt Heart and Vascular Institute, Nashville, TN
3:15 pm  Does Postoperative Blood Pressure Control Influence Development of Aortic Regurgitation Following Continuous-Flow Left Ventricular Assist Device Implantation?
N. P. Patil
Royal Brompton & Harefield NHS Foundation Trust, London, United Kingdom

1:30 PM – 3:30 PM  Room 30AB

STS/SCA: Considerations in Perioperative Resuscitation of Cardiothoracic Patients
Moderators: Aaron M. Cheng, Seattle, WA, Jay G. Shake, Temple, TX, Andrew Shaw, Nashville, TN, and Linda Shore-Lesserson, Hempstead, NY

1:30 PM  Colloid, Crystalloid, and the Appeal for Balanced Solutions: What’s the Evidence and Does It Really Matter?
Andrew Shaw, Nashville, TN

1:50 PM  Discussion

2:00 PM  Massive Transfusion Protocols and Point of Care Directed Bleeding Management: Are They Worth Following in Our Patients?
Victor A. Ferraris, Lexington, KY

2:20 PM  Discussion

2:30 PM  Beyond Packed Red Blood Cell Transfusion—Plasma, Cryo, Platelets: Deciding Rational Triggers and Endpoints in the Perioperative Period
Bruce Spiess, Richmond, VA

2:50 PM  Discussion

3:00 PM  Can We Do Better? Pharmacological Adjuncts in Treating Perioperative Coagulopathy—What Are They, Who Gets Them, and Are They Safe?
Linda Shore-Lesserson, Hempstead, NY

3:20 PM  Discussion

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

4:15 PM – 5:15 PM  Ballroom 20D

Surgical Motion Picture Matinee: Adult Cardiac
Moderators: TBA

4:15 PM  Advanced Measured Tube Technique for Ensuring the Correct Length of Artificial Chordae in Mitral Valvuloplasty
Y. Matsui
Hokkaido University Graduate School of Medicine, Sapporo, Japan

4:27 PM  Hemi-Commando Procedure With Aortic Valve Homograft: Surgical Technique for Double Valve Endocarditis
J. L. Navia
Cleveland Clinic Foundation, OH
### Room 32AB

**Surgical Motion Picture Matinee: Congenital**

**Moderators:** Andrew C. Fiore, St Louis, MO, and Mark D. Rodefeld, Indianapolis, IN

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation</th>
<th>Speaker</th>
<th>Institution</th>
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<tbody>
<tr>
<td>4:15 PM</td>
<td>Modified Nikaidoh Operation in a Newborn With Transposition of Great Arteries With a Ventricular Septal Defect and Pulmonary Stenosis</td>
<td>M. Nosal</td>
<td>Children's Heart Centre Slovak Republic, Bratislava, Slovakia</td>
</tr>
<tr>
<td>4:27 PM</td>
<td>Complete Neonatal Repair of a Patient With Truncus Arteriosus, Left Pulmonary Artery Sling, and Long Segment Tracheal Stenosis</td>
<td>P. V. Anagnostopoulos</td>
<td>University of Wisconsin Hospitals and Clinics, Madison</td>
</tr>
<tr>
<td>4:39 PM</td>
<td>Right Ventricular Overhaul Operation in Patient With Pulmonary Atresia/Intact Ventricular Septum: Successful Biventricular Conversion After One-and-a-Half Repair Operation</td>
<td>N. Ota</td>
<td>National Heart Institute, Kuala Lumpur, Malaysia</td>
</tr>
<tr>
<td>4:51 PM</td>
<td>Robot-Assisted Transitional Atroventricular Canal Defect Repair and Maze Procedure via Left Atrial Approach</td>
<td>K. Mandal</td>
<td>The Johns Hopkins University School of Medicine, Baltimore, MD</td>
</tr>
<tr>
<td>5:03 PM</td>
<td>Partial Sternectomy 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</td>
<td>J. Kwak</td>
<td>Sejong General Hospital, Seoul, Republic of Korea</td>
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### Room 31ABC

**Surgical Motion Picture Matinee: General Thoracic**

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

<table>
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<th>Time</th>
<th>Presentation</th>
<th>Speaker</th>
<th>Institution</th>
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<tbody>
<tr>
<td>4:15 PM</td>
<td>Use of Forced Sternal Elevation in Adult Minimally Invasive Pectus Excavatum Repair</td>
<td>D. E. Jaroszewski</td>
<td>Mayo Clinic, Phoenix, AZ</td>
</tr>
</tbody>
</table>
4:27 pm  Successful Treatment of Recurrent Catamenial Pneumothorax With a Combined Laparoscopic and Video-Assisted Thoracoscopic (VATS) Approach  
M. J. Magee  
HCA North Texas Division, Dallas

4:39 pm  Single-Port Thymectomy Using a Subxiphoid Approach  
T. Suda  
Fujita Health University, Toyoake, Japan

4:51 pm  Laparoscopic Resection of a Giant Epiphrenic Diverticulum  
A. Ashfaq  
Mayo Clinic, Phoenix, AZ

5:03 pm  Pressurized Cadaver Model in Cardiothoracic Surgical Simulation  
C. L. Greene  
Keck School of Medicine of the University of Southern California, Los Angeles

4:15 pm – 5:15 pm  Room 30CD
Late-Breaking Abstract Session: Adult Cardiac

5:00 pm – 6:30 pm  Ballroom 20D Foyer
Scientific Posters and Wine

5:30 pm – 6:30 pm  Ballroom 20D
Business Meeting (STS Members Only)

6:45 pm – 7:45 pm
STS-PAC Reception: San Diego Marriott Marquis

7:00 pm – 10:00 pm
STS Social Event: USS Midway Aircraft Carrier Museum
TUESDAY, JANUARY 27, 2015

6:30 AM – 4:30 PM  Lobby D

Registration: STS 51st Annual Meeting

9:00 AM – 3:00 PM  Exhibit Hall

Exhibits Open

9:00 AM – 5:00 PM  Rooms 29-32 Foyer

Scientific Posters Open

7:30 AM – 8:30 AM  Various locations; see below

Early Riser Sessions

Early Riser Session 1  Room 25C
Women in Thoracic Surgery—Practice Management
Robert S. D. Higgins, Columbus, OH, Susan D. Moffatt-Bruce, Columbus, OH, Peter K. Smith, Durham, NC, Richard I. Whyte, Boston, MA, and Valerie A. Williams, Cincinnati, OH

Early Riser Session 2  Room 26A
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

Early Riser Session 3  Room 29C
Ask the Experts—Esophageal Benign Disease
Shanda H. Blackmon, Rochester, MN, Christine L. Lau, Charlottesville, VA, and M. Blair Marshall, Washington, DC

Early Riser Session 4  Room 28B
Clinical Trials in General Thoracic Surgery
Gail E. Darling, Toronto, Canada, Linda W. Martin, Baltimore, MD, and Dennis A. Wigle, Rochester, MN

Early Riser Session 5  Room 29AB
Ask the Experts—Pulmonary Regurgitation With Tetralogy of Fallot
James A. Quintessenza, St Peters burg, FL, and James S. Tweddell, Milwaukee, WI

Early Riser Session 6  Room 33ABC
Ask the Experts—Controversies in Mitral Valve and Atrial Fibrillation Surgery
Niv Ad, Falls Church, VA, Anelechi C. Anyanwua, New York, NY, Vinay Badhwar, Pittsburgh, PA, Steven F. Bolling, Ann Arbor, MI, Lawrence H. Cohn, Boston, MA, James L. Cox, Denver, CO, James S. Gammie, Baltimore, MD, A. Marc Gillinov, Cleveland, OH, Patrick M. McCarthy, Chicago, IL, J. Scott Rankin, Nashville, TN, and Rakesh M. Suri, Rochester, MN

Early Riser Session 7  Room 30CD
Early Career—First 5 Years in Practice
Garov Ailawadi, Charlottesville, VA, Ahmet Kilic, Columbus, OH, and John R. Mehall, Colorado Springs, CO
Early Riser Session 8  
Transitions in Your Career—From Clinician to Administrator  
Paul J. Corso, Washington, DC, W. Randolph Chitwood Jr, Greenville, NC, and Alan M. Speir, Falls Church, VA

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

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

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

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

7:30 am – 8:30 am  
Early Riser Health Policy Forum: The End of Global Surgical Payments Under Medicare?  
Peter K. Smith, Durham, NC, and Courtney Yobe, Washington, DC

9:00 am – 12:00 pm  
Ballroom 20ABC

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: Clinical Trials at the Interface of Cardiology and Cardiac Surgery—What Would Dr. Lillehei Think?  
Patrick T. O’Gara, Boston, MA

10:00 am – 10:45 am  
BREAK—Visit Exhibits and Scientific Posters  
Complimentary coffee available

12:00 pm – 1:00 pm  
BREAK—Visit Exhibits and Scientific Posters  
Complimentary coffee available
12:00 pm – 1:00 pm  Room 30E

