



The Society
of Thoracic
Surgeons

52ND ANNUAL MEETING

PHOENIX, ARIZONA

JANUARY 23–27, 2016

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Tweet about the Annual Meeting



The information in this Program Guide is accurate as of December 9, 2015.

2016 MOBILE APP

Access the STS 52nd Annual Meeting Mobile App by searching for “STS 2016” in the Apple App Store or Google Play. You also can scan the QR code below with your smartphone.

**ANNALS MANUSCRIPT SUBMISSION**

Each abstract that is presented orally or as a poster during the STS 52nd 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 manuscript tracking system (www.atseditorialoffice.org) by Wednesday, January 27, 2016, 11:59 PM, Mountain Standard Time. If you need assistance, *Annals* editorial staff will be available in Room 121C on Sunday, January 24, from 1:00 PM to 4:00 PM, Monday, January 25, from 8:00 AM to 5:00 PM, Tuesday, January 26, from 9:00 AM to 5:00 PM, and Wednesday, January 27, from 8:00 AM to 12:00 PM. For more information, see page 10 of the *STS 52nd Annual Meeting Abstract Book*.

Annals editorial staff also will be holding tutorials in the Exhibit Hall at Booth #938:

Sunday, January 24

4:30 PM – 6:30 PM

Figure Clinic, Journal CME, New Submissions

Monday, January 25

10:50 AM – 11:30 AM

Figure Clinic

12:30 PM – 1:15 PM

Journal CME

3:30 PM – 4:15 PM

New Submissions

Tuesday, January 26

10:00 AM – 10:45 AM

Figure Clinic

12:00 PM – 1:00 PM

Journal CME

3:00 PM – 3:30 PM

New Submissions

ANNUAL MEETING ONLINE

New this year, access to the STS 52nd Annual Meeting Online is **included** free with your Annual Meeting registration. With such a full meeting schedule, it's impossible to attend every presentation of interest. This web-based video presentation will let you earn CME credit for sessions you were unable to attend—or review sessions of special interest—in the comfort of your home or office. This activity also provides self-assessment credits toward Part 2 of the American Board of Surgery Maintenance of Certification Program. The Online product will be available approximately 1 month after the conclusion of the Annual Meeting and will be accessible for up to a year.

ACCREDITATION STATEMENTS

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

STS 52nd Annual Meeting

The Society of Thoracic Surgeons designates this live activity for a maximum of 34.0 *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 41.9 Category I CEUs.

STS 52nd Annual Meeting Online

The Society of Thoracic Surgeons designates this enduring material for a maximum of 107.75 *AMA PRA Category 1 Credits*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

BUSINESS CENTER

A UPS Store is located in the West Building of the Convention Center, directly across 3rd Street. The UPS Store provides packing and shipping services, copying, faxing, binding, and office supplies. It will be open:

Saturday, January 23	8:00 AM – 2:00 PM
Sunday, January 24	Closed
Monday, January 25	7:00 AM – 6:00 PM
Tuesday, January 26	7:00 AM – 6:00 PM
Wednesday, January 27	7:00 AM – 6:00 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:

Sunday, January 24	4:30 PM – 6:30 PM
Monday, January 25	9:00 AM – 4:30 PM
Tuesday, January 26	9:00 AM – 3:30 PM

COAT & LUGGAGE CHECK

Complimentary coat and luggage check will be provided in the Lower Level Foyer near Registration:

Saturday, January 23	6:45 AM – 7:00 PM
Sunday, January 24	6:30 AM – 7:00 PM
Monday, January 25	6:30 AM – 7:00 PM
Tuesday, January 26	6:30 AM – 6:00 PM
Wednesday, January 27	6:30 AM – 12:00 PM

COMPUTER STATIONS

Visit the Computer Stations on the Lower Level of the Convention Center to access the internet, check e-mail, and review STS University lectures.

CONTINUING MEDICAL EDUCATION CREDIT

The STS 52nd 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 also are 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 Residents Symposium, Residents Luncheon, or STS/AATS Tech-Con 2016.*

Attendees can complete the overall meeting evaluations and all individual session evaluations onsite at CME Stations located near Room 120D, Room 121A, and Registration on the Lower Level. Certificate printing is available. Attendees also can access evaluations and CME/Perfusion CEU credit by visiting the online evaluation site through personal computers or handheld devices at www.sts.org/2016evaluation. You also can access the site through the STS Annual Meeting Mobile App. In order to make this process more convenient for attendees, the meeting evaluations will be available online through Thursday, February 11, 2016.

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 with your badge. One coupon can be used on Monday, January 25, and the other can be used on Tuesday, January 26. The concession stands will be open:

Monday, January 25	11:30 AM – 2:00 PM
Tuesday, January 26	11:30 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 14 for details on break times.

A retail coffee bar is available in the Metro Marche, located immediately inside the main entrance of the Convention Center, and will be open daily at 6:30 AM. Additional retail dining options also can be found in the Metro Marche.

Starbucks is located in the West Building of the Convention Center, directly across 3rd Street, and will open at 6:30 AM daily.

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 24, at 4:30 PM. Certain exhibitors will be offering refreshments and treats during the reception. The STS Exhibit Hall will be open:

Sunday, January 24	4:30 PM – 6:30 PM
Monday, January 25	9:00 AM – 4:30 PM
Tuesday, January 26	9:00 AM – 3:30 PM

FIRST AID

First aid services are available near Registration on the Lower Level of the Convention Center:

Friday, January 22	2:00 PM – 6:00 PM
Saturday, January 23	6:30 AM – 6:30 PM
Sunday, January 24	6:30 AM – 6:30 PM
Monday, January 25	6:30 AM – 6:30 PM
Tuesday, January 26	6:30 AM – 5:30 PM
Wednesday, January 27	6:30 AM – 11:30 AM

LEARNING LABS

Exhibiting companies and others will present talks and demonstrations in the new Learning Labs in the Exhibit Hall. The Large Theater is located to the far left of the 100 Aisle and the Small Theater is located toward the back of the 900 Aisle.

Sunday, January 24**Joint Council on Thoracic Surgery Education, Inc**

Jeopardy Championship – Round 1

5:10 PM – 5:40 PM

Large Theater

Monday, January 25**MAQUET**

Preventing POAF by Reducing Retained Blood

10:50 AM – 11:20 AM

Small Theater

Cook Medical

Hands-On & Didactics of the New Low-Profile

Zenith Alpha Thoracic Device

12:30 PM – 1:00 PM

Small Theater

Joint Council on Thoracic Surgery Education, Inc

Jeopardy Championship – Round 2

3:30 PM – 4:00 PM

Large Theater

LOOKING TO THE FUTURE

The STS Looking to the Future Scholarship Program was developed to identify and encourage general surgery residents who are considering, but not yet committed to, a career in cardiothoracic surgery. This year, 30 medical students and 30 general surgery residents were awarded scholarships to attend the STS 52nd Annual Meeting. A number of events for the scholarship winners are being held during the Annual Meeting, including:

Medical Student Reception

Saturday, January 23, 5:00 PM – 7:00 PM

Medical Student Overview of CT Surgery

Sunday, January 24, 8:00 AM – 1:00 PM

Looking to the Future/Women in Thoracic Surgery Reception

Sunday, January 24, 5:30 PM – 6:30 PM

Resident Program

Monday, January 25, 11:00 AM – 12:20 PM

LOST & FOUND

Lost items may be claimed at the Information Booth near Registration on the Lower Level of the Convention Center. After the meeting, all unclaimed items will be discarded.

PHOTOGRAPHY AND RECORDING POLICY

Photography and recording of STS/AATS Tech-Con 2016 sessions are strictly prohibited, except by authorized personnel. Recording of STS 52nd Annual Meeting sessions is strictly prohibited, except by authorized personnel.

REGISTRATION

Attendee and exhibitor registration is located on the Lower Level of the Convention Center:

Friday, January 22	3:00 PM – 6:00 PM
Saturday, January 23	7:00 AM – 6:00 PM
Sunday, January 24	7:00 AM – 6:30 PM
Monday, January 25	6:30 AM – 5:00 PM
Tuesday, January 26*	6:30 AM – 4:30 PM
Wednesday, January 27*	6:30 AM – 9:30 AM

*Exhibitor registration ends at 3:00 PM on Tuesday.

Badges must be worn at all times and are required for admission to scientific sessions and the STS Exhibit Hall. Annual Meeting registration provides access to the Opening Reception on Sunday, January 24, and all educational sessions on Monday, January 25, and Tuesday, January 26, with the exception of the International Symposium (Monday) and Ethics Debate (Tuesday), which require separate purchases. STS University (Wednesday, January 27) also is priced separately.

Tech-Con registration provides access to all STS/AATS Tech-Con 2016 educational sessions on Saturday, January 23, and Sunday, January 24.

The new Weekend Pass provides access to all educational sessions on Saturday, January 23, and Sunday, January 24, other than Tech-Con. (You must register for the Annual Meeting in order to register for a Weekend Pass.)

SATELLITE ACTIVITIES

Satellite activities are programs offered by industry and held in conjunction with the STS 52nd Annual Meeting. They are not developed or sponsored by STS.

Saturday, January 23**Abbott Vascular**

The New Mitral Valve Surgeon
7:00 PM – 8:30 PM
Phoenix Ballroom A, Sheraton Grand Phoenix
340 N Third Street

CMEology/Baxter Healthcare Corporation

Advanced Strategies for Preventing Bleeding-Related Complications:
Patient-Centered Approaches
7:00 PM – 9:15 PM
Valley of the Sun Ballroom D, Sheraton Grand Phoenix
340 N Third Street

Sunday, January 24**Atricure & MediaSphere Medical, LLC**

Why the LAA Matters: The Role of LAA Occlusion for Stroke Management
7:00 PM – 9:00 PM
Regency Ballroom A, Hyatt Regency Phoenix
122 N Second Street

Baxter Healthcare Corporation

Guideline Based Approach to Blood Management
7:00 PM – 10:00 PM
Curtis B, Hyatt Regency Phoenix
122 N Second Street

CorMatrix Cardiovascular

CorMatrix Conversation & Comedy
7:00 PM – 10:00 PM
Copper Blues, 50 W Jefferson Street #200

Tuesday, January 26**Medtronic**

ENB + Ablation: The Future of Thoracic Oncology
6:00 PM – 8:00 PM
Paradise Valley, Sheraton Grand Phoenix
340 N Third Street

Medtronic

Complex Endovascular Aortic Repair: The Role of the CT Surgeon Today and Tomorrow
6:00 PM – 9:00 PM
North Mountain, Sheraton Grand Phoenix
340 N Third Street

SCIENTIFIC POSTERS

Scientific posters are located in the foyer outside Room 120 and will be available from 2:00 PM on Sunday, January 24, through 5:00 PM on Tuesday, January 26.

Also, join your colleagues at the Scientific Posters and Wine event, 5:00 PM to 6:30 PM on Monday, January 25, in the foyer outside Room 120D for a moderated review of select scientific posters.

SOCIAL EVENT

Join your colleagues for an evening of mariachi music, delicious food, and ice-cold margaritas at Corona Ranch, nestled in the shadows of nearby mountains. You can compete against fellow attendees in “cowboy games” and get a front-row seat for an exciting rodeo that will incorporate bronco and bull riding, high-speed horse maneuvers, and trick roping. Don't miss this opportunity to relax and have fun in an Old Mexico environment. (Please note that this is an outdoor event and the desert can get chilly at night, so please dress accordingly.)

The 2016 STS Social Event will be held on Monday, January 25, from 7:00 PM to 10:30 PM. Join your colleagues at this exclusive event by purchasing a ticket at Registration on the Lower Level 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 Phoenix and the Annual Meeting. Be sure to use the hashtag #STS2016 if you tweet about the STS 52nd Annual Meeting.

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

SPEAKER READY ROOM

The Speaker Ready Room is located in Room 121AB. 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 52ND ANNUAL MEETING ABSTRACT BOOK

Don't forget to check out the *STS 52nd Annual Meeting Abstract Book*, which was handed to you at registration. This publication contains the full abstracts for all 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 25, 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 6:30 PM to 7:30 PM in Camelback B at the Sheraton Grand Phoenix. 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 2016. Contributions will be accepted at the door.

STS BOOTH

The STS booth (#523) 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.

STS UNIVERSITY LECTURES

STS University courses feature only hands-on learning. No didactic lectures will be given during the activity, so attendees are encouraged to access the lectures online prior to Wednesday morning. You can access the lectures at the Computer Stations located near the entrance to the Exhibit Hall and near Registration on the Lower Level of the Convention Center. You also can access them from your own computer or handheld device by visiting www.sts.org/annualmeeting or using the STS Annual Meeting Mobile App.

TECH BAR

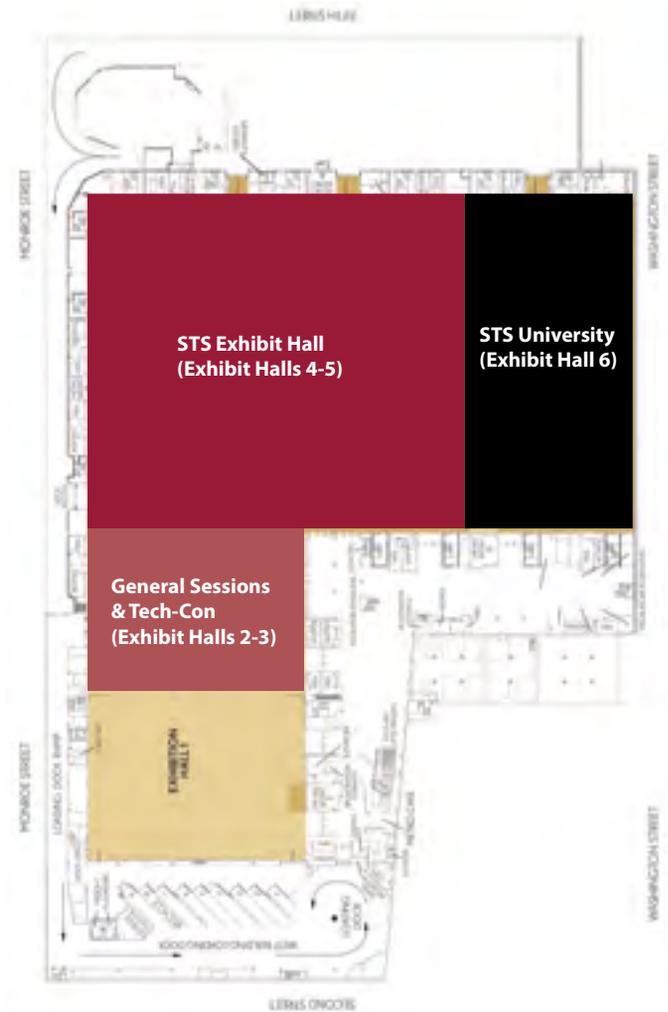
Get free technical assistance from the Tech Bar, located in the Exhibit Hall at Booth #639. The Tech Bar is similar to Apple's Genius Bar and will provide assistance from subject matter experts, live demos on technology topics of interest, and a charging station. You can get help with your tablets, mobile devices, apps, e-mail, and more—throughout the entire exhibition.

WIRELESS INTERNET

Complimentary wireless internet is available in the Metro Marche, located immediately inside the main entrance of the Convention Center. To connect to the wireless internet, select "PCCWifi" from the available networks. Launch a web browser, and follow the prompts to connect.



Street Level



Lower Level

FRIDAY, JANUARY 22, 2016

3:00 PM – 6:00 PM

Registration: STS/AATS Tech-Con and STS Annual Meeting

SATURDAY, JANUARY 23, 2016

7:00 AM – 6:00 PM

Registration: STS/AATS Tech-Con and STS Annual Meeting

8:00 AM – 12:30 PM

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

8:00 AM – 3:00 PM

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

12:00 PM – 6:30 PM

STS/AATS Tech-Con Exhibits

1:00 PM – 2:30 PM

Cardiopulmonary Bypass Simulation Course

1:00 PM – 5:00 PM

 **STS/AATS Tech-Con**

5:00 PM – 6:30 PM

STS/AATS Tech-Con Reception

SUNDAY, JANUARY 24, 2016

7:00 AM – 6:30 PM

Registration: STS/AATS Tech-Con and STS Annual Meeting

7:00 AM – 1:15 PM

STS/AATS Tech-Con Exhibits

7:45 AM – 12:00 PM

 **STS/AATS Tech-Con**

7:50 AM – 12:00 PM

Acquired and Congenital Heart Surgery Symposium: Challenges in Adult Congenital Heart Disease**Practice Management Summit****STS/AATS Critical Care Symposium: Quality and Value in the CT ICU**

1:00 PM – 4:00 PM

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

1:15 PM – 4:30 PM

ACC @ STS **How To: Technical Tricks and Pitfalls to Simplify Cardiac Surgery Procedures****Parallel Surgical Symposium: Congenital** **Parallel Surgical Symposium: General Thoracic** **Resuscitation of Patients Who Arrest After Cardiac Surgery**

2:00 PM – 6:30 PM

Scientific Posters

2:30 PM – 4:30 PM

CT Surgery Interprofessional Education Symposium: Multidisciplinary Team Approach to Patient Safety, Quality, Outcomes, and Reimbursement

4:30 PM – 6:30 PM

Opening Reception in STS Exhibit Hall

MONDAY, JANUARY 25, 2016

6:30 AM – 5:00 PM

Registration: STS Annual Meeting

9:00 AM – 4:30 PM

Exhibit Hall**Scientific Posters**

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 Memorial Papers

9:00 AM – 9:40 AM

BREAK—Visit Exhibits and Scientific Posters*Complimentary coffee available in the Exhibit Hall*

9:40 AM – 9:50 AM

Introduction of the President: Joseph E. Bavaria

9:50 AM – 10:50 AM

Presidential Address: Mark S. Allen

10:50 AM – 11:30 AM

BREAK—Visit Exhibits and Scientific Posters*Complimentary coffee available in the Exhibit Hall*

11:30 AM – 12:30 PM

*(8 parallel sessions)***Adult Cardiac Session: Arrhythmia****Quality Improvement Initiatives in Thoracic Surgery****Basic Science Research: Adult Cardiac****Basic Science Research: General Thoracic****Congenital Session: Adult Congenital****Critical Care****General Thoracic Session: New Technology****STS/CATS/CSCS: Adding New Dimensions to Your Surgical Practice—
Optimizing Your Internet Presence and Understanding the Emerging
Role of 3-Dimensional Printing in Cardiothoracic Surgery**

12:30 PM – 1:30 PM

BREAK—Visit Exhibits and Scientific Posters*Complimentary coffee available in the Exhibit Hall*

1:15 PM – 5:15 PM

Redefining Practice Through Quality and Evidence: What's New?

1:30 PM – 3:30 PM

*(7 parallel sessions)***Adult Cardiac Session: Aorta I****Adult Cardiac Session: Ischemic****Congenital Session: Pediatric Congenital I****General Thoracic Session: Lung Cancer I****General Thoracic Session: Lung Transplantation****SVS @ STS: Sharing Common Ground for Cardiovascular Problems****30th Anniversary Celebration of Women in Thoracic Surgery:
Innovations and Contributions of WTS and STS Members**

3:30 PM – 4:15 PM

BREAK—Visit Exhibits and Scientific Posters*Complimentary coffee available in the Exhibit Hall*

3:30 PM – 5:30 PM

**International Symposium & Reception: The Ethics and Practicality of
Using New Technologies to Treat Cardiothoracic Diseases in Different
Parts of the World**

4:15 PM – 5:15 PM

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

5:00 PM – 6:30 PM

Scientific Posters and Wine

5:30 PM – 6:25 PM

Business Meeting (STS Members Only)

6:30 PM – 7:30 PM

STS-PAC Reception

7:00 PM – 10:30 PM

STS Social Event: Corona Ranch**TUESDAY, JANUARY 26, 2016**

6:30 AM – 4:30 PM

Registration: STS Annual Meeting

9:00 AM – 3:30 PM

Exhibit Hall

9:00 AM – 5:00 PM

Scientific Posters

7:30 AM – 8:30 AM

Early Riser Sessions**Early Riser Health Policy Forum: MIPS: The New Medicare Fee-for-
Service and What It Means to You**

9:00 AM – 10:00 AM

Thomas B. Ferguson Lecture: Scott Parazynski

10:00 AM – 10:45 AM

BREAK—Visit Exhibits and Scientific Posters*Complimentary coffee available in the Exhibit Hall*

10:45 AM – 11:00 AM

Award Presentations

11:00 AM – 12:00 PM

C. Walton Lillehei Lecture: Gary Taubes

12:00 PM – 1:00 PM

BREAK—Visit Exhibits and Scientific Posters*Complimentary coffee available in the Exhibit Hall***Ethics Debate: An Advance Directive Limits Postoperative Care—
Should Surgeons Accept Limits on Care?****Residents Luncheon**

PROGRAM AT A GLANCE

1:00 PM – 3:00 PM

(7 parallel sessions)

Adult Cardiac Session: General

Adult Cardiac Session: Mitral Valve

Congenital Session: Pediatric Congenital II

General Thoracic Session: Esophageal

General Thoracic Session: Lung Cancer II

Patient Safety Symposium: When Bad Things Happen to Good CT Surgeons—Human Error and the Impact on You, the “Second Victim”

EACTS @ STS: Aortic Valve Repair and Aortic Root Reconstruction for Insufficient Tricuspid and Bicuspid Pathology

1:00 PM – 3:30 PM

JCTSE: Accountable Surgical Education—How Can Cardiothoracic Surgery Move Forward?

1:00 PM – 5:30 PM

Advanced Therapies for End-Stage Heart Disease

3:00 PM – 3:30 PM

BREAK—Visit Exhibits and Scientific Posters

Complimentary coffee available in the Exhibit Hall

3:30 PM – 5:30 PM

(7 parallel sessions)

Adult Cardiac Session: Aorta II

Adult Cardiac Session: Aortic Valve

Cardiothoracic Surgical Education

Congenital Session: Pediatric Congenital III

General Thoracic Session: Mediastinal/Pulmonary

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

SCA @ STS: Perioperative Evaluation and Management of Circulatory Shock

WEDNESDAY, JANUARY 27, 2016

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. Continuing Medical Education credit will not be offered for STS/AATS Tech-Con 2016 programming. Photography and recording of Tech-Con sessions are strictly prohibited, except by authorized personnel.

FRIDAY, JANUARY 22, 2016

3:00 PM – 6:00 PM

Lower Level Foyer

Registration: STS/AATS Tech-Con and STS Annual Meeting

SATURDAY, JANUARY 23, 2016

7:00 AM – 6:00 PM

Lower Level Foyer

Registration: STS/AATS Tech-Con and STS Annual Meeting

12:00 PM – 6:30 PM

Lower Level Foyer

STS/AATS Tech-Con Exhibits

1:00 PM – 3:00 PM

Exhibit Halls 2-3

Adult Cardiac Track I: Mitral Valve Technology

Moderators: Richard Lee, St Louis, MO, and Rakesh Suri, Cleveland, OH

1:00 PM

Welcome and Introduction

Gorav Ailawadi, Charlottesville, VA

Transcatheter/Novel Repair Approaches

1:05 PM

Update on MitraClip

Gorav Ailawadi, Charlottesville, VA

1:12 PM

NeoChord

Gino Gerosa, Padova, Italy

1:19 PM

Valtech

Francesco Maisano, Milan, Italy

1:26 PM

Millipede

Steven F. Bolling, Ann Arbor, MI

1:33 PM

Mitral Bridge

Valavanur A. Subramanian, New York, NY

1:40 PM

Basal Annuloplasty of the Cardia Externally

Jai S. Raman, Chicago, IL

1:47 PM

Cardiosolutions Mitra-Spacer

Lars G. Svensson, Cleveland, OH

1:50 PM

Panel Discussion

Transcatheter Mitral Valve Replacement

2:10 PM

Fortis Valve

Vinod H. Thourani, Atlanta, GA

2:17 PM

CardiAQ Valve

Wilson Y. Szeto, Philadelphia, PA

2:24 PM

Neovasc Tiara Valve

Anson Cheung, Vancouver, Canada

2:31 PM

Tendyne

Robert S. Farviar, Minneapolis, MN

2:38 PM

Direct Flow

Robert Bauernschmitt, Munich, Germany

2:45 PM **Panel Discussion**
Gilbert H. Tang, New York, NY

1:00 PM – 3:00 PM **Room 120D**

General Thoracic Track I: Lung Surgery of the Future

Moderators: Julian Guitron, Loveland, OH, and Michael F. Reed, Hershey, PA

1:00 PM **Introduction**
Sunil Singhal, Philadelphia, PA

1:05 PM **Nodule Localization**
Sunil Singhal, Philadelphia, PA

1:20 PM **Energy for Pulmonary Artery Vessel Ligation**
Moishe A. Liberman, Montreal, Canada

1:35 PM **Lung Cryoablation**
Matthew R. Callstrom, Rochester, MN

1:50 PM **Veran Thoracic Navigation System**
Jennifer W. Toth, Hershey, PA

2:05 PM **Microlobectomy: A Novel Form of Video-Assisted Thoracoscopic Lobectomy**
Joel Dunning, Middlesbrough, United Kingdom

2:20 PM **Minimally Invasive Lung Ablation Using Electromagnetic Navigation Bronchoscopy and Cone Beam Computed Tomography Imaging**
Douglas J. Minnich, Birmingham, AL, and William Dickhans, Boulder, CO

2:35 PM **Panel Discussion**

3:00 PM – 3:30 PM **Lower Level Foyer**

BREAK—Visit Tech-Con Exhibits

3:30 PM – 5:00 PM **Exhibit Halls 2-3**

Adult Cardiac Track II: Heart Failure Technology

Moderators: Mark S. Slaughter, Louisville, KY, and Leora T. Yarboro, Charlottesville, VA

3:30 PM **Update on Novel Left Ventricular Assist Device (LVAD) Trials**
Nicholas G. Smedira, Cleveland, OH

3:45 PM **Total Artificial Heart: Ready for Primetime at All LVAD Centers?**
Francisco A. Arabia, Los Angeles, CA

4:00 PM **CircuLite Synergy**
Pavan Atluri, Philadelphia, PA

4:07 PM **ReliantHeart HeartAssist**
Richard Tien Ha, Stanford, CA

4:14 PM **NuPulse Implantable Counterpulsation**
Valluvan Jeevanandam, Chicago, IL

4:21 PM **Self-Regulating, Single-Piece, Pulsatile, Continuous-Flow Total Artificial Heart**
Nader Moazami, Cleveland, OH

4:28 PM **Panel Discussion**

4:45 PM **Sternal Closure Devices: What's the Skinny on All These Technologies?**
Kendra J. Grubb, Louisville, KY

3:30 PM – 5:00 PM **Room 120D**

General Thoracic Track II: Advances in Robotic Tools and Technology

Moderators: Mark F. Berry, Stanford, CA, and Jeremiah T. Martin, Lexington, KY

3:30 PM **DaVinci XI Firefly and Staplers**
Bernard J. Park, New York, NY

3:45 PM **Spy/Pinpoint**
Min P. Kim, Houston, TX

4:00 PM **Robotic Technology in Development**
Mark R. Dylewski, Palmetto Bay, FL

4:15 PM **Emerging Robotic Tools**
David C. Rice, Houston, TX

4:30 PM **New Robotic Platforms**
Robert J. Cerfolio, Birmingham, AL

4:45 PM **New Haptic Technology for Robotic Surgery**
Mark W. Onaitis, Durham, NC

5:00 PM – 6:30 PM **Lower Level Foyer**

STS/AATS Tech-Con Reception

SUNDAY, JANUARY 24, 2016

7:00 AM – 6:30 PM **Lower Level Foyer**

Registration: STS/AATS Tech-Con and STS Annual Meeting

7:00 AM – 1:15 PM **Lower Level Foyer**

STS/AATS Tech-Con Exhibits

7:45 AM – 9:30 AM **Exhibit Halls 2-3**

Adult Cardiac Track III: Aortic Valve and Aortic Disease

Moderators: S. Chris Malaisrie, Chicago, IL, and Himanshu J. Patel, Ann Arbor, MI

7:45 AM **Update on Transcatheter Aortic Valve Replacement (TAVR) Device Trials in the US and Europe**
David R. Holmes, Rochester, MN

8:00 AM **Update on Novel Apical Closure Devices**
Thomas Walther, Bad Nauheim, Germany

8:10 AM **Novel Suprasternal Aortic Access Device for TAVR**
Andy C. Kiser, Chapel Hill, NC

- 8:20 AM Debate: What the Surgeon's Role in TAVR Really Will Be 5 Years From Now**
Let's Get Real, Cardiologists Will Own It
Hersh S. Maniar, St Louis, MO
I Can Do TAVR With My Eyes Closed. I Will Be Doing TAVR
Vinod H. Thourani, Atlanta, GA
- 8:40 AM Panel Discussion**
- 8:50 AM Results of Ascending Aortic Stent Grafting Using the First FDA-Approved Investigational Device Exemption (IDE)**
Ali Khojenezhad, Los Angeles, CA
- 9:00 AM Branch Stent Grafting of Arch: IDE Results**
Nimesh Desai, Philadelphia, PA
- 9:10 AM A Novel Device to Promote Active Remodeling and Cure of Aortic Dissections**
Ali Shabriari, Indianapolis, IN

7:45 AM – 9:30 AM

Room 120D

CME General Thoracic Track III: OR of the Future*Moderators: Reza J. Mehran, Houston, TX, and Allan Pickens, Atlanta, GA*

- 7:45 AM Introduction**
- 7:50 AM Sony Head-Mounted Display**
Eric L. Grogan, Nashville, TN
- 8:05 AM Apps in Practice**
Edward M. Bender, Cape Girardeau, MO
- 8:20 AM Google Glass**
TBD
- 8:35 AM Apps for Education**
Shari L. Meyerson, Chicago, IL
- 8:50 AM Thoracic Hybrid Room of the Future**
Kazubiro Yasufuku, Toronto, Canada
- 9:05 AM Holographic Projection**
Todd L. Demmy, New Brunswick, NJ
- 9:20 AM Panel Discussion**

9:30 AM – 10:15 AM

Lower Level Foyer

BREAK—Visit Tech-Con Exhibits

10:15 AM – 12:00 PM

Exhibit Halls 2-3

CME Joint Session: "Shark Tank"—Rapid-Fire Elevator Pitches of Revolutionary Technology*Moderators: Gorav Ailawadi, Charlottesville, VA, and Shanda H. Blackmon, Rochester, MN*

- 10:15 AM Introduction**
- 10:30 AM Central Venous Cannulation With a New, Self-Expandable, Polymeric Venous Cannula**
Enrico Ferrari, Lugano, Switzerland
- 10:40 AM New Prototype of an Expandable, Catheter-Implantable, Polyurethane Stent Valve for Pediatric Patients**
Miguel A. Maluf, São Paulo, Brazil

- 10:50 AM Spinal Fiber-Optic Monitoring for Ischemia**
Thomas Floyd, Stony Brook, NY
- 11:00 AM Cooling Catheter for Spinal Cord Protection**
John A. Elefteriades, New Haven, CT
- 11:10 AM Infrared Coagulator to Treat Atrial Fibrillation, Infectious Endocarditis, and Cardiac Tumors**
Hiroshi Kubota, Mitaka, Japan
- 11:20 AM Maneuverable Chest Tube**
Ian A. Makey, San Antonio, TX
- 11:30 AM Hyperthermic Pleural Lavage for Pleural Metastasis**
Daniel L. Miller, Marietta, GA
- 11:40 AM SAFEX Apical Closure Device for Fully Percutaneous Transapical Valve Therapies**
Enrico Ferrari, Lugano, Switzerland
- 11:50 AM Methods of Palliative Treatment for Complicated Forms of Lung Cancer**
Vladislav Severgin, Odessa, Ukraine

12:00 PM – 1:15 PM

Lower Level Foyer

Visit Tech-Con Exhibits

STS 52ND 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.

You must have a Weekend Pass to attend courses on Saturday and Sunday, except for Tech-Con, which requires separate registration.

SATURDAY, JANUARY 23, 2016

7:00 AM – 6:00 PM

Lower Level Foyer

Registration: STS/AATS Tech-Con and STS Annual Meeting

8:00 AM – 12:30 PM

Room 122ABC

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

Moderators: Vinay Badhwar, Pittsburgh, PA, John V. Conte, Baltimore, MD, Daniel H. Drake, Traverse City, MI, Gerald M. Lawrie, Houston, TX, and Stanton K. Sherman, Boston, MA

Session 1

8:00 AM

Transesophageal Echo Simulation

Vinay Badhwar, Pittsburgh, PA, John V. Conte, Baltimore, MD, Daniel H. Drake, Traverse City, MI, Gerald M. Lawrie, Houston, TX, G. Burkhard Mackensen, Seattle, WA, Stanton K. Sherman, Boston, MA, Douglas Shook, Newton Highlands, MA, and Joshua Zimmerman, Salt Lake City, UT

8:25 AM

Left Ventricle and Mitral Valve Analysis

Stanton K. Sherman, Boston, MA

8:50 AM

Right Ventricle and Dynamic Mitral Valve Analysis

G. Burkhard Mackensen, Seattle, WA

9:15 AM

Case 1: Patient Prosthetic Mismatch

Joshua Zimmerman, Salt Lake City, UT

10:00 AM

Break**Session 2**

10:30 AM

Case 2: Perivalvular Leak After Mitral Valve Replacement

Douglas Shook, Newton Highlands, MA

11:10 AM

Case 3: Tricuspid Regurgitation in Mitral Valve Surgery

Stanton K. Sherman, Boston, MA

11:50 AM

Case 4: Complex Mitral Valve Repair

G. Burkhard Mackensen, Seattle, WA

8:00 AM – 3:00 PM

Room 129A

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

Momen M. Wabidi, Durham, NC, and Richard I. Whyte, Boston, MA

8:00 AM

Introduction

8:10 AM

EBUS Mediastinal Anatomy

Kazuhiro Yasufuku, Toronto, Canada

8:30 AM

EBUS-Transbronchial Needle Aspiration (TBNA)

Momen M. Wabidi, Durham, NC

- 8:50 AM **Navigational Bronchoscopy and Radial EBUS**
Alexander C. Chen, St Louis, MO
- 9:10 AM **Panel Discussion**
- 9:30 AM **Break**
- 9:50 AM **Rigid Bronchoscopy**
Stephen R. Hazelrigg, Springfield, IL
- 10:10 AM **Therapeutic Endoscopy: Laser, Cryotherapy, Electrocautery, and Argon Plasma Coagulation (APC)**
Moishe A. Liberman, Montreal, Canada
- 10:30 AM **Airway Stents**
Aaron M. Cheng, Seattle, WA
- 10:50 AM **Foreign Body Removal**
Lonny Yarmus, Baltimore, MD
- 11:10 AM **Endobronchial Valves for Air Leak**
Christine C. Argento, Chicago, IL
- 11:30 AM **Panel Discussion**
- 11:50 AM **Lunch and Case Discussion**

12:30 PM **Room 129B**

Hands-On Breakout Sessions

Station 1: EBUS-TBNA on Airway Models

Kazubiro Yasufuku, Toronto, Canada, and Robert E. Merritt, Columbus, OH

Station 2: Navigational Bronchoscopy

Lonny Yarmus, Baltimore, MD

Station 3: EBUS Simulator/Endobronchial Valves

Christine C. Argento, Chicago, IL

Station 4: Rigid Bronchoscopy and Airway Stents

Aaron M. Cheng, Seattle, WA, and Momen M. Wabidi, Durham, NC

Station 5: Electrocautery, APC, and Cryotherapy

Alexander C. Chen, St Louis, MO, and Moishe A. Liberman, Montreal, Canada

1:00 PM – 2:30 PM **Room 126ABC**

Cardiopulmonary Bypass Simulation Course

Course Director: Thomas E. MacGillivray, Boston, MA

Faculty: Uriah Dudgeon, Boston, MA, and Christian DioDato, Boston, MA

SUNDAY, JANUARY 24, 2016

7:00 AM – 6:30 PM

Lower Level Foyer

Registration: STS/AATS Tech-Con and STS Annual Meeting

7:50 AM – 12:00 PM

Room 122ABC

Acquired and Congenital Heart Surgery Symposium: Challenges in Adult Congenital Heart Disease

Moderators: Emile A. Bacha, New York, NY, Christopher A. Caldarone, Toronto, Canada, Stephanie M. Fuller, Philadelphia, PA, and Jennifer S. Nelson, Chapel Hill, NC

7:50 AM **Welcome and Introduction**

The Hazardous Reresternotomy—Pearls and Pitfalls (Personal Technique With Special Attention To ...)

8:00 AM **Imaging**

Brian E. Kogon, Atlanta, GA

8:15 AM **Pediatrics**

Charles D. Fraser, Houston, TX

8:30 AM **Right-Sided Structures**

Joseph A. Dearani, Rochester, MN

8:45 AM **Patent Coronary Artery Bypass Grafts**

John D. Puskas, Atlanta, GA

9:00 AM **Aorta**

Duke E. Cameron, Baltimore, MD

9:15 AM **Panel Discussion**

9:40 AM **Break**

When the Right Side Fails ...