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

*Facilitator:* Robert M. Sade, Charleston, SC  
*PRO:* Richard G. Ohye, Ann Arbor, MI  
*CON:* James Jaggers, Aurora, CO

12:00 pm – 1:00 pm  Room 28CD

**Residents Luncheon**

1:00 pm – 3:00 pm  Room 32ABC

**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 Sapien3 Transcatheter Heart Valve  
D. Wendt  
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)  
J. V. Conte  
The Johns Hopkins Hospital, Baltimore, MD

1:30 pm  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. Vassileva  
Southern Illinois University School of Medicine, Springfield

1:45 pm  Dissection in Patients With Bicuspid Aortic Valve-Associated Aneurysms  
C. Wojnarski  
Cleveland Clinic Foundation, OH

2:00 pm  Hemodialysis Patients Undergoing Transcatheter Aortic Valve Replacement in the United States: A Propensity-Matched Comparison  
D. Kobrin  
University of Pennsylvania, Philadelphia

2:15 pm  Magnitude of Negative Impact of Preoperative Heart Failure on Mortality During Aortic Valve Replacement in the Medicare Population  
C. M. Vassileva  
Southern Illinois University School of Medicine, Springfield

2:30 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
2:45 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
University of Rochester Medical Center, NY

1:00 PM – 3:00 PM  Room 31AB

Adult Cardiac Session: Mitral Valve

Moderators: Gorav Ailawadi, Charlottesville, VA, and Vinay Badhwar, Pittsburgh, PA

1:00 PM  100% Repairability of Degenerative Mitral Regurgitation: Results of a Dynamic Engineered Approach
G. M. Lawrie
Texas Surgical Associates, Houston

1:15 PM  Gender Differences in Patient Presentation, Procedural Aspects, and Early Outcome in Isolated Mitral Valve Surgery
M. Mokhles
Erasmus University Medical Center, Rotterdam, The Netherlands

1:30 PM  Long-Term Outcome of Tricuspid Valve Repair for Functional Tricuspid Regurgitation: The Berlin Experience
A. Khan
Deutsches Herzzentrum Berlin, Germany

1:45 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. Murphy
Emory University, Atlanta, GA

2:00 PM  Early Results of Mitral Valve Repair in Barlow Disease With Partial or Complete Rigid Rings: A Propensity-Matched Analysis
C. Muneretto
University of Brescia Medical School, Italy

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
Leipzig Heart Center, Germany

2:30 PM  Debate: 45-Year-Old, Obese Woman With Barlow’s Valve
Use of Open Resection: TBA
Use of Minimally Invasive Non-Resection: Michael A. Borger, New York, NY
### Congenital Session: Pediatric Congenital II

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

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<tbody>
<tr>
<td>1:00 PM</td>
<td>Does the Type of Primary Repair Influence Mode of Postrepair Pulmonary Vein Stenosis and Reintervention in Patients With Total Anomalous Pulmonary Venous Drainage?</td>
<td>M. Lo Rito</td>
<td>The Hospital for Sick Children, Toronto, Canada</td>
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<tr>
<td>1:15 PM</td>
<td>Surgical Repair of Pulmonary Atresia/Ventricular Septal Defect/Major Aortopulmonary Collaterals With Absent Intra-pericardial Pulmonary Arteries</td>
<td>S. Carrillo</td>
<td>Lucile Packard Children's Hospital at Stanford University, Palo Alto, CA</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>Results of Primary Repair vs Shunt Palliation in Ductal-Dependent Infants With Pulmonary Atresia and Ventricular Septal Defect</td>
<td>B. Alsoufi</td>
<td>Emory University, Atlanta, GA</td>
</tr>
<tr>
<td>1:45 PM</td>
<td>Surgical Reconstruction of Peripheral Pulmonary Arteries: Strategies, Outcomes, and New Classification</td>
<td>A. Alkhaldi</td>
<td>King Abdulaziz Medical City, Riyadh, Saudi Arabia</td>
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<tr>
<td>2:00 PM</td>
<td>Improving Surgical Outcome of Patients With Right Atrial Isomerism Complicated With Pulmonary Atresia and Major Aortopulmonary Collateral Arteries</td>
<td>Y. Ide</td>
<td>Mt Fuji Shizuoka Children's Hospital, Japan</td>
</tr>
<tr>
<td>2:15 PM</td>
<td>Metrics of Surgical Quality Predict Hospital Length of Stay in Patients With Congenital Heart Disease</td>
<td>E. Johnson</td>
<td>Oregon Health and Science University, Portland</td>
</tr>
<tr>
<td>2:30 PM</td>
<td>Is Atrioventricular Valve Regurgitation a Risk Factor in Functional Single Ventricle With Heterotaxy Syndrome?</td>
<td>K. Na</td>
<td>Seoul National University Hospital, Republic of Korea</td>
</tr>
<tr>
<td>2:45 PM</td>
<td>Skeletonization of the Recurrent Laryngeal Nerve During Norwood and Aortic Arch Repair</td>
<td>K. Sughimoto</td>
<td>Royal Children's Hospital, Melbourne, Australia</td>
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### General Thoracic Session: Esophageal

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

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<tr>
<td>1:00 PM</td>
<td>Predictors of Lymph Node Metastasis in Surgically Resected T1 Esophageal Cancer</td>
<td>A. Dubecz</td>
<td>Klinikum Nuremberg, Germany</td>
</tr>
</tbody>
</table>
1:15 PM Preoperative Chemoradiation Therapy vs Chemotherapy in Patients Undergoing En Bloc Esophagectomy for Locally Advanced Esophageal Adenocarcinoma: Does Radiation Add Value?  
J. Spicer  
University of Texas MD Anderson Cancer Center, Houston  

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. Martin  
University of Kentucky, Lexington  

1:45 PM Development of a Risk Score Model Using Preoperative Variables to Predict Mortality and Major Morbidity After Esophagectomy  
J. M. Reinersman  
Mayo Clinic, Rochester, MN  

2:00 PM Minimally Invasive vs Open Esophagectomy for Esophageal Cancer: A Comparison of Outcomes From The Society of Thoracic Surgeons National Database  
S. Sibag  
Massachusetts General Hospital, Boston  

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. Brescia  
St Louis University School of Medicine, 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  
Y. Perry  
University Hospitals Case Medical Center, Cleveland, OH  

1:00 PM – 3:00 PM Ballroom 20D  

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  
P. P. Samson  
Washington University School of Medicine, St Louis, MO  

1:15 PM The Impact of Lymph Nodes Downstaging on Survival After Induction Chemotherapy for pN2 Non-Small Cell Lung Cancer  
L. Spaggiari  
European Institute of Oncology, Milan, Italy
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
St Vincent Hospital and Health System, Indianapolis, IN

Salvage Pulmonary Resection for Stage III Non-Small Cell Lung Cancer After High-Dose Chemoradiotherapy
K. Suzuki
Juntendo School of Medicine, Tokyo, Japan

Debate: Persistent N2 Disease Following Induction Therapy
PRO: Stephen G. Swisher, Houston, TX
CON: Scott J. Swanson, Boston, MA

Patient Safety Symposium: Building a High-Performance Team for Patient Safety
Moderators: Stephen D. Cassivi, Rochester, MN, and J. Michael DiMiao, Dallas, TX

Welcome and Introduction

Building Leadership in Patient Safety Within the Hospital Setting
Susan D. Moffatt-Bruce, Columbus, OH

Building a Safe Team Through Standardization: Lessons From the Aviation Industry
Dann J. Runik, Dallas, TX

Building a Culture of Teamwork: Lessons From the Battlefield
Walter B. Franz III, Rochester, MN

Panel Discussion and Questions

Summary
J. Michael DiMaio, Dallas, TX

Technical Arch Options for Type A Dissection
Joseph E. Bavaria, Philadelphia, PA, and Ruggero De Paulis, Rome, Italy

Axillary Artery Cannulation in Penn A Acute Aortic Dissection: Simple, Straightforward, But Is It Always Safe?
M. Buonocore
Second University of Naples, Italy

Hybrid Type II Debranching Arch for Acute DeBakey I Dissection
Jehangir J. Appoo, Calgary, Canada

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
T. G. Gleason
University of Pittsburgh, PA
2:00 PM  Frozen Elephant Trunk for DeBakey Type I Dissection  
Malakh L. Shrestha, Hannover, Germany

2:15 PM  Optimal Technical Strategy for Acute DeBakey I Dissection: The Zone 2 Arch (Video)  
Nimesh Desai, Philadelphia, PA

2:30 PM  Is Total Arch Replacement Associated With Worse Outcomes During Repair of Acute Type A Aortic Dissection?  
R. Rice  
University of Texas Health Science Center, Houston

2:45 PM  Optimal Technical Strategy for Acute DeBakey I Dissection: Antegrade Thoracic Endovascular Aneurysm Repair With Hemi-Arch Procedure  
Alberto Pochettino, Rochester, MN

1:00 PM – 3:00 PM  Room 30E

Strategies to Improve Outcomes With Long-Term Mechanical Circulatory Support Devices  
Moderators: Joseph C. Cleveland Jr, Aurora, CO, and Nahush A. Mokadam, Seattle, WA

1:00 PM  Alternative Surgical Approaches to Device Implantation: Evidence for a Better Outcome?  
TBA

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. McCarthy  
University of Pennsylvania, Philadelphia

2:00 PM  Left Ventricular Assist Device Inflow Position and Pump Migration Adversely Impact LVAD Function  
T. Kazui  
Barnes-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 Aquila  
University Hospital Münster, Germany

2:30 PM  Long-Term Progression of Aortic Insufficiency Is Less in Patients Supported With HVAD LVADs Compared to HeartMate II Patients  
S. C. Silvestry  
Washington University in St Louis, MO

2:45 PM  Discussion
JCTSE/STS Workforce on International Relationships: Globalization of Graduate Surgical Education in Cardiothoracic Surgery

Moderator: Edward D. Verrier, Seattle, WA

1:00 pm  Welcome and Introduction
1:10 pm  Intercollegiate Surgical Curriculum Programme: Lessons Learned in Curriculum Development/Can Such Efforts Be Globalized?
Chris Munsch, Leeds, United Kingdom

1:25 pm  Discussion
1:40 pm  Standards for Technical Skill Proficiency: Can Such Skills Be Measured and Applied?
James I. Fann, Stanford, CA, and Paul T. Sergeant, Leuven, Belgium

1:55 pm  Discussion
2:10 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

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?
Walter J. Gomes, São Paulo, Brazil

4:35 pm  Discussion
4:45 pm  Panel Discussion
Kazuhiko Hashimoto, Tokyo, Japan, and A. Pieter Kappetein, Rotterdam, The Netherlands

3:00 pm – 3:30 pm

BREAK—Visit Scientific Posters
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™
R. M. Suri
Mayo Clinic, Rochester, MN

4:15 PM
Early Surgery for Infective Endocarditis With Cerebral Emboli Is Not Associated With Worsened Postoperative Outcomes
R. Sorabella
Columbia University College of Physicians and Surgeons, New York, NY

4:30 PM
Sutureless vs Sutured Bioprostheses: A Single Center, Propensity-Matched Study
A. Messina
Poliambulanza 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
V. H. Thourani
Emory University, Atlanta, GA

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
T. Kaneko
Brigham and Women’s Hospital, Boston, MA

5:15 PM
Five-Year Clinical and Hemodynamic Outcomes Following Transcatheter Aortic Valve Implantation
A. D’Onofrio
University of Padova, Italy

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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?
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**  
P. Wilton  
Spectrum Health, Grand Rapids, MI

4:00 PM  
**Outcomes of Elective Ascending Aorta Repair: Comparison of Isolated vs Multicomponent Operations**  
J. Idrees  
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**  
D. J. LaPar  
University of Virginia, Charlottesville

4:30 PM  
**Renal Dysfunction and Hemodilution: What Is the Acceptable Hematocrit Threshold on Cardiopulmonary Bypass?**  
P. Narayan  
NH RN Tagore Hospital, Kolkata, India

4:45 PM  
**Establishing the “Real World” Cost-Effectiveness of Transcatheter Aortic Valve Replacement: A Propensity-Matched STS National Database Analysis**  
D. J. LaPar  
University of Virginia, Charlottesville

5:00 PM  
**Is Ascending Aorta Replacement During Aortic Valve Replacement Free of Risk?**  
J. Goldberg  
Massachusetts General Hospital, Harvard Medical School, Lebanon, NH

5:15 PM  
**Mid-Term Results of Valve-Sparing Aortic Root Replacement in Patients With Expanded Indications**  
S. Miyahara  
Kobe University Graduate School of Medicine, Japan

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**Heart Thoracic Surgical Education**  
**Moderators:** Shari L. Meyerson, Chicago, IL, and Ara A. Vaporciyan, 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. Sarin  
Emory University, Atlanta, GA

3:45 PM  
**A Decade of Change: Training and Career Paths of Cardiothoracic Surgery Residents 2003-2014**  
E. H. Stephens  
Columbia University, New York, NY

4:00 PM  
**A Case Simulator to Help Evaluate Residency Program Volume in an Era of Changing Technology**  
T. Grenda  
University of Michigan, Ann Arbor

4:15 PM  
**Predictors of Career Choice Among Cardiothoracic Surgery Trainees**  
V. Tchantchaleishvili  
University of Rochester Medical Center, NY
4:30 PM  Recruiting the Best and Brightest Into Cardiothoracic Surgery: Medical Student Summer Scholars Program Revisited  
R. S. Higgins  
The Ohio State University, Columbus

4:45 PM  Training Surgical Assistants Can Improve the Process of Adoption of Video-Assisted Thoracic Surgery (VATS) Lobectomy  
S. L. Meyerson  
Northwestern University, Chicago, IL

5:00 PM  Basic Cardiac Surgery Skills on Sale for $22.50  
M. Kunkala  
Mayo Clinic, Rochester, MN

5:15 PM  The Impact of Thoracic Residents on Surgical Outcomes and Failure to Rescue Patients Having Noncardiac Thoracic Operations  
V. A. Ferraris  
University of Kentucky Chandler Medical Center, Lexington

3:30 PM – 5:30 PM  Room 30CD

Congenital Session: Pediatric Congenital III  
Moderators: Bret A. Mettler, Nashville, TN, and Glen S. Van Arsdell, Toronto, Canada

3:30 PM  Does Forward Flow Through the Pulmonary Valve After Bidirectional Cavopulmonary Shunt Benefit Patients at Fontan Operation?  
K. Sughimoto  
Royal Children's Hospital, Melbourne, Australia

3:45 PM  Cardiopulmonary Bypass Prime Volume Impacts Perioperative Adverse Outcomes in Pediatric Cardiac Surgery  
A. Muralidaran  
Doernbecher Children's Hospital at Oregon Health & Science University, Portland

4:00 PM  Influence of Morphology and Initial Surgical Strategy on Survival of Infants With Tricuspid Atresia in the Current Era  
B. Alsoufi  
Emory University, Atlanta, GA

4:15 PM  Perioperative Vasopressin Results in Reduced Length of Hospital Stay After the Fontan Operation  
T. S. Kumar  
Rama Krishna Nursing Home, Trichy, India

4:30 PM  Anomalous Aortic Origin of the Coronary Arteries With Intramural Course: Mid-Term Results Using Patch Angioplasty  
N. Carvalho Guerra  
Hospital de Santa Maria, Lisbon, Portugal

4:45 PM  Changes in Risk Profile Over Time in the Population of a Pediatric Heart Transplant Program  
O. Reinhartz  
Stanford University, CA
Outcomes With Early Biventricular Assist Device in Pediatric Heart Failure: A Single Center Experience of 31 Patients
J. Miller
Barnes-Jewish Hospital/Washington University in St Louis, MO

5:15 pm Discussion

3:30 PM – 5:30 PM Room 30E

ESTS @ STS: Controversial Issues in General Thoracic Surgery—Perspectives From Europe and North America
Moderators: Sean C. Grondin, Calgary, Canada, and Dirk E. M. Van Raemdonck, Leuven, Belgium

3:30 pm Introduction

3:32 pm Surgical Management of Malignant Mesothelioma: European Perspective
Isabelle Opitz, Zurich, Switzerland

3:42 pm Surgical Management of Malignant Mesothelioma: North American Perspective
Marc De Perrot, Toronto, Canada

3:52 pm Panel Discussion

4:00 pm Challenges in CT Screening for Lung Cancer: European Perspective
Gaetano Rocco, Naples, Italy

4:10 pm Challenges in CT Screening for Lung Cancer: North American Perspective
Douglas E. Wood, Seattle, WA

4:20 pm Panel Discussion

4:30 pm Challenges in Credentialing Surgeons in New Technologies or Procedures: European Perspective
Gilbert Massard, Strasbourg, France

4:40 pm Challenges in Credentialing Surgeons in New Technologies or Procedures: North American Perspective
Shanda H. Blackmon, Rochester, MN

4:50 pm Panel Discussion

5:00 pm Role of Robotics in the Surgical Management of Lung and Esophageal Malignancies: European Perspective
Alper S. Toker, Istanbul, Turkey

5:10 pm Role of Robotics in the Surgical Management of Lung and Esophageal Malignancies: North American Perspective
Robert J. Cerfolio, Birmingham, AL

5:20 pm Panel Discussion

5:28 pm Closing Remarks

3:30 pm – 5:30 pm Room 33ABC

General Thoracic Session: Mediastinal/Pulmonary
Moderators: Leah M. Backhus, Seattle, WA, and Christopher R. Morse, Boston, MA

3:30 pm Early Surgical Outcomes of En Bloc Resection Requiring Vertebrectomy for Malignancy Invading the Thoracic Spine
G. Mody
Brigham and Women’s Hospital, Boston, MA
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
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
S. R. Broderick
St Luke’s Hospital, Chesterfield, MO