10:00 AM **Differences and Similarities in Pediatric Pulmonary Hypertension vs ACHD**

Nancy S. Ghanayem, Milwaukee, WI

10:15 AM **Postop Care Through the Eyes of a CT Surgeon/Intensivist**

Nevin M. Katz, Baltimore, MD

10:30 AM **Conventional Surgery Options**

Frank L. Hanley, Stanford, CA

10:45 AM **Intraop/Postop Extracorporeal Membrane Oxygenation vs Right Ventricular Assist Devices—Which, When, and Why**

Francis D. Pagani, Ann Arbor, MI

11:00 AM **“Valve-in-Valve” Therapy—The Changing Game**

Doff McElhinney, New York, NY

11:15 AM **Getting the Severely Pulmonary Hypertensive to Be Transplantable**

Richard C. Daly, Rochester, MN

11:30 AM **Panel Discussion**

11:55 AM **Closing Comments**

7:50 AM – 12:00 PM **Room 126ABC**

Practice Management Summit

Moderators: Greg A. Bowman, Pueblo, CO, Robert W. Emery, Minneapolis, MN, Frank L. Fazzalari, Rochester, MI, and V. Seenu Reddy, Nashville, TN

7:50 AM **Introduction**

- 8:00 AM Data Knows Best—and It Will Bring You to Tiers**
Nathan Kaufman, San Diego, CA
- 8:20 AM Effective Use of Survey Data in Negotiations**
Michael N. Heaton, Indianapolis, IN
- 8:40 AM Work Relative Value Unit Employment Models: A Bad Choice for Cardiothoracic Surgeons**
Michael G. Moront, Toledo, OH
- 9:00 AM Cardiothoracic Surgeon Entrepreneurs and the Device Development Pathway**
Brian W. Duncan, Arvada, CO
- 9:20 AM Retirement Planning**
Roy Smalley, Minneapolis, MN
- 9:40 AM Panel Discussion**
- 10:10 AM Break**
- 10:20 AM Aligning Incentives Through Co-Management**
Suzette Jaskie, Neptune Beach, FL
- 10:40 AM Partnering for Excellence in Today's Health Care Environment: Hospital Corporation of America's Cardiovascular Service Line**
Steven V. Manoukian, Nashville, TN
- 11:00 AM Is the Cardiovascular Service Line Really the Best Way to Manage Cardiac Surgery Programs?**
Michael J. Mack, Dallas, TX
- 11:20 AM Update From the STS/AATS Workforce on Health Policy, Reform, and Advocacy**
Alan M. Speir, Falls Church, VA
- 11:40 AM Panel Discussion**

7:50 AM – 12:00 PM **Room 128AB**

STS/AATS Critical Care Symposium: Quality and Value in the CT ICU

Moderators: Rakesh C. Arora, Winnipeg, Canada, Kevin W. Lobbell, Charlotte, NC, and Vassyl A. Lonchyna, Chicago, IL

- 7:50 AM Introduction**
- Patient-Centered Transformational Redesign**
- 7:55 AM Introduction to Quality and Value in the ICU**
Kevin W. Lobbell, Charlotte, NC
- 8:00 AM Importance of Quality and Value in the ICU**
Kevin W. Lobbell, Charlotte, NC
- 8:15 AM Tele-ICU: Transforming Critical Care Quality and Value**
Scott Lindblom, Charlotte, NC
- 8:30 AM Discussion**
- Hospital-Acquired Infections (HAIs)**
- 8:45 AM HAIs: Impact on Quality and Value**
Kevin W. Lobbell, Charlotte, NC
- 8:50 AM Everything You Need to Know About Infection Prevention, HAIs, and Antibiotic Stewardship**
Emily Landon, Chicago, IL
- 9:20 AM Discussion**
- 9:30 AM Break and Poster Viewing**

CSU-ALS in the US: The Role and Impact of Physician Assistants

- 9:45 AM CSU-ALS Overview**
Joel Dunning, Middlesbrough, United Kingdom
- 10:00 AM The ACP/RN Educational Module**
Jill Ley, San Francisco, CA
- 10:15 AM The Association of Physician Assistants in Cardiovascular Surgery Perspective**
David E. Lizotte, Harrisonburg, VA
- 10:30 AM Implementation for Your CT ICU Team**
Yoan Lamarche, Montreal, Canada
- 10:45 AM Discussion**
- Prolonged Ventilation**
- 11:00 AM What Is the Ventilator Bundle ABCDE and What Data Support It?**
John P. Kress, Chicago, IL
- 11:10 AM Tactics to Prevent Prolonged Ventilation and Deal With It When It Happens**
John P. Kress, Chicago, IL
- 11:30 AM Tracheostomy: Early or Wait?**
Vassyl A. Lonchyna, Chicago, IL
- 11:40 AM When on Extracorporeal Membrane Oxygenation: Awaken, Extubate, and Mobilize**
Darryl C. Abrams, New York, NY
- 11:50 AM Discussion**

1:00 PM – 4:00 PM

Room 231ABC

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**
- 1:05 PM How to Find Your First Job**
Ryan A. Macke, Madison, WI
- 1:20 PM Question-and-Answer Session**
- 1:25 PM Keys to a Successful Interview**
Ravi K. Ghanta, Houston, TX
- 1:40 PM Question-and-Answer Session**
- 1:45 PM What You Need to Know About Contracts**
Sandra L. Starnes, Cincinnati, OH
- 2:00 PM Question-and-Answer Session**
- 2:05 PM Breakout Sessions**
- 2:35 PM Group Discussion / Evaluation Completion**
- 2:45 PM Building a Successful Clinical Practice**
Edward P. Chen, Atlanta, GA
- 3:00 PM Question-and-Answer Session**
- 3:05 PM Early Career Development**
Elizabeth A. David, Sacramento, CA
- 3:20 PM Question-and-Answer Session**
- 3:25 PM Breakout Sessions**
- 3:50 PM Group Discussion / Evaluation Completion**

1:15 PM – 4:30 PM

Room 120D

ACC @ STS

Moderators: David R. Holmes, Rochester, MN, Susheel Kodali, New York, NY, Patrick T. O’Gara, Boston, MA, and Vinod H. Thourani, Atlanta, GA

- 1:15 PM **Lessons Learned From the STS/ACC TVT Registry™**
Frederick L. Grover, Aurora, CO
- 1:25 PM **Ninety Percent of All Transcatheter Aortic Valve Replacements (TAVR) Will Be Done Transfemorally: How Can You Stay in the Game?**
Vinod H. Thourani, Atlanta, GA
- 1:32 PM **Debate: TAVR for Low-Risk Patients—The Writing Is On the Wall, But How Will We Evaluate Outcomes?**
There Is No Floor
Michael J. Mack, Dallas, TX
Hold Your Horses
David R. Holmes, Rochester, MN
- 1:46 PM **Discussion**
- 1:56 PM **So Many TAVR Choices: How to Choose the Right Device for the Right Patient**
Susheel Kodali, New York, NY
- 2:06 PM **My Worst Case That I Sent for TAVR: Why Did I Not Send This Patient to Surgery?**
Patrick T. O’Gara, Boston, MA
- 2:14 PM **Discussion**
- 2:24 PM **Break**
- 2:38 PM **Case Presentation and Rationale for When to Use Percutaneous Coronary Intervention in Left Main Coronary Artery Disease (CAD)**
TBD
- 2:46 PM **Technical Video and Current Rationale for Hybrid Revascularization: Why You Need to Learn This Procedure to Stay Relevant in the Management of CAD**
Michael E. Halkos, Atlanta, GA
- 2:54 PM **Seriously, Why Are You Not Doing More Multi-Arterial Grafting? My Technique Will Make It Easy for You**
Joseph F. Sabik III, Cleveland, OH
- 3:02 PM **My Worst Case: Why Did I Ever Take This ST Elevation Myocardial Infarction to Surgery?**
Robert A. Guyton, Atlanta, GA
- 3:10 PM **Discussion**
- 3:20 PM **What Surgeons Should Know About the ACC/AHA Valve Guidelines**
Patrick T. O’Gara, Boston, MA
- 3:30 PM **Why and How I Decide to Repair vs Replace the Ischemic Mitral Valve**
TBD
- 3:40 PM **Follow-Up Report From the National Institutes of Health Cardiothoracic Surgical Trials Network Moderate and Severe Ischemic Mitral Regurgitation Trials**
Michael A. Acker, Philadelphia, PA

3:50 PM **Discussion**

- 4:00 PM **How I Overcame Barriers to Minimally Invasive Mitral Repair and Why You Can Do the Same**
Gorav Ailawadi, Charlottesville, VA
- 4:08 PM **My Worst Case: Maybe I Should Have Sent This for Transcatheter Repair**
Vinay Badhwar, Pittsburgh, PA
- 4:16 PM **Defining the Optimal Patient Population That Benefits From Transcatheter Mitral Valve Repair: A Report From the STS/ACC TVT Registry™**
David R. Holmes, Rochester, MN
- 4:26 PM **Discussion and Concluding Remarks**

1:15 PM – 4:30 PM

Room 131ABC

! How To: Technical Tricks and Pitfalls to Simplify Cardiac Surgery Procedures

Moderators: Gorav Ailawadi, Charlottesville, VA, and Wilson Y. Szeto, Philadelphia, PA

Coronary Artery Bypass Grafting (CABG)

- 1:15 PM **Skeletonized Internal Mammary Artery Harvest**
Richard Lee, St Louis, MO
- 1:23 PM **Total Arterial CABG**
Michael E. Halkos, Atlanta, GA
- 1:31 PM **Minimally Invasive CABG**
Marc Ruel, Ottawa, Canada

Mitral Valve Surgery

- 1:40 PM **Mitral Exposure in Challenging Patients (Obese, Small Left Atrium, Previous Aortic Valve Replacement [AVR])**
Vinay Badhwar, Pittsburgh, PA
- 1:48 PM **Anterior Leaflet Techniques, Artificial Cord (Measuring Cord Length)**
Michael A. Borger, New York, NY
- 1:56 PM **Bileaflet Prolapse Repair Approaches**
Y. Joseph Woo, Stanford, CA
- 2:04 PM **Sizing Rings Appropriately: Avoiding Systolic Anterior Motion/Optimizing Coaptation**
Robert L. Smith, Plano, TX
- 2:12 PM **Total Chordal-Sparing Mitral Valve Replacement**
Michael A. Acker, Philadelphia, PA
- 2:20 PM **Septal Myectomy**
Nicholas G. Smedira, Cleveland, OH
- 2:28 PM **Tricuspid Valve Repair: Optimizing Coaptation/Avoiding Ring Dehiscence**
James S. Gammie, Baltimore, MD
- 2:35 PM **Break**
- Aortic Valve Surgery**
- 2:55 PM **Right Thoacotomy Mini-AVR**
John R. Mehall, Colorado Springs, CO
- 3:03 PM **Aortic Root Enlargement Simplified**
Derek R. Brinster, New York, NY

- 3:11 PM **Bicuspid Aortic Valve Repair**
Prashanth Vallabhajosyula, Philadelphia, PA
- 3:19 PM **Sutureless AVR**
David A. Heimansohn, Indianapolis, IN
- 3:27 PM **Stentless AVR/Freedom Solo**
Eric E. Roselli, Cleveland, OH
- 3:35 PM **Transapical Transcatheter AVR (TAVR)**
Todd M. Dewey, Dallas, TX
- 3:43 PM **Subclavian TAVR**
Michael J. Reardon, Houston, TX

Aortic Surgery

- 3:51 PM **Type A Dissection Repair**
Michael P. Fischbein, Stanford, CA
- 3:59 PM **Valve-Sparing Root Replacement**
Wilson Y. Szeto, Philadelphia, PA
- 4:07 PM **Bentall With Stented Bioprosthetic Valve**
Anthony L. Estrera, Houston, TX
- 4:15 PM **Total Arch Replacement/Elephant Trunk**
Edward P. Chen, Atlanta, GA

1:15 PM – 4:30 PM

Room 126ABC

Parallel Surgical Symposium: Congenital

Moderators: Jonathan M. Chen, Seattle, WA, Andrew C. Fiore, St Louis, MO, and Glen S. Van Arsdell, Toronto, Canada

- 1:15 PM **Welcome and Introduction**
- Criticize My Operation (Video-Based Session)**
- 1:20 PM **Complete AVSD Canal: The Australian Way**
Carl L. Backer, Chicago, IL
- 1:35 PM **Complete AVSD Canal: The Two-Patch Way**
David M. McMullan, Seattle, WA
- 1:50 PM **Complete AVSD Canal: The Boston Single-Patch Way**
Anees J. Razzouk, Loma Linda, CA
- 2:05 PM **Switch: The Closed Technique**
Richard G. Ohye, Ann Arbor, MI
- 2:20 PM **Switch: Open Technique**
Tain-Yen Hsia, London, United Kingdom
- 2:35 PM **Tetralogy: Transventricular Septal Defect Closure With Annulus Preservation**
Emile A. Bacha, New York, NY
- 2:50 PM **Tetralogy: Limited Transannular Incision**
Charles D. Fraser, Houston, TX
- 3:05 PM **Tetralogy: Transatrial Repair With Limited Indibular Patch**
Osami Honjo, Toronto, Canada
- 3:15 PM **Break**
- Old Operations, New Data: Should We Be Managing Patients Differently?**
- 3:30 PM **Hypoplastic Left Heart Syndrome**
William M. Decampoli, Orlando, FL
- 3:41 PM **Discussant for Hypoplastic Left Heart Syndrome**
Anne Dipchand, Toronto, Canada

- 3:46 PM **Borderline VSD**
Anne Dipchand, Toronto, Canada
- 4:01 PM **Discussant for Borderline VSD**
Carl L. Backer, Chicago, IL
- 4:05 PM **Aortic Valve Repair: I Debated Myself and I Decided! Part 1**
Zohair Y. Al Halees, Riyadh, Saudi Arabia
- 4:17 PM **Aortic Valve Repair: I Debated Myself and I Decided! Part 2**
James S. Tweddell, Milwaukee, WI

1:15 PM – 4:30 PM

Room 122ABC

Parallel Surgical Symposium: General Thoracic

Moderators: Leah M. Backbus, Stanford, CA, Traves D. Crabtree, St Louis, MO, and Joseph B. Shrager, Stanford, CA

Minimally Invasive Approaches to Thymectomy With and Without Thymoma

- 1:15 PM **Clinical Vignette/Audience Poll 1**
- 1:20 PM **VATS Thymectomy**
Joshua R. Sonett, New York, NY
- 1:32 PM **Robotic Thymectomy**
Richard K. Freeman, Indianapolis, IN
- 1:44 PM **Transcervical Thymectomy**
Marcelo Cypel, Toronto, Canada
- 1:56 PM **Panel Discussion**

Advanced Techniques in Lung Resection

- 2:11 PM **Clinical Vignette/Audience Poll 2**
- 2:16 PM **Bronchoplastic Techniques in Lung Resection**
Joseph B. Shrager, Stanford, CA
- 2:28 PM **Localization of Sub-Solid Lung Nodules**
David R. Jones, New York, NY
- 2:40 PM **Complex VATS Resections**
Todd L. Demmy, Buffalo, NY
- 2:52 PM **Panel Discussion**
- 3:07 PM **Break**

Incorporating Quality Improvement Initiatives Into Thoracic Surgery Practice

- 3:22 PM **Clinical Vignette/Audience Poll 3**
- 3:27 PM **ProvenCare and the Lung Cancer Clinical Pathway**
Douglas E. Wood, Seattle, WA
- 3:39 PM **Using LEAN Principles to Improve System-Level Outcomes Following Esophageal Resection**
Farhood Farjab, Seattle, WA
- 3:51 PM **American Board of Thoracic Surgery Maintenance of Certification Part IV and Quality Improvement**
Bryan F. Meyers, St Louis, MO
- 4:03 PM **Benefits and Barriers to Participation in the STS General Thoracic Surgery Database**
Benjamin D. Kozower, Charlottesville, VA
- 4:15 PM **Panel Discussion**

1:15 PM – 4:30 PM

Room 129AB

Resuscitation of Patients Who Arrest After Cardiac Surgery*Moderator: Joel Dunning, Middlesbrough, United Kingdom**Faculty: Rakesh C. Arora, Winnipeg, Canada, Richard S. Bell, Baltimore, MD, Adrian Levine, Staffordshire, United Kingdom, Jill Ley, San Francisco, CA, and Aaron Morton, Louisville, KY*1:15 PM **Introduction***Joel Dunning, Middlesbrough, United Kingdom*1:20 PM **Arrest Practical 1: Group Simulation of Cardiac Arrest After Cardiac Surgery**1:45 PM **The Protocol for the Resuscitation of Patients Who Arrest After Cardiac Surgery***Joel Dunning, Middlesbrough, United Kingdom*2:30 PM **Arrest Practical 2: Manikin Simulation of the Arrest Protocol**3:15 PM **Cardiac Arrest Skills Stations****Station 1: Internal Massage****Station 2: Gowning and Gloving****Station 3: Pacing**4:00 PM **How to Implement Resuscitation Protocols for Arrest After Cardiac Surgery in Your Own Hospital and How to Become a Trainer***Joel Dunning, Middlesbrough, United Kingdom*

2:00 PM – 6:30 PM

Room 120 Foyer

Scientific Posters

2:30 PM – 4:30 PM

Room 128AB

CT Surgery Interprofessional Education Symposium: Multidisciplinary Team Approach to Patient Safety, Quality, Outcomes, and Reimbursement*Moderators: Stefano Schena, St Louis, MO, and Brandon H. Tieu, Portland, OR*2:30 PM **How to Develop a Multidisciplinary Program to Ensure Patient Safety and Good Outcomes: Experience with Transcatheter Aortic Valve Replacement Multidisciplinary Team Development***Elizabeth Perpetua, Seattle, WA*2:45 PM **Preoperative Planning Prevents Poor Performance***Baron L. Hamman, Dallas, TX*3:00 PM **Question-and-Answer Session***Brandon H. Tieu, Portland, OR*3:10 PM **Planning and Prevention of Perfusion Accidents: What to Do When the Pump Goes Rogue***Michael Colligan, Houston, TX*3:25 PM **Safety in the ICU: Complexity and Normal Accidents—Creating High Reliability in the Perioperative Domain***Laureen L. Hill, Atlanta, GA*3:40 PM **Question-and-Answer Session***Stefano Schena, St Louis, MO*

3:50 PM

Heart Team Care Designed for Quality, Value, and Safety*Kevin W. Lobdell, Charlotte, NC*

4:05 PM

Foundations of Teamwork: Organizing Principles and Care Routines for Safety, Communications, and STS Outcomes*Paul N. Uhlrig, Wichita, KS*

4:20 PM

Question-and-Answer Session

4:30 PM – 6:30 PM

Exhibit Halls 4-5

Opening Reception in STS Exhibit Hall

MONDAY, JANUARY 25, 2016

6:30 AM – 5:00 PM

Lower Level Foyer

Registration: STS Annual Meeting

9:00 AM – 4:30 PM

Exhibit Halls 4-5

Exhibit Hall

9:00 AM – 4:30 PM

Room 120 Foyer

Scientific Posters

7:00 AM – 10:50 AM

Exhibit Halls 2-3

General Session I*Moderators: Mark S. Allen, Rochester, MN, and Keith S. Naunheim, St Louis, MO*

7:00 AM

Opening Remarks

7:15 AM

J. Maxwell Chamberlain Memorial Paper for General Thoracic Surgery: Quality Measures in Clinical Stage I Non-Small-Cell Lung Cancer: Improved Performance Is Associated With Improved Survival*P. P. Samson**Washington University School of Medicine, St Louis, MO**Discussant: Felix G. Fernandez, Atlanta, GA*

7:35 AM

J. Maxwell Chamberlain Memorial Paper for Adult Cardiac Surgery: Optimal Timing Between Myocardial Infarction and Coronary Artery Bypass Grafting: Impact on In-Hospital Mortality*E. L. Nichols**The Dartmouth Institute, Lebanon, NH**Discussant: Robert A. Guyton, Atlanta, GA*

7:55 AM

J. Maxwell Chamberlain Memorial Paper for Congenital Heart Surgery: Clinical Experience With the Bifurcated Y-Graft Fontan Procedure*K. R. Kanter**Emory University, Atlanta, GA**Discussant: Marshall L. Jacobs, Newtown Square, PA*