4:15 PM  Idiopathic Subglottic Stenosis: Factors Affecting Outcome Following Single-Stage Repair
H. Wang
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
European Institute of Oncology, Milan, Italy

4:45 PM  Incidence and Factors Associated With Hospital Readmission Following Pulmonary Lobectomy
B. M. Stiles
New York Presbyterian Hospital – Weill Cornell Medical College, NY

5:00 PM  What’s New in the Management of Mediastinal Germ Cell Tumors
Kenneth A. Kesler, Indianapolis, IN

5:15 PM  The Importance of Participation in the International Thymic Malignancy Interest Group
Frank C. Detterbeck, New Haven, CT

3:30 pm – 5:30 pm  Role of SBRT in Lung Cancer Treatment


3:30 PM  Contemporary Results With SBRT
Robert Timmerman, Dallas, TX

4:00 PM  Comparison of Surgical Results and SBRT
Traves Crabtree, St Louis, MO

4:30 PM  Role of Alternate Minimally Invasive Treatments for Lung Cancer
Hiran C. Fernando, Boston, MA

4:45 PM  Integration of SBRT/Ablative Techniques Into a Surgeon’s Practice—The UPMC Approach
Neil A. Christie, Pittsburgh, PA

5:00 PM  Roundtable Discussion: The Future Role of SBRT in Early Stage Lung Cancer
3:30 PM – 5:30 PM
Room 29D

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

3:30 PM  Long-Term Survival and Quality of Life After Extent II Thoracoabdominal Repair in Marfan Syndrome
J. S. Coselli
Baylor College of Medicine, Houston, TX

3:45 PM  Nationwide Outcomes Following Open Descending Thoracic Aortic Repair: An Analysis of Over 5,000 Medicare Patients
J. Schaffer
Stanford Hospital and Clinics, Palo Alto, CA

4:00 PM  Vascular Access for TEVAR/TAVR: Thinking Out of the Box
Keith B. Allen, Kansas City, MO

4:15 PM  Results and Experience With Open vs Endoconduits for Femoral Approaches
Ravi Veeraswamy, Atlanta, GA

4:30 PM  Management of Descending Aorta With Type A Dissection
Eric E. Roselli, Cleveland, OH

4:45 PM  Lessons Learned With TEVAR in the Ascending Aorta
Rodney A. White, Torrance, CA

5:00 PM  Traumatic Aortic Disruption: Prioritizing Repair
Anthony L. Estrella, Houston, TX

5:15 PM  Controversies Surrounding Traumatic TEVAR
Mark A. Farber, Chapel Hill, NC
<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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</table>
| **Course 1:** | TAVR/TEVAR, Guidewires, and Sheaths  
*Course Directors:* Michael P. Fischbein, Stanford, CA, and Wilson Y. Szeto, Philadelphia, PA |
| **Course 2:** | Mitral Valve Repair  
*Course Directors:* Gorav Ailawadi, Charlottesville, VA, and Harold G. Roberts Jr, Aventura, FL |
| **Course 3:** | Valve-Sparing Aortic Root Replacement  
*Course Directors:* Duke E. Cameron, Baltimore, MD, and Edward P. Chen, Atlanta, GA |
| **Course 4:** | Aortic Root Enlarging Procedures  
*Course Directors:* John W. Brown, Indianapolis, IN, and S. Adil Husain, San Antonio, TX |
| **Course 5:** | ICU/ECHO  
*Course Directors:* Haney Mallemat, Baltimore, MD, and Glenn J. R. Whitman, Baltimore, MD |
| **Course 6:** | Long-Term Circulatory/Respiratory Support  
*Course Directors:* Ashish Shah, Baltimore, MD, and Scott C. Silvestry, St Louis, MO |
| **Course 7:** | Advanced Endotracheobronchial Procedures  
*Course Directors:* Rafael Andrade, Minneapolis, MN, and Moishe A. Liberman, Montreal, Canada |
| **Course 8:** | VATS Lobectomy  
*Course Directors:* Shanda H. Blackmon, Rochester, MN, and Shari L. Meyerson, Chicago, IL |
| **Course 9:** | Advanced Esophageal and Tracheal Procedures  
*Course Directors:* Sidharta P. Gangadharan, Boston, MA, and Thomas K. Varghese Jr, Seattle, WA |
| **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 |
The information listed here is accurate as of December 8, 2014. The information for these products and services was provided by the manufacturers, and inclusion in this publication should not be construed as a product endorsement by STS.

3Si Surgical Safety Solutions  
Burlington, MA  
3Si markets a speech recognition-driven software solution that resides in the OR to track the surgical team’s procedural workflow. It has an embedded electronic checklist that extends from preoperative to postoperative phases and alerts the team when activities are missed. Use of the 3Si HUB improves situational awareness, promotes effective communication, and encourages better teamwork.

A&E Medical Corporation  
Durham, NC  
A&E Medical’s products include MYO/Wire® temporary pacing wires, MYO/Wire II sternum wires, MYO/Punch rotating surgical punch, MYO/Lead disposable patient cable, and DoubleWire high-strength sternal closure system.

Abbott Vascular  
Santa Clara, CA  
Abbott (NYSE: ABT) is a global health care company devoted to improving life through the development of products and technologies that span the breadth of health care. With a portfolio of leading, science-based offerings in diagnostics, medical devices, nutritional, and branded generic pharmaceuticals, Abbott serves people in more than 150 countries and employs approximately 70,000 people.

ACUTE Innovations  
Hillsboro, OR  
Furthering its reputation as a leader in the thoracic industry, ACUTE Innovations® continues to make advancements in chest wall stabilization technology. Stop by booth 221 to learn about ACUTE’s cutting-edge products: RibLoc® U Plus Chest Wall Plating System and AcuTie® II Sternum Closure System.

Admedus  
Minneapolis, MN  
Admedus, a global health care group, is working with renowned medical leaders to bring new medical technologies to market. CardioCel®, a cardiovascular scaffold, is the first of its ADAPT® tissue-engineered bioimplants and is being used by surgeons to repair simple and complex cardiac defects.

Aesculap  
Center Valley, PA  
Aesculap Inc, a member of the B. Braun family of health care companies, is the world’s largest manufacturer of surgical instrumentation. For more than 138 years, Aesculap has provided customers with surgical instrumentation for ENT, plastic and reconstructive, thoracic, microvascular, cardiovascular, and laparoscopic surgery.
American Association for Thoracic Surgery  
Beverly, MA
Founded in 1917, the American Association for Thoracic Surgery is dedicated to excellence in research, education, and innovation in cardiothoracic surgery and has become an international professional organization of more than 1,300 of the world’s foremost cardiothoracic surgeons. www.aats.org

ATMOS  
Allentown, PA
ATMOS offers the finest quality, patient-friendly devices that empower medical professionals to provide the best possible quality of care. The ATMOS philosophy, combined with ambitious and team-oriented employees, continues to facilitate the company’s continued success. “For a better life.”

AtriCure Inc  
West Chester, OH
AtriCure is intent on reducing the global Afib epidemic and healing the lives of those affected through clinical science, education, and innovation. The company is a leading Afib solutions partner, with the only FDA-approved surgical treatment for Afib and the most widely implanted occlusion device for left atrial appendage management.

B. Braun Interventional Systems Inc  
Bethlehem, PA
Braun Medical Inc is a $3 billion international health care provider. B. Braun Interventional Systems Inc is a worldwide leader in interventional accessories. In the United States, B. Braun offers a full line of innovative vascular access, interventional accessory, and angioplasty and valvuloplasty balloon products.

Baxter Healthcare  
Deerfield, IL
As a global, diversified health care company, Baxter International Inc applies a unique combination of expertise in medical devices, pharmaceuticals, and biotechnology to create products that advance patient care worldwide.

Berlin Heart Inc  
The Woodlands, TX
Berlin Heart is the only company worldwide that develops, manufactures, and distributes ventricular assist devices for patients of every age and body size. EXCOR® Pediatric provides medium- to long-term circulatory support specifically for infants and children awaiting heart transplants. EXCOR Pediatric is approved for use in the United States under Humanitarian Device Exemption regulations by the FDA.

BFW Inc  
Louisville, KY
BFW understands the medical profession’s demands like no other. With more than 40 years of experience, the company strives to be a technological pioneer. Its latest innovations are the next generation of dynamic surgical and examination illumination systems that revolutionize the global medical community’s understanding about lighting solutions.
Biomet Microfixation  
Jacksonville, FL  
Booth: 826

Biomet Microfixation is a leading global health care provider of thoracic products. The company’s thoracic portfolio includes the Pectus Bar for repair of pectus excavatum and the SternaLock Blu Primary Closure System for sternal closure. The Blu System aligns and stabilizes the sternum after sternotomy and enables easier closure after minimally invasive access.

Bolton Medical  
Sunrise, FL  
Booth: 933

Bolton Medical is a subsidiary of the Werfen Life Group, an international company that manufactures and distributes medical diagnostic solutions and medical devices worldwide. Bolton sells endovascular therapies, such as the Relay Thoracic Stent-Graft, in both US and international markets and Relay NBS in international markets.