- 8:15 AM **Richard E. Clark Memorial Paper for General Thoracic Surgery: Operative Risk for Major Lung Resection Increases at Extremes of Body Mass Index: Analysis of the STS General Thoracic Surgery Database**
T. Williams
The University of Chicago, IL
Discussant: Benjamin D. Kozower, Charlottesville, VA
- 8:30 AM **Richard E. Clark Memorial Paper for Adult Cardiac Surgery: Development of a Risk Prediction Model and Clinical Risk Score for Isolated Tricuspid Valve Surgery: Analysis of the STS Adult Cardiac Surgery Database**
D. LaPar
University of Virginia, Charlottesville
Discussant: Michael A. Acker, Philadelphia, PA
- 8:45 AM **Richard E. Clark Memorial Paper for Congenital Heart Surgery: Prevalence of Noncardiac and Genetic Abnormalities in Neonates Undergoing Surgery for Congenital Heart Disease: Analysis of the STS Congenital Heart Surgery Database**
A. Patel
Ann & Robert H. Lurie Children's Hospital of Chicago, IL
Discussant: Peter J. Gruber, Iowa City, IA
- 9:00 AM **BREAK—Visit Exhibits and Scientific Posters**
Complimentary coffee available in the Exhibit Hall
- 9:40 AM **Introduction of the President**
Joseph E. Bavaria, Philadelphia, PA
- 9:50 AM **Presidential Address: Innovation for Life**
Mark S. Allen, Rochester, MN

10:50 AM – 11:30 AM

BREAK—Visit Exhibits and Scientific Posters
Complimentary coffee available in the Exhibit Hall

11:30 AM – 12:30 PM

Room 120D

Adult Cardiac Session: Arrhythmia

Moderators: Richard Lee, St Louis, MO, and Jonathan M. Philpott, Norfolk, VA

- 11:30 AM **Left-Sided Surgical Ablation for Patients With Atrial Fibrillation Undergoing Concomitant Cardiac Surgery**
N. Ad
Inova Heart and Vascular Institute, Falls Church, VA
- 11:45 AM **Biatrial or Left Atrial Lesion Set for Ablation During Mitral Surgery: Risks and Benefits**
A. Churyla
Northwestern Memorial Hospital, Chicago, IL
- 12:00 PM **Atrial Fibrillation Ablation Does Not Increase Operative Risk When Added to Coronary Artery Bypass Grafting and Aortic Valve Replacement**
T. Al-Atassi
University of Ottawa Heart Institute, Canada
- 12:15 PM **Panel Discussion: Optimal Lesion Set for Atrial Fibrillation**
A. Marc Gillinov, Cleveland, OH

11:30 AM – 12:30 PM

Room 127ABC

Quality Improvement Initiatives in Thoracic Surgery

Moderators: K. Robert Shen, Rochester, MN, and Sudish C. Murthy, Cleveland, OH

- 11:30 AM **Longitudinal Follow-Up for Lung Cancer Resections in The Society of Thoracic Surgeons General Thoracic Surgery Database**
F. G. Fernandez
Emory University, Atlanta, GA
Discussant: Benjamin D. Kozower, Charlottesville, VA
- 11:50 AM **Spectrum of Congenital Heart Surgery Case Mix Across US Centers and Impact on Performance Assessment**
S. K. Pasquali
University of Michigan, Ann Arbor
Discussant: Joseph A. Dearani, Rochester, MN
- 12:10 PM **Simulation-Based Training in Cardiac Surgery for Improved Patient Safety**
R. H. Feins
University of North Carolina, Durham
Discussant: Stephen C. Yang, Baltimore, MD

11:30 AM – 12:30 PM

Room 126ABC

Basic Science Research: Adult Cardiac

Moderators: T. Brett Reece, Aurora, CO, and Y. Joseph Woo, Stanford, CA

- 11:30 AM **Biodegradable Cardiac Patch Seeded With Human-Induced Pluripotent Stem Cell-Derived Cardiomyocytes Promoted the Regeneration of Host Cardiomyocytes**
T. Sugiura
Nationwide Children's Hospital, Columbus, OH
- 11:40 AM **The Impact of Mechanical Properties on Wall Stress in Failed Pulmonary Autografts**
E. E. Tseng
University of California, San Francisco Medical Center and San Francisco VA Medical Center
- 11:50 AM **Modeling Aortic Valve Insufficiency and Aortic Valve Repair: Applications From Bench to the Operating Room**
H. D. Toeg
University of Ottawa Heart Institute, Canada
- 12:00 PM **Accelerated In Situ Constructive Myocardial Remodeling Process of an Extracellular Matrix Cardiac Patch With Sustained Direct Delivery of a Growth Factor**
T. Ota
The University of Chicago, IL
- 12:10 PM **Alternative Therapeutic Strategy for Aortic Aneurysm Using Mesenchymal Stem Cell-Derived Exosomes**
M. Kozakai
Nagoya University Graduate School of Medicine, Japan
- 12:20 PM **Novel Tissue-Engineered Vascular Graft With Highly Porous Sponge-Type Scaffold as a Small-Diameter Arterial Graft**
T. Sugiura
Nationwide Children's Hospital, Columbus, OH

11:30 AM – 12:30 PM

Room 125AB

Basic Science Research: General Thoracic*Moderators: Jules Lin, Ann Arbor, MI, and Sunil Singhal, Philadelphia, PA*

11:30 AM **Bioengineering a Partial Tracheal Graft Using 3D-Printed Polymer, Extracellular Matrix, and Mesenchymal Stem Cells**

*S. Rehmani**Mount Sinai St Luke's Hospital, New York, NY*

11:45 AM **Asbestos Mediates Epigenetic Repression of RASSF1A in Normal Human Mesothelial Cells**

*D. Straughan**National Cancer Institute, Bethesda, MD*

12:00 PM **Role of Stress Proteins in the Carcinogenesis and Maintenance of Esophageal Adenocarcinoma**

*K. D. Hazel**University of Colorado School of Medicine, Aurora*

12:15 PM **Near-Infrared Intraoperative Molecular Imaging Localizes Metastases to the Lung**

*J.J. Keating**University of Pennsylvania, Philadelphia*

11:30 AM – 12:30 PM

Room 129AB

Congenital Session: Adult Congenital*Moderators: James Jagers, Aurora, CO, and Kirk R. Kanter, Atlanta, GA*

11:30 AM **Contemporary Management of Aortic Coarctation in Adults: Mid-Term Results**

*P. Noly**Montreal Heart Institute, Canada*

11:45 AM **One Hundred Percent Freedom From Reintervention at 10 Years With a Porcine Valved Conduit for Right Ventricular Outflow Tract Reconstruction**

*H. Schubmehl**University of Rochester, NY*

12:00 PM **Adult Scimitar Syndrome Repair: Long-Term Results Using an Extracardiac Conduit**

*N. Carvalho Guerra**Hopital Cardiologique Haut-Leveque, Bordeaux, France*

12:15 PM **Long-Term Outcome of Arterial Switch Operation Conversion After Failed Senning/Mustard Procedure**

*T. Maeda**Tokyo Women's Medical University, Japan*

11:30 AM – 12:30 PM

Room 128AB

Critical Care*Moderators: Rakesh C. Arora, Winnipeg, Canada, and James M. Isbell, Charlottesville, VA*

11:30 AM **Clinical Significance of Spontaneous Echo Contrast on Extracorporeal Membrane Oxygenation**

*S. Unai**Thomas Jefferson University Hospital, Philadelphia, PA*

11:45 AM **Restricted Albumin Utilization Is Safe and Cost Effective in a Cardiac Surgery Intensive Care Unit**

*J. Rabin**University of Maryland Medical Center, Baltimore*

12:00 PM

Acute Stress Hyperglycemia, Even in Non-Diabetics, Increases the Rate of Atrial Fibrillation in Patients Undergoing Cardiac Surgery

*H. A. Jensen**Emory University, Atlanta, GA*

12:15 PM

The Relationship Between Blood Transfusions and Infections Following Cardiac Surgery: Is This Just the Blood?

*R. Ohkuma**The Johns Hopkins Hospital, Baltimore, MD*

11:30 AM – 12:30 PM

Room 120A

General Thoracic Session: New Technology*Moderators: Shanda H. Blackmon, Rochester, MN, and Michael Lanuti, Boston, MA*

11:30 AM **Normalization of Exhaled Carbonyl Compounds Following Lung Cancer Resection**

*E. Schumer**University of Louisville, KY*

11:42 AM

Pulmonary Artery Sealing Using an Ultrasonic Energy Vessel-Sealing Device in Video-Assisted Thoracoscopic Lobectomy: Survival Study in a Canine Model

*E. Goudie**CHUM Endoscopic Tracheobronchial and Oesophageal Center, University of Montreal, Canada*

11:54 AM

Safety and Effectiveness of Cadaveric Allograft Sternochondral Replacement After Sternectomy: A New Tool for Reconstruction of the Anterior Chest Wall

*G. Marulli**University of Padova, Italy*

12:06 PM

Peroral Endoscopic Myotomy: Early Experience With a Multispecialty Approach

*R. J. Marchigiani**University of Iowa, North Liberty*

12:18 PM

Temporary Esophageal Stenting for the Treatment of Benign Dilatation-Refractory Esophageal Stenosis

*J. Jacob-Brassard**University of Montreal, Canada*

11:30 AM – 12:30 PM

Room 123

STS/CATS/CSCS: Adding New Dimensions to Your Surgical Practice—Optimizing Your Internet Presence and Understanding the Emerging Role of 3-Dimensional Printing in Cardiothoracic Surgery

Moderators: Sean C. Grondin, Calgary, Canada, and Colin Schieman, Hamilton, Canada

11:30 AM

How to Improve Your Internet Profile: Building a Winning Website for You and Your Team

Christopher W. Seder, River Forest, IL

11:40 AM

Social Media in Cardiothoracic Surgery and the Thoracic Surgery Social Media Network: Understanding How Social Media Can Benefit You and Your Patients

Mara B. Antonoff, Houston, TX

11:50 AM

Panel Discussion

12:00 PM 3-Dimensional Printing Applications in Cardiovascular Surgery*Mackenzie Quantz, London, Canada***12:10 PM 3-Dimensional Printing in General Thoracic Surgery***Stephen D. Cassivi, Rochester, MN***12:20 PM Panel Discussion****12:30 PM – 1:30 PM****BREAK—Visit Exhibits and Scientific Posters***Complimentary coffee available in the Exhibit Hall***1:15 PM – 5:15 PM****Room 127ABC****Redefining Practice Through Quality and Evidence: What's New?***Moderators: Vinay Badhwar, Pittsburgh, PA, and Jeffrey P. Jacobs, St Petersburg, FL***1:15 PM Introduction****1:20 PM STS Clinical Practice Guidelines: What's New?***John D. Mitchell, Aurora, CO***1:50 PM Question-and-Answer Session****2:05 PM Local and Regional Quality Collaboratives: What's New?***John V. Conte, Baltimore, MD, Donald S. Likosky, Ann Arbor, MI, and Alan M. Speir, Falls Church, VA***2:35 PM Question-and-Answer Session****2:50 PM Development and Validation of a Reliable Score to Predict the Risk of Readmission Following Adult Cardiac Surgery***A. Kilic**The Johns Hopkins University, Baltimore, MD***3:00 PM Cost Analysis of a Physician Assistant Home Visit Program to Reduce Readmissions Following Cardiac Surgery***J. P. Nabagiez**Staten Island University Hospital, North Shore-LIJ Health System, NY***3:10 PM Unplanned Readmission Following Lung Resection: Complete Follow-Up in a 1-Year Cohort With Identification of Associated Risk Factors***K. J. Dickinson**Mayo Clinic, Rochester, MN***3:20 PM Break****3:35 PM Adhering to Quality Measures in Esophagectomy Improves Overall Survival in All Stages of Esophageal Cancer***P. P. Samson**Washington University School of Medicine, St Louis, MO***3:45 PM Perfusion Strategies for Neonatal and Infant Aortic Arch Repair: Review of Contemporary Practice Patterns in the STS Congenital Heart Surgery Database***D. B. Meyer**Cohen Children's Medical Center, New Hyde Park, NY***3:55 PM Quality Measurement: What's New?***David M. Shabian, Sudbury, MA***4:10 PM Public Reporting: What's New?***Vinay Badhwar, Pittsburgh, PA***4:20 PM Public Reporting With the STS General Thoracic Surgery Database***Benjamin D. Kozower, Charlottesville, VA***4:30 PM STS Congenital Heart Surgery Database Risk Models***Marshall L. Jacobs, Newtown Square, PA***4:40 PM National Quality Initiatives (National Quality Forum, AMA-convened Physician Consortium for Performance Improvement, and CMS Physician Compare Website): What's New?***Jeffrey P. Jacobs, St Petersburg, FL***4:55 PM Physician Reimbursement (CPT and RUC): What's New?***Peter K. Smith, Durham, NC***5:05 PM Question-and-Answer Session/Discussion****1:30 PM – 3:30 PM****Room 120D****Adult Cardiac Session: Aorta I***Moderators: Derek R. Brinster, New York, NY, and Wilson Y. Szeto, Philadelphia, PA***1:30 PM Open Repair of Thoracoabdominal Aortic Aneurysm in Patients ≤ 50 Years of Age***J. S. Coselli**Baylor College of Medicine, Houston, TX***1:45 PM Imaging Experience of Type II Hybrid Aortic Arch Repair: Lessons Learned From 6 Years of Zone 0 Landing and Evolution to Zone 2 Arch Repair***J. J. Appoo**Libin Cardiovascular Institute, University of Calgary, Canada***2:00 PM Endovascular Arch Repair in Zone 0 and Zone Z Arch Disease***Joseph E. Bavaria, Philadelphia, PA***2:15 PM Clinical Outcomes of the David V Valve-Sparing Root Replacement Compared to Bioprosthetic Valve Conduits for Aortic Root Aneurysms***J. Esaki**Otsu Red Cross Hospital, Japan***2:30 PM The Concept of Selective Antegrade Cerebral Perfusion During Mild (28°C) Systemic Hypothermia Safely and Reproducibly Can Be Applied to All Aspects of Aortic Arch Surgery: Single-Center Experience Over a 15-Year Period in 587 Consecutive Patients***A. Zierer**University Hospital Frankfurt, Germany***2:45 PM Morphologic and Functional Markers of Aortopathy in Patients With Bicuspid Aortic Valve Insufficiency vs Stenosis***E. Girdauskas**Central Hospital Bad Berka, Germany***3:00 PM Bicuspid Aortic Valve Insufficiency With Root Aneurysm: Repair With Root Reimplantation***Edward P. Chen, Atlanta, GA***3:15 PM Redo Thoracoabdominal Aortic Aneurysm Repair: A Single-Center Experience Over 25 Years***R. Afifi**The University of Texas Health Science Center, Houston*

1:30 PM – 3:30 PM

Room 126ABC

Adult Cardiac Session: Ischemic

Moderators: Frank W. Sellke, Providence, RI, and Brett C. Sheridan, Chapel Hill, NC

- 1:30 PM Failure-to-Rescue Rates After Coronary Artery Bypass Grafting: An Analysis From the STS Adult Cardiac Surgery Database**
F. H. Edwards
University of Florida, Jacksonville
- 1:45 PM Total Arterial Coronary Revascularization: A Superior Strategy for Diabetic Patients Who Require Coronary Surgery**
J. Tatoulis
Royal Melbourne Hospital, University of Melbourne, Australia
- 2:00 PM Effects of Blood Transfusion on Late Cardiac and Noncardiac Mortality After Coronary Artery Bypass Grafting**
T. A. Schwann
University of Toledo Medical Center, OH
- 2:15 PM The Optimal Composite Graft Strategy for Multiple Sequential Radial Artery Grafting to the Non-Left Anterior Descending Artery Territories in Aortic No-Touch Total Arterial Off-Pump Coronary Artery Bypass Grafting**
Y. Shimahara
National Cerebral and Cardiovascular Center, Osaka, Japan
- 2:30 PM Coronary Artery Bypass Surgery With Hypothermic Ventricular Fibrillation Without Aortic Occlusion: A Contemporary Study on Early Results and Long-Term Survival**
P. E. Antunes
Center of Cardiothoracic Surgery, Coimbra, Portugal
- 2:45 PM A Comparison of Graft Stenosis and Occlusion Between Radial Artery and Saphenous Veins 5 Years After Coronary Artery Bypass Grafting: A Secondary Analysis of the Radial Artery Patency Study**
M. Yamasaki
Schulich Heart Centre, Sunnybrook Health Sciences Centre, Toronto, Canada
- 3:00 PM The Racial Paradox in Multiarterial Conduit Utilization for Coronary Artery Bypass Grafting**
W. B. Keeling
Emory University, Atlanta, GA
- 3:15 PM What Are the Barriers to Multiple Arterial Grafting?**
Joseph F. Sabik III, Cleveland, OH

1:30 PM – 3:30 PM

Room 122ABC

Congenital Session: Pediatric Congenital I

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

- 1:30 PM Selection Schemes and Technical Diversities of Extra-Anatomic Bypass in Complex and Recurrent Aortic Coarctation and Hypoplastic Arch**
E. B. Delmo Walter
Trauma Center Berlin, Germany

1:45 PM

Association of 24/7 In-House Attending Coverage With Outcomes in Children Undergoing Heart Operations: An Analysis of the Virtual Pediatric Systems Database

P. Gupta
Arkansas Children's Hospital, Little Rock

2:00 PM

A Structured Blood Conservation Program in Pediatric Cardiac Surgery: More Is Better

S. Gunaydin
Adatip Hospital, Ankara, Turkey

2:15 PM

Evaluation of Explanted CorMatrix™ Intra-Cardiac Patches in Children With Congenital Heart Disease

J. S. Nelson
University of North Carolina, Chapel Hill

2:30 PM

Symptoms Do Not Correlate With Coronary Artery Intramural Length or Ostial Diameter in Patients With Anomalous Aortic Origin of Coronary Artery

S. Balasubramanya
Ann & Robert H. Lurie Children's Hospital of Chicago, IL

2:45 PM

Long-Term Outcomes of Complete Vascular Ring Division in Children: 36-Year Experience From a Single Institution

P. S. Naimo
Royal Children's Hospital, Melbourne, Australia

3:00 PM

Post-Fontan Follow-Up Outcomes in Patients With a Pulsatile Glenn Shunt

S. Ferns
University of North Carolina, Chapel Hill

3:15 PM

Mid-Term Results of a Total Cavopulmonary Connection With an Extracardiac Conduit Performed in the Second Decade of Life

A. Metras
Bordeaux Hospital University, Pessac, France

1:30 PM – 3:30 PM

Room 120A

General Thoracic Session: Lung Cancer I—Diagnosis and Staging

Moderators: Leah M. Backbus, Stanford, CA, and Subroto Paul, New York, NY

1:30 PM

Thoracic Surgery-Driven Free Lung Cancer Screening in an Underserved Region Demonstrated Triple the Incidence of Lung Cancer Compared to the National Lung Screening Trial

E. L. Simmerman
Georgia Regents Medical Center, Augusta

1:45 PM

Operating on a Smoking Patient: A Survey Among US Thoracic Surgeons

K. A. Marino
University of Tennessee Health Science Center, Memphis

2:00 PM

BRAF Mutation in Resected Stage I Lung Adenocarcinoma Is a Marker of Worse Outcome

M. Lanuti
Massachusetts General Hospital, Boston

2:15 PM

Lung Adenocarcinomas Presenting as Multiple Lesions With Ground-Glass Opacities Should Be Treated as Independent Events

Y. Zhang
Fudan University Shanghai Cancer Center, China

- 2:30 PM **A Risk Score to Assist in Selecting Lobectomy vs Sublobar Resection for Early Stage Non–Small-Cell Lung Cancer**
B. Gulack
Duke University, Durham, NC
- 2:45 PM **Induction Chemotherapy for cN1 Non–Small-Cell Lung Cancer Is Not Associated With Improved Survival**
P.J. Speicher
Duke University, Durham, NC
- 3:00 PM **Lung Cancer Breath Detection**
Michael Bousamra, Louisville, KY

1:30 PM – 3:30 PM

Room 125AB

General Thoracic Session: Lung Transplantation*Moderators: Pablo Sanchez, Baltimore, MD, and Mathew Thomas, Jacksonville, FL*

- 1:30 PM **Lung Transplant Outcomes in Patients With Coronary Artery Bypass Grafts**
T. Songdechakraiwut
University of Pittsburgh Medical Center, PA
- 1:45 PM **Can Donor Lungs With Prolonged Storage Be Reconditioned by Ex Vivo Lung Perfusion?**
T. Okamoto
Cleveland Clinic, OH
- 2:00 PM **Cold Preservation of Donation-After-Cardiac Death Lungs Following Ex Vivo Lung Perfusion Allows Transport From Lung Rehabilitation Centers to Suitable Recipients**
E. J. Charles
University of Virginia Health System, Charlottesville
- 2:15 PM **Two Decades of Lung Retransplantation: A Single-Center Experience**
D. J. Hall
University of Florida College of Medicine, Gainesville
- 2:30 PM **Antireflux Surgery Is Safe and Effective Following Lung Transplantation**
D. D. Odell
University of Pittsburgh Medical Center, PA
- 2:45 PM **Bridging Strategies to Lung Transplantation Do Not Have an Impact on 1-Year Survival**
M. J. Mulligan
University of Maryland School of Medicine, Baltimore
- 3:00 PM **Debate: Is Lung Retransplantation Justified From an Ethical and Economical Perspective?**
PRO: Steven M. Karwut, Philadelphia, PA
CON: Kenneth R. McCurry, Cleveland, OH

1:30 PM – 3:30 PM

Room 128AB

SVS @ STS: Sharing Common Ground for Cardiovascular Problems*Moderators: A. Michael Borkon, Kansas City, MO, and Jason T. Lee, Stanford, CA*

- 1:30 PM **Introduction**
- 1:35 PM **Conservative Management of Acute Type B Dissections: “To Treat Now or Later”**
Michael P. Fischbein, Stanford, CA

- 1:50 PM **Aggressive Stent Grafting**
Joseph V. Lombardi, Camden, NJ
- 2:05 PM **Discussion**
- 2:15 PM **Thoracic Aortic Aneurysm: Why Open Treatment?**
Joseph S. Coselli, Houston, TX
- 2:30 PM **Thoracic Aortic Aneurysm: Why Endovascular Repair?**
Gustavo Oderich, Rochester, MN
- 2:45 PM **Discussion**
- 2:55 PM **Arterial/Venous Thoracic Outlet Syndrome: How I Do It—STS Perspective**
John A. Kern, Charlottesville, VA
- 3:10 PM **Arterial/Venous Thoracic Outlet Syndrome: How I Do It—SVS Perspective**
Julie A. Freischlag, Sacramento, CA
- 3:25 PM **Discussion**

1:30 PM – 3:30 PM

Room 123

30th Anniversary Celebration of Women in Thoracic Surgery: Innovations and Contributions of WTS and STS Members*Moderators: Jessica S. Donington, New York, NY, Leslie J. Kobman, Syracuse, NY, and Jennifer S. Lawton, St Louis, MO*

- 1:30 PM **Introduction**
- 1:32 PM **The Untapped Potential of Women as Leaders**
Douglas E. Wood, Seattle, WA
- 1:47 PM **Pioneers and Significant Contributions in Congenital Heart Surgery**
Kristine J. Guleserian, Dallas, TX
- 2:02 PM **Pioneers and Significant Contributions in Adult Cardiac Surgery**
Andrea J. Carpenter, San Antonio, TX
- 2:17 PM **Pioneers and Significant Contributions in General Thoracic Surgery**
Yolonda L. Colson, Boston, MA
- 2:32 PM **Changes in the Demographics of American Board of Thoracic Surgery Diplomates Since 1961**
William A. Baumgartner, Baltimore, MD
- 2:47 PM **Mentoring Female and Minority Surgeons**
G. Alexander Patterson, St Louis, MO
- 3:02 PM **Diversity in Cardiothoracic Surgery and the Future: What Will the Face of CT Surgery Be?**
Valerie W. Rusch, New York, NY
- 3:17 PM **Panel Discussion**

3:30 PM – 4:15 PM

BREAK—Visit Exhibits and Scientific Posters*Complimentary coffee available in the Exhibit Hall*

3:30 PM – 5:30 PM

Room 129AB

International Symposium & Reception: The Ethics and Practicality of Using New Technologies to Treat Cardiothoracic Diseases in Different Parts of the World

Moderator: A. Pieter Kappetein, Rotterdam, The Netherlands

3:30 PM **Introduction****Rheumatic Heart Disease**

3:35 PM **Rheumatic Heart Disease: Between a Rock and a Heart Place**

Tarweesak Chotivatanapong, Nonthaburi, Thailand

3:42 PM **Question-and-Answer Session****The Modern Era of Endocarditis Treatment**3:50 PM **Emerging Trends in Infective Endocarditis**

Adnan Cobanoglu, Beachwood, OH

3:57 PM **Different Treatment Approaches in Japan**

Yutaka Okita, Kobe, Japan

4:01 PM **Different Treatment Approaches in South Korea**

Jae Won Lee, Seoul, South Korea

The Future of Transcatheter Mitral Valve Disease Treatment in Different Parts of the World

4:05 PM **New Technologies Available and On the Horizon**

Joseph E. Bavaria, Philadelphia, PA

4:12 PM **Varieties of Mitral Valve Disease: Is the Developing World Ready for New Devices?**

Arkalud Sampath Kumar, Delhi, India

The Ethics of Testing New Devices in Developing Countries

4:20 PM **Panel Discussion: Where Are Devices Being Tested? The Ethics of Testing Devices in Countries Where the Technology Likely Will Not Be Dispersed**

Joseph E. Bavaria, Philadelphia, PA, Steven F. Bolling, Ann Arbor, MI, William E. Cohn, Houston, TX, A. Pieter Kappetein, Rotterdam, The Netherlands, John C. Laschinger, Silver Spring, MD, Robert M. Sade, Charleston, SC, and Moritz C. Wyler von Ballmoos, Milwaukee, WI

4:15 PM – 5:15 PM

Room 120D

Surgical Motion Picture Matinee: Adult Cardiac

Moderators: Edward P. Chen, Atlanta, GA, and Leora T. Yarboro, Charlottesville, VA

4:15 PM **Endovascular Repair of Thoracoabdominal Aortic Aneurysm With Custom-Manufactured, Fenestrated-Branched Stent Grafts**

L. E. Greiten

Mayo Clinic, Rochester, MN

4:27 PM **An Overlooked Tool to Address Mitral Regurgitation at the Time of Septal Myectomy for Hypertrophic Obstructive Cardiomyopathy**

A. A. Shah

Duke University Medical Center, Durham, NC

4:39 PM

Minimally Invasive Replacement of the Hemi Arch, Ascending Aorta, and Aortic Root With Reimplantation of the Coronary Arteries Utilizing Circulatory Arrest and Retrograde Cerebral Perfusion

J. Lamelas

Mount Sinai Medical Center, Miami Beach, FL

4:51 PM **Minimally Invasive Left Ventricular Assist Device Implantation**

Y. Lin

Mayo Clinic, Rochester, MN

5:03 PM **Repair of Bicuspid Aortic Valve Insufficiency and Ascending Aortic Aneurysm Associated With Coronary Anomalies**

Y. Choi

University of Cologne, Germany

4:15 PM – 5:15 PM

Room 122ABC

Surgical Motion Picture Matinee: Congenital

Moderators: Babaaldin Alsoufi, Atlanta, GA, and Aditya K. Kaza, Boston, MA

4:15 PM **The Senning/Rastelli Operation for Congenitally Corrected Transposition of the Great Arteries With Pulmonary Stenosis: A Technique to Prevent Pulmonary Vein Stenosis**

J. S. Nelson

University of North Carolina, Chapel Hill

4:27 PM **Double Switch Operation With Combined Nikaidoh and Senning Procedures for Congenitally Corrected Transposition of the Great Arteries/Ventricular Septal Defect/Pulmonary Stenosis**

R. Aeba

Keio University, Tokyo, Japan

4:39 PM **Truncal Half Turn and Senning Operation: Anatomical Correction of Congenitally Corrected Transposition of Great Arteries (IDD) With Pulmonary Stenosis, Ventricular Septal Defect, Situs Inversus, and Levocardia**

P. Murin

German Heart Institute Berlin

4:51 PM **A Novel Technique for Aortic Arch Reconstruction With Pulmonary Autograft Tube for Right-Sided Interrupted Aortic Arch**

N. Kato

Children's Medical Center, Kyoto Prefectural University of Medicine, Japan

5:03 PM **From Right Arch to Left Arch: Modified Norwood Procedure for a Newborn Infant With Tricuspid Atresia, Transposition of Great Arteries, and Right Arch With Complete Vascular Ring**

C. Hsu

National Taiwan University Hospital, Taipei

4:15 PM – 5:15 PM

Room 120A

Surgical Motion Picture Matinee: General Thoracic*Moderators: K. Robert Shen, Rochester, MN, and Sandra L. Starnes, Cincinnati, OH*4:15 PM **Tracheal Resection and Carinal Reconstruction for Squamous Cell Carcinoma***T. S. Lancaster**Washington University School of Medicine, St Louis, MO*4:27 PM **Is Single Anatomical Segmentectomy of the Mediobasal Segment (S7) Possible?***K. Shimizu**Gunma University Hospital, Maebashi, Japan*4:39 PM **Minimally Invasive Nerve Root-Sparing Resection of a Thoracic Schwannoma: A Case Report***E. A. Gillaspie**Mayo Clinic, Rochester, MN*4:51 PM **Thoracoscope-Assisted Minimally Invasive Multiple-Level Rib Fixation and Lung Repair in Traumatic Chest Wall Injury***K. Han**Korea University Guro Hospital, Seoul*5:03 PM **Total Endoscopic First Rib Resection for Thoracic Outlet Syndrome***R. George**St James's University Hospital, Leeds, United Kingdom*

5:00 PM – 6:30 PM

Room 120D Foyer

Scientific Posters and Wine

5:30 PM – 6:25 PM

Room 125AB

Business Meeting (STS Members Only)

6:30 PM – 7:30 PM

Camelback B, Sheraton Grand Phoenix

STS-PAC Reception

7:00 PM – 10:30 PM

 **STS Social Event: Corona Ranch**

TUESDAY, JANUARY 26, 2016

6:30 AM – 4:30 PM

Lower Level Foyer

Registration: STS Annual Meeting

9:00 AM – 3:30 PM

Exhibit Halls 4-5

Exhibit Hall

9:00 AM – 5:00 PM

Room 120 Foyer

Scientific Posters

7:30 AM – 8:30 AM

Various locations; see below

Early Riser Sessions**Early Riser Session 1**

Room 123

Women in Thoracic Surgery: Patient-Centered Care and Research*Leah M. Backbus, Stanford, CA, Benjamin D. Kozower, Charlottesville, VA, Valerie A. Williams, Cincinnati, OH, and Stephen C. Yang, Baltimore, MD***Early Riser Session 2**

Room 221A

Task Force on Military Affairs: Disaster Preparedness and Mass Casualty—The Role of a Cardiothoracic Surgeon*Danny Chu, Pittsburgh, PA, Elizabeth A. David, Davis, CA, Emily A. Farkas, Los Angeles, CA, and Kenneth L. Mattox, Houston, TX***Early Riser Session 3**

Room 221B

Transitioning to Retirement*James R. Edgerton, Dallas, TX, Robert W. Emery, Minneapolis, MN, John W. Hammon, Winston-Salem, NC, and Sidney Levitsky, Boston, MA***Early Riser Session 4**

Room 221C

How to Acquire and Use Data From the STS National Database for Research*Vinay Badhwar, Pittsburgh, PA, Henning A. Gaissert, Boston, MA, Jane Han, Chicago, IL, Jeffrey P. Jacobs, St Petersburg, FL, and Marshall L. Jacobs, Newtown Square, PA***Early Riser Session 5**

Room 222A

The Annals Academy*Shanda H. Blackmon, Rochester, MN, Mark K. Ferguson, Chicago, IL, Jennifer C. Hirsh-Romano, Ann Arbor, MI, Jennifer S. Lawton, St Louis, MO, and G. Alexander Patterson, St Louis, MO***Early Riser Session 6**

Room 128AB

New Technologies and Controversies in Esophageal Disease*Alexander S. Farivar, Seattle, WA, Hiran C. Fernando, Boston, MA, and Brian E. Louie, Seattle, WA***Early Riser Session 7**

Room 126ABC

Lung Cancer Screening: Policy, Program Development, and Patient Management*Ella Kazerooni, Ann Arbor, MI, Brady McKee, Burlington, MA, Gaetano Rocco, Naples, Italy, and Douglas E. Wood, Seattle, WA*

Early Riser Session 8

Room 224A

Coding and Billing in the ICU*Julie Painter, Thornton, CO, and Jay G. Shake, Temple, TX***Early Riser Session 9**

Room 122ABC

LVAD Thrombosis: Diagnosis and Management*Abmet Kilic, Columbus, OH, Robert L. Kormos, Pittsburgh, PA, Francis D. Pagani, Ann Arbor, MI, and Nicholas G. Smedira, Cleveland, OH***Early Riser Session 10**

Room 131ABC

Tough Calls in Mitral Valve Disease*Michael A. Borger, New York, NY, Anson Cheung, Vancouver, Canada, and Vinod H. Thourani, Atlanta, GA***Early Riser Session 11**

Room 127ABC

Safe Reoperative Surgery*Pavan Athuri, Philadelphia, PA, Jack Boyd, Stanford, CA, Joel S. Corvera, Indianapolis, IN, John A. Kern, Charlottesville, VA, and Wilson Y. Szeto, Philadelphia, PA***Early Riser Session 12**

Room 125AB

Three Cases I Wish I Could Get Back*Emile A. Bacha, New York, NY, Jonathan Chen, New York, NY, and Glen S. Van Arsdell, Toronto, Canada***Early Riser Session 13**

Room 129AB

Mechanical Circulatory Support of the Single Ventricle*J. William Gaynor, Philadelphia, PA, David L. Morales, Cincinnati, OH, and Ronald K. Woods, Milwaukee, WI***Early Riser Session 14**

Room 226C

Clinical Trials in Thoracic Surgical Oncology*Gail E. Darling, Toronto, Canada, and Linda W. Martin, Baltimore, MD***Early Riser Session 15**

Room 224B

Update on Maintenance of Certification for the American Board of Thoracic Surgery*Bryan F. Meyers, St Louis, MO, and Cameron D. Wright, Boston, MA*

7:30 AM – 8:30 AM

Room 226A

Early Riser Health Policy Forum**MIPS: The New Medicare Fee-for-Service and What It Means to You***Alan M. Speir, Falls Church, VA, and Courtney Yobe, Washington, DC*

9:00 AM – 12:00 PM

Exhibit Halls 2-3

General Session II*Moderators: Mark S. Allen, Rochester, MN, and Keith S. Naunheim, St Louis, MO*

9:00 AM

Thomas B. Ferguson Lecture: The Requisite Innovator's Mindset: Open-Mindedness and the Relentless Hunt for Problems in Need of Fixing*Scott Parazyński, Houston, TX*

10:00 AM

BREAK—Visit Exhibits and Scientific Posters*Complimentary coffee available in the Exhibit Hall*10:45 AM **Award Presentations**11:00 AM **C. Walton Lillehei Lecture: Why We Get Fat***Gary Taubes, New York, NY****For more information on this speaker, please visit www.prhspeakers.com.*

12:00 PM – 1:00 PM

BREAK—Visit Exhibits and Scientific Posters*Complimentary coffee available in the Exhibit Hall*

12:00 PM – 1:00 PM

Room 229AB

Ethics Debate: An Advance Directive Limits Postoperative Care—Should Surgeons Accept Limits on Care?*Facilitator: Robert M. Sade, Charleston, SC**PRO: Constantine D. Mavroudis, Philadelphia, PA**CON: Jeffrey G. Gaca, Durham, NC*

12:00 PM – 1:00 PM

Room 231ABC

Residents Luncheon

1:00 PM – 3:00 PM

Room 131ABC

Adult Cardiac Session: General*Moderators: Kevin L. Greason, Rochester, MN, and Christina M. Vassileva, Springfield, IL*

1:00 PM

Amiodarone Protocol Reduces Atrial Fibrillation and Decreases Mortality in Cardiac Surgery Patients*W. Elkhaili**St Joseph's Healthcare System, Paterson, NJ*

1:15 PM

Valve Repair Is Superior to Replacement in Patients With Coexisting Degenerative Mitral Valve and Ischemic Heart Disease*H. Javadikasgari**Cleveland Clinic, OH*

1:30 PM

Pericardiectomy After Previous Coronary Bypass Grafting: Analyzing Risk and Effectiveness in this Rare Clinical Entity*E. A. Gillaspie**Mayo Clinic, Rochester, MN*

1:45 PM

Improved Outcomes of Total Arterial Myocardial Revascularization in Elderly Patients at Long-Term Follow-Up: A Propensity-Matched Analysis*G. Bisleri**University of Brescia Medical School, Italy*

2:00 PM

Effective Strategies for Reducing Blood Transfusions in Adult Cardiac Surgery*J. W. Haft**University of Michigan, Ann Arbor*

2:15 PM

The Unintended Consequences of Over Reducing Cardiopulmonary Bypass Circuit Prime Volume*B. C. Sun**Minneapolis Heart Institute, MN*

2:30 PM **Insights From Longitudinal Echocardiographic Follow-Up After Surgical Correction of Mitral Prolapse: Modes of Mitral Repair Failure**

*V. Chan
University of Ottawa Heart Institute, Canada*

2:45 PM **50-Year Follow-Up of Mechanical Aortic Valve Replacement: Patient Survival and Prosthesis Durability**

*A. P. Furnary
Starr-Wood Cardiac Group of Portland, OR*

1:00 PM – 3:00 PM

Room 120D

Adult Cardiac Session: Mitral Valve

Moderators: Juan A. Crestanello, Columbus, OH, and Richard Lee, St Louis, MO

1:00 PM **Off-Pump Mitral Valve Repair With NeoChord Implantation: 1-Year Follow-Up**

*A. Colli
University of Padova, Italy*

1:15 PM **Ischemic Mitral Regurgitation: In Whom Should Mitral Valve Repair Be Performed?**

*V. Chan
University of Ottawa Heart Institute, Canada*

1:30 PM **Evolution of Secondary Tricuspid Regurgitation After Mitral Valve Surgery for Ischemic Mitral Regurgitation**

*J. L. Navia
Cleveland Clinic, OH*

1:45 PM **Twenty-Year Experience With Tricuspid Annuloplasty for Functional Tricuspid Regurgitation: Is Ring Annuloplasty Superior to Suture Annuloplasty?**

*H. Hata
National Cerebral and Cardiovascular Center,
Osaka, Japan*

2:00 PM **Robotic vs Non-Robotic Mitral Valve Surgery for Degenerative Mitral Valve Disease**

*M. E. Halkos
Emory University, Atlanta, GA*

2:15 PM **Mechanical vs Bioprosthetic Valve Replacement in Young Women: Does Type of Valve Affect Survival?**