CardiacAssist, Inc  
Pittsburgh, PA  
Booth: 1602

CardiacAssist, inventor of the TandemHeart® Extracorporeal Circulatory Support System, offers versatile mechanical circulatory support treatment options. While the company is best known for its Left Ventricular Support platform, it recently launched a line of arterial cannulae and the PROTEK Duo™ Veno–Venous dual lumen cannula. Stop by booth #1602 to learn more.

CareFusion  
San Diego, CA  
Booth: 727

CareFusion is a global corporation helping clinicians and hospitals measurably improve patient care. The PleurX® Catheter System allows patients to manage symptoms associated with recurrent pleural effusions and malignant ascites at home, reducing the length of stay and cost of care while improving quality of life. Visit CareFusion at booth 727 to learn more.

Castle Biosciences  
Greensboro, NC  
Booth: 832

ClearFlow  
Anaheim, CA  
Booth: 636

The PleuraFlow® Active Clearance Technology™ System offers a safe way to proactively maintain chest tube patency, minimizing complications from ineffective evacuation of blood after surgery. Results from a recent prospective clinical trial showed a 42% decrease in reinterventions and a 30% decrease in postoperative atrial fibrillation with the PleuraFlow ACT.

Cook Medical  
Bloomington, IN  
Booth: 1133

Founded in 1963, Cook Medical pioneered many of the medical devices now commonly used to perform minimally invasive medical procedures throughout the body. Today, the company integrates medical devices, drugs, and biologic grafts to enhance patient safety and improve clinical outcomes. Since its inception, Cook has operated as a family-held private corporation.

CorMatrix  
Roswell, GA  
Booth: 527

CorMatrix® Cardiovascular markets its ECM® Bioscaffold devices for vascular repair, pericardial repair and reconstruction, cardiac tissue repair, and CanGaroo ECM Envelope. The company is currently conducting preclinical studies to evaluate other cardiac and vascular applications.
Covidien  
New Haven, CT
Covidien is a leading global health care products company that creates innovative medical solutions for better patient outcomes and delivers value through clinical leadership and excellence. Please visit www.covidien.com/surgical to learn more.

CryoLife  
Kennesaw, GA
CryoLife is a leader in the development and implementation of advanced technologies associated with allograft processing and cryopreservation. CryoLife also pioneers research in the development of implantable biological devices, surgical adhesives, hemostatic agents, and biomaterials for cardiac, vascular, and general surgery.

CT Assist  
Philippi, WV

CTSNet  
Chicago, IL
CTSNet (www.ctsnet.org), headquartered in Chicago, is the leading international source of online resources related to cardiothoracic surgery, as well as the major hub of the international online community of cardiothoracic surgeons and allied health care professionals.

Davol Inc  
Warwick, RI
Davol, a BARD company, is the market leader in comprehensive soft tissue reconstruction. In addition to this extensive suite of products, the company’s BioSurgery franchise delivers a growing line of enhanced sealants and hemostatic products to complement surgical techniques across thoracic, cardiovascular, and other surgical specialties.

Designs for Vision  
Ronkonkoma, NY
Just See It™ with Designs for Vision’s lightweight custom-made surgical telescopes—now available with Nike® frames. See It Even Better™ with the L.E.D. Daylite® or Twin Beam®, providing the brightest and safest untethered illumination. Introducing the L.E.D. Daylite® Nano Cam HD—document procedure and HD video from your perspective.

Domain Surgical  
Salt Lake City, UT
Domain Surgical’s FMX Ferromagnetic Surgical System is an advanced thermal energy surgical platform that uses ferromagnetic technology to cut, coagulate, and seal tissue. A variety of surgical tools have been designed to bring the unique clinical benefits of this technology to a broad array of surgical subspecialties.

Dornier MedTech America, Inc  
Kennesaw, GA
Dornier MedTech is committed to providing innovative solutions for a variety of health care fields worldwide and revolutionizes spider and varicose vein treatments by offering multifunctional, state-of-the-art, high performance diode lasers.
EBM  Booth: 1521
Tokyo, Japan
EBM, a biomedical spin-out venture company from Japan, provides the original beating heart simulator and quantitative assessment system for off-pump coronary artery bypass and vascular anastomosis worldwide. Skill assessment is based on rapid CFD technology and validated silicone vascular model.

Edwards Lifesciences  Booth: 901
Irvine, CA
Edwards Lifesciences is the global leader in the science of heart valves and hemodynamic monitoring. Driven by a passion to help patients, the company partners with clinicians to develop innovative technologies in the areas of structural heart disease and critical care monitoring, enabling them to save and enhance lives. Additional company information can be found at www.edwards.com.

Elsevier  Booth: 1327
Philadelphia, PA
Elsevier is the proud publisher of *The Annals of Thoracic Surgery* and a world-leading provider of information solutions that enhance the performance of science, health, and technology professionals. Elsevier empowers better decision making and the delivery of better care. www.us.elsevierhealth.com

Enova Illumination  Booth: 1415
St Paul, MN
Enova Illumination manufactures the brightest and most adjustable LED surgical headlights that allow complete mobility in the OR --no need to be tethered to fiber optic cables. The products feature extra-long battery life and are lightweight for long-lasting comfort.

Essential Pharmaceuticals  Booth: 1505
Ewing, NJ
Essential Pharmaceuticals is a specialty pharmaceutical company devoted to the development and sales of branded pharmaceutical products in the transplant/cardiothoracic surgery fields, including Custodial® HTK. Please visit booth #1505 and www.custodial.com.

ETHICON/DePuy Synthes CMF  Booth: 301
Cincinnati, OH
Ethicon US LLC, a Johnson & Johnson company, commercializes a broad range of innovative surgical products, solutions, and technologies used to treat some of today’s most prevalent medical issues, such as colorectal and thoracic conditions, women’s health conditions, hernias, cancer, and obesity. Learn more at www.ethicon.com or follow Ethicon on Twitter @Ethicon.

European Association for Cardio-Thoracic Surgery (EACTS)  Booth: 420
Windsor, United Kingdom
EACTS is the largest European association devoted to the practice of cardiothoracic surgery. The main objective of the association is to advance education in the field of cardiothoracic surgery and to promote, for the public benefit, research into cardiovascular and thoracic physiology and therapy, and to correlate and disseminate the useful results thereof. Visit booth 420 for more information.
European Society of Thoracic Surgeons (ESTS)  Booth: 422  Exeter, United Kingdom
ESTS is the largest international general thoracic surgery organization with more than 1,400 members from all continents. The society’s mission is to improve quality in the specialty, from the clinical and surgical management of patients to education, training, and credentialing of thoracic surgeons worldwide.

Fehling Surgical  Booth: 1027  Acworth, GA
Fehling Surgical features the CERAMO® Instrument Line, SUPERPLAST Probes, and new, innovative retractor systems for minimally invasive cardiac surgery. The CERAMO® surface means high efficiency through enhanced performance, increased endurance, and minimal maintenance.

General Cardiac Tech/Heart Hugger  Booth: 535  San Jose, CA
Heart Hugger-Sternum Support Harness is a patient-operated support harness applied postoperatively to splint surgical wounds. Benefits include improved patient compliance, faster return to premorbid respiratory levels, fewer wound complications, and better postoperative mobility. It is useful for post open-heart, thoracotomy, fractured rib, and other chest trauma patients.

Genesee BioMedical  Booth: 827  Denver, CO
Design Beyond Standard. Genesee BioMedical, Inc provides unique devices for cardiothoracic surgery, including sternal/thoracic valve retractors, instruments for minimally invasive cardiac surgery, coronary graft markers, suture guards, retraction clips, and myocardial needles. All products are CE approved. www.geneseebiomedical.com

Gore & Associates  Booth: 1127  Flagstaff, AZ
The Gore Medical Products Division has provided creative solutions to medical problems for three decades. Over 35 million Gore medical devices have been implanted worldwide. Products include vascular grafts, endovascular and interventional devices, surgical materials, and sutures for use in vascular, cardiac, and general surgery. For more information, visit www.goremedical.com.

Hawaiian Moon  Booth: 1122  Clearwater, FL
Say goodbye to dry skin with Hawaiian Moon Organic Aloe Cream.

HeartWare  Booth: 519  Framingham, MA
HeartWare is dedicated to delivering safe, high-performing, transformative therapies that enable patients with heart failure to get back to life. The HVAD® Pump is designed to be implanted in the pericardial space, avoiding the more invasive surgical procedures required with older LVAD technologies. The HVAD Pump is commercially available around the world.
ImaCor, Inc  
Garden City, NY
ImaCor develops advanced critical care solutions for hemodynamic assessment. hTEE™ (hemodynamic Transesophageal echocardiogram (TEE) is the first and only technology to provide continuously available direct cardiac visualization. hTEE is enabled through the 72-hour ClariTEE® probe, a miniaturized and disposable TEE probe, and the Zura™ Imaging Systems for episodic assessment.

International Society for Minimally Invasive Cardiothoracic Surgery (ISMICS)  
Beverly, MA
ISMICS: Innovation, technologies, and techniques in cardiothoracic and cardiovascular/vascular surgery. 2015 ISMICS Annual Scientific Meeting, 3-6 June 2015, InterContinental Hotel, Berlin, Germany. www.ismics.org

Intuitive Surgical  
Sunnyvale, CA
Intuitive Surgical, Inc designs, manufactures, and distributes the da Vinci® Surgical System, technology designed to allow surgeons to perform many complex procedures minimally invasively.

IsoRay Medical  
Richland, WA
IsoRay Medical manufactures and distributes radiation therapy sources for direct implantation into cancer or surgical margins following resection of cancer. IsoRay markets Cesium-131 brachytherapy meshes and strands for resection line treatment following surgery for high-risk lung cancers, resulting in highly conformal adjuvant radiation therapy that spares critical thoracic structures.

JACE Medical  
Warsaw, IN
JACE is a medical device development company pioneering a fully integrated resequencing technology and application for sternal resection and closure. The company innovates with an eye toward providing definitive benefits across the entire five-sided health care spectrum of patient, physician, provider, payer, and regulator. Visit the JACE booth and see how the company thinks outside the paradox. www.JACEMED.com

JOMDD  
Tokyo, Japan
JOMDD is engaged in the medical device incubation business, leveraging untapped technologies originating from Japan. The company operates as a new technology sourcing engine, currently developing multiple medical devices with high potential and uniqueness, and is looking for potential partnerships with medical device manufacturers to expand its products globally.

KaMedi Co Ltd  
Hua Hin, Thailand
SternaSafe is an active sternum support band.
Kapp Surgical
Cleveland, OH
Kapp Surgical designs surgical instruments and implants, manufactures them, and sells them, as well as distributes domestically and internationally. Kapp’s exclusive products are the Cosgrove Heart Retractor, Strip T’s surgical organizer, and countless surgical devices, all FDA-approved with several pending approval.

Karl Storz
El Segundo, CA
Karl Storz offers solutions for thoracic surgery, including slender, easily dismantled MediaFIT instruments that offer economic solutions for mediastinoscopy. The company’s EndoCAMeleon® Telescope allows the surgeon to adjust the viewing direction from 0° to 120° throughout procedures without changing telescopes.

KLS Martin
Jacksonville, FL
KLS Martin, a responsive company, is focused on the development of innovative products for oral, plastic, and craniomaxillofacial surgery. New product developments in the company’s titanium osteosynthesis plating systems allow these products to be used for rapid sternal fixation and reconstruction.

Koros USA, Inc
Moorpark, CA
For the past 30 years, Koros USA, Inc has been designing and distributing state-of-the-art surgical instruments, like the Cervical Black Belt, Lumbar Super Slide, and ALIF Polaris Lateral Retractors, along with the Rotating Osteo Punch, Ejector Punch Rongeurs, and many more fine hand instruments.

LifeNet Health
Virginia Beach, VA
LifeNet Health helps save lives and restore health for thousands of patients each year. It is the world’s most trusted provider of transplant solutions, from organ procurement to new innovations in bioimplant technologies and cellular therapies—a leader in the field of regenerative medicine, while always honoring the donors and health care professionals who allow the healing process.

Lippincott Williams & Wilkins
La Mesa, CA
LSI Solutions
Victor, NY
COR-KNOT® delivers instant security with knot placement and integrated suture trimming in one easy step. COR-KNOT® may reduce cardiopulmonary bypass and cross-clamp time. Internationally recognized innovation for advanced CT surgeons. Visit booth 1427 for more information.

MAQUET
Wayne, NJ
MAQUET Medical Systems is a market leader focused on improving patient care and quality of life. The company offers a comprehensive portfolio of innovative products designed to meet the needs of clinical professionals in the areas of advanced hemodynamic monitoring, cardiothoracic and vascular surgery, thoracic drainage, cardiac intervention, perfusion, anesthesia, and ventilation.
Med Alliance Solutions Booths: 1220, 1221
St Charles, IL

Medela Booth: 715
McHenry, IL
Medela, the market leader in breastfeeding education and research, provides medical vacuum solutions featuring Swiss technology in over 90 countries. Medela Healthcare optimizes patient care through pioneering and intelligent, mobile, digital chest drainage therapy and advanced wound management with negative pressure wound therapy.

Medistim Booth: 721
Plymouth, MN
Medistim is the standard of care in the operating room. With the unique combination of transit time flow measurement and high-frequency ultrasound imaging guidance to help reduce and minimize the risk of negative postoperative outcomes, Medistim’s quality assessment technology offers surgeons quantifiable validation and guidance during cardiovascular, vascular, transplantation, and neurosurgery.

Medtronic Booth: 701
Minneapolis, MN
Medtronic is committed to “Innovating for life” by pushing the boundaries of medical technology and changing the way the world treats chronic disease. Medtronic’s breadth of solutions in structural heart and aortic disease management includes: tissue, mechanical, and transcatheter valves; irrigated RF and cryosurgical ablation devices; aortic stent graft systems; and off-pump coronary artery bypass, minimally invasive cardiac surgery/coronary artery bypass grafting, cannulae, and perfusion products.

MedXpert North America Booth: 1433
Edmond, OK
MedXpert North America, LLC is a producer of medical devices (implants and instruments) specialized for all kind of procedures in the thoracic part of the human body. The company produces StraTos for three different indications (deformity, reconstruction after tumor resection, as well as trauma) and StraCos for two indications (trauma and reconstruction).

Microsurgery Instruments, Inc Booth: 302
Bellaire, TX
Microsurgery Instruments is one of the leading suppliers of surgical instruments and loupes. The company’s instruments include titanium scissors, needle holders, and DeBakey forceps. Its Super-Cut scissors are the sharpest in the market, and its newly designed surgical loupes offer up to 130 mm field of view and up to 11x magnification.
Munson Healthcare
Traverse City, MI
As a regional health care system, Munson Healthcare provides direct access to over 700 physicians, representing 54 specialty services at eight health care facilities that have been repeatedly recognized for excellence in quality, service, and patient care. Its 391-bed regional referral center is located in beautiful northern lower Michigan near Lake Michigan. Visit www.munsonhealthcare.org.

Myriad Genetic Laboratories, Inc
Salt Lake City, UT
Myriad Genetics is a leading molecular diagnostic company dedicated to making a difference in patient’s lives through the discovery and commercialization of transformative tests to assess a person’s risk of developing disease, guide treatment decisions, and assess risk of disease progression and recurrence.

Nadia International
Austin, TX
Educational/surgical bronze sculptures specifically for the thoracic surgeon. These museum-quality limited editions are created by the world famous sculptor Ronadró. More than 7,000 surgeons in 75 countries collect his fine works of art. His works are on display at the Smithsonian Institute and many medical universities throughout the world.

nContact
Morrisville, NC
nContact is a leader in the development of disease management programs, with the goal of opening unmet markets, minimizing rehospitalizations, and improving health care savings. nContact’s mission is to transform the underserved arrhythmia market and benefit the entire cardiovascular service line.

NeoChord, Inc
Eden Prairie, MN
On-X Life Technologies, Inc
Austin, TX
On-X® Heart Valves and MV Chordal Repair: Patented natural design and On-X® Carbon offer reduced turbulence in a mechanical valve to rival the clinical and hemodynamic performance of bioprostheses. FDA IDE approved PROACT (Prospective Randomized On-X® Anticoagulation Clinical Trial) in process. Chord-X ePTFE Suture for MV repair available.

Ornim
Foxboro, MA
Ornim specializes in research, development, and distribution of noninvasive patient monitors specializing in the field of tissue and cerebral blood flow. The company’s bedside product, c-FLOW™, is based on the patented UTLight™ technology designed to provide physicians with unique monitoring solutions that are imperative to individualized and personalized patient care.

Otto Trading Inc
Santa Ana, CA
Oxford University Press  
Cary, NC  
OUP publishes some of the most respected medical books and journals in the world, including the three journals of the European Association for Cardio-Thoracic Surgery. Visit the booth to browse books and pick up journal sample copies.

Pemco Inc  
Cleveland, OH  
Pemco has designed and manufactured precision surgical instruments for the cardiovascular field. The company has documented that perfusion cannula, coronary ostial cannula, and cardiac suckers offer cost savings over disposables. Additional products include reusable subclavian and femoral cannula, anesthesia screens, and the Rultract retractor.

PneumRx, Inc  
Mountain View, CA  
PneumRx, Inc is a medical device startup focused on developing minimally invasive solutions for unmet needs in pulmonary medicine. The RePneu® Coil System is intended to improve exercise capacity, lung function, and quality of life in patients with severe emphysema. The coils compress hyper-inflated tissue and tether small airways to prevent airway collapse without blocking lung parenchyma.