*J. Hughes
Mayo Clinic, Rochester, MN*

2:30 PM **Debate: The Future of Mitral Valve Regurgitation Treatment**

*Open Surgery: TBD
Transcatheter Repair: Gorav Ailawadi, Charlottesville, VA
Transcatheter Replacement: Michael J. Mack, Dallas, TX*

1:00 PM – 3:00 PM

Room 122ABC

Congenital Session: Pediatric Congenital II

Moderators: Richard W. Kim, Los Angeles, CA, and Glen S. Van Arsdell, Toronto, Canada

1:00 PM **Aortic Valve Annulus Is the Best Predictor of Left Ventricular Outflow Tract Reintervention Following Biventricular Repair of Interrupted Arch/Ventricular Septal Defect**

*R. Subramanyan
University of Southern California, Los Angeles*

1:15 PM **Cardiopulmonary Bypass Management Strategies Have Minimal Impact on Early Neurodevelopmental Outcomes After Cardiac Surgery in Infants**

*J. Gaynor
The Children's Hospital of Philadelphia, PA*

1:30 PM **Growth of the Neopulmonic Valve After the Arterial Switch Operation in Patients With Aortic Arch Obstruction**

*J. Park
Seoul National University Children's Hospital, South Korea*

1:45 PM **Coronary Anatomical Patterns and Clinical Outcome in the Surgical Treatment of Transposition of the Great Arteries**

*M. Trezzi
Bambino Gesù Children's Hospital, Rome, Italy*

2:00 PM **Optimal Timing for Elective Early Primary Repair of Tetralogy of Fallot**

*M. Cunningham
Children's National Medical Center, Kensington, MD*

2:15 PM **Limited Transannular vs Subvalvar Patch in Infants With Tetralogy of Fallot**

*B. V. Simon
University of Rochester, NY*

2:30 PM **Systemic Pulmonary Shunt Facilitates the Growth of the Pulmonary Valve Annulus in Patients With Tetralogy of Fallot**

*B. Chong
Asan Medical Center, Seoul, South Korea*

2:45 PM **Global Tetralogy of Fallot Surgical Practice Patterns**

*S. Hussain
The Hospital for Sick Children, Toronto, Canada*

1:00 PM – 3:00 PM

Room 125AB

General Thoracic Session: Esophageal

Moderators: Ross M. Bremner, Phoenix, AZ, and Christopher R. Morse, Boston, MA

1:00 PM **Quality of Lymphadenectomy Is Associated With Improved Overall Survival in Esophageal Cancer Patients**

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

1:15 PM **Assessing the Importance of Age on Outcomes Associated With Repair of Giant Paraesophageal Hernias**

*K. Mohiuddin
Virginia Mason Medical Center, Seattle, WA*

- 1:30 PM** **Influence of Specialty Training and Trainee Involvement in the Perioperative Outcomes of Esophagectomy**
Z. Khoubbal
The Johns Hopkins University, Baltimore, MD
- 1:45 PM** **Accelerated Recovery Within Standardized Pathways Following Esophagectomy: A Prospective Cohort Study Assessing Outcomes, Readmissions, Patient Satisfaction, and Costs**
M. El Lakis
Virginia Mason Medical Center, Seattle, WA
- 2:00 PM** **Risk Factors for Local Recurrence and Optimal Length of Esophagectomy in Esophageal Cancer**
C. Kang
Seoul National University Hospital, South Korea
- 2:15 PM** **Esophagectomy Outcomes in the Endoscopic Mucosal Resection Era**
K. J. Dickinson
Mayo Clinic, Rochester, MN
- 2:30 PM** **Impact of Postoperative Infection on Overall Survival and Recurrence After Minimally Invasive Esophagectomy: A Propensity Score-Matched Analysis**
V. Tam
University of Pittsburgh Medical Center, PA
- 2:45 PM** **Race Is Associated With Reduced Overall Survival Following Esophagectomy for Esophageal Cancer Only Among Patients From Lower Socioeconomic Backgrounds**
L. Erhunmwunsee
Duke University Medical Center, Durham, NC

1:00 PM – 3:00 PM

Room 120A

General Thoracic Session: Lung Cancer II—Treatment*Moderators: David T. Cooke, Sacramento, CA, and Eric L. Grogan, Nashville, TN*

- 1:00 PM** **Successful Linkage of the STS General Thoracic Surgery Database and a Hospital Cancer Registry to Obtain Long-Term Survival Data in Patients Undergoing Lobectomy for Lung Cancer**
M. J. Magee
HCA North Texas Division, Dallas
- 1:15 PM** **Nationwide Utilization of Robotic Lobectomy and Postoperative Outcomes**
R. Rajaram
Northwestern University, Chicago, IL
- 1:30 PM** **Does the Use of Cardiopulmonary Bypass During En Bloc Resection of T4 Non-Small-Cell Lung Cancer Affect Early or Late Outcomes?**
N. B. Langer
Marie Lannelongue Hospital, Le Plessis Robinson, France
- 1:45 PM** **Quality Metrics for Minimally Invasive Lobectomy: A Comparison Between Video-Assisted and Robotic Approaches for Clinical Stage I and II Non-Small-Cell Lung Cancer Using the STS National Database**
B. E. Louie
Swedish Cancer Institute, Seattle, WA

- 2:00 PM** **Recurrence Patterns After Wedge Resection for Early Stage Lung Cancer: How to Rationally Follow Up to Detect Early Local Failures**
A. Bille
Memorial Sloan Kettering Cancer Center, New York, NY
- 2:15 PM** **Is the T3 Designation Valid in Patients With Centrally Located Non-Small-Cell Lung Cancer?**
J. Jeon
Center for Lung Cancer, National Cancer Center, Goyang, South Korea
- 2:30 PM** **Debate: Post-Resection Surveillance: Does It Make Sense?**
PRO: Douglas E. Wood, Seattle, WA
CON: James Jett, Denver, CO

1:00 PM – 3:00 PM

Room 127ABC

Patient Safety Symposium: When Bad Things Happen to Good CT Surgeons—Human Error and the Impact on You, the “Second Victim”*Moderator: James I. Fann, Stanford, CA*

- 1:00 PM** **Welcome and Introduction**
- 1:05 PM** **Human Factors and System Error: Impact on the Provider**
James Jagers, Aurora, CO
- 1:35 PM** **When Bad Things Happen: Reactions to Recovery From Adverse Events**
Carol-Anne Moulton, Toronto, Canada
- 2:05 PM** **What Is Disclosure and Risk Management?**
Timothy McDonald, Chicago, IL
- 2:35 PM** **Panel Discussion**
Michal Hubka, Seattle, WA, and Kevin W. Lobdell, Charlotte, NC

1:00 PM – 3:00 PM

Room 126ABC

EACTS @ STS: Aortic Valve Repair and Aortic Root Reconstruction for Insufficient Tricuspid and Bicuspid Pathology*Moderators: Joseph E. Bavaria, Philadelphia, PA, and Ruggero de Paulis, Rome, Italy*

- 1:00 PM** **Introduction**
- 1:05 PM** **Suture Annuloplasty Significantly Improves the Durability of Bicuspid Aortic Valve Repair**
U. Schneider
Saarland University Medical Center, Homburg, Germany
- 1:20 PM** **From Knowledge of Root Geometry to a Step-by-Step Surgical Reimplantation of a 3-Cusp Aortic Valve**
Ruggero de Paulis, Rome, Italy
- 1:35 PM** **At the Root of the Repair Debate: Outcomes Following Elective Root Replacements for Ascending Aneurysms and Aortic Insufficiency**
F. H. McCarthy
Hospital of the University of Pennsylvania, Philadelphia

- 1:50 PM **Valve-Sparing Root Replacement in Bicuspid Valves: Managing the Annulus and Cusps**
Munir H. Boodhwani, Ottawa, Canada
- 2:05 PM **Impact of Cusp Repair on Reoperation Risk Following the David Procedure: Subgroup Analysis of Patients With Bicuspid and Tricuspid Aortic Valves**
*F. Settepani
Humanitas Clinical and Research Center, Rozzano, Italy*
- 2:20 PM **Reimplantation for Type A Dissection: Technique and Result**
Himanshu J. Patel, Ann Arbor, MI
- 2:35 PM **Severity of Preoperative Aortic Regurgitation Does Not Impact Valve Durability of Aortic Valve Repair Following the David V Valve-Sparing Aortic Root Replacement**
*W. B. Keeling
Emory University, Atlanta, GA*
- 2:50 PM **Panel Discussion**

1:00 PM – 3:30 PM

Room 123

JCTSE: Accountable Surgical Education—How Can Cardiothoracic Surgery Move Forward?*Moderator: Edward D. Verrier, Seattle, WA*

- 1:00 PM **Welcome and Introductory Remarks**
- 1:15 PM **Introducing the New Thoracic Surgical Curriculum**
Craig J. Baker, Los Angeles, CA
- 1:30 PM **Discussion**
- 1:40 PM **Accountability in Surgical Curriculum Development Using an Electronic Platform**
Ara A. Vaporciyan, Houston, TX
- 1:55 PM **Discussion**
- 2:05 PM **Progress in Adopting a Global Curriculum**
Rafael Sadaba, Pamplona, Spain
- 2:20 PM **Discussion**
- 2:30 PM **Gamification of Surgical Education**
Nabush A. Mokadam, Seattle, WA
- 2:45 PM **Discussion**
- 2:55 PM **EACTS Portfolio Tool to Monitor Surgical Training**
A. Pieter Kappetein, Rotterdam, The Netherlands
- 3:10 PM **Panel Discussion**

1:00 PM – 5:30 PM

Room 128AB

Advanced Therapies for End-Stage Heart Disease*Moderators: Robert L. Kormos, Pittsburgh, PA, Nabush A. Mokadam, Seattle, WA, Francis D. Pagani, Ann Arbor, MI, and Craig H. Selzman, Salt Lake City, UT*

- 1:00 PM **Has ENDURANCE or ROADMAP Changed the Practice of Ventricular Assist Device (VAD) Therapy in the US?**
Michael A. Acker, Philadelphia, PA
- 1:15 PM **New VAD Trials and Technology: Better or Just New?**
Daniel J. Goldstein, Bronx, NY

- 1:30 PM **Percutaneous Non-Extracorporeal Membrane Oxygenation Mechanical Circulatory Support: Developing a Rational Approach to Treatment of Shock**
Carmelo A. Milano, Durham, NC
- 1:45 PM **If Not a Heart Transplant or VAD, Then What? High-Risk Alternative Strategies in the Era of STS National Database Reporting**
Nicholas G. Smedira, Cleveland, OH
- 2:00 PM **Non-Sternotomy Approaches to VAD Implantation: Is Less Better?**
Jay D. Pal, Seattle, WA
- 2:15 PM **Panel Discussion**
- 2:30 PM **The Safety and Utility of Nurse-Managed Extracorporeal Life Support in an Adult Cardiothoracic Intensive Care Unit**
*A. E. Hackmann
University of Southern California, Los Angeles*
- 2:45 PM **Posttransplant Outcomes Among Septuagenarians Bridged to Heart Transplantation With Continuous-Flow Left Ventricular Assist Devices**
*S. Fukubara
Columbia University Medical Center, Fort Lee, NJ*
- 3:00 PM **Break**
- 3:30 PM **VAD Therapy or Transplant for Adult Congenital Heart Disease: Unique Challenges and Solutions**
Gonzalo V. Gonzalez-Stawinski, Dallas, TX
- 3:45 PM **An Update on the STICH Trial Results: Is There Evidence to Change our Approach to Ischemic Heart Disease?**
Eric J. Velazquez, Durham, NC
- 4:00 PM **Consideration of Percutaneous Options for Structural Heart Disease in the Setting of Severe Left Ventricle Dysfunction**
Stephanie L. Mick, Cleveland, OH
- 4:15 PM **Evolution of Surgical Management of Functional Mitral Insufficiency**
Donald D. Glower, Durham, NC
- 4:30 PM **Panel Discussion**
- 4:45 PM **Duration of Left Ventricular Assist Device Support Does Not Impact Survival Following Heart Transplantation in the US**
*J. C. Grimm
The Johns Hopkins Hospital, Baltimore, MD*
- 5:00 PM **Correlation of Pre-Explant Lactate Dehydrogenase Levels and Findings During Post-Explant Pump Analysis of the HeartMate II Left Ventricular Assist Device**
*V. Sood
University of Michigan Health System, Ann Arbor*
- 5:15 PM **Uncorrected Significant Mitral Valve Regurgitation Is Associated With Decreased Survival and Increased Readmissions After Left Ventricular Assist Device Implantation**
*T. Ota
The University of Chicago, IL*

3:00 PM – 3:30 PM

BREAK—Visit Exhibits and Scientific Posters*Complimentary coffee available in the Exhibit Hall*

3:30 PM – 5:30 PM

Room 120D

Adult Cardiac Session: Aorta II*Moderators: Thomas E. MacGillivray, Boston, MA, and Eric E. Roselli, Cleveland, OH*

- 3:30 PM **Moderate vs Deep Hypothermic Circulatory Arrest Is Associated With Similar Postoperative Kidney Function in Elective Aortic Hemiarch Reconstruction**
*G. J. Arnaoutakis
University of Pennsylvania Health System, Philadelphia*
- 3:45 PM **The Differential Impact of Anemia on Outcomes in Transcatheter vs Surgical Aortic Valve Replacement**
*F. H. McCarthy
Hospital of the University of Pennsylvania, Philadelphia*
- 4:00 PM **Reoperative Surgical Aortic Valve Replacement vs Transcatheter Valve-in-Valve Replacement for Degenerated Bioprosthetic Aortic Valves**
*J. I. Ejişfor
Brigham and Women's Hospital, Boston, MA*
- 4:15 PM **Open Surgical Repair Remains the Gold Standard for Treating Aortic Arch Pathology**
*V. Khullar
Mayo Clinic, Rochester, MN*
- 4:30 PM **Surgical Outcomes in the Treatment of Type A Aortic Dissection Are Superior at High-Volume Centers**
*M. Arsalan
Baylor Scott & White Health, Plano, TX*
- 4:45 PM **Open Distal Fenestration of Chronic Dissection Facilitates Endovascular Elephant Trunk Completion: Late Outcomes**
*M. Aftab
Cleveland Clinic, OH*
- 5:00 PM **Preoperative Renal Dysfunction and Its Impact on Acute Kidney Injury After Conventional and Transcatheter Aortic Valve Replacement: A Statewide, Population-Based Analysis**
*H. J. Patel
University of Michigan Health System, Ann Arbor*
- 5:15 PM **Twenty-Five-Year Outcome of Composite Graft Aortic Root Replacement: Near "Curative" Impact on Aortic Root Disease**
*S. Mok
Yale New Haven Hospital, CT*

3:30 PM – 5:30 PM

Room 131ABC

Adult Cardiac Session: Aortic Valve*Moderators: Juan A. Crestanello, Columbus, OH, and Bradley G. Leshnower, Atlanta, GA*

- 3:30 PM **The Year in Review: What's New in the Management of Aortic Valve Disease?**
Thomas G. Gleason, Pittsburgh, PA
- 3:45 PM **Early and Mid-Term Clinical and Hemodynamic Outcomes of Transcatheter Valve-in-Valve Implantation: Results From a Multicenter Experience**
*A. D'Onofrio
University of Padova, Italy*
- 4:00 PM **Recovery of Left Ventricular Size and Function After Surgical Correction of Aortic Valve Regurgitation: Implications for Timing of Surgical Intervention**
*T. Murashita
Mayo Clinic, Rochester, MN*
- 4:15 PM **Aortic Valve Repair Is Not Associated With Greater Valve-Related Morbidity than Replacement in Isolated Valve Insufficiency: A 12-Year Prospective, Controlled Study**
*G. B. Luciani
University of Verona, Italy*
- 4:30 PM **Impact of Preoperative Chronic Kidney Disease in 2,531 Patients Undergoing Transcatheter Aortic Valve Replacement**
*H. A. Jensen
Emory University, Atlanta, GA*
- 4:45 PM **Aortic Valve Replacement via Ministernotomy vs Transcatheter Aortic Valve Implantation: Which Approach Is the Gold Standard in a Moderate Risk Group?**
*N. Furukawa
Heart and Diabetes Center, Bad Oeynhausen, Germany*
- 5:00 PM **Long-Term Durability of Aortic Valve Repair for Aortic Regurgitation**
*A. Zeeshan
Cleveland Clinic, OH*
- 5:15 PM **Pericardial Stentless Valve for Aortic Valve Replacement: Long-Term Durability and Hemodynamic Performance—A European Multicenter Experience**
*A. Rebossini
University of Brescia Medical School, Italy*

3:30 PM – 5:30 PM

Room 127ABC

Cardiothoracic Surgical Education

Moderators: Ara A. Vaporciyan, Houston, TX, and Jennifer D. Walker, Worcester, MA

3:30 PM Outcomes of Trainees Performing Coronary Artery Bypass Grafting: Does Resident Experience Matter?

*K. W. Yount
University of Virginia, Charlottesville*

3:45 PM A System for Real-Time Evaluation of Thoracic Resident Operative Autonomy and Formative Feedback

*J. M. Sternbach
Northwestern University, Chicago, IL*

4:00 PM Coronary Artery Bypass Grafting Outcomes in a Resident Training Program Using Real-Time Intraoperative Indocyanine Green Imaging: 3,257 Anastomoses

*A. N. Patel
University of Utah School of Medicine, Salt Lake City*

4:15 PM Application of a 3-Dimensional Video System in Training Surgical Skills for Uniportal Thoracoscopic Surgery

*K. Han
Korea University Guro Hospital, Seoul, South Korea*

4:30 PM Measuring Error Identification and Recovery Skills in Surgical Residents

*J. M. Sternbach
Northwestern University, Chicago, IL*

4:45 PM Correlation Between Training Patterns and Lifetime Academic Achievement of US Academic Cardiac Surgeons: Does Investing in Designated Research Time During Training Improve Career Metrics?

*C. Rosati
Indiana University School of Medicine, Indianapolis*

5:00 PM Gender and Cardiothoracic Surgery Training: Specialty Interests, Satisfaction, and Career Pathways

*E. H. Stephens
Columbia University, New York, NY*

5:15 PM Impact of a Moodle-Based Online Curriculum on Thoracic Surgery In-Training Exam Scores

*M. B. Antonoff
University of Texas MD Anderson Cancer Center, Houston*

3:30 PM – 5:30 PM

Room 122ABC

Congenital Session: Pediatric Congenital III

Moderators: Jeffrey P. Jacobs, St Petersburg, FL, and James D. St. Louis, Minneapolis, MN

3:30 PM Palliation Outcomes of Neonates Born With Single Ventricle Anomalies Associated With Aortic Arch Obstruction

*B. Alsoufi
Emory University, Atlanta, GA*

3:45 PM

Aortic Arch Reconstruction in Comprehensive Stage II Compared With Norwood Reconstruction in Hypoplastic Left Heart Syndrome and Variants

*C. Haller
The Hospital for Sick Children, Toronto, Canada*

4:00 PM

Mid-Term Survival Following Resuscitative Bilateral Pulmonary Artery Banding in High-Risk Single Ventricle Neonates and Infants: How Do They Fare?

*K. J. Guleserian
Children's Medical Center of Dallas/University of Texas Southwestern Medical Center*

4:15 PM

The Impact of Dominant Ventricle Morphology on Palliation Outcomes of Single Ventricle Anomalies

*B. Alsoufi
Emory University, Atlanta, GA*

4:30 PM

Perventricular Device Closure of Perimembranous Ventricular Septal Defect: Safety and Efficiency With Symmetric and Asymmetric Occluders

*X. Pan
National Center for Cardiovascular Diseases, Furwai Hospital, Chinese Academy of Medical Sciences, and Peking Union Medical College, Beijing, China*

4:45 PM

Small-sized Expanded Polytetrafluoroethylene Valved Conduit for Right Ventricular Outflow Reconstruction in Patients With Congenital Heart Disease

*E. Yamasbata
Kyoto Prefectural University of Medicine, Japan*

5:00 PM

Postoperative Trajectories of Cerebral and Somatic Near Infrared Spectroscopy Saturations and Outcomes After Stage I Palliation of Hypoplastic Left Heart Syndrome

*G. Hoffman
Children's Hospital and Medical College of Wisconsin, Milwaukee*

5:15 PM

Report of the 2015 STS Congenital Heart Surgery Practice Survey

*D. L. Morales
Cincinnati Children's Hospital Medical Center, OH*

3:30 PM – 5:30 PM

Room 120A

General Thoracic Session: Mediastinal/Pulmonary

Moderators: Chadrick E. Denlinger, Charleston, SC, and Jessica S. Donington, New York, NY

3:30 PM

An Extended-Pleurectomy, Decortication-Based Treatment for Advanced Stage, Large Tumor Volume Epithelial Mesothelioma Yielding a Median Survival of Greater than 3 Years

*J. Friedberg
University of Maryland, Baltimore*

3:45 PM

Robot-Assisted Thymectomy in Anterior Mediastinal Tumor: Propensity Score-Matching Study With Transsternal Thymectomy

*C. Kang
Seoul National University Hospital, South Korea*

- 4:00 PM **Do Systemic Corticosteroids Have a Role in the Management of Post-Intubation Tracheal Stenosis? A Randomized Clinical Trial**
M. B. Shadmehr
National Research Institute of Tuberculosis and Lung Disease, Shahid Beheshti University of Medical Sciences, Tehran, Iran
- 4:15 PM **Optimal Timing of Urinary Catheter Removal After Thoracic Surgery: A Randomized, Controlled Study**
K. Shen
Mayo Clinic, Rochester, MN
- 4:30 PM **Surgical Treatment of Benign Tracheoesophageal Fistulas: A 10-Year Experience**
B. J. Bibas
Heart Institute (InCor), Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo, Brazil
- 4:45 PM **A Multicenter Study of Volumetric Computed Tomography for Staging Malignant Pleural Mesothelioma**
V. W. Rusch
Memorial Sloan Kettering Cancer Center, New York, NY
- 5:00 PM **Impact of Pectus Excavatum on Cardiac Function: A Cardiovascular Magnetic Resonance Imaging Study**
B. Hokschi
University Hospital, Bern, Switzerland
- 5:15 PM **Preoperative Mediastinal Staging With Mediastinoscopy Causes a Significantly Higher Rate of Undiscovered Mediastinal Lymph Node Metastases than Endobronchial Ultrasound-Guided Transbronchial Needle Aspiration**
J. Eckardt
Odense University Hospital, Denmark

3:30 PM – 5:30 PM

Room 125AB

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

Moderators: Sean C. Grondin, Calgary, Canada, and Gaetano Rocco, Naples, Italy

- 3:30 PM **Optimal Work-Up and Limits of Surgery**
Alessandro Brunelli, Leeds, United Kingdom
- 3:40 PM **Stereotactic Body Radiation Therapy vs Surgery**
Gail E. Darling, Toronto, Canada
- 3:50 PM **Discussion**
- 4:00 PM **Indications for Sublobar Resection**
Raja M. Flores, New York, NY
- 4:10 PM **Indications for Lobectomy**
Gonzalo Varela, Salamanca, Spain
- 4:20 PM **Discussion**
- 4:30 PM **Indications for Peroral Endoscopic Myotomy vs Heller Myotomy vs Balloon**
Shanda H. Blackmon, Rochester, MN
- 4:40 PM **Heller Myotomy With or Without Fundoplication**
Philippe Nafteux, Leuven, Belgium
- 4:50 PM **Discussion**

- 5:00 PM **Open vs Minimally Invasive PEH Repair**
Donald E. Low, Seattle, WA
- 5:10 PM **Mesh vs No-Mesh Repair of PEH**
Xavier Benoit D'Journo, Marseille, France
- 5:20 PM **Discussion**

3:30 PM – 5:30 PM

Room 126ABC

SCA @ STS: Perioperative Evaluation and Management of Circulatory Shock

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

- 3:30 PM **Introduction**
- 3:35 PM **Identifying Different Types of Shock in the Challenging Postoperative Cardiac Patient**
Jerrold H. Levy, Durham, NC
- 3:55 PM **Perioperative Hemodynamic Monitoring**
Robert Sladen, New York, NY
- 4:15 PM **Pharmacologic Management of Shock: What Strategies Have Proven Outcomes?**
David Ciceri, Temple, TX
- 4:35 PM **The Role of Mechanical Support for Shock and Choosing the Optimal Device**
Ashish Shah, Baltimore, MD
- 4:55 PM **Question-and-Answer Session/Panel Discussion**

WEDNESDAY, JANUARY 27, 2016

6:30 AM – 9:30 AM

Lower Level Foyer

Registration: STS University

7:00 AM – 9:00 AM

Exhibit Hall 6

and repeated 9:30 AM – 11:30 AM

 STS University**Course 1: Essentials of TAVR***Course Directors: Basel Ramlawi, Houston, TX, and Eric L. Sarin, Atlanta, GA***Course 2: TEVAR and Aortic Arch Debranching Procedures***Course Directors: Ali Khojenezhad, Los Angeles, CA, and Ourania A. Preventza, Houston, TX***Course 3: Mitral Valve Repair***Course Directors: Evelio Rodriguez, Nashville, TN, and Robert L. Smith, Plano, TX***Course 4: Valve-Sparing Aortic Root Replacement***Course Directors: Duke E. Cameron, Baltimore, MD, and Edward P. Chen, Atlanta, GA***Course 5: Aortic Root Enlarging Procedures***Course Directors: David A. Fullerton, Aurora, CO, and S. Adil Husain, San Antonio, TX***Course 6: ICU/ECHO***Course Directors: Haney Mallemat, Baltimore, MD, and Glenn J. R. Whitman, Baltimore, MD***Course 7: VATS Lobectomy***Course Directors: Robert J. McKenna, Los Angeles, CA, and Shari L. Meyerson, Chicago, IL***Course 8: Advanced Open Esophageal and Tracheal Procedures***Course Directors: Sidharta P. Gangadharan, Boston, MA, and Thomas K. Varghese Jr, Salt Lake City, UT***Course 9: Chest Wall Resection and Adult Pectus Surgery***Course Directors: James M. Donabue, Baltimore, MD, and Mathew Thomas, Jacksonville, FL***Course 10: Atrial Fibrillation (Maze Procedure)***Course Directors: Matthew A. Romano, Ann Arbor, MI, and Edward G. Soltesz, Cleveland, OH***Course 11: Aortic Valve Leaflet Reconstruction***Course Directors: Gebrine El-Khoury, Brussels, Belgium, and J. Scott Rankin, Nashville, TN***Course 12: Advanced Aerodigestive Endoscopy***Course Director: Daniel L. Miller, Marietta, GA***Course 13: Adult Congenital Pulmonary Valve Replacement***Course Director: Patrick I. McConnell, Columbus, OH***Course 14: TSDA Cardiac Surgery Simulation Curriculum***

Room 122ABC and Exhibit Hall 6

*Course Directors: Richard H. Feins, Chapel Hill, NC, and Nabush A. Mokadam, Seattle, WA***This course runs once, from 7:00 AM to 10:30 AM.*

The information listed here is accurate as of December 8, 2015. 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.

**A&E Medical Corporation
Durham, NC**

Booth: 211

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**

Booth: 231

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, nutritionals, and branded generic pharmaceuticals, Abbott serves people in more than 150 countries and employs approximately 70,000 people.

**ACUTE Innovations
Hillsboro, OR**

Booth: 1023

Furthering its reputation as a leader in the thoracic industry, ACUTE Innovations® continues to make advancements in chest wall stabilization technology. Stop by Booth 1023 to learn about ACUTE's cutting-edge products: RibLoc® U Plus Chest Wall Plating System and AcuTie® II Sternum Closure System.

**Admedus
Minneapolis, MN**

Booth: 320

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.

**Advanced Cardiothoracic Consultants, LLC
Indianapolis, IN**

Booth: 932

Utilizing over 40 years of clinical expertise in cardiothoracic, thoracic transplant/organ replacement, and advanced heart failure, ACTC can evaluate financial and clinical aspects for programs to increase efficiencies. Whether a new or well-established program, hospital, or insurer, let ACTC assist in maintaining financial viability and sustaining growth in today's challenging health care market.

**Aesculap
Center Valley, PA**

Booth: 314

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 **Booth: 1121**
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 1,325 of the world's foremost cardiothoracic surgeons. www.aats.org

AtriCure Inc **Booth: 915**
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.

Baxter Healthcare **Booth: 210**
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.

Baylis Medical **Booth: 551**
Mississauga, Canada

Baylor Scott & White **Booth: 100**
Temple, AZ

BD (formerly CareFusion) **Booth: 1035**
San Diego, CA

BD 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 length of stay and cost of care while improving quality of life. Visit BD at Booth 1035 to learn more.

Berlin Heart Inc **Booth: 1039**
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 Food and Drug Administration.

BFW Inc **Booth: 438**
Louisville, KY

BFW is known as a worldwide technological leader in surgical illumination and headlight video imaging. Visit Booth 438 to experience the foremost innovations in portable LED headlights offering intense, clean, bright white light and the new Hatteras™ LED light source—unmatched intense fiberoptic illumination for headlights and instrumentation.

Bolton Medical **Booth: 1032**
Sunrise, FL

Bolton Medical is a subsidiary of the WerfenLife Company, a global company that manufactures and distributes medical diagnostic solutions and medical devices worldwide. Bolton's vision is to become the leading provider of endovascular solutions for aortic disease. Bolton develops, manufactures, and distributes innovative, high-quality products solely focused on the aorta.

Bovie Medical Corporation **Booth: 540**
Clearwater, FL

Bovie® Medical will be featuring J-Plasma®—the helium-based gas plasma technology that is transforming the way surgeries are performed. J-Plasma works with precision and versatility across open and laparoscopic procedures. Bovie also will exhibit its complete line of electro-surgical products.

Cancer Treatment Centers of America **Booth: 443**
Goodyear, AZ

Cancer Treatment Centers of America®, Inc (CTCA) is a national network of five hospitals focusing on the treatment of complex and advanced stage cancer. CTCA offers a comprehensive, fully integrative approach to cancer treatment and serves patients from all 50 states at facilities located in Atlanta, Chicago, Philadelphia, Phoenix, and Tulsa.

CardiacAssist, Inc **Booth: 449**
Pittsburgh, PA

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 the booth to learn more.

Cardica Inc **Booth: 630**
Redwood City, CA

Cook Medical **Booth: 130**
Bloomington, IN

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 **Booth: 539**
Roswell, GA

CorMatrix® Cardiovascular markets its ECM® Bioscaffold devices for vascular repair, pericardial repair and reconstruction, cardiac tissue repair, and CanGaroo ECM Envelope and is currently conducting preclinical studies to evaluate future applications in other cardiac and vascular applications.

CryoLife Booth: 321
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 Booth: 341
Philippi, WV

CT Assist is a managed service provider of cost-effective cardiothoracic surgery advanced practitioners that deliver quality care. CT Assist provides workforce management solutions from long-term to locum tenens and vacation coverage. The company is a physician assistant-owned nationwide employer of talented and experienced cardiothoracic physician assistants and nurse practitioners.

CTSNet Booth: 531
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, a BARD Company Booth: 831
Warwick, RI

BARD is the market leader in comprehensive soft tissue reconstruction. In addition to this extensive suite of products, its BioSurgery franchise is delivering a growing line of enhanced sealants and hemostatic products to complement surgical techniques across thoracic, cardiovascular, and other surgical specialties.

Designs for Vision Booth: 1001
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 the procedure with HD video from your perspective.

DGMR/Global Intercepts Booth: 1102
Dumont, NJ

Utilizing relationships with health care providers all over the world, DGMR/Global Intercepts provides insights on markets, technologies, and devices. The company is uniquely qualified to evaluate marketing strategies and test product development directions, device concepts, product positioning, messaging, and brand identity. Research studies are initiated before, during, and after any US/international conference.

EBM Booth: 131
Tokyo, Japan

EMB, a biomedical spin-out venture company from Japan, provides the original beating heart simulator and quantitative assessment system for off-pump coronary artery bypass grafting and vascular anastomosis worldwide. Skill assessment is based on rapid CFD technology and validated silicone vascular model.

Edwards Lifesciences Booth: 503
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: 938
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.elsevier.com

EndoEvolution, LLC Booth: 124
Raynham, MA

EndoEvolution, LLC is the leading innovator in advanced automated suturing device technology. The Endo360 MIS suturing device is the only reusable automated device with wristed articulation, using a curved needle that precisely replicates the traditional method of suturing used by surgeons to place stitches and tie intracorporeal knots.

Enova Illumination Booth: 125
St Paul, MN

NEW from Enova Illumination: Cyclops XLT-225 LED surgical headlight system. The world's brightest LED surgical headlight designed for deep cavity surgery HD Camera system with edit-free operation, cloud storage, and instant sharing.

Essential Pharmaceuticals Booth: 206
Ewing, NJ

Supporting the preservation and growth of human systems. From the cell to the entire organ, Essential Pharmaceuticals looks to advance medical treatments and the research that creates new medical treatments. Originally developed for cardiac surgery, Custodial®HTK offers superior convenience, water-like viscosity, and no need for additives or filters, which makes it a preferred solution for many transplant centers.

ETHICON/ DePuy Synthes CMF Booth: 401
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)
Windsor, United Kingdom

Booth: 830

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 830 for more information.

European Society of Thoracic Surgeons
Exeter, United Kingdom

Booth: 834

ESTS is the largest international general thoracic surgery organization with more than 1,500 members from all continents. The society's mission is to improve quality in our specialty: from clinical and surgical management of patients to education, training, and credentialing of thoracic surgeons worldwide. The 24th European Conference on General Thoracic Surgery will be held on 29 May–1 June 2016, in Istanbul, Turkey.

Fehling Surgical
Acworth, GA

Booth: 610

Fehling Surgical features the CERAMO® instrument line, SUPER-PLAST 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. **BREAKING NEWS:** See the Reusable Papillary Muscle Exposure Device and Atrial Lift System!

General Cardiac Tech/ Heart Hugger
San Jose, CA

Booth: 1019

The 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 preoperative respiratory levels, fewer wound complications, and better postoperative mobility. It is useful for open heart surgery, thoracotomy, fractured rib, and other chest trauma patients.

Genesee BioMedical
Denver, CO

Booth: 214

Design Beyond Standard. Genesee BioMedical, Inc provides unique devices for cardiothoracic surgery, including a bovine pericardium tissue patch, sternal/thoracic valve retractors, instruments for minimally invasive aortic, transcatheter aortic valve implantation, and robotic surgeries, coronary graft markers, suture guards, retraction clips, and myocardial needles. www.geneseebiomedical.com

Gore & Associates
Flagstaff, AZ

Booth: 631

The Gore Medical Products Division has provided creative solutions to medical problems for three decades. More than 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.

HeartWare
Framingham, MA

Booth: 331

HeartWare is dedicated to delivering safe, high-performing, and 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.

Heart Hospital Baylor Plano, The
Plano, TX

Booth: 647

Heart Valve Society (HVS)
Beverly, MA

Booth: 843

The HVS held its inaugural meeting in May 2015 at the Grimaldi Forum in Monte Carlo, Monaco, with more than 430 medical professionals and 80 industry partners in attendance. Whether you are a cardiologist, surgeon, researcher, or another member of the crucial valve disease treatment team, the HVS welcomes you to become a part of something very unique. Membership is available online.

Hospital Corporation of America
Ft Lauderdale, FL

Booth: 107

HCA-affiliated facilities are a part of a quality health care network in East Florida and the Treasure Coast with 14 affiliated hospitals, 12 surgery centers, one integrated regional lab, and one consolidated service center. Together, the network employs more than 12,500 individuals and has close to 6,000 physicians on staff.

Inion Inc
Weston, FL

Booth: 941

International Biophysics Corp
Austin, TX

Booth: 1038

SternaSafe is an active, adjustable-stability sternum support brace that gives patients hands-free mobility, enhancing patient recovery after sternotomy, coronary artery bypass graft surgery, thoracotomy, lung operations, and rib fractures. SternaSafe provides sternotomy support while coughing, standing/sitting, and straining by supporting the chest and sternum.

International Society for Minimally Invasive Cardiothoracic Surgery (ISMICS)
Beverly, MA

Booth: 832

ISMICS: Innovation, technologies, and techniques in cardiothoracic and cardiovascular/vascular surgery. 2016 ISMICS Annual Scientific Meeting, 15-18 June 2016, Fairmont The Queen Elizabeth, Montreal, Canada. www.ismics.org.

Intuitive Surgical
Sunnyvale, CA

Booth: 311

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 **Booth: 934**
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 based 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 **Booth: 121**
Winona Lake, IN

JACE Medical pioneered the world's first rigid sternal closure system applied presternotomy: the Grand Pre®. JACE Medical is a company and culture committed to creating innovative, transformational technologies that facilitate optimal patient treatment, recovery, and future wellness. Visit Booth 121 and see how the company thinks outside the paradox. Get more information at JACEMED.com.

Just Co, Ltd **Booth: 742**
Torrance, CA

Only a dedicated plating company can provide "the strongest diamond plating" technology. The company can designate the plated layer, which anchors the diamond base on purpose. Its technology is very unique and popular to those in the medical field in need of microsurgery instruments and endoscope tips.

Kapp Surgical **Booth: 616**
Cleveland, OH

Kapp Surgical is a custom design shop that designs surgical instruments and implants, manufactures them, and sells them, as well as distributes domestically and internationally. Kapp's exclusive products include the Cosgrove Heart Retractor, Strip T's surgical organizer, and countless surgical devices, all FDA-approved with several pending approval.

Karl Storz **Booth: 546**
El Segundo, CA

Karl Storz, a leader in endoscopic equipment and instruments, offers solutions for video-assisted thoracic surgery. Its EndoCAMEleon® Laparoscope enables surgeons to adjust the viewing direction from 0° to 120° throughout procedures. And its Video Mediastinoscope with DCI®-D1 Camera allows video recording while working under direct vision for documentation and teaching.

Kinamed Inc **Booth: 549**
Camarillo, CA

KLS Martin **Booth: 739**
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 **Booth: 243**
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 **Booth: 1031**
Virginia Beach, VA

LifeNet Health helps save lives, restore health, and give hope to 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.

LivaNova (formerly Sorin Group) **Booth: 201**
Arvada, CO

LivaNova 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 minimally invasive cardiac surgery instruments. For more information, visit www.livanova.com.

LoupeCam **Booth: 643**
Scottsdale, AZ

LoupeCam® is the market leader in head-mounted HD surgical cameras and is the ONLY company offering cross platform (Mac, Windows, and soon Android compatibility). The company offers five different magnification lenses to match all surgical points of view, along with a Bluetooth foot pedal that allows for hands-free control of the camera.