QED Medical  
Lexington, KY  
QED Medical introduces the new XL 10-watt OR-ready Portable LED Headlight System featuring un-tethered mobility, maximum intensity, and a lightweight design with intensity and spot size controls. Since 1971, QED Medical has developed a comprehensive line of US-made headlight illumination and video headlight systems for applications from examination to surgery.

Quest Medical, Inc  
Allen, TX  
Quest Medical, Inc is a medical device manufacturer and worldwide distributor specializing in protecting the heart during cardiac surgery with the Quest MPS 2® and microplegia. Quest also offers a unique variety of aortic punches, safety valves, vascular loops, and an anesthesia line designed for optimum cardiovascular surgery.

Regional Data Managers: STS National Database  
Ann Arbor, MI  
The Regional Data Managers booth provides opportunities for surgeons to interact with data managers from around the country who are actively involved with regional STS National Database efforts and collaborative STS groups. Visit booth 1118 to learn about regional activities and initiatives.

RTI Surgical  
Alachua, FL  
RTI Surgical is a leading global surgical implant company providing surgeons with safe biologic, metal, and synthetic implants. RTI’s implants are used in sports medicine, general surgery, spine, orthopedic, trauma, and cardiothoracic procedures, and are distributed in nearly 50 countries. RTI is headquartered in Alachua, FL, and has four manufacturing facilities in the US and Europe.
Rultract Booth: 1516
Cleveland, OH
Rultract’s surgical retractor provides gentle and uniform lift, allowing maximum exposure for IMA dissection, redo hearts, xiphoid entry, subxiphoid pericardial procedures, minimally invasive procedures (Thoratrak capable), parasternal procedures, pediatric/ASD, t-incisions, transabdominal GEA midcab, Pectus, LVAD extraction, and TEMLA procedures.

Scanlan International Booth: 500
St Paul, MN
Highest quality surgical products designed and manufactured by the Scanlan family since 1921. More than 3,000 surgical instruments in titanium and stainless steel, including D’Amico Mediastinoscopy Biopsy Forceps, new shorter VATS instruments, Uniportal VATS instruments, MEMORY Dilators/Vessel Probes, LEGACY Needle Holders and Forceps, and single-use products.

Society of Thoracic Surgeons, The Booth: 1111
Chicago, IL
The Society of Thoracic Surgeons represents more than 6,900 surgeons, researchers, and allied health care professionals worldwide who are dedicated to ensuring the best possible outcomes for surgeries of the heart, lung, and esophagus, as well as other surgical procedures within the chest. The Society offers a wide variety of member benefits, including reduced participation fees in the world renowned STS National Database™, a complimentary subscription to *The Annals of Thoracic Surgery*, dynamic educational offerings, online patient information resources, and much more. The Society also supports cutting-edge research via the STS Research Center and advocates in Washington, DC, on behalf of cardiothoracic surgery professionals and their patients. Stop by the STS booth 1111 or visit www.sts.org to learn more.

Sontec Instruments Booth: 1501
Centennial, CO
Sontec offers headlights, loupes, and the most comprehensive selection of exceptional handheld surgical instruments available to the discriminating surgeon. There is no substitute for quality, expertise, and individualized service. Sontec's vast array awaits your consideration at its booth.

Sorin Group Booth: 1301
Arvada, CO
Sorin Group is a world leader in the treatment of cardiovascular disease. Its innovative product portfolio includes aortic and mitral valve replacement and repair, perfusion equipment, cannula, and MICS instruments. For more information, visit the company's website at www.sorin.com.

Spiration, Inc Booth: 1121
Redmond, WA
The Spiration® Valve System has a humanitarian device approval in the United States to control specific postoperative air leaks of the lung, and has CE mark approval for the treatment of diseased lung in emphysematous patients and for damaged lung resulting in air leaks by limiting air flow to selected areas.
St Jude Medical
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St Jude Medical is a global medical device manufacturer dedicated to transforming the treatment of some of the world’s most expensive, epidemic diseases. The company does this by developing cost-effective medical technologies that save and improve lives of patients around the world. Headquartered in St Paul, MN, St Jude Medical has four major clinical focus areas that include cardiac rhythm management, atrial fibrillation, cardiovascular, and neuromodulation. Please visit sjm.com.

STS Public Reporting
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STS is committed to transparency and the accurate reporting of cardiothoracic surgery outcomes. In 2015, STS will celebrate its fifth anniversary of public reporting. Visit booth 1117 to learn about the Society’s adult cardiac, general thoracic, and congenital heart surgery public reporting initiatives, as well as its ongoing collaboration with Consumer Reports.

SurgiTel/General Scientific Corp
Ann Arbor, MI
SurgiTel is the manufacturer of premium loupes and headlights sold around the world from its headquarters in Ann Arbor. Holding a variety of patents, SurgiTel is always on the forefront of vision and ergonomics.

SynCardia Systems, Inc
Tucson, AZ
The SynCardia temporary Total Artificial Heart (TAH-t) is the world’s only FDA, Health Canada, and CE approved Total Artificial Heart. It is approved as a bridge to transplant for patients dying from end-stage biventricular failure. Visit the SynCardia booth for updates on the Freedom® portable driver, 50cc TAH-t, and destination therapy.

Terumo
Ann Arbor, MI
Vascutek, a Terumo company, will display Gelweave™ gelatin-sealed, woven, and branched vascular grafts. The Vascutek CE-market Thoraflex™ Hybrid device will also be featured (not cleared for sale in the United States). Terumo will display the VirtuoSaph® Plus Endoscopic Vessel Harvesting System, Beating Heart and Surgical Stabilization products for cardiothoracic procedures, and Terumo® Perfusion Products.

Thompson Surgical
Traverse City, MI
Thompson Surgical has been a leader in exposure for over 50 years. Cardiovascular surgeons will benefit from the Thompson Surgical Bolling Retractor, which provides low profile, stable, uncompromised exposure of the heart structures. The company provides innovative, high-quality systems that deliver safe, versatile retraction.

Thoracic Surgery Foundation for Research and Education (TSFRE)
Chicago, IL
TSFRE is the charitable arm of The Society of Thoracic Surgeons. The mission of TSFRE is to foster the development of surgeon scientists in cardiothoracic surgery; increasing knowledge and innovation to benefit patient care. The foundation represents cardiothoracic surgery in the United States and its research and education initiatives support the broad spectrum of cardiothoracic surgery.
Thoramet Surgical
Rutherford, NJ
Thoramet Surgical Products sells the most complete line of VATS instruments available. Produced in the USA in their own facilities, they are the surgeon’s choice. Visit to booth 823 to see their unique versatility. Thoramet has the feel you want, the actuation you need, and the patterns you demand.

Thoratec Corporation
Pleasanton, CA
Thoratec is the world leader in mechanical circulatory support with the broadest product portfolio to treat the full range of clinical needs for patients suffering from advanced heart failure. Thoratec’s products include the HeartMate LVAS, Thoratec VAD, CentriMag, and PediMag/PediVAS.

Transonic
Ithaca, NY
You’ve carefully constructed several challenging anastomoses, and they all look good, but are they? Before you close your patient, take a few seconds and get precise blood measurements on each graft. Know if there is a problem now, before the patient lets you know later. Visit Transonic and see how its meters and flow probes can help you improve your outcomes.

VAD Consulting Group, The
Spokane, WA
Whether your VAD program is just starting out or you are an established center looking to increase financial and operational efficiencies, the VAD Consulting Group has the experience and expertise to help you in today’s challenging environment.

Vitalcor, Inc/Applied Fiberoptics
Westmont, IL
Vitalcor, Inc is a supplier of medical devices used primarily in cardiothoracic surgery. Since 1975, Vitalcor has provided products that take input from teaching and practicing surgeons to make their practice easier. The company prides itself on offering quality products and providing exceptional customer service.

Vitalitec Geister
Plymouth, MA
Vitalitec Geister will be displaying all company products, highlighting the Enclose II Anastomosis Assist Device, Cygnet Flexible Clamps, Intrack Atraumatic Temporary Clamps and Inserts, and Geister ValveGate and ValveGate PRO line of MIS CV instrumentation.

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<td>2000 - Fort Lauderdale</td>
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2011 – L. Henry Edmunds Jr
2012 – Robert M. Sade
2013 – Carolyn E. Reed
2013 – Michael J. Mack
2014 – Douglas J. Mathisen

EARL BAKKEN SCIENTIFIC ACHIEVEMENT AWARD

This award was established through a grant from Medtronic, Inc, to recognize individuals who have made outstanding scientific contributions that have enhanced the practice of cardiothoracic surgery and quality of life for our patients.

2000 – Gerald D. Buckberg
2001 – Rene G. Favaloro
2001 – W. Dudley Johnson
2002 – Hermes C. Grillo
2003 – Denton R. Cooley
2004 – Richard D. Weisel
2005 – Randall B. Griep
2006 – Vincent L. Gott

2007 – Joel D. Cooper
2008 – William A. Baumgartner
2009 – James J. Cox
2010 – Mark B. Orringer
2011 – Philippe Menasche
2012 – Sidney Levitsky
2013 – D. Craig Miller
2014 – G. Alexander Patterson
PRESIDENT’S AWARD

Selected by the STS President, the recipient of this award is recognized for submitting the best scientific abstract to the Annual Meeting by a lead author who is either a resident or a young investigator who has completed his or her training within the last 5 years.

2011 – Michael Ko
2012 – Mark J. Russo
2013 – Matthew L. Williams
2014 – Tarek Malas

TSDA BENSON R. WILCOX AWARD

This award acknowledges the best scientific abstract submitted by a cardiothoracic surgery resident to the Annual Meeting.

2010 – Mark J. Russo
2011 – Harald C. Ott
2012 – Farhood Farjah
2013 – Bryan A. Whitson
2014 – Fenton McCarthy

TSRA SOCRATES AWARD

This award is given to an outstanding faculty member in cardiothoracic surgery in recognition of his or her commitment to resident education and mentorship.

2001 – Mark J. Stout
2002 – Mark B. Orringer
2003 – William A. Baumgartner
2004 – Bruce W. Lytle
2006 – John A. Elefteriades
2007 – Richard C. Daly
2008 – Patrick M. McCarthy
2009 – Robert A. Guyton
2010 – William A. Baumgartner
2011 – Lyle D. Joyce
2012 – George L. Hicks Jr
2013 – Carolyn E. Reed
2014 – John A. Kern

HERBERT SLOAN LECTURERS

1988 – Joel D. Cooper
1992 – Mark V. Braimbridge
1995 – Robert H. Anderson
1996 – Philippe G. Dartevelle

RALPH S. ALLEY LECTURERS

1991 – Harry Schwartz
1997 – Yasuharu Imai
1998 – Vincent L. Gott
1999 – Miles F. Shore
2000 – Hans G. Borst
2001 – William R. Brody
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Your foundation for research and education

TSFRE is a pivotal force for growth and vitality in cardiothoracic surgery, especially for research and academic career development. TSFRE was first established in 1988 as a 501(c)(3) not-for-profit charitable foundation with support from the four major thoracic surgery organizations—the American Association for Thoracic Surgery, The Society of Thoracic Surgeons, the Southern Thoracic Surgical Association, and the Western Thoracic Surgical Association. On October 1, 2014, TSFRE became the charitable arm of The Society of Thoracic Surgeons.

The foundation represents cardiothoracic surgery in the United States, and its research and education initiatives support the entire specialty. The mission of TSFRE is to foster the development of surgeon scientists in cardiothoracic surgery, increasing knowledge and innovation to benefit patient care.

In 2014, TSFRE awarded $375,000 in research grants and $25,000 in educational scholarships. A detailed list follows.

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2014 TSFRE RESEARCH AWARD RECIPIENTS

**TSFRE Research Grant:** Operational support of original research efforts by cardiothoracic surgeons who have completed their formal training and who are seeking initial support and recognition for their research program. Awards of up to $40,000 a year for up to 2 years are made annually to support the work of early career cardiothoracic surgeons (within 5 years of first faculty appointment).

- **Ravi K. Ghanta** – University of Virginia
  *Therapeutic Mechanical Modification of Myocardial Infarcts With Tunable Nanofibers to Prevent Ventricular Remodeling*

**TSFRE/NCI Jointly Sponsored Mentored Clinical Scientist Development Awards (TSFRE/NHLBI/MCSDA):** Support to outstanding clinician research scientists who are committed to a career in cardiothoracic surgery research and have the potential to develop into independent investigators. The award is up to $150,000 in total additional matching funding over the 5-year NIH award period.

- **Edward Cantu** – University of Pennsylvania
  *Lung Transplant Donor: Prediction, Evaluation, and Mechanism*
Nina Starr Braunwald Research Fellowship: Support of up to $30,000 per year for up to 2 years for a woman resident working in a cardiac surgical clinic or laboratory research program who has not yet completed cardiothoracic surgical training.

Emily A. Downs – University of Virginia
Anisotropic Reinforcement of Acute Right Ventricular Dysfunction

Ann C. Gaffey – University of Pennsylvania
A Novel, Vascularized, Clinically Translatable Tissue Engineered Construct to Provide Angiogenic Endothelial Progenitor Cell Therapy to Treat Ischemic Cardiomyopathy

Carolyn E. Reed Traveling Fellowship: Support of $10,000 for a clinically established woman thoracic surgeon to travel to another institution for the purpose of learning a new skill or technology.

Linda W. Martin – University of Maryland
Robotic Thoracic Surgery at the University of Alabama at Birmingham

TSFRE Simulation Award: Support of up to $15,000 for a demonstration study for the application of simulation in thoracic surgery education.

Dawn S. Hui – St Louis University
Defining Nontechnical Predictors and Number of Repetitions to Reach Technical Skill Proficiency on Coronary Anastomosis Simulation Prior to Patient Experience

2014 TSFRE EDUCATION AWARD RECIPIENTS

TSFRE Alley-Sheridan/Leadership Program in Health Policy and Management Scholarships: TSFRE offers up to 10 partial scholarships of $2,500 toward the $5,200 cost to attend the Leadership Program in Health Policy and Management at the Heller School of Public Policy and Management at Brandeis University.

Cristobal Gerardo Alvarado – Hartford HealthCare Medical Group
Faisal Bakaeen – Baylor College of Medicine
Lucas R. Collazo – Inova Fairfax Hospital
Ali Khoynezhad – Cedars-Sinai Medical Center
Richard G. Ohye – University of Michigan
Ourania Preventza – Baylor College of Medicine
Peter I. Tsai – Baylor College of Medicine

TSFRE Alley-Sheridan/Surgeons as Educators Scholarships: TSFRE offers up to three partial scholarships of $2,500 to attend the Surgeons as Educators course hosted by the American College of Surgeons.

Jonathan D’Cunha – University of Pittsburgh Medical Center
Paul H. Schipper – Oregon Health & Science University
Chad Nicholas Stasik – The University of Texas Health Science Center at San Antonio
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Intended Use / Indications For Use
Progel™ Pleural Air Leak Sealant (PALS) is a single use device intended for application to visceral pleura during an open thoracotomy after standard visceral pleural closure with, for example, sutures or staples, of visible air leaks (≥ 2 mm) incurred during open resection of lung parenchyma.

Contraindications
• Do not use Progel™ PALS in patients who have a history of an allergic reaction to Human Serum Albumin or other device components.
• Do not use Progel™ PALS in patients who may have insufficient renal capacity for clearance of the Progel™ PALS polyethylene glycol load.
• Do not apply Progel™ PALS on open or closed defects of main stem or lobar bronchi due to a possible increase in the incidence of broncho-pleural fistulae, including patients undergoing pneumonectomy, any sleeve resection or bronchoplasty.
• Do not apply Progel™ PALS on oxidized regenerated cellulose, absorbable gelatin sponges or any other surface other than visceral pleura as adherence and intended outcome may be compromised.
• Do not use more than 30 ml of Progel™ PALS per patient.

Warnings
Progel™ PALS safety and effectiveness was evaluated in 5 patients with FEV1 ≤ 40%, providing limited data about Progel™ PALS use in patients with FEV1 ≤ 40%. For patients with preop FEV1 ≤ or > 40%, mean (median) chest tube placement duration for patients with FEV1 ≤ 40% was 8.3 (7.0) days for Progel™ PALS and 5.8 (4.5) days for Control subjects; for patients with FEV1 > 40%, the mean (median) chest tube placement duration was 6.8 (5.0) days for Progel™ PALS and 6.2 (5.5) days for the Control cohort.

Precautions
The safety and effectiveness of Progel™ PALS has not been established in patients with the following conditions:
• Less than 18 years of age, pregnant or nursing women.
• Contaminated or dirty pulmonary resection cases.
• The presence of an active infection.
• In the presence of other sealants, hemostatic devices or products other than sutures and staples used in standard visceral pleural closure.
• Visceral pleural air leak due to spontaneous pneumothorax, any non-reflective pulmonary tissue trauma, or malignancy as well as congenital or acquired functional or anatomic defect.
• Patients receiving Progel™ PALS in more than one application session (surgery) before and/or after resorption of Progel™ PALS that was applied in any previous surgical session.
• In any area or tissue other than the visceral pleural surface as indicated.

Adverse Events
There were 3 subjects in the Progel™ PALS group with AEs that were considered by the investigator to be possibly or probably related to the device. The AEs reported were: chest pain, constipation, gastroesophageal reflux, nausea, cough, dyspnea, pneumothorax, and subcutaneous emphysema. All were reported as a single occurrence in the Progel™ PALS group. Two of the AEs, dyspnea and chest pain, were reported as “severe” and “serious”, respectively and occurred in the same subject. All others were reported as mild or moderate.

In a clinical trial there were reports of renal dysfunction, urinary system disorders and deaths within the study population. None of these have been confirmed to be associated with Progel™ PALS. The details of these clinical trial adverse events can be reviewed in the IFU supplied with the product and also available at www.davol.com.

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