LSI Solutions **Booth: 101**
Victor, NY

COR-KNOT® delivers superior titanium suture fastening technology worldwide. COR-KNOT reduces cardiopulmonary bypass time and cross clamp time, reducing overall OR time. Find out how COR-KNOT can benefit your OR by visiting Booth 101.

MAQUET **Booth: 901**
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.

Mayo Clinic **Booth: 440**
Rochester, MN

Mayo Clinic surgeons are on the leading edge of treating cardiovascular and thoracic conditions using the latest innovations and techniques. They are part of an integrated, multidisciplinary team of doctors and health care professionals who provide individualized care for each patient.

**Med Alliance Solutions
St Charles, IL****Booth: 611**

ISO 13485-certified medical device distributor committed to providing high-quality specialty devices for cardiothoracic surgery worldwide. Exclusive US distributor of French instruments manufacturer Delacroix-Chevalier and operational partner to Michigan-based Surge Cardiovascular for open heart surgical products.

**Medela
McHenry, IL****Booth: 923**

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
Plymouth, MN****Booth: 909**

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
Minneapolis, MN****Booth: 713**

As a global leader in medical technology, services, and solutions, Medtronic improves the lives and health of millions of people each year. The company uses its deep clinical, therapeutic, and economic expertise to address the complex challenges faced by health care systems today. Let's take health care Further, Together. Learn more at Medtronic.com.

**Microsurgery Instruments, Inc
Bellaire, TX****Booth: 122**

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.

**Myriad Genetic Laboratories, Inc
Salt Lake City, UT****Booth: 239**

Myriad Genetics is a leading molecular diagnostic company dedicated to making a difference in patients' 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****Booth: 614**

Educational/surgical bronze sculptures specifically for the thoracic surgeon. These museum-quality limited editions are created by the world famous sculptor Ronadró. More than 7,500 surgeons in 77 countries collect his fine works of art. His works are on display at the Smithsonian Institute and many medical universities throughout the world. Introducing MIRACLE OF LIFE II at the 2016 meeting.

**nContact
Morrisville, NC****Booth: 217**

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.

**Neu Wave Medical
Madison, WI****Booth: 446**

Neu Wave Medical Inc has the first and only Intelligent Ablation System for microwave ablation of soft tissue lesions with a total solution for ablating lesions of all shapes and sizes for consistency and control. The computer-controlled platform with Ablation Confirmation software, an integrated in-procedure confirmation, assists physicians with proper probe placement and confirms success of procedures.

**Olympus America Inc
Center Valley, PA****Booth: 1130**

Olympus is a precision technology leader in designing and delivering imaging solutions in health care, life science, and photography. Through its health care solutions, Olympus aims to improve procedural techniques and outcomes and enhance the quality of life for patients.

**On-X Life Technologies, Inc
Austin, TX****Booth: 617**

On-X Life Technologies is proud to announce FDA approval to reduce INR to 1.5–2.0 for On-X® Aortic Heart Valve patients starting 3 months after surgery. Chord-X® ePTFE suture for mitral repair is now available in an innovative Pre-Measured Loops system.

**Ornim
Foxboro, MA****Booth: 343**

Ornim specializes in research, development, and distribution of noninvasive patient monitors specializing in the field of tissue and cerebral blood flow. Its 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.

**Oxford University Press
New York, NY****Booth: 213**

Visit the Oxford University Press stand to browse the company's prestigious surgery books and journals, including the publications of the European Association for Cardio-Thoracic Surgery. Collect your free sample copies of the *European Journal of Cardio-Thoracic Surgery* and *Interactive Cardiovascular and Thoracic Surgery*, and discover procedures from the *Multimedia Manual of Cardio-Thoracic Surgery*.

**Pemco Inc
Cleveland, OH****Booth: 839**

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.

**Providence Health & Services
Portland, OR****Booth: 347**

Providence Health & Services is affiliated with Swedish Health Services, Pacific Medical Centers, and Kadlec. Together, its organizations include more than 5,000 employed providers, 35 medical centers, and more than 600 clinics in Alaska, California, Montana, Oregon, and Washington. The company is currently recruiting providers in nearly all medical specialties throughout the West. providence.org/providerjobs

**QED Medical
Lexington, KY****Booth: 342**

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

**Quest Medical Inc
Allen, TX****Booth: 931**

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****Booth: 735**

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. Come learn about regional activities and initiatives!

**rEVO Biologics
Framingham, MA****Booth: 747**

rEVO Biologics, Inc is a commercial-stage biopharmaceutical company focused on the development and commercialization of specialty therapeutics to address unmet medical needs in patients with rare, life-threatening conditions. The company's lead product, ATryn, is the first and only plasma-free antithrombin concentrate.

**Rose Micro Solutions
West Seneca, NY****Booth: 930**

Rose Micro Solutions sells high-quality optical loupes and LED lights for less! The company's loupes start at \$279. Rose Micro Solutions is a family business consisting of four brothers who named the company after their mother Rose. Stop by Booth 930, visit www.rosemicrosolutions.com, or call (716) 608-0009.

**RTI Surgical
Alachua, FL****Booth: 849**

RTI Surgical™ is a leading global surgical implant company providing surgeons with safe biologic, metal, and synthetic implants. RTI provides surgeons with metal, cable, and plating systems, as well as biologic options for cardiothoracic and trauma surgical procedures. Cardiothoracic implants offer increased stability and flexibility for anterior chest wall fixation for all types of closures.

**Scanlan International
St Paul, MN****Booth: 511**

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.

**SheerVision
Rolling Hills Estates, CA****Booth: 242**

SheerVision designs, develops, and manufactures loupe and headlight systems that enhance vision through exceptional visual acuity and powerful illumination. SheerVision also is the exclusive provider of Under Armour Performance Eyewear. Also on display is the new loupe-mounted, hands-free HD video camera allowing you to "Shoot. Store. Share." with state-of-the-art technology.

**The Society of Thoracic Surgeons
Chicago, IL****Booth: 523**

The Society of Thoracic Surgeons represents more than 7,200 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 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 Booth 523 or visit www.sts.org to learn more.

**Sontec Instruments
Centennial, CO****Booth: 310**

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 Booth 310.

**Spiration, Inc
Redmond, WA****Booth: 632**

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 **Booth: 701**
St Paul, MN

St Jude Medical is a global medical device manufacturer dedicated to transforming the treatment of some of the world's most expensive, epidemic diseases by creating cost-effective medical technologies that save and improve lives of patients globally. Clinical focus areas include cardiac rhythm management, atrial fibrillation, cardiovascular, and neuromodulation. Visit sjm.com.

STS/CTSNet Career Fair **100 Aisle**

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 open during all Exhibit Hall hours.

Surgical PA Consultants **Booth: 339**
Lynchburg, VA

Since 1991, Surgical PA Consultants has provided professional recruiting and advertising services for cardiac surgical programs seeking physician assistants at a reasonable fee. The company has been clinically active in cardiac surgery and related PA professional societies for 40 years, developing the resources that result in successfully finding qualified PA candidates for cardiothoracic surgical practices.

SurgiPrice **Booth: 123**
Rockville, MD

SurgiTel/General Scientific Corp **Booth: 1030**
Ann Arbor, MI

SurgiTel is the manufacturer of premium loupes and headlights sold around the world. Holding a variety of patents, SurgiTel is always on the forefront of vision and ergonomics.

SynCardia Systems, Inc **Booth: 1003**
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 bi-ventricular failure. Visit the SynCardia booth for updates on the Freedom® portable driver, 50 cc TAH-t, and destination therapy.

Tech Bar **Booth: 639**

Get free technical assistance from the Tech Bar, which 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.

Terumo **Booth: 801**
Ann Arbor, MI

Vascutek, a Terumo company, will display an extensive range of sealed woven and knitted polyester grafts for peripheral, abdominal, and cardiothoracic surgery. Terumo will display the VirtuoSaph® Plus Endoscopic Vessel Harvesting System, Beating Heart, and Surgical Stabilization products, and Terumo® Perfusion Products.

Thompson Surgical **Booth: 441**
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) **Booth: 731**
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 thoracic surgery in the United States, and its research and educational initiatives support the broad spectrum of thoracic surgery.

Thoramet Surgical **Booth: 935**
Rutherford, NJ

Thoramet Surgical Products sells the most complete line of VATS instruments available. Produced in the USA in the company's own facilities, they are the surgeon's choice. Come to Booth 935 to see their unique versatility. Thoramet has the feel you want, the actuation you need, and the patterns you demand.

Thoratec Corporation **Booth: 730**
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 **Booth: 745**
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 flowprobes can help improve your outcomes.

VasoPrep **Booth: 132**
Morristown, NJ

Virtual Pediatric Systems, LLC **Booth: 246**
Los Angeles, CA

With more than 100,000 ICU cases, VPS Cardiac bridges the critical care continuum by providing data collection, analysis, and interpretation to improve critical care. Benchmarking takes place among cardiac, pediatric, and mixed units and includes the Pediatric Index of Cardiac Surgical Intensive Care Mortality (PICSIM), a novel risk-adjusted score for the pediatric cardiac surgical population. Please visit VPS at Booth 246 to learn more about the impact the company is making.

VitaHEAT Medical **Booth: 215**
Rolling Meadows, IL

Visit VitaHEAT Medical (Booth 215) to see the next generation in patient warming: an underbody mattress that is safe, effective, easy to use, and cost efficient. It is battery operated for portability with an AC power option. Finally, one versatile system that meets all your patient warming needs.

Vitalcor, Inc/Applied Fiberoptics **Booth: 533**
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 **Booth: 431**
Plymouth, MA

Vitalitec Geister will be displaying all its products, highlighting the Peters CV Suture, Enclose II Anastomosis Assist Device, Cygnet Flexible Clamps, Intrack Atraumatic Temporary Clamps and Inserts, and Geister ValveGate and ValveGate PRO line.

Wexler Surgical, Inc **Booth: 1009**
Houston, TX

Wexler Surgical designs and manufactures a variety of titanium and stainless steel specialty surgical instruments and products for cardiac, vascular, thoracic, and microsurgery. Come see their VATS/MICS instruments and ask about the Optimus Series. Visit www.wexlersurgical.com for more information about products and services, or email sales@wexlersurgical.com.

Wolters Kluwer **Booth: 939**
Phoenix, AZ**Z Health Publishing, LLC** **Booth: 547**
Brentwood, TN**Zimmer Biomet Thoracic (formerly Biomet Microfixation)** **Booth: 540**
Jacksonville, FL

Founded in 1927 and headquartered in Jacksonville, Florida, Zimmer Biomet is a global leader in musculoskeletal health care. The company designs, manufactures, and markets a comprehensive portfolio of innovative thoracic products and treatment solutions for surgeons and patients, including the RibFix™ Blu Thoracic Fixation System and the SternaLock® Blu Primary Closure System.

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Revision of 2012 Coronary Revascularization Appropriate Use Criteria (AUC) Writing Committee

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American College of Cardiology Foundation (ACCF)

Writing Committee to Update the 2012 Expert Consensus Document on Transcatheter Aortic Valve Replacement (TAVR)

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American College of Cardiology Foundation/American Heart Association (ACCF/AHA)

2012 Focused Report on Data Standards for Description of Myocardial Ischemia Writing Committee

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2015 Guideline for the Management of Adults With Congenital Heart Disease Writing Committee

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Meeting

1965 - St Louis
 1966 - Denver
 1967 - Kansas City
 1968 - New Orleans
 1969 - San Diego
 1970 - Atlanta
 1971 - Dallas
 1972 - San Francisco
 1973 - Houston
 1974 - Los Angeles
 1975 - Montreal
 1976 - Washington, DC
 1977 - San Francisco
 1978 - Orlando
 1979 - Phoenix
 1980 - Atlanta
 1982 - New Orleans
 1982 - New Orleans
 1983 - San Francisco
 1984 - San Antonio
 1985 - Phoenix
 1986 - Washington, DC
 1987 - Toronto
 1988 - New Orleans
 1989 - Baltimore
 1990 - Chicago**
 1991 - San Francisco
 1992 - Orlando
 1993 - San Antonio
 1994 - New Orleans
 1995 - Palm Springs
 1996 - Orlando
 1997 - San Diego
 1998 - New Orleans
 1999 - San Antonio
 2000 - Fort Lauderdale
 2001 - New Orleans
 2002 - Fort Lauderdale
 2003 - San Diego
 2004 - San Antonio
 2005 - Tampa
 2006 - Chicago

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 Douglas J. Mathisen
 Douglas J. Mathisen
 Douglas J. Mathisen

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**Special Meeting

*Deceased

Meeting

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 2008 - Fort Lauderdale
 2009 - San Francisco
 2010 - Fort Lauderdale
 2011 - San Diego
 2012 - Fort Lauderdale
 2013 - Los Angeles
 2014 - Orlando
 2015 - San Diego

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The Distinguished Service Award recognizes outstanding contributions to the Society.

1969 – John D. Steele	2004 – Richard P. Anderson
1970 – Paul C. Samson	2005 – Nicholas T. Kouchoukos
1972 – Lyman A. Brewer III	2006 – Gordon F. Murray
1975 – Robert G. Ellison	2006 – Mark B. Orringer
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2000 – Robert L. Replogle	2011 – L. Henry Edmunds Jr
2001 – Timothy J. Gardner	2012 – Robert M. Sade
2001 – Sidney Levitsky	2013 – Carolyn E. Reed (posthumously)
2001 – George E. Miller	2013 – Michael J. Mack
2002 – Richard G. Sanderson	2014 – Douglas J. Mathisen
2003 – Benson R. Wilcox	2015 – William A. Baumgartner

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	2007 – Joel D. Cooper
2001 – Rene G. Favaloro	2008 – William A. Baumgartner
2001 – W. Dudley Johnson	2009 – James J. Cox
2002 – Hermes C. Grillo	2010 – Mark B. Orringer
2003 – Denton R. Cooley	2011 – Philippe Menasche
2004 – Richard D. Weisel	2012 – Sidney Levitsky
2005 – Randall B. Griep	2013 – D. Craig Miller
2006 – Vincent L. Gott	2014 – G. Alexander Patterson
	2015 – Irving L. Kron

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	2014 – Tarek Malas
2012 – Mark J. Russo	2015 – Justin M. Schaffer
2013 – Matthew L. Williams	2015 – Kenan W. Yount

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	2013 – Bryan A. Whitson
2011 – Harald C. Ott	2014 – Fenton H. McCarthy
2012 – Farhood Farjah	2015 – Damien J. LaPar

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	2008 – Patrick M. McCarthy
2002 – Mark B. Orringer	2009 – Robert A. Guyton
2003 – William A. Baumgartner	2010 – William A. Baumgartner
2004 – Bruce W. Lytle	2011 – Lyle D. Joyce
2005 – Edward D. Verrier	2012 – George L. Hicks Jr
2006 – John A. Elefteriades	2013 – Carolyn E. Reed (posthumously)
2007 – Richard C. Daly	2014 – John A. Kern
2007 – Valerie W. Rusch	2015 – Mark D. Iannettoni

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

RALPH D. ALLEY LECTURERS

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

THOMAS B. FERGUSON LECTURERS

2001 – William H. Frist	2009 – Bruce E. Keogh
2002 – Shukri F. Khuri	2010 – Jeffrey B. Rich
2003 – David A. Kessler	2011 – Atul Gawande
2004 – Donald J. Palmisano	2012 – Jeffrey E. Shuren
2005 – James P. Bagian	2013 – Mark B. McClellan
2006 – David P. Taggart	2014 – Bassem Youssef
2007 – William H. Frist	2015 – Pedro J. del Nido
2008 – Elizabeth O. Tiesberg	2016 – Scott E. Parazynski

C. WALTON LILLEHEI LECTURERS

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2011 – Joseph P. Vacanti	2015 – Patrick T. O’Gara
2012 – Friedrich W. Mohr	2016 – Gary Taubes

Thoracic Surgery Foundation for Research and Education 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 STS.

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 2015, TSFRE awarded \$270,000 in research grants, \$150,000 in surgical outreach mission grants, and \$45,250 in educational funding. A detailed list follows.

In order to continue providing this type of support, TSFRE depends on your contributions. Today’s research will become tomorrow’s practice, and today’s young surgeons will help drive tomorrow’s health care policies. Your donations to TSFRE have a direct impact on the future of cardiothoracic surgery and the welfare of our cardiothoracic surgery patients.

If you would like to make a pledge or receive more information about giving opportunities, visit www.tsfre.org or contact Priscilla S. Kennedy, TSFRE Executive Director, at (312) 202-5868 or pkennedy@tsfre.org.

2015 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).

Bryan A. Whitson – The Ohio State University
MG53 Mitigation of Ischemia-Reperfusion Injury in Lung Transplantation: Mechanisms of Action in Ex-Vivo Lung Perfusion

Bo Yang – The University of Michigan
Determining the Effect of TGFBR Mutations on Myocardin-Dependent Smooth Muscle Differentiation Using Human iPS Cells

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.

Heidi J. Reich – Cedars-Sinai Medical Center
Repeat Dosing of Allogeneic Cardiosphere-Derived Cells After Myocardial Infarction in Immunocompetent Rats

Hanghang Wang – Duke University Medical Center
Metabolomic and MicroRNA Signatures in Peripheral Blood of Patients with Thoracic Aortic Aneurysm

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.

Jessica S. Donington – New York University School of Medicine
Robotic Thoracic Surgery at the University of Alabama at Birmingham

Melanie A. Edwards – St Louis University
Robotic Thoracic Surgery at the University of Alabama at Birmingham

TSFRE/Edwards Lifesciences Foundation Every Heartbeat Matters

Award: Support of up to \$37,500 for programs that educate, screen, and/or treat underserved populations to reduce the global burden of heart valve disease, or to support other programs that advance health care and address underserved populations.

Ralph M. Bolman III – The University of Vermont Medical Center
Increasing Access to Reduce the Burdens of Rheumatic Heart Disease in Rwanda

Emily A. Farkas – CardioStart International
Establishing a Not-For-Profit Cardiac Surgical Program at Kathmandu University Dhulikhel Hospital

Frederick L. Grover – University of Colorado School of Medicine
Enhancing Access to Care and Treatment of Cardiovascular Disease in Nepal

V. Mohan Reddy – Stanford University
Building Capacity for Pediatric Heart Valve Disease in Southeast Asia

J. Nilas Young – University of California Davis Medical Center
Educating Cardiac Surgeons and Cardiologists on: (1) The Prevalence of Valvular Heart Disease, (2) The Consequences for Underserved Populations, and (3) Appropriate Medical, Surgical, and Interventional Treatment Options throughout the Russian Federation

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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.

B. Zane Atkins – University of California, Davis

Subhasis Chatterjee – Affinity Heart Lung Vascular Institute, St Elizabeth Hospital

John F. Lazar – PinnacleHealth Cardiovascular Institute

Glenn Jeffrey Pelletier – Nemours Cardiac Center, A.I. DuPont Hospital for Children

Jane L. Schwabe – Heartland Cardiothoracic Surgery

TSFRE Alley-Sheridan/Surgeons as Educators Scholarships: TSFRE offers up to three partial scholarships of \$4,150 to attend the Surgeons as Educators course hosted by the American College of Surgeons.

Betty C. Tong – Duke University

JCTSE CT Surgery Resident Jeopardy Competitions: TSFRE supported resident education activities by funding the JCTSE Jeopardy competitions at the STSA 62nd Annual Meeting in Lake Buena Vista, Florida, on November 4-7, 2015, and the STS 52nd Annual Meeting in Phoenix, Arizona, on January 23-27, 2016.

